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Report to Congressional Requesters

May 2018

DRINKING WATER AND WASTEWATER INFRASTRUCTURE

Opportunities Exist to Enhance Federal Agency Needs Assessment and Coordination on Tribal Projects

GAO-18-309

GAO Highlights

Highlights of GAO-18-309, a report to congressional requesters

May 2018

DRINKING WATER AND WASTEWATER INFRASTRUCTURE

Opportunities Exist to Enhance Federal Agency Needs Assessment and Coordination on Tribal Projects

Why GAO Did This Study

Tens of thousands of American Indians and Alaska Natives do not have safe drinking water or wastewater disposal in their home—referred to as needs arising from a sanitation deficiency—at a higher percentage than the general population, according to IHS. Among other things, IHS assesses homes, either individually or by reviewing public water systems, to determine any deficiencies. Seven agencies, including IHS, EPA, and USDA, have programs that provide drinking water and wastewater infrastructure assistance to Indian tribes.

GAO was asked to review federal efforts to provide water infrastructure assistance to Indian tribes. This report examines, among other objectives, the extent to which selected federal agencies (1) identified tribes' drinking water and wastewater infrastructure needs and (2) funded tribal water infrastructure projects, including tribes' most severe sanitation deficiencies. GAO reviewed agency data on tribal needs, analyzed agency funding data for tribal water infrastructure projects, reviewed agency policy documents, and interviewed agency officials and officials from 22 tribes representing different geographic locations.

What GAO Recommends

GAO is making 16 recommendations, including that (1) IHS develop a way to indicate in its database if homes' deficiencies have been assessed and (2) IHS and USDA review and update project scoring processes. IHS agreed with these recommendations, and USDA proposed an approach for addressing the recommendation on scoring, as discussed in the report.

View GAO-18-309. For more information, contact Anne-Marie Fennell or J. Alfredo Gómez at (202) 512-3841 or fennella@gao.gov or gomezj@gao.gov.

What GAO Found

Federal agencies have identified several billion dollars in existing and future tribal drinking water and wastewater infrastructure needs. Specifically, the Indian Health Service (IHS) worked with tribes to identify, in fiscal year 2016, an estimated $3.2 billion in water infrastructure projects to address existing sanitation deficiencies in Indian homes, and the Environmental Protection Agency (EPA) identified an additional $2.4 billion in future tribal drinking water infrastructure needs over the next 20 years. However, IHS could enhance the accuracy of its information about the water infrastructure needs of some Indian homes. In February 2018, the database that IHS uses to track Indian homes' sanitation deficiencies showed that about one-third of the homes (138,700) had no deficiency. However, because the database does not provide IHS with a way to record if a home's deficiency has been assessed, IHS could not determine whether these homes had no deficiency or if they had not yet been assessed to identify a deficiency. IHS officials stated that improving the database's accuracy would be beneficial. By implementing a way to indicate in its database whether these homes' deficiencies have been assessed, IHS could also more efficiently address any deficiencies in these homes.

Federal agencies provided about $370 million for tribal drinking water and wastewater infrastructure projects in fiscal year 2016, including some projects to address what the agencies identified as the most severe sanitation deficiencies (i.e., communities that lack safe drinking water or wastewater disposal). IHS and U.S. Department of Agriculture (USDA) policies direct the agencies to fund tribal projects that address these deficiencies. However, agency scoring processes may not always prioritize the projects that address them:

- IHS assigns points to projects using eight scoring factors, including sanitation deficiency and cost. Based on GAO's review of IHS documents and interviews with agency officials, IHS's process for selecting projects can discourage funding some projects that address the most severe sanitation deficiencies, especially those with a relatively high cost per home. As a result, some projects to serve homes without water infrastructure can remain unfunded for many years. IHS officials said the scoring factors balance a number of interests, and the agency is looking to improve the extent to which it funds projects that address these deficiencies.
- USDA uses a different set of scoring factors to assign points when evaluating project applications for its tribal water program, including rural population and income levels. However, USDA does not have a scoring factor to assign points to a project based on whether it will serve homes that lack safe drinking water or wastewater disposal, as it does with another program with similar goals. Instead, USDA officials said they use discretionary points to score projects on this basis, but these points may not be awarded at all. As a result, USDA may not have reasonable assurance that it consistently evaluates project applications in a way that aligns with agency policy to fund projects that address the most severe sanitation deficiencies.

By IHS reviewing and USDA updating their scoring processes, the agencies could have more assurance that the projects they fund address the most severe sanitation deficiencies in Indian communities.

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Abbreviations

EDA	Economic Development Administration
EPA	Environmental Protection Agency
HITS	Home Inventory Tracking System
HUD	Department of Housing and Urban Development
IHS	Indian Health Service
SDS	Sanitation Deficiency System
USDA	U.S. Department of Agriculture

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U.S. GOVERNMENT ACCOUNTABILITY OFFICE
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Congressional Requesters

Tens of thousands of American Indians and Alaska Natives do not have safe, potable water available in their homes for drinking, cooking, and cleaning, or adequate facilities to safely dispose of wastewater, according to the Department of Health and Human Services' Indian Health Service (IHS). The agency has stated that, nationwide, members of Indian tribes are more likely to live in homes without safe drinking water and wastewater facilities than non-Indians in part due to the remoteness of many Indian reservations.[1] Moreover, IHS has reported that inadequate access to safe drinking water and wastewater disposal can lead to many health problems, including increased hospitalizations for pneumonia, influenza, and other illnesses.[2]

The federal government's role in funding construction and repair of drinking water and wastewater systems in Indian country differs from its role in funding such systems in the rest of the country.[3] According to IHS estimates, the federal government provides a significant share of the financial assistance to construct and repair drinking water and wastewater infrastructure in Indian country. In contrast, in non-tribal communities, utilities typically sell municipal bonds and raise revenues to pay for construction of drinking water and wastewater infrastructure by charging customers. These communities and utilities can receive funding and planning assistance from their respective states and the federal government to repair, replace, and upgrade their drinking water and

[1]This report focuses on federally recognized tribes. Federally recognized tribes have a government-to-government relationship with the United States and are eligible to receive certain protections, services, and benefits by virtue of their status as Indian tribes. The Secretary of the Interior is required by law to publish annually in the *Federal Register* a list of all Indian tribes that the Secretary recognizes as Indian tribes. As of January 29, 2018, there were 573 federally recognized tribal entities. Tribal members are individuals who are enrolled citizens or members of a tribe.

[2]Department of Health and Human Services, Indian Health Service, *Fiscal Year 2018 Justification of Estimates for Appropriations Committees* (Rockville, MD: May 23, 2017).

[3]Indian country is (1) all land within the limits of any Indian reservation, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation; (2) all dependent Indian communities within the borders of the United States; and (3) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

wastewater infrastructure. In Indian country, tribes, tribally owned utilities, or separate entities are generally responsible for operating and maintaining drinking water and wastewater infrastructure. However, according to a national intertribal organization, tribes typically do not have access to the same array of financing options as state or local governments, and do not necessarily charge their customers for services.

Seven federal agencies administer programs that provide drinking water and wastewater infrastructure assistance to Indian tribes. IHS, the Environmental Protection Agency (EPA), and the U.S. Department of Agriculture (USDA) have drinking water and wastewater infrastructure programs that are specifically targeted to provide financial assistance for planning and construction to address Indian tribes' needs. According to IHS documentation, such needs arise from a sanitation deficiency in existing drinking water or wastewater infrastructure (or lack thereof) that can negatively affect public health. In addition, the Department of Housing and Urban Development (HUD), the Department of the Interior's Bureau of Reclamation, the U.S. Army Corps of Engineers, and the Department of Commerce's Economic Development Administration (EDA) administer programs that may provide financial assistance to tribes for drinking water and wastewater infrastructure. The types of assistance these agencies provide vary by program, and each program has its own eligibility requirements and authorities.

You asked us to review federal efforts to provide drinking water and wastewater assistance to Indian tribes, including interagency collaboration efforts. This report examines the extent to which the seven federal agencies, as applicable, (1) identified Indian tribes' drinking water and wastewater infrastructure needs; (2) funded tribal drinking water and wastewater infrastructure projects, including projects to address the most severe sanitation deficiencies;[4] and (3) collaborated to meet Indian tribes' drinking water and wastewater infrastructure needs.

To determine the extent to which these federal agencies identified Indian tribes' drinking water and wastewater infrastructure needs, we identified requirements for IHS and EPA to collect and report information on needs, but we did not identify such requirements for the other agencies. We reviewed IHS's and EPA's most recent reports describing tribal drinking

[4]IHS refers to these deficiencies as tribes' greatest needs—that is, homes and communities that lack safe drinking water or wastewater disposal, or both. We use the term most severe sanitation deficiencies to describe these deficiencies in this report.

water and wastewater infrastructure needs and reviewed the supporting data in IHS's Sanitation Deficiency System (SDS) on proposed tribal drinking water and wastewater infrastructure projects from fiscal year 2016, the most recent year of data available at the time of our review.[5] To assess the reliability of SDS project data and EPA needs information, we discussed the data and any of its limitations with agency officials and determined that the data were sufficiently reliable to provide descriptive information about tribes' drinking water and wastewater infrastructure project needs. We also assessed the reliability of specific information in IHS's Home Inventory Tracking System (HITS), including the sanitation deficiencies associated with homes, by reviewing documentation and interviewing IHS officials. As we discuss later in this report, we indicate when we found certain limitations with that information. We did not assess the reliability of other information in HITS that was not relevant to our review. We interviewed IHS and EPA officials involved with identifying tribal water needs from all 12 IHS areas and the 9 EPA regions that administer tribal drinking water and wastewater infrastructure programs. We also interviewed officials from the other five agencies regarding any efforts to collect information on tribal drinking water and wastewater infrastructure needs.

To determine the extent to which the agencies funded tribal drinking water and wastewater infrastructure projects, we analyzed obligations data from the seven agencies that administer programs that provide drinking water and wastewater infrastructure assistance to Indian tribes—IHS, EPA, USDA, HUD, Reclamation, Corps, and EDA—from fiscal years 2012 through 2016.[6] To assess the reliability of the data obtained from these agencies, we discussed the funding data, each agency's data system, and any limitations with agency officials and determined that the

[5]In conducting this work, we relied on the concept of needs as defined by IHS and EPA in their reports as opposed to independently defining the concept of need or evaluating the legitimacy of the reported needs. According to IHS, needs arise from a sanitation deficiency in existing drinking water or wastewater infrastructure (or lack thereof) that can negatively affect public health. According to EPA, its estimates of needs represent infrastructure projects necessary for water systems to continue to provide safe drinking water to the public.

[6]We are using the term funding to refer to obligations. Obligations are definite commitments that create a legal liability of the government for the payment of goods and services ordered or received, or a legal duty on the part of the United States that could mature into a legal liability by virtue of actions on the part of the other party beyond the control of the United States. The Corps did not provide obligations data for the requested time period because the agency did not fund tribal water infrastructure projects during these years.

data were sufficiently reliable for the purposes of our reporting objective. To determine the extent to which agency funding addressed the most severe sanitation deficiencies, we identified programs that have documented goals in regulation and policy to fund projects that address these needs.[7] For these programs, we compared the number of funded projects that addressed the most severe deficiencies with the number of funded projects that met other needs for fiscal year 2016. During the course of reviewing these regulations and agencies' obligations data, we identified issues with how USDA awarded grants under one of its tribal programs—the Rural Alaska Village Grant program.[8] We then obtained and reviewed documentation of these grant awards and interviewed officials who manage the program and officials from the agency's Office of the General Counsel.

To determine the extent to which the federal agencies collaborated to meet tribal water needs, we reviewed documentation of national-level interagency collaboration, including memorandums of understanding. We compared the agencies' actions to the key features of interagency collaboration that we have previously identified.[9] We reviewed agencies' collaboration at the regional level by surveying the seven agencies about their joint actions on activities related to tribal drinking water and wastewater in six states—Alaska, Arizona, California, New York, Oklahoma, and South Dakota—and by conducting a network analysis using the survey responses. We selected regional offices that operate in individual states as the unit of analysis because the federal agencies organize their field structures differently, with some using region, area, and state offices to work with tribes—we refer to all of these office types as regional offices. We selected this nonprobability sample of six states to

[7]IHS's Sanitation Facilities Construction program, EPA's clean water set-aside program, and USDA's Native American program identify the most severe sanitation deficiencies as the absence of safe drinking water or wastewater disposal facilities, or both. EPA's drinking water set-aside program identifies these deficiencies similarly, but we did not include this program in our analysis because of the variation in how EPA regions implement the program.

[8]The Rural Alaska Village Grant program is authorized by 7 U.S.C. § 1926d, and is also known as the section 306D grant program because it is authorized by section 306D of the Consolidated Farm and Rural Development Act.

[9]GAO, *Managing for Results: Key Considerations for Implementing Interagency Collaborative Mechanisms*, GAO-12-1022 (Washington, D.C.: Sept. 27, 2012). Key features fall into the following categories: outcomes and accountability, bridging organizational cultures, leadership, clarity of roles and responsibilities, participants, resources, and written guidance and agreements.

include a large percentage of the number of federally recognized tribes, to obtain a range in the total federal obligations to tribes and the identified needs of tribes, and for geographic diversity. The sample of states is not generalizable, and the results of our work do not apply to all states where Indian tribes are located. However, they provide illustrative examples of interagency collaboration within the six selected states, which include about 70 percent of the 573 federally recognized tribes.

We sent collaboration surveys to the regional offices of each of the seven federal agencies in the six states. We also sent a survey to the State of Alaska because the state provides a 25 percent match for two federal water infrastructure programs, but we did not include other state agencies in our survey because they do not provide a similar match. The survey asked each agency regional office in each state about the mechanisms that it used to collaborate with each of the other regional offices within the same state for the 3-year period prior to our survey, the factors that affected their collaboration, and any additional mechanisms that would be beneficial to use in the future. We disseminated a total of 46 surveys and obtained and analyzed 46 responses. We conducted site visits to three of the six states, selected based on their geographic diversity and the range of identified water infrastructure needs. We also interviewed federal agency officials and officials with the State of Alaska about their collaboration in the six states. We interviewed officials from 22 Indian tribes and representatives from 8 intertribal organizations to obtain their perspectives on obtaining drinking water and wastewater infrastructure assistance from the seven agencies in the six selected states. We selected these tribes to obtain a range in their geographic locations and the amount of drinking water and wastewater infrastructure assistance they have received. Our findings are not generalizable to all tribes but provide illustrative examples. Appendix I contains a detailed description of our scope and methodology, and appendix II contains additional information about our survey and network analysis, including questions and summary responses.

We conducted this performance audit from August 2016 to May 2018 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

This section provides information on water infrastructure in Indian country, federal programs that provide drinking water and wastewater infrastructure assistance to Indian tribes, and our prior work on interagency collaboration.

Water Infrastructure in Indian Country

The 573 federally recognized Indian tribes in the United States vary greatly in terms of their culture, language, population size, land base, location, and economic status. Many are located in remote and often environmentally challenging areas. According to the U.S. Census Bureau's American Community Survey,[10] in 2016, about 26 percent of American Indians and Alaska Natives were living below the poverty line, compared with 14 percent for the nation as a whole.[11]

According to EPA databases, tribes operate about 950 public drinking water systems and about 340 public wastewater systems.[12] Drinking water systems often include groundwater wells, water treatment plants, and pipelines to deliver water to homes. A regulated, centralized wastewater system may include sewer lines, tanks, and wastewater treatment plants or lagoons, but small, rural communities are more likely to have decentralized wastewater systems, such as individual septic systems. Once centralized water or wastewater systems are constructed in Indian country, ownership is typically transferred to the tribe. A tribally owned utility, tribal government, or a separate entity operates and

[10]The U.S. Census Bureau's American Community Survey continuously collects data on social, demographic, economic, and housing characteristics that help determine how federal funds are allocated to states and localities and that provide information to communities to aid in planning investments and services. The Bureau collects this data on a monthly sample of households and aggregates the results into 1-, 3-, and 5-year estimates, depending on the population size of the area.

[11]U.S. Census Bureau, *2016 American Community Survey 1-Year Estimates*, *Selected Population Profiles in the United States*, accessed December 5, 2017. Results include people who identified as American Indian or Alaska Native alone and not in combination with another race, compared with the total population.

[12]A public water system under the Safe Drinking Water Act is a system for the provision to the public of water for human consumption through pipes or other constructed conveyances that has at least 15 service connections or regularly serves at least 25 individuals. 42 U.S.C. § 300f(4)(A). According to EPA, the agency regulates the tribally owned public drinking water systems for every tribe except the Navajo Nation, which has assumed regulation of its public drinking water systems. Also, any individual tribe may have multiple public water systems. For wastewater systems, according to EPA officials, the approximately 340 public wastewater systems operated by tribes are those systems with permits to discharge pollutants into waters of the United States.

maintains the system on behalf of the tribe. Some tribal utilities charge user fees to help offset operations and maintenance costs, but other tribal utilities do not charge these fees because of users' low income levels or for cultural reasons, according to IHS and tribal officials.

According to EPA, thousands of Indian homes are not currently served by a regulated, centralized drinking water or wastewater system, due in part to the logistical and other challenges associated with Indian water systems that must serve widely dispersed populations in remote locations.[13] Instead, as we reported in September 2017, homes that are not served by water systems may have private wells and septic systems,[14] or they may be entirely unserved. According to EPA and IHS documents, some tribal members may haul drinking water from a regulated drinking water source. However, containers used to haul and store the water can introduce bacteria and other contaminants. Also, because the regulated water source in some communities may be many miles away, residents may haul drinking water from nearby unregulated water sources, such as streams or livestock wells. For homes without access to a wastewater disposal system, residents may use a privy, use honeybuckets, or discharge waste directly to the ground.[15]

According to researchers with the Centers for Disease Control and Prevention, restricted access to clean water for hand washing and hygiene, along with manually disposing of waste, exposes people—especially infants and the elderly—to higher rates of illness and hospitalization.[16] We reported in January 2017 that such health concerns underscore the importance of quality health care—including preventative

[13]Environmental Protection Agency, *Drinking Water Infrastructure Needs Survey and Assessment: Fifth Report to Congress*, EPA 816-R-13-006 (Washington, D.C.: April 2013).

[14]GAO, *Drinking Water and Wastewater Infrastructure: Information on Identified Needs, Planning for Future Conditions, and Coordination of Project Funding*, GAO-17-559 (Washington, D.C.: Sept. 20, 2017).

[15]A honeybucket is a bucket used as a toilet that does not use water and has to be emptied manually.

[16]See, for example, Thomas W. Hennessy, et al., "The Relationship between In-Home Water Service and the Risk of Respiratory Tract, Skin, and Gastrointestinal Tract Infections Among Rural Alaska Natives," *American Journal of Public Health,* vol. 98, no. 11 *(*2008); and Thomas W. Hennessy and Jonathan M. Bressler, "Improving Health in the Arctic Region Through Safe and Affordable Access to Household Running Water and Sewer Services: an Arctic Council Initiative," *International Journal of Circumpolar Health,* vol. 75, no. 1 (2016).

care, such as providing safe sanitation facilities—for American Indian and Alaska Native people.[17] Further, according to IHS, American Indian and Alaska Native families living in homes with satisfactory environmental conditions, which include safe water and sewer systems, require appreciably fewer medical services and place fewer demands on primary health care delivery systems.[18]

Federal Drinking Water and Wastewater Infrastructure Programs to Assist Indian Tribes

Seven federal agencies administer a number of programs that provide assistance to tribes for drinking water and wastewater infrastructure projects. Each agency has its own programs and processes for providing this assistance, with some similarities. Tribes can apply to one or more federal programs for financial assistance. In some cases, federal agencies coordinate to jointly fund the same project if the project is too large for one agency to fund. In other cases, agencies may work together by separately funding different parts of a large project or different phases of a multi-year project. Of these agencies, IHS, EPA, and USDA administer drinking water and wastewater infrastructure programs that are specific to Indian tribes.

IHS

IHS's mission is to raise the physical, mental, social, and spiritual health of American Indians and Alaska Natives to the highest level. To fulfill this mission, IHS provides primary health care and disease prevention services.[19] IHS's Office of Environmental Health and Engineering's Sanitation Facilities Construction program, established in 1959,

[17]GAO, *Indian Health Service: Actions Needed to Improve Oversight of Quality of Care,* GAO-17-181 (Washington, D.C.: Jan. 9, 2017).

[18]We initially reported on this more than 40 years ago. See GAO, *Progress and Problems in Providing Health Services to Indians*, B-164031(2) (Washington, D.C.: Mar. 11, 1974).

[19]In February 2017, we added improving federal management of Indian programs—Indian health care, Indian education, and Indian energy—to our list of areas at high risk due to greater vulnerabilities to fraud, waste, abuse, and mismanagement or due to a need for broad-based transformation. We added this area in part because we found numerous challenges that IHS faces in administering health care services, including inadequate oversight of health care that hindered IHS's ability to ensure quality care in Indian communities. See GAO, *High Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others*, GAO-17-317 (Washington, D.C.: Feb. 15, 2017). IHS's Sanitation Facilities Construction program was not included in the scope of the high risk designation.

contributes to IHS's disease prevention efforts.[20] This program provides technical and financial assistance to Indian tribes for the cooperative development and construction of drinking water and wastewater systems and support facilities. According to the Indian Health Care Amendments of 1988, it is the policy of the United States that all Indian communities and Indian homes, new and existing, be provided with safe and adequate water supply systems and sanitary wastewater disposal systems as soon as possible.[21] IHS's 12 regional offices, called Areas, are responsible for working with tribes when administering the Sanitation Facilities Construction program.

The Indian Health Care Amendments of 1988 require that IHS report annually to Congress on the sanitation deficiency levels for Indian tribes and communities, including, among other things, the amount of funds necessary to raise all Indian tribes and communities to zero sanitation deficiency.[22] The act identifies five deficiency levels, and IHS uses a deficiency level of 0 to represent the absence of a deficiency in its data systems (see table 1).[23]

[20]Pub. L. No. 86-121, 73 Stat. 267 (July 31, 1959) (*codified at* 42 U.S.C. § 2004a). The Sanitation Facilities Construction program also works with tribes to identify and address solid waste sanitation deficiencies. We do not include solid waste deficiencies in this report.

[21]25 U.S.C. § 1632(a)(5). IHS policy states that an Indian community is one in which more than 50 percent of residents are American Indian or Alaska Native. The policy also states that an Indian home is a home owned by an American Indian or Alaska Native and can include a home owned by a tribe that is leased to an American Indian or Alaska Native in certain circumstances. Homes eligible to receive Sanitation Facilities Construction program assistance are 24-hour, year-round family dwellings and are located in a Purchased/Referred Care Delivery Area.

[22]25 U.S.C. § 1632(g).

[23]According to IHS documentation, a sanitation deficiency is a need arising from existing drinking water or wastewater infrastructure (or lack thereof) that can negatively affect public health.

Table 1: Drinking Water and Wastewater Sanitation Deficiency Levels Used by the Indian Health Service (IHS)

Deficiency level	Description of sanitation deficiency
5	Community or home that lacks a safe water supply and a sewage disposal system.
4	Community or home that lacks either a safe water supply system or a sewage disposal system.
3	Community or home that has an inadequate or partial water supply and a sewage disposal facility that does not comply with applicable water supply and pollution control laws.[a]
2	Sanitation system that complies with all applicable water supply and pollution control laws, and in which the deficiencies relate to capital improvements that are necessary to improve the facilities to meet the needs of the tribe or community for domestic sanitation facilities.
1	Sanitation system that complies with all applicable water supply and pollution control laws, and in which the deficiencies relate to routine replacement, repair, or maintenance needs.
0	Sanitation facilities are adequate.

Source: GAO analysis of IHS information. | GAO-18-309

Note: The Indian Health Care Amendments of 1988 define deficiency levels 1 through 5. IHS uses deficiency level 0 to indicate the absence of a deficiency in its data systems.

[a]IHS also uses deficiency level 3 for a community or home that does not have a solid waste disposal facility.

To develop its annual report to Congress and identify sanitation deficiencies in Indian communities and homes, IHS maintains two data systems: (1) the Sanitation Deficiency System (SDS), which contains proposed drinking water and wastewater infrastructure projects to address identified sanitation deficiencies; and (2) the Home Inventory Tracking System (HITS), which contains home-specific information that complements the SDS's project-specific information.[24] According to IHS program documentation, the project descriptions in the SDS are to include information about the sanitation deficiency level that each project will address, the project's estimated cost, and the number of Indian homes that the project will serve.[25] According to IHS documents, HITS is to include information about each Indian home that may have a sanitation deficiency that is eligible to receive Sanitation Facilities Construction program assistance, including the home's geographic location and deficiency level. Eligible homes can be located on or off reservations, but according to IHS officials, the agency typically does not collect

[24]SDS and HITS are two components of IHS's Sanitation Tracking and Reporting System. This system also includes components that track ongoing projects and new homes needing assistance, among others.

[25]According to IHS policy, when eligible Indian homes are located within a non-Indian community with a population of less than 10,000, and a sanitation deficiency exists in the homes, IHS will include the prorated cost to correct the deficiency for the Indian homes as a project in the SDS.

information about Indian homes located in large urban areas. According to IHS program documentation, IHS uses information in HITS to track the status of and plan for the provision of sanitation facilities for Indian homes.

To address tribes' identified sanitation facility needs, IHS is authorized to construct essential sanitation facilities, including domestic and community water supplies and facilities, as well as wastewater disposal facilities for Indian homes, communities, and lands.[26] Under the Sanitation Facilities Construction program, IHS administers two primary drinking water and wastewater infrastructure activities: one to address sanitation deficiencies in existing homes and communities based on needs identified in the SDS, and one to provide water infrastructure for newly constructed or recently renovated Indian homes—these needs are not included in the SDS.[27] According to IHS policy, the agency selects projects to fund that address deficiencies in existing homes based on ranked project lists contained in the SDS, by area.

According to IHS policy, the agency can manage sanitation projects on behalf of a tribe (direct service), or a tribe or tribal entity can elect to manage projects.[28] According to this policy, to implement a project under direct service, a tribe formally requests IHS assistance, and IHS engineers typically develop projects to include in the SDS. When IHS selects the project to fund, the tribe decides whether it will complete the project design and manage the construction contract or have IHS engineers do so.

[26]42 U.S.C. § 2004a(a)(1).

[27]The Sanitation Facilities Construction program also funds two other types of water infrastructure projects: special projects, such as research studies, and emergency projects. The program, however, does not provide water infrastructure for non-Indian homes and non-residential users, such as commercial entities. IHS also does not provide financial assistance for routine operation and maintenance costs, such as paying a drinking water or wastewater system operator's salary.

[28]The Indian Self-Determination and Education Assistance Act, as amended, authorizes Indian tribes to assume responsibility for administration of certain federal programs from IHS and Interior through a self-determination contract or self-governance compact. Pub. L. No. 93-638, 88 Stat. 2203 (Jan. 4, 1975) (*codified as amended at* 25 U.S.C. §§ 5301-5423). As of November 2017, 19 federally recognized tribes in the continental United States administer their own sanitation facility construction programs, and the Alaska Native Tribal Health Consortium administers a sanitation facility construction program for the more than 200 federally recognized tribes in Alaska.

EPA

EPA provides annual grants to states to help finance drinking water and wastewater infrastructure through its Drinking Water and Clean Water State Revolving Fund programs, respectively.[29] EPA sets aside a certain percentage of the appropriations it receives for these programs to make grants directly to Indian tribes for drinking water and wastewater infrastructure.[30] Nine EPA regions administer the Drinking Water Infrastructure Grants Tribal Set-Aside and the Clean Water Indian Set-Aside programs,[31] while states administer the State Revolving Funds. Under the drinking water set-aside program, EPA funds projects for community water systems that serve tribal populations, as well as for non-profit, non-community water systems owned by a tribal government that serve a tribal population. Under the clean water set-aside program, EPA provides funding for the planning, design, and construction of wastewater treatment plant facilities that serve federally recognized Indian tribes, Alaska Native villages, and certain tribes in Oklahoma. According to EPA officials, tribes are among those eligible to receive loans from the states' State Revolving Fund programs. In addition, EPA administers the separate Alaska Native Villages and Rural Community Water Grant program that awards grants to the State of Alaska to, among other things, improve sanitation in rural and Alaska Native villages.[32]

USDA

USDA's Rural Utilities Service allocates a portion of its appropriation for rural water and wastewater disposal programs to make drinking water and wastewater infrastructure grants to Indian tribes; this is referred to as

[29]States use these grants, and provide a required minimum 20 percent match, to capitalize their revolving funds. Pub. L. No. 100-4, § 212, 101 Stat. 7, 21-28 (Feb. 4, 1987) (*codified as amended at* 33 U.S.C. §§ 1381-1388) (Clean Water State Revolving Funds); Pub. L. No. 104-182, § 130, 110 Stat. 1613, 1662–1672 (Aug. 4, 1996) (*codified as amended at* 42 U.S.C. § 300j-12) (Drinking Water State Revolving Funds).

[30]The Clean Water Act as amended requires EPA to set aside a percentage of the amount appropriated for, among other things, state water pollution control revolving funds for grants for projects and activities to serve Indian tribes; this is known as the Clean Water Indian Set-Aside program. 33 U.S.C. § 1377(c). The Safe Drinking Water Act as amended authorizes EPA to set aside a percentage of the amount appropriated to carry out the state drinking water revolving loan funds for grants to Indian tribes; this is known as the Drinking Water Infrastructure Grants Tribal Set-Aside program.42 U.S.C. § 300j-12(i)(1).

[31]According to EPA, Region 3 is the only region that does not administer the clean water or drinking water set-aside programs.

[32]The Alaska Native Villages and Rural Community Water Grant program is authorized by 33 U.S.C. § 1263a.

the Native American program.[33] USDA administers the Native American program at the national level and works with tribes at the state office and local level to conduct outreach and assist with the application process, among other things. The Native American program provides grants for water and wastewater facilities and services to rural and low-income tribal communities "whose residents face significant health risks … due to the fact that a significant proportion of the community's residents do not have access to, or are not served by, adequate affordable water supply systems or waste disposal facilities."[34] In addition, USDA administers the Rural Alaska Village Grant program, which provides grants to the State of Alaska for development and construction of water and wastewater systems that address dire sanitation conditions in rural or Alaska Native villages with 10,000 or fewer people.[35] Tribes are also eligible to receive loans and grants for infrastructure investments from the agency's Water and Waste Disposal Program, which is administered by USDA's state offices.[36] Tribes that are located close to the U.S.-Mexico border and that meet the definition of a colonia are eligible for assistance from USDA's Colonias program, a water infrastructure grant program to serve state-designated, low-income, unincorporated areas along the border.[37] Finally, USDA administers a grant program to provide technical assistance and

[33]The Native American program is authorized by 7 U.S.C. § 1926c, which is also known as section 306C of the Consolidated Farm and Rural Development Act.

[34]7 U.S.C. § 1926c (a)(1). A facility is eligible for section 306C assistance if it provides water or waste disposal services, or both, in rural areas where the per capita income of residents in the county is not more than 70 percent of the most recent national average per capita income, as determined by the Department of Commerce, and the unemployment rate of the residents is not less than 125 percent of the national average unemployment rate, as determined by the Bureau of Labor Statistics. These eligibility requirements do not apply to colonias—any identifiable community designated in writing by the state or county it is located in, determined to be a colonia on the basis of objective criteria, and that existed and was generally recognized as a colonia before October 1, 1989.

[35]The Rural Alaska Village Grant program is authorized by 7 U.S.C. § 1926d.

[36]The Water and Waste Disposal program is authorized by 7 U.S.C. § 1926, otherwise known as section 306 of the Consolidated Farm and Rural Development Act.

[37]The Colonias program is authorized by 7 U.S.C. § 1926c. Colonias are communities of all types and sizes, both incorporated and unincorporated, and can be, but are not usually, within tribal reservations. GAO, *Rural Water Infrastructure: Improved Coordination and Funding Processes Could Enhance Federal Efforts to Meet Needs in the U.S.-Mexico Border Region,* GAO-10-126 (Washington, D.C.: Dec. 18, 2009).

training,[38] and the agency makes pre-planning grants available to tribes, organizations that serve tribes, and other recipients through multiple programs to assist with the development of application components, such as preliminary engineering or environmental reports.[39]

Additional Agencies

Four additional agencies may provide drinking water or wastewater assistance to Indian tribes through other programs not specific to drinking water or wastewater or as authorized by statute:

- **HUD.** HUD administers the Indian Community Development Block Grant program, a set-aside from the agency's Community Development Block Grant program that is specific to Indian tribes.[40] Indian Community Development Block grants can be used for construction of public facilities, provision of public services, housing, and certain economic development projects, among other things. HUD also awards Indian Housing Block Grants to tribes for affordable housing activities, which may include the development and rehabilitation of utilities, necessary infrastructure, and utility services.[41]
- **Reclamation.** As authorized by statute, Reclamation provides assistance for drinking water infrastructure in the 17 western states, including rural water supply projects for tribes. Some of the statutes that direct Reclamation to construct rural water supply projects for tribes are enacted Indian water rights settlements. In addition, until September 2016, Reclamation's rural water supply program was

[38]USDA's Technical Assistance and Training program is authorized by section 306(a)(14) of the Consolidated Farm and Rural Development Act. The program awards grants to private non-profit organizations to enable them to provide technical assistance and training to Indian tribes and other entities to, among other things, improve the operation and maintenance practices at existing water and wastewater works in rural areas. 7 U.S.C. § 1926(a)(14).

[39]Programs that offer pre-planning grants include the Rural Alaska Village Grant, Water & Waste Disposal Predevelopment Planning Grants, and Special Evaluation Assistance for Rural Communities and Households.

[40]The Indian Community Development Block Grant program is authorized by 42 U.S.C. § 5306(a)(1) and is administered by the regional offices of HUD's Office of Native American Programs.

[41]Other eligible activities include development of affordable housing, provision of housing-related services for affordable housing, and crime prevention and safety activities. The Indian Housing Block Grant is authorized by the Native American Housing Assistance and Self-Determination Act of 1996, Pub. L. No. 104-330, 110 Stat. 4016 (Oct. 26, 1996) (*generally codified as amended at* 25 U.S.C. §§ 4101-4243).

authorized to conduct appraisal investigations and feasibility studies for proposed rural water supply projects, including those that serve Indian tribes, but the program was not authorized to construct rural water supply projects.[42]

- **Corps.** As authorized by statute, the Corps may provide designated communities, counties, and states with design and construction assistance for drinking water and wastewater infrastructure. For example, Congress has authorized and made appropriations for the Corps to provide assistance to Indian tribes for water-related environmental infrastructure projects—including wastewater treatment facilities and water supply, storage, treatment, and distribution facilities—through the Corps' Section 219 Environmental Infrastructure Program.[43]
- **EDA.** EDA's Public Works Program provides grants to economically distressed areas to, among other things, help rehabilitate, expand, and improve their public works facilities, including drinking water and wastewater facilities.[44] The Economic Adjustment Assistance Program provides grants for, among other things, development of public facilities, including drinking water and wastewater facilities.[45] EDA's Planning Program provides grants to various entities, including tribes, to pay the costs of economic development planning, which can include planning for water infrastructure.[46]

[42]The Rural Water Supply Act of 2006 authorized Reclamation to establish a rural water supply program in western states. Pub. L. No. 109-451, tit. I., 120 Stat. 3345 (Dec. 22, 2006). The authority to carry out the program expired at the end of fiscal year 2016.

[43]The Corps is authorized to provide assistance to nonfederal entities for specified water-related infrastructure projects, including wastewater treatment and related facilities and water supply, storage, treatment, and distribution facilities, by section 219 of the Water Resources and Development Act of 1992 as amended. Pub. L. No. 102-580, § 219, 106 Stat. 4797, 4835-4836 (Oct. 31, 1992).

[44]EDA's Public Works Program is authorized by section 201 of the Public Works and Economic Development Act of 1965, Pub. L. No. 105-393, tit. I, § 102(a), 112 Stat. 3601, 3601 (Nov. 13, 1998) (*codified as amended at* 42 U.S.C. § 3141).

[45]EDA's Economic Adjustment Assistance Program is authorized by section 209 of the Public Works and Economic Development Act of 1965, Pub. L. No. 105-393, tit. I, § 102(a), 112 Stat. 3601, 3605 (Nov. 13, 1998) (*codified as amended at* 42 U.S.C. § 3149).

[46]EDA's Planning Program is authorized by section 203 of the Public Works and Economic Development Act of 1965, Pub. L. No. 105-393, tit. I, § 102(a), 112 Stat. 3601, 3602 (Nov. 13, 1998) (*codified as amended at* 42 U.S.C. § 3143).

Prior GAO Work on Interagency Collaboration

As part of our body of work on interagency collaboration, our September 2012 report discussed a variety of mechanisms to implement interagency collaborative efforts and identified key features that all efforts benefit from.[47] Mechanisms to implement interagency collaborative efforts include establishing interagency task forces or signing memorandums of understanding. Key features, many of which are related to practices to enhance and sustain collaboration identified in our previous work, fall into the following categories: outcomes and accountability, bridging organizational cultures, leadership, clarity of roles and responsibilities, participants, resources, and written guidance and agreements.[48]

Federal Agencies Estimated About $3 Billion in Existing Tribal Drinking Water and Wastewater Infrastructure Needs in Fiscal Year 2016, but the Needs Are Underestimated

IHS and EPA estimated costs for tribal water infrastructure needs, with IHS identifying at least $3.2 billion in estimated costs for infrastructure projects to address existing drinking water and wastewater infrastructure needs for fiscal year 2016 and EPA estimating the costs of future tribal drinking water infrastructure needs at an additional $2.4 billion over the following 20 years. However, IHS's estimate of existing needs is likely too low because IHS has not identified all eligible Indian homes that may have existing sanitation deficiencies—drinking water or wastewater infrastructure needs—and some data in the system that IHS uses to track home-specific infrastructure needs are not accurate.

[47]GAO-12-1022.

[48]In October 2005, we described how agencies can enhance and sustain their interagency collaborative efforts by engaging in eight practices, including: defining and articulating a common outcome; establishing mutually reinforcing or joint strategies; identifying and addressing needs by leveraging resources; and establishing compatible policies, procedures, and other means to operate across agency boundaries. See GAO, *Results-Oriented Government: Practices That Can Help Enhance and Sustain Collaboration among Federal Agencies,* GAO-06-15 (Washington, D.C.: Oct. 21, 2005).

IHS and EPA Have Estimated Several Billion Dollars in Existing and Future Tribal Water Infrastructure Needs

In fiscal year 2016, IHS identified about $3.2 billion in estimated costs for projects to address existing tribal drinking water and wastewater infrastructure needs. This estimate represented more than 2,000 projects in the SDS to address 373 tribes' existing drinking water and wastewater infrastructure needs.[49] To develop these projects, IHS policy directs area staff to invite all federally recognized tribes to identify existing drinking water and wastewater infrastructure needs each year.[50] IHS staff then work with interested tribes to develop projects, including cost estimates, to include in the SDS. In fiscal year 2016, projects to address deficiency levels 4 and 5—homes or communities that lack a safe drinking water supply or wastewater disposal system, or both—accounted for $1.6 billion, or about half, of the total estimated costs of tribal infrastructure needs in the SDS. More than 80 percent of the deficiency level 4 and 5 project costs were located in the IHS Alaska and Navajo areas.[51] In addition, in fiscal year 2016, IHS determined that more than 60 percent of the total existing drinking water and wastewater infrastructure needs in the SDS were infeasible,[52] mostly due to the significant costs associated with infeasible deficiency level 5 projects.[53]

EPA collects and reports data on the drinking water infrastructure needs of the nation's public water systems, including the future needs of tribally owned or operated drinking water systems. Specifically, EPA is required to assess capital improvement needs of all eligible public water systems every 4 years, and EPA has conducted its Drinking Water Infrastructure Needs Survey and Assessment to obtain this information every 4 years

[49]According to IHS officials, they have not identified the number of unique homes to be served by these projects because one home can be served by multiple projects.

[50]IHS is required by statute to consult with Indian tribes and tribal organizations to determine the sanitation needs of each tribe when preparing the agency's annual reports to Congress.

[51]IHS's Alaska Area provides assistance to Alaska Natives in the state of Alaska, and the Navajo Area provides assistance to American Indians in or near the Navajo Nation.

[52]For all projects in the SDS, IHS determines whether the project is considered economically feasible or infeasible, based on whether project costs fall below established maximum allowable per-home construction costs.

[53]IHS estimated in fiscal year 2016 that infeasible deficiency level 5 projects would cost more than $1 billion.

from 1995 through 2015.[54] EPA last reported in 2013 on the estimated costs of capital improvement projects needed to repair, replace, and upgrade existing tribal and other public drinking water systems over the following 20 years.[55] In its 2013 report, EPA estimated the costs of future tribal drinking water needs of public systems at approximately $2.4 billion.[56] EPA does not, and is not required to collect information about future tribal wastewater infrastructure needs.[57]

Other agencies that provide tribes with assistance for drinking water or wastewater infrastructure projects do not—and are not required to—systematically identify tribal drinking water or wastewater infrastructure needs. For example, USDA officials explained that tribes identify needs through the applications they submit to the agency's programs. These officials stated that they also identify tribal needs through outreach to tribes and coordination with other agencies, such as IHS. In addition, HUD officials said that they do not collect information specifically about tribal water infrastructure needs because they rely on the tribes to

[54]The Safe Drinking Water Act Amendments of 1996 require EPA to conduct an assessment of water system capital improvement needs of all the nation's eligible public water systems and report to Congress on the results every 4 years. 42 U.S.C. § 300j-12(h). In accordance with a schedule that is consistent with this needs assessment, the act also requires EPA to prepare surveys and assess the needs of drinking water treatment facilities to serve Indian tribes. 42 U.S.C. § 300j-12(i)(4). EPA conducted a survey in 2015, but the agency had not released the report with its findings at the time of our review.

[55]Environmental Protection Agency, *Drinking Water Infrastructure Needs Survey and Assessment: Fifth Report to Congress*, EPA 816-R-13-006 (Washington, D.C.: April 2013).

[56]In its 2013 report, EPA estimated that overall tribal drinking water needs totaled about $3.3 billion. However, the report stated that approximately 27 percent of the estimated tribal needs were also associated with IHS's estimate of existing needs in the SDS. Therefore, $2.4 billion represents the future drinking water infrastructure needs reported by EPA minus the existing needs IHS included in the SDS's estimate of needs. EPA's estimate does not include needs associated with private infrastructure, such as future costs to repair or replace private drinking water wells, and it does not include needs associated with projects related primarily to population growth.

[57]The Clean Water Act, as amended, requires EPA to biennially make a detailed estimate of the cost of construction of all needed publicly owned treatment works in the country and submit it to Congress. 33 U.S.C. § 1375(b)(1). In its January 2016 submittal, EPA stated that it did not include tribal wastewater infrastructure in its Clean Watersheds Needs Survey since the agency uses IHS's SDS to identify any wastewater infrastructure projects on tribal lands.

propose or identify projects to meet any needs based on the tribes' priorities.[58]

IHS Underestimates Existing Tribal Water Infrastructure Needs Because IHS Has Not Identified All Eligible Homes with Infrastructure Needs and Relevant Data Are Not Accurate

IHS area staff work with tribes each year to (1) identify Indian homes eligible for and in need of IHS drinking water or wastewater infrastructure assistance to include in IHS's home-specific tracking system, HITS; and (2) develop projects aimed at correcting any identified sanitation deficiencies in these homes to include in the SDS. Through this process, IHS has entered information about hundreds of thousands of eligible Indian homes in HITS and developed thousands of projects in the SDS. According to agency documents, HITS is to include information about each Indian home that is eligible to be served by the Sanitation Facilities Construction program and that may have an existing sanitation deficiency. However, based on our review of IHS documentation and interviews with IHS officials, HITS does not contain all eligible Indian homes that may have existing sanitation deficiencies, and some data in the system are not accurate.

HITS Does Not Contain All Eligible Indian Homes That May Have Existing Water Infrastructure Needs

According to IHS officials, as of February 2018, HITS contained information for about 406,000 Indian homes. However, according to IHS area officials, the system does not contain information about all Indian homes eligible to be served by the Sanitation Facilities Construction program.[59] For example, Oklahoma City Area officials we interviewed estimated that, based on Census data and their professional experience, more than 100,000 Indian homes in their area may be eligible for IHS program assistance but are not included in the system,[60] and an unknown number of those homes likely have existing drinking water and

[58]In January 2017, HUD issued a report on Indian housing needs that found that 5.6 percent of tribal homes have a plumbing inadequacy—defined as lacking piped hot water or a flush toilet, or lacking both bathtub and shower, for the exclusive use of the unit—compared to 1.3 percent of all homes in the United States. Department of Housing and Urban Development, *Housing Needs of American Indians and Alaska Natives in Tribal Areas: A Report from the Assessment of American Indian, Alaska Native, and Native Hawaiian Housing Needs* (Washington, D.C.: January 2017).

[59]According to IHS policy, homes eligible to receive Sanitation Facilities Construction program assistance are 24-hour, year-round family dwellings and are located in one of IHS's service delivery areas. These areas typically include counties encompassing reservations and counties that have a common boundary with a reservation.

[60]As of November 2017, HITS included approximately 155,000 homes within the IHS Oklahoma City Area, which provides assistance to tribes in the states of Oklahoma, Nebraska, and portions of Texas.

wastewater infrastructure needs.[61] These officials, as well as tribal officials administering the Sanitation Facilities Construction program for their tribes in Oklahoma, said that the system does not contain all eligible Indian homes, in part because it is difficult to identify where tribal members are living since most of the communities in the state are a mixture of tribal and non-tribal residents and are not located on reservations.[62] In addition, Portland Area officials stated that they believe the system is missing an unknown number of eligible Indian homes in their area because it is challenging to identify eligible homes that are in scattered locations away from tribal community facilities.[63] In contrast, Navajo Area officials said they believe the system is more than 95 percent complete for their area, in part because the area aligns with the Navajo Nation's lands.

IHS headquarters officials stated that they do not expect HITS to capture all eligible Indian homes, in large part because some tribes have chosen to not provide such information to IHS for cultural or other reasons. These officials said they are focused on working collaboratively with tribes to identify homes that have existing deficiencies rather than all homes eligible for services but added that IHS areas are expected to identify such homes during the normal course of their work. IHS area officials and tribal officials we interviewed stated that identifying eligible Indian homes not located on reservations is resource intensive, and they do not have sufficient resources to locate these homes. IHS Oklahoma City Area officials said it would be helpful to find efficient ways to identify additional eligible homes that may have sanitation deficiencies. For example, these officials said they have started using EPA data to target communities with water systems that do not meet EPA's water quality standards and identify eligible homes within those communities, but they have made limited progress with their existing resources.

[61]Specifically, an IHS Oklahoma City Area official said approximately 70,000 Indian homes are not included in HITS because IHS could not obtain accurate geolocations, but Census data indicate that another 67,000 homes could be eligible to be included in the system.

[62]According to IHS policy, Indian homes that are located in majority non-Indian communities with a population of less than 10,000 are eligible for Sanitation Facilities Construction program assistance. To provide service to Indian homes in these communities, IHS contributes the prorated cost to a project that serves the entire community.

[63]IHS Portland Area provides assistance to tribes in the states of Idaho, Oregon, and Washington.

Standards for Internal Control in the Federal Government calls for management to use quality information to achieve the entity's objectives; such information is appropriate, current, complete, accurate, accessible, and provided on a timely basis.[64] We recognize that it would be resource intensive for IHS to locate every eligible Indian home to include in HITS, but because the system may not contain roughly 20 percent of eligible Indian homes, opportunities exist for IHS to identify in a targeted, efficient way additional homes with existing deficiencies to include in HITS. By implementing a targeted, resource-efficient method to identify additional eligible Indian homes that may have existing sanitation deficiencies to include in HITS, IHS could have better assurance that it has more complete information to help improve its estimate of the number of eligible Indian homes that may need sanitation facilities assistance.

Deficiency Levels Are Not Accurate For Every Home in HITS

Deficiency levels for thousands of homes may not be accurately captured in HITS. IHS headquarters officials stated that, as of February 2018, of the roughly 406,000 total tribal homes in HITS, about 229,400 homes had a deficiency level of 0. Therefore, the remaining approximately 176,600 tribal homes had deficiency levels 1 through 5. HITS automatically assigns a deficiency level 0 to each home when IHS enters it into the system, and homes remain at a deficiency level 0 until IHS develops projects in the SDS to serve those homes. HITS does not provide IHS with the option of recording a home's deficiency level as unassessed, so a deficiency level 0 could indicate that there is no deficiency or that the home has not yet been assessed to determine a deficiency.

IHS area officials we interviewed stated that they were aware of homes with sanitation deficiencies that were not accurately reflected in HITS. For example, Phoenix Area staff said they knew of homes with a deficiency level 4 or 5 that had a deficiency level 0 in HITS because these homes were not yet included within the scope of an SDS project.[65] Also, California Area officials estimated that they had not assessed deficiency levels for about 20,000 eligible homes in their area, and Oklahoma City Area officials said they had not assessed more than 100,000 homes in

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

[65]The IHS Phoenix Area provides assistance to tribes in Arizona, Nevada, and Utah, with the exception of the Navajo Nation, San Juan Southern Paiute Tribe, Tohono O'odham Nation, and the Pascua Yaqui Tribe of Arizona.

their area—these homes' deficiency levels all appeared as deficiency level 0 in HITS, but their actual deficiencies were unknown.

According to IHS officials, there are multiple ways to assess homes' deficiency levels. For homes that are not connected to a public water system, such as homes with private wells, IHS staff may need to visit homes to identify any existing deficiencies, with permission of the tribe. For homes connected to a public water system, staff can assign the homes the deficiency level associated with the water system but may need to visit the community to assess the system's overall deficiency level. IHS officials from the California and Oklahoma City areas said they did not have the staff resources to begin the process of identifying whether the deficiency level 0 homes in their areas had deficiencies and developing projects for the SDS to serve them.

IHS headquarters officials stated that they have identified homes that the Sanitation Facilities Construction program has served since implementing HITS in 2015. For example, IHS officials stated that of the about 229,400 homes with a deficiency level 0 in HITS, they had determined that about 90,700 correctly show that deficiency level because they have been included in a project in the SDS since 2015. IHS had not included the remaining approximately 138,700 homes with a deficiency level 0 in a project in the SDS. Therefore, using HITS, IHS could not determine if these homes had (1) no deficiency, (2) a deficiency that IHS addressed prior to 2015, or (3) an unknown deficiency because the homes had not been assessed.

IHS officials stated that in the future they will be able to use HITS to better track the agency's service and project history at the individual home level. However, IHS officials did not explain what steps they would take to identify deficiencies for the approximately 138,700 homes in HITS that had not been included in an SDS project. *Standards for Internal Control in the Federal Government* calls for management to use quality information to achieve the entity's objectives; such information is appropriate, current, complete, accurate, accessible, and provided on a timely basis.[66] IHS officials said that improving the system's accuracy would be beneficial. By implementing a mechanism to indicate in HITS whether each home with a deficiency level of 0 has been assessed, IHS could also have more

[66]GAO-14-704G.

efficient ways to take steps to address the deficiencies of the homes contained in HITS.

Federal Agencies Provided Funding for Tribal Water Infrastructure Projects, but Processes May Not Prioritize Projects That Address the Most Severe Deficiencies

In fiscal year 2016, federal agencies obligated approximately $370 million for tribal drinking water or wastewater infrastructure projects. The agencies with tribal-specific programs for drinking water and wastewater infrastructure—IHS, EPA, and USDA—funded some projects to address what they identified as the most severe sanitation deficiencies—communities and homes that do not have safe drinking water or wastewater disposal facilities. However, the agencies' processes may not always prioritize projects that address the most severe sanitation deficiencies. In addition, during the course of our review, we identified issues with how USDA awarded grants under its Rural Alaska Village Grant program.

Federal Agencies Provided About $370 Million in 2016 for Tribal Water Infrastructure Projects

In fiscal year 2016, federal agencies provided about $370 million to develop, construct, or repair tribal drinking water and wastewater infrastructure projects to address tribes' needs. This amount represents about 11 percent of the more than $3 billion in total existing tribal drinking water and wastewater infrastructure needs that IHS identified in 2016. Appendix III contains additional detail about agency obligations for tribal drinking water and wastewater infrastructure projects for fiscal years 2012 through 2016.

Federal agency obligations were used to address a variety of tribal drinking water and wastewater infrastructure needs. For example, IHS, EPA, USDA, and the State of Alaska provided approximately $15.9 million for multiple, phased projects to bring first-time, in-home piped drinking water and wastewater service to approximately 90 homes in the Native Village of Eek in Alaska (see fig. 1). The residents of Eek obtain their drinking water by hauling water from the village washeteria, a building that contains toilets, washing machines, and a spigot for purchasing water for use in the home. Most homes in the community do not have piped water or sewer service to kitchens or bathrooms, and residents use washbasins for handwashing and food preparation and honeybuckets for wastewater disposal. As of April 2017, construction was ongoing, and officials estimated that the entire community of about

300 people would be served by the fall of 2018. See appendix IV for other examples of tribal drinking water and wastewater infrastructure projects that we visited.

Figure 1: Water Infrastructure Project in Eek, Alaska (April 2017)

Ongoing construction of community drinking water and sewer transmission lines.

Source: GAO. | GAO-18-309

In addition to providing financial assistance for projects to design or construct water infrastructure, federal programs provided grants for technical assistance and training for tribal utilities and staff. For example, in fiscal year 2016, USDA awarded a $130,000 grant from its Technical Assistance and Training program to one organization that works with tribes.[67] USDA also awarded a contract to the National Rural Water Association for it to employ a network of technical consultants who can provide on-site technical assistance to eligible systems, including tribally operated systems experiencing day-to-day operational issues, among other challenges.

Federal programs mostly did not provide financial assistance for routine operations and maintenance of installed community or individual

[67]USDA's Technical Assistance and Training program awards grants to non-profits that provide technical assistance and training to tribes, among other entities. USDA reported that from 2012 through 2016, this program awarded nearly $3 million in such program grants to tribal non-profit entities to help tribes with technical assistance and training needs.

infrastructure.[68] Tribal officials we interviewed, however, said that paying for operations and maintenance is often the tribe's biggest challenge once a system is constructed or upgraded. For example, officials from one tribe said that the tribe did not have sufficient resources to operate and maintain a newly constructed water treatment system. Tribal officials we interviewed stated that their members are often unable to afford the utility fees needed to support the water system. For private systems, officials from two tribes said some of their members have trouble maintaining new drinking water filtration and septic systems because, for example, the systems are technically complex and costly to maintain. Officials from another tribe said homeowners who have difficulty operating and maintaining a system may return to using an unsafe drinking water source they previously used, for example. According to IHS officials, the agency has been collaborating with EPA, USDA, and tribes to improve collection of information about the cause of some systems' premature failure and to analyze best practices for operations and maintenance of tribal water systems.

Agencies Funded Some Projects to Address the Most Severe Sanitation Deficiencies

Agencies with tribal-specific programs for water infrastructure—IHS, EPA, and USDA—selected and funded projects that address the most severe sanitation deficiencies. Three of these agencies' programs—IHS's Sanitation Facilities Construction, EPA's clean water set-aside, and USDA's Native American program—documented in regulation or policy their goal of funding projects to address these needs. Specifically, according to IHS's Sanitation Facilities Construction program policy, the program's goal includes providing funding first and in greater degree to homes and communities with the greatest needs, that is, those that lack safe drinking water or wastewater disposal, or both.[69] EPA's clean water set-aside program policy states the program's goal is to protect public health in Indian country by addressing the lack of access to sanitation facilities (i.e., deficiency levels 4 and 5 for IHS and EPA).[70] Finally, under

[68]Some of the programs we reviewed are not authorized to fund operations and maintenance activities, such as EPA's clean water set-aside program, USDA's Native American and Rural Alaska Village Grant programs, and HUD's Indian Community Development Block Grant program.

[69]Indian Health Service, Office of Environmental Health and Engineering, Division of Sanitation Facilities Construction, *Criteria for the Sanitation Facilities Construction Program* (Rockville, MD: 2003).

[70]Environmental Protection Agency, *Clean Water Indian Set-Aside Program Guidance*, EPA-832-B-15-001 (Washington, D.C.: October 2015).

the applicable requirements and policy, USDA's Native American program's objective is to provide water and waste disposal facilities and services to low-income rural communities whose residents face significant health risks.[71] The program's goal includes funding the neediest projects, giving priority to areas that lack running water, flushing toilets, and modern sewage disposal systems.

According to agency policy, IHS's Sanitation Facilities Construction program and EPA's clean water set-aside program prioritize and select projects to fund according to the projects' rankings in each IHS area's SDS list.[72] To create the ranked lists, IHS staff assign scores to each project based on a set of eight scoring factors, each with a different number of points that may be assigned to a project (see table 2).

[71]The statute authorizing the section 306C grants makes them available only to communities "whose residents face significant health risks … due to the fact that a significant proportion of the community's residents do not have access to, or are not served by, adequate affordable water supply systems or waste disposal facilities." 7 U.S.C. § 1926c(a)(1). The regulations governing section 306C grants and loans apply to the Native American program. Those regulations identify the objective of the section 306C grants and loans program as providing water and waste disposal facilities and services to low-income rural communities whose residents face significant health risks. 7 C.F.R. § 1777.3. See also U.S. Department of Agriculture, Rural Utilities Service, *Staff Instruction 1780-5: Water and Environmental Program Fund Allocations – Fiscal Year 2017* (Washington, D.C.: September 2017).

[72]EPA's drinking water set-aside program guidance states that EPA regions are to choose how they will identify and select drinking water projects to fund from the drinking water set-aside program, in consultation with tribes in each region. For this program, the regions have selected a variety of approaches. Four EPA regions select projects to fund from the drinking water set-aside program based on their SDS rankings, and the remaining five regions generally use an application process to select projects. Because of the variety in how regions implement the drinking water set-aside program, we did not review the extent to which EPA addresses the most severe sanitation deficiencies through this program.

Table 2: Indian Health Service's (IHS) Scoring Factors for Ranking Projects in the Sanitation Deficiency System (SDS)

Factor	Description	Minimum and maximum points awarded
Health impact	Potential for occurrence of a disease or other adverse human health effect directly attributable to the failure of (or lack of) water or sewer facilities.	0 to 30 points
Project deficiency level	Reflects the deficiency level of facilities to be replaced or modified by the proposed project. Projects with higher deficiency levels receive more points.	0 to 18 points
Capital cost	Relative cost per home served by the project compared to similar projects in the area. Projects with lower cost per home served receive more points.	-20 to 16 points
Operations and maintenance capability	Probability of adequate operations and maintenance of facilities provided through the project.	0 to 16 points
Local tribal priority	Tribe's documented priorities for its preferred projects.	0 to 16 points
Contributions	For projects that leverage funding contributions from non-IHS sources.	0 to 8 points
Adequate previous service	For projects that serve communities that have not been provided adequate water and sewage facilities.	0 to 4 points
Local conditions factor	Area can adjust project's overall score to compensate for unusual circumstances, such as project sequencing needs and status of project planning.	-15 to 0 points
Total possible points		**108 points**

Source: GAO analysis of IHS information. | GAO-18-309

Notes: According to IHS's guide for reporting sanitation deficiencies, IHS area offices have the discretion to use or not use the following factors when scoring projects: operations and maintenance capability, contributions, and local conditions. Also, IHS area offices may modify the method for scoring local tribal priority points to meet the specific needs of the area. IHS developed its scoring factors for ranking projects in the SDS in 1989 and updated them in 2003.

USDA prioritizes and selects projects to fund from its Native American program using a different process than IHS and EPA. USDA's process involves tribes, working with USDA state offices, submitting project grant applications to the headquarters office. USDA state offices score project applications before submitting them to the headquarters office. USDA policy directs the program to make funds available according to priority, and the agency accepts and evaluates applications and awards grants throughout the year. USDA officials said the program maintains a wait list for eligible applications received after all available funds have been obligated each year. According to USDA's scoring sheet for the Native American program, the agency evaluates project applications based on a set of five scoring factors, each with a different number of points to award. These scoring factor categories include population, income, joint financing, and discretionary points that can be awarded at state offices and headquarters (see table 3). USDA officials said that they also take SDS deficiency levels into account when reviewing project applications,

but that the statute authorizing the Native American program does not specifically reference IHS's deficiency level definitions.

Table 3: U.S. Department of Agriculture (USDA) Native American Program's Scoring Factors for Evaluating Projects to Fund

Factor	Description	Minimum and maximum points awarded
Population	Proposed projects are to serve areas with a rural population. Projects serving smaller populations receive more points.	10 to 30 points
Income	Proposed projects are to serve areas with low income. Projects serving populations with lower median household incomes receive more points.	10 to 40 points
Joint financing	Proposed projects that have committed joint financing will receive additional points.	5 to 10 points
State office discretionary	State office director may assign points for items such as natural disasters, to improve compatibility or coordination between the agency and other agencies' selection systems, to assist projects that are most cost effective, high unemployment rate, and severity of health risks, among others.	0 to 15 points
Additional discretionary points	USDA's Rural Utilities Service Administrator may assign additional points for items such as geographic distribution of funds and severity of health risks, among others.	0 to 35 points
Total possible points		**130 points**

Source: GAO analysis of USDA information. | GAO-18-309

Using their respective processes to prioritize and select projects for funding, IHS's Sanitation Facilities Construction program, EPA's clean water set-aside program, and USDA's Native American program obligated a total of nearly $110 million in fiscal year 2016 for projects to meet a mixture of needs. For example, for approximately 190 projects from the SDS that IHS, EPA, and others funded in fiscal year 2016, about 40 percent were projects to address deficiency levels 2 and 3, and about 60 percent were projects to address deficiency levels 4 and 5.[73] Further, in fiscal year 2016, USDA reported that its Native American program funded four projects that provided new drinking water and wastewater service to some tribal communities and funded nine projects that replaced, renovated, or expanded existing infrastructure.[74] Based on our

[73]In addition to IHS and EPA, other entities, including tribes, may contribute funds to projects funded from the SDS.

[74]For fiscal year 2016, USDA reported that its Native American program provided funding for 17 drinking water and wastewater infrastructure projects. Of these 17 projects, USDA categorized 13 projects as having the funds' purposes as new, replacement, renovation, or expansion. USDA categorized the remaining 4 projects as having other purposes or did not include a purpose.

review of IHS and USDA documents, deficiency level 2 and 3 projects as well as replacement and renovation projects can address important water quality and other problems, but they generally do not address the most severe deficiencies or the most significant health risks.

Based on our review of IHS and EPA documents and interviews with these agencies' officials, we found that their process for prioritizing and selecting projects to fund from the SDS can discourage funding some deficiency level 4 and 5 projects, especially those with a relatively high cost per home. According to some IHS area officials we interviewed, applying IHS's scoring factors and the points associated with each factor means that deficiency level 3 projects may score higher than—and therefore receive funding before—deficiency level 4 or 5 projects. For example, a project's cost per home is a significant contributor to its score because IHS assigns as low as minus 20 points for projects that have a relatively high cost to implement per home. IHS officials said that, typically, deficiency level 3 projects replace existing community infrastructure and serve more homes, which makes those projects' relative cost per home lower than deficiency level 4 and 5 projects. IHS headquarters officials explained that they developed the SDS scoring system in consultation with tribes so the system could balance the need to fund deficiency level 4 and 5 projects with the need to fund projects with lower deficiencies that address health needs and serve a larger number of homes. However, because deficiency level 4 and 5 projects may rank lower than some projects that address less severe deficiencies and rank too low to be funded in a given year, hundreds of feasible projects to address the most severe sanitation deficiencies have remained on SDS lists for 5 years or more, based on our review of these lists. As of the end of fiscal year 2016, many of these projects had not been selected for funding from IHS or EPA.[75]

IHS headquarters officials said that the agency is working to improve the extent to which it funds feasible projects to address the highest sanitation deficiencies. For example, these officials said that they are updating the 2003 Sanitation Facilities Construction program guidelines to incorporate

[75]We reviewed areas' SDS lists from fiscal years 2005 through 2016 and identified approximately 580 feasible deficiency level 4 and 5 projects that appeared in the SDS for 5 or more years. We identified about 90 of these projects that appeared on areas' SDS lists for all 12 years that we reviewed. Projects that do not appear on the most recent SDS lists may have received funding at some point during the time frame and were subsequently removed from areas' SDS lists, or they may have remained unfunded as of fiscal year 2016.

subsequently issued guidance, and this update should also more directly align the guidelines with the program's original focus—to prioritize service to Indian homes and communities that lack access to piped water and sewer systems.[76] However, a senior IHS official said that changing the SDS scoring factors is not part of this effort because the current scoring factors balance a number of interests in addition to projects' deficiency levels. The official said that higher deficiency level projects ranking lower than other projects on the SDS list in a given year does not mean that public health needs are going unaddressed. Yet, our analysis shows that projects to address the highest deficiency levels have remained in the SDS for many years. We recognize that IHS faces trade-offs when selecting tribal infrastructure projects to fund. By reassessing the point distribution across the SDS scoring factors as part of IHS's program guidelines update, in light of trade-offs between funding projects that address the most severe sanitation deficiencies and projects that meet other needs, IHS may have better assurance that its projects address the most severe sanitation deficiencies in Indian communities.

Regarding USDA's Native American program, based on our review of agency documents and interviews with USDA officials, we found that the agency's process for prioritizing and selecting projects may not provide USDA with reasonable assurance that it is selecting projects to fund that address the most severe sanitation deficiencies. Specifically, USDA's scoring factors for its Native American program do not include a scoring factor category to evaluate the extent to which projects will address health risks that stem from tribes' lack of drinking water and wastewater infrastructure. In contrast, USDA prioritizes projects to fund under its Colonias grant program using an additional scoring factor that awards points based on the extent to which a proposed project will address health risks stemming from lack of safe drinking water and wastewater disposal in a colonia. For example, USDA awards 50 points for projects in colonias where a lack of access to safe drinking water and wastewater disposal results in a significant health risk. We recommended in December 2009 that USDA take steps to better target its limited funds for the Colonias program, and USDA responded in part by creating the

[76]In November 2017, IHS notified tribal leaders that the agency planned to consult with tribes on the update to the Sanitation Facilities Construction program guidelines.

additional scoring factor for colonias to ensure that the neediest colonias receive funding.[77]

To prioritize Native American program applications that address significant health risks, USDA officials said they use discretionary points. However, according to program policy, USDA state office and headquarters officials may award discretionary points to meet other purposes that are not related to addressing health risks, such as encouraging projects with green infrastructure or promoting geographic diversity among grantees, or they may not award these points at all. As a result, USDA may not have reasonable assurance that it is consistently evaluating or funding project applications in a way that aligns with the Native American program's goal. USDA policy states that both the Native American and Colonias programs are to prioritize areas that lack running water, flushing toilets, and modern sewage disposal systems. By implementing a scoring factor similar to the one in the Colonias program—that is, one that awards points for proposed projects that address health risks from a lack of access to safe drinking water and wastewater disposal—for the Native American program, USDA would have more assurance that it is evaluating project applications consistently and funding projects to address the most severe sanitation deficiencies in Indian communities, consistent with the program's goal.

[77]GAO-10-126. In July 2012, USDA modified the agency's regulations to allow for additional priority points to projects serving colonias that lack access to water or waste disposal systems and that face significant health problems. 7 C.F.R. § 1777.13(d)(5).

USDA Did Not Always Award Rural Alaska Village Grants to Authorized Recipients, and the Program's Regulations Are Inconsistent with Its Authority

During the course of reviewing funding for tribal drinking water and wastewater infrastructure projects, we encountered several issues with one of USDA's tribal drinking water and wastewater infrastructure programs, the Rural Alaska Village Grant program.[78] Specifically, section 306D of the Consolidated Farm and Rural Development Act authorizes USDA to make grants to the State of Alaska for the benefit of rural or Native villages to provide for the development and construction of drinking water and wastewater systems.[79] According to USDA reports, these grants are used for projects that have provided, for example, rural Alaska Native residents with access to safe drinking water and flush toilets in their homes. From the program's beginning in fiscal year 1997 through fiscal year 2016, USDA awarded 455 grants totaling more than $444 million to provide safe drinking water and wastewater disposal to thousands of Alaska Natives in remote communities.[80]

We found that from fiscal year 1997 through fiscal year 2016, USDA awarded 159 Rural Alaska Village grants totaling about $157 million to recipients not authorized by section 306D. These recipients were Alaska Native villages, municipalities, and the Alaska Native Tribal Health Consortium, which is the tribal organization that administers IHS's Sanitation Facilities Construction program in Alaska.[81] USDA's appropriations acts for fiscal years 2012 through 2017, however, authorized USDA to provide Rural Alaska Village grants to the

[78]We did not review whether the grants were used for their intended purpose—the development and construction of water and wastewater systems to improve the health and sanitation conditions in Alaska rural and Native villages. In the course of our review, we did not see any evidence of grants being used for other than their intended purpose.

[79]Section 306D was added to the Consolidated Farm and Rural Development Act by Pub. L. No. 104-127, tit. VII, subtit. B, § 757(a), 110 Stat. 1131 (Apr. 4, 1996) (*codified as amended at* 7 U.S.C. § 1926d(a)).

[80]The Federal Agricultural Improvement and Reform Act of 1996, which amended the Consolidated Farm and Rural Development Act in April 1996, authorizes the program. USDA began awarding Rural Alaska Village grants in fiscal year 1997.

[81]USDA's implementation of the Rural Alaska Village Grant program has changed over time. From 1997 through 1999, USDA awarded all grants to municipalities and Alaska Native villages; from 2000 through 2005, the agency awarded all grants to the State of Alaska; from 2007 through 2010, USDA awarded grants to municipalities, Alaska Native villages, and the state; and from 2011 through 2016, the agency awarded grants to the Consortium, the state, and two municipalities.

Consortium.[82] Of the 159 grants, USDA awarded 127 grants (about $121 million) to municipalities and Alaska Native villages from 1997 through 2016, and it awarded 32 grants (about $36 million) to the Consortium in 2011 before first receiving authority to do so in fiscal year 2012. Based on our review of a list of USDA grant agreements, selected agreements, and according to agency officials, in 2011, USDA signed 32 such agreements with the Consortium and the communities on whose behalf the Consortium administered the grants. USDA officials stated that the agency made seven total obligations to the Consortium in 2011 for these grants.[83]

USDA officials stated that they did not agree that the agency had awarded Rural Alaska Village grants to ineligible entities because the program's authorizing statute gives the State of Alaska control over the use of the grants, and the state concurred with USDA making some grants directly to other parties. For example, the USDA officials stated that a 2011 memorandum of agreement between USDA, the State of Alaska, IHS, and the Consortium was a vehicle for the state to direct a portion of the Rural Alaska Village grants to other parties. These officials stated that since the statute does not prevent the state from redirecting portions of the grant to other parties, it is not improper for USDA to enter into an agreement with the state to award the grants directly to other parties so that the state does not have to redirect them. In commenting on a draft of this report, USDA noted that the agency has awarded two grants to municipalities since signing the 2011 agreement.

In addition, USDA officials said that they entered into the memorandum of agreement and began awarding grants to the Consortium in 2011 to address problems with the program's administration, which resulted in projects that were delayed or halted. For example, USDA stated in a 2010 report that the State of Alaska had not adequately documented project

[82]Pub. L. No. 112-55, div. A, tit. III, 125 Stat. 552, 572 (Nov. 18, 2011); Pub. L. No. 113-6, div. A, tit. III, 127 Stat. 198, 217 (Mar. 26, 2013); Pub. L. No. 113-76, div. A, tit. III, 128 Stat. 5, 24 (Jan. 17, 2014); Pub. L. No. 113-235, div. A, tit. III, 128 Stat. 2130, 2153 (Dec. 16, 2014); Pub. L. No. 114-113, div. A, tit. III, 129 Stat. 2242, 2264 (Dec. 18, 2015); Pub. L. No. 115-31, div. A, tit. III, 131 Stat. 135, 157 (May 5, 2017). The Alaska Native Tribal Health Consortium is the name of the consortium formed pursuant to section 325 of Pub. L. No. 105-83, 111 Stat. 1543, 1597-1598 (Nov. 14, 1997).

[83]USDA officials stated that per agency regulations and a memorandum of agreement, the Consortium may bundle projects for multiple eligible Alaska villages and submit them under one request for grant assistance. If approving the request, USDA makes one obligation to the Consortium that is used to support multiple projects.

costs and that USDA staff were concerned that the state had not applied the obligations it received from USDA to the intended communities.[84] According to USDA officials, they have seen a significant improvement in the state's grant administration and more timely delivery of projects since the 2011 agreement. In addition, the Rural Alaska Village Grant program manager said the agency awards grants directly to Native villages that have the capacity to administer them. In commenting on a draft of this report, USDA stated that the agency has made all grants to the Consortium pursuant to the 2011 memorandum of agreement.

The State of Alaska can choose to make subgrants once it receives the Rural Alaska Village grant, but section 306D of the Consolidated Farm and Rural Development Act only authorizes USDA to award grants to the State of Alaska. Moreover, the 2011 memorandum of agreement cannot authorize USDA to award grants to recipients that are not authorized by statute. By ensuring that all Rural Alaska Village grants are awarded only to recipients identified as eligible in section 306D or USDA appropriations acts, USDA will have assurance that it is complying with the law. If USDA wants to award Rural Alaska Village grants to municipalities and Alaska Native villages, it should seek authority to do so, as it did to award such grants to the Consortium.

In addition, the regulations governing the Rural Alaska Village Grant program identify rural or native villages in Alaska as eligible grant recipients.[85] USDA officials explained that the agency amended the Rural Alaska Village Grant program regulations in 2015 to codify the 2011 memorandum of agreement. However, this regulation identifying rural and Alaska Native villages as eligible grant recipients expands USDA's authority to award grants beyond the existing statutory authorities, which

[84]U.S. Department of Agriculture, *USDA Report on Streamlining of the Rural Alaska Village Grant Program: Report to Congress* (Washington, D.C.: August 2010).

[85]The initial regulations governing the Rural Alaska Village Grant program identified rural or Native Alaskan [sic] villages as eligible applicants. 62 Fed. Reg. 33462, 33492 (June 19, 1997) (*codified at* 7 C.F.R. § 1780.49(c)(1) (1998)). The current regulations—issued in late 2015—identify a rural or native village in Alaska, Alaska's Department of Environmental Conservation, or the Alaska Native Tribal Health Consortium as eligible recipients. 7 C.F.R. § 1784.8(a).

do not list rural or Alaska Native villages as eligible recipients.[86] Until USDA amends the Rural Alaska Village Grant program regulations to be consistent with USDA's authority, the agency's regulations will continue to recognize recipients not authorized by statute.

The Extent to Which Federal Agencies Collaborated to Meet Tribes' Water Infrastructure Needs Varied at the National Level and in Six Selected States

Most of the seven federal agencies that administer programs to provide drinking water and wastewater infrastructure assistance to Indian tribes have taken actions to collaborate at the national level, and the agencies have identified additional opportunities to collaborate. At the regional level, seven federal agencies we surveyed reported collaborating on a range of activities within six selected states—with some agencies frequently working together and others rarely collaborating—and the agencies identified opportunities to increase collaboration at the regional level to better serve tribes.

Most Reviewed Agencies Have Taken Actions to Collaborate at the National Level on Tribal Water Infrastructure and Have Identified Additional Opportunities to Increase Collaboration

Most of the seven federal agencies we reviewed have taken actions to collaborate at the national level and identified additional opportunities to collaborate that they have not yet taken. In our previous work, we found that achieving important national outcomes—such as providing access to safe drinking water and wastewater disposal—often requires coordinated and collaborative efforts of a number of programs spread across the federal government.[87] For example, IHS, EPA, USDA, HUD, and Reclamation have formed a national tribal infrastructure task force to facilitate the agencies' collaborative efforts when providing services, support, and technical assistance to tribes.[88]

[86]Agencies cannot issue regulations that confer on the agency any greater authority than that conferred by the governing statute. *See e.g.*, *Ernst & Ernst v. Hochfelder*, 425 U.S. 185, 213-214 (1976) ("the rulemaking power granted to an administrative agency charged with the administration of a federal statute is not a power to make law… [the rule's] scope cannot exceed the power granted the [agency] by Congress"); *Killip v. OPM*, 991 F.2d 1564, 1569 (Fed. Cir. 1993) ("Though an agency may promulgate rules or regulations pursuant to authority granted by Congress, no such rule or regulation can confer on the agency any greater authority than that conferred under the governing statute").

[87]GAO, *Fragmentation, Overlap, and Duplication: An Evaluation and Management Guide*, GAO-15-49SP (Washington, D.C.: Apr. 14, 2015), and GAO-17-559.

[88]The Department of Health and Human Services represents IHS on the task force, and Interior represents its bureaus, including Reclamation.

The tribal infrastructure task force's efforts reflect some of the key features that we have found all collaborative mechanisms benefit from in our previous work:[89]

- **Written guidance and agreements.** We have previously reported that agencies that articulate their agreements in documents can strengthen their commitment to working collaboratively.[90] The members of the tribal infrastructure task force first documented their agreement in a memorandum of understanding in 2007, the year the task force was created. The agencies updated the memorandum most recently in 2013, and they use the document to formally agree on the group's common goal and purposes and to clarify and define roles and responsibilities. Having participating agencies document their agreements on how they will be collaborating, and continually updating and monitoring these agreements, are practices that are consistent with our prior work.[91]
- **Outcomes and accountability.** In our previous work, we have reported on the importance of groups having clear goals.[92] In its 2013 memorandum of understanding, the tribal infrastructure task force identified a common goal of improving access to safe drinking water and basic sanitation for American Indians and Alaska Natives. In the memorandum, the member agencies also agreed on the task force's stated purposes, one of which is to enhance the efficient leveraging of funds.[93]
- **Leadership.** We have found that identifying one agency as the leader of a collaborative group is often beneficial because it centralizes accountability and can speed decision making.[94] EPA has served as

[89]GAO-12-1022.

[90]GAO-12-1022.

[91]GAO-12-1022.

[92]GAO-12-1022.

[93]According to the 2013 memorandum of understanding, the task force's other purposes are to: facilitate a common understanding of relevant programs and policies of each agency; improve American Indian and Alaska Native communities' capacity to operate and maintain sustainable infrastructure; work collaboratively with tribes to promote an understanding of available federal programs; identify ways to improve planning, construction, operating and maintaining infrastructure; and continue the necessary procedures and structures to facilitate the exchange of information.

[94]GAO-12-1022.

the federal focal point for the task force; this has included hosting the task force's website that serves as a common source for documents the group has produced. According to an official involved with the task force, EPA's role has provided continuity in leadership.

The task force's efforts have yielded some specific results. For example, in 2013, tribal infrastructure task force members agreed to adopt a uniform preliminary engineering report template, a key supporting document that multiple agencies require in their project application and evaluation processes. Task force members created this template in part in response to our October 2012 recommendation that EPA and USDA develop such a document.[95] According to agency officials we interviewed, the report template has been helpful for tribes since they no longer have to produce different versions of the same document when submitting multiple applications to different agencies. USDA officials said they have since worked with other agencies to develop an online version of the preliminary engineering report that is accessible to task force members and others to further improve collaboration.

However, according to agency officials involved with the task force, there may be additional opportunities to improve the efficiency of their collaboration at the national level. For example, in 2011, a workgroup of the task force identified a series of 10 options to increase the efficiency of collaboration by streamlining their application processes.[96] As of November 2017, according to agency officials, the task force had not acted on most of the options. One such option was for agencies to better align their different funding and application cycles where possible. Several tribal officials and representatives from a tribal organization we interviewed cited challenges with complying with the agencies' different application requirements. For example, they said that doing so can be resource intensive and can make it difficult to obtain funds for one project. Other tribal officials we interviewed also identified ways that agencies

[95]We recommended that EPA and USDA ensure the timely completion of an interagency effort to develop guidelines to assist states in developing their own uniform preliminary engineering reports to meet federal and state requirements. GAO, *Rural Water Infrastructure: Additional Coordination Can Help Avoid Potentially Duplicative Application Requirements*, GAO-13-111 (Washington, D.C.: Oct. 16, 2012). EPA and USDA, along with IHS, HUD, and Interior, developed and adopted the uniform preliminary engineering report template as members of the tribal infrastructure task force.

[96]Federal Infrastructure Task Force on Tribal Access to Safe Drinking Water and Basic Sanitation, Streamlining Preconstruction Paperwork Workgroup, *Overview of Tribal Infrastructure Funding Application Processes and Recommended Streamlining Opportunities* (Washington, D.C.: February 2011).

could improve their collaboration that would benefit tribal applicants and that the task force did not identify in its 2011 report. For example, various tribal officials suggested that agencies standardize federal program application processes and coordinate their outreach to tribes to discuss agency programs and their requirements.

According to an agency official involved with the task force, when the group considered which options from the 2011 report to implement, member agencies focused their efforts on implementing those that were most achievable given the agencies' limited resources. Other officials also said that it would be worthwhile to reconsider some of the options identified in the report. As stated in the task force's 2013 memorandum of understanding, one of its purposes is to enhance the member agencies' efficient leveraging of funds. By reviewing the 2011 task force report and identifying and implementing additional actions to help increase their collaboration, the task force member agencies could improve their ability to leverage limited program funds.

Federal Agencies' Regional Offices Collaborated to Varying Extents within Six Selected States and Reported That Additional Collaboration Would Be Beneficial

The regional offices of the seven federal agencies we surveyed collaborated with each other to varying extents in the six selected states (Alaska, Arizona, California, New York, Oklahoma, and South Dakota).[97] In the 2013 memorandum of understanding, the tribal infrastructure task force member agencies—IHS, EPA, USDA, HUD, and Reclamation—agreed that they are expected to collaborate at the regional level to achieve a common goal of providing safe drinking water and basic sanitation for tribes. However, based on our review of agency survey responses, these agencies did not always collaborate in each of the six states. We measured agency collaboration in terms of the number of instances in which one agency regional office reported using a

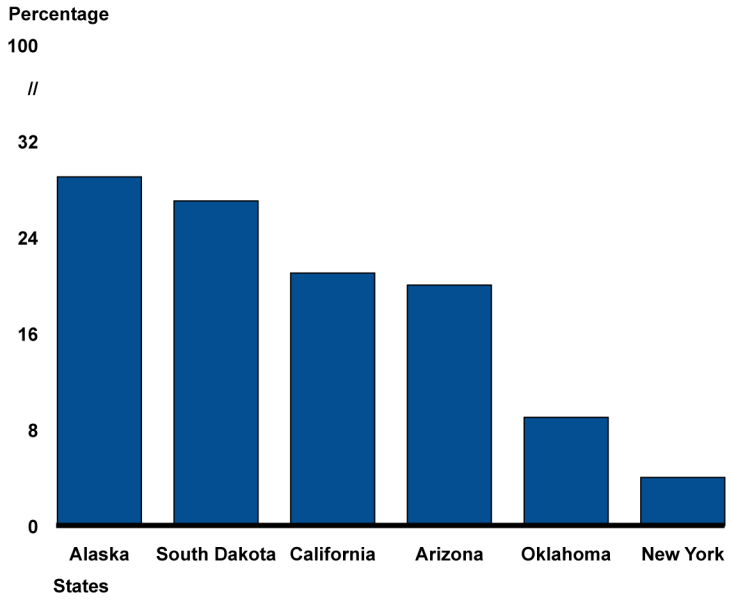
[97]The seven federal agencies organize their field structures differently, with some using region, district, area, or state offices as the entity that works with tribes on water infrastructure projects. We refer to all of these office types as regional offices in this discussion. We also sent a survey to the State of Alaska because the state provides a 25 percent match for two federal water infrastructure programs. We did not include other state agencies in our survey because they do not provide matching funds for federal tribal programs.

collaborative mechanism with another agency.[98] These collaborative mechanisms include state- or project-level working groups, memorandums of understanding, and shared databases, among others. In responses to our survey, we found that the number of instances of agency regional offices reporting that they used one or more collaborative mechanism with other agencies varied across the six states. For example, the agencies' regional offices collaborated the most in Alaska and the least in New York and Oklahoma.[99] Figure 2 shows the percentage of instances where an agency reported using a collaborative mechanism with another agency when jointly working on tribal drinking water and wastewater activities in the six states, out of the total possible instances. Appendix II contains additional details about our survey and agency responses.

[98]In our survey, for each state, we asked each agency's regional office whether it had collaborated with the other agencies in that state during the 3 years prior to the survey on tribal drinking water or wastewater activities using the following mechanisms: (1) memorandum of understanding or agreement, (2) interagency agreement to transfer funding, (3) working group/task force/committee, (4) consulting on project selection, (5) sharing project documents, (6) geographic co-location, (7) shared database or other data sharing, (8) conferences/forums, (9) informal or ad hoc communications, and (10) personnel detailing or sharing. We also asked the agencies' regional offices about the specific drinking water and wastewater activities that they worked on with the other agencies in each state. Appendix II contains information about the responses to those questions.

[99]We previously found that federal agencies frequently use more than one mechanism to address a complex issue. Mechanisms differ in complexity and scope but we found that they all benefit from certain key features, including, for example, having identified resources needed to initiate or sustain the collaborative effort. See GAO-12-1022.

Figure 2: Agencies' Reported Use of Collaborative Mechanisms to Jointly Work on Tribal Drinking Water and Wastewater Infrastructure Activities in Six States



Source: GAO analysis of survey responses. | GAO-18-309

Notes: We surveyed regional offices of seven federal agencies: Bureau of Reclamation, Department of Housing and Urban Development, Economic Development Administration, Environmental Protection Agency, Indian Health Service, U.S. Army Corps of Engineers, and U.S. Department of Agriculture. We also included the Alaska Department of Environmental Conservation in our survey in Alaska. We surveyed all seven federal agencies in Arizona, California, Oklahoma, and South Dakota. In New York, we surveyed six federal agencies because Reclamation does not operate in New York. In Alaska, we surveyed six federal agencies and the Alaska Department of Environmental Conservation because Reclamation does not operate in Alaska.

In our survey, for each state, we asked each agency's regional office whether it had collaborated with the other agencies in that state on tribal drinking water or wastewater activities using the following mechanisms: (1) memorandum of understanding or agreement, (2) interagency agreement to transfer funding, (3) working group/task force/committee, (4) consulting on project selection, (5) sharing project documents, (6) geographic co-location, (7) shared database or other data sharing, (8) conferences/forums, (9) informal or ad hoc communications, and (10) personnel detailing or sharing. To compare the agencies' responses across the six states, we calculated the number of instances that an agency reported using a mechanism with another agency in each state, out of the maximum possible yes responses in each state.

The time frame covered by this figure is approximately May 2014 through April 2017. We disseminated the survey in May 2017 and asked agencies to report about their collaboration during the 3-year period prior to our survey.

In responses to our survey, certain agencies' regional offices reported collaborating with each other in some states but not in other states.[100] For

[100]We are considering that a pair of agencies' regional offices collaborated if both agencies' regional offices reported that they had used at least one mechanism to collaborate with each other during the 3-year period covered by the survey.

example, EPA and USDA regional offices both reported working together in Alaska, Arizona, and California, but not in New York, Oklahoma, or South Dakota. IHS and HUD reported collaborating with each other in three states but not in the other states. Not all agencies work with tribes in every state. For example, Reclamation does not operate in Alaska or New York, so we did not survey the agency in those states. The Corps' regional offices responded that they are not authorized to work on drinking water or wastewater infrastructure with tribes in two of the six states. In contrast, IHS and EPA regional offices reported collaborating with each other in all six states, the most of any agency pair.

In their responses to our survey and in interviews, the seven federal agencies' regional offices most frequently identified three key factors that limited how much they collaborated in the six states.[101] Specifically:

- **Incompatibility of agency policies and missions.** Agencies' regional offices reported that having incompatible policies or agency missions was a factor that had hindered their collaboration with other agencies. For example, IHS and HUD regional offices in four states reported that a restriction on IHS's ability to serve new homes constructed with grants from HUD's housing programs limited their collaboration.[102] Several agencies' regional offices reported that having compatible policies helped their collaboration. For example, IHS and USDA regional offices in Alaska responded that multiple agencies' use of IHS's SDS list as a common source for identifying potential projects to fund has helped collaboration. We previously found that adopting compatible policies and procedures is one way for agencies to establish means of operating across agency boundaries.[103]

[101]In each state, the agencies' regional offices reported on the factors that hindered and helped their collaboration with every other agency's regional office we surveyed in that state. We then counted the frequency with which the agencies reported different factors. We use the term several to indicate where more than two agencies' regional offices reported that a factor hindered or helped their collaboration.

[102]New homes constructed with grants from HUD's housing programs are not eligible to be served by the Sanitation Facilities Construction program because IHS's annual appropriations acts have prohibited the use of IHS appropriations for sanitation facilities construction for new homes funded with HUD housing grants. *See e.g.*, Pub. L. No. 112-74, div. E, tit. III, 125 Stat.786, 1029 (Dec. 23, 2011); Pub. L. No. 115-31, div. G, tit. III, 131 Stat. 135, 485-486 (May 5, 2017).

[103]GAO-12-1022.

- **Insufficient resources.** An additional factor that hindered agencies' collaboration was insufficient staff and financial resources. For example, HUD and IHS regional officials we interviewed in Arizona said that a state-level tribal infrastructure working group they were involved in became inactive in 2016, after the lead agency determined it was unable to continue dedicating staff resources to that role and none of the other agencies picked up the lead. In contrast, several IHS and EPA regional offices reported that the existence of standard interagency agreements that facilitate transferring EPA funds to IHS helped them collaborate and leverage funding for projects that each agency would not have funded on its own. Identifying and leveraging the resources needed to initiate or sustain a collaborative effort is a key consideration for implementing the interagency collaborative mechanisms we previously identified.[104]
- **Absence of personal relationships.** Agencies' regional offices also reported that the absence of relationships with staff from other agencies hindered their collaboration. In contrast, agencies' regional offices reported that having good working relationships with staff from other agencies helped their collaboration. For example, USDA's regional office and the State of Alaska reported that their strong relationships with each other and other agencies in Alaska helped their collaboration, and that these relationships were enhanced by agency staff's frequent communication through regular meetings. We previously found that having positive working relationships can bridge organizational cultures and build trust.[105]

In their responses to the survey and in interviews, several agencies' regional offices identified examples of inefficiencies that have occurred when they did not collaborate, including inefficient use of their limited resources. For example, officials from one EPA region we interviewed said that there have been years when EPA staff spent time developing a project only to learn that USDA had already funded the same project. The officials stated that this inefficiency could have been avoided if they had been communicating with their USDA counterparts about the projects that each agency was considering to fund. Also, in two states, EPA's regional office reported that EPA and USDA may be missing opportunities to leverage funding for individual projects by not sharing information about projects.

[104]GAO-12-1022.

[105]GAO-12-1022.

In all six states, nearly all of the federal agency regional offices responded that it would be beneficial to increase their collaboration. Specifically, more than 90 percent of the federal agency respondents identified at least one collaborative mechanism that would be beneficial for them to begin using with another agency.[106] The specific mechanisms that the agencies identified appeared to relate to the amount of collaboration in which they had already engaged. For example, agency regional offices that reported not having collaborated with another agency most frequently said that it would be beneficial to begin having informal communications with their counterparts in other agencies and to start sharing project-specific documents such as preliminary engineering reports. Alternatively, agency regional offices that reported having collaborated with another agency most frequently responded that it would be beneficial to begin using a memorandum of understanding as an additional mechanism for collaborating where they had not already done so. In the tribal infrastructure task force's 2013 memorandum of understanding, the member agencies—IHS, EPA, USDA, HUD, and Reclamation—agreed that they are expected to collaborate at the regional level to provide safe drinking water and basic sanitation for tribes and to more efficiently leverage program funds. By directing their regional offices to identify and pursue additional mechanisms to increase their collaboration, the task force member agencies would have better assurance that their regional offices are efficiently leveraging limited program funds and following through on the commitment to collaborate.

Conclusions

Identifying and addressing drinking water and wastewater infrastructure needs in Indian country is a difficult undertaking. IHS dedicates a significant effort each year to working with tribes to identify their existing drinking water and wastewater infrastructure needs. However, one of IHS's systems—HITS—may be missing tens of thousands of eligible Indian homes, an unknown number of which may have existing sanitation deficiencies. Additionally, some homes' deficiency levels in HITS are inaccurate. By implementing a targeted, resource-efficient method to identify additional eligible Indian homes that may have existing sanitation deficiencies to include in HITS, IHS could have better assurance that it has more complete information to help improve its estimate of the number

[106]In our survey, for every collaborative mechanism that an agency said it had not used with the other agencies in each state, we asked whether it would be beneficial to use that mechanism in the future. Appendix II has additional information about the mechanisms that agencies reported would be beneficial to use in the future.

of eligible Indian homes that may need sanitation facilities assistance. Also, IHS officials said that improving the system's accuracy would be beneficial. By implementing a mechanism to indicate in HITS whether each home with a deficiency level of 0 has been assessed, IHS could also have more efficient ways to take steps to address the deficiencies of the homes contained in HITS.

IHS and USDA funded some projects to address the most severe sanitation deficiencies, but residents of many Indian homes remain without safe drinking water or wastewater disposal as the agencies also prioritized and funded projects that addressed other needs. We recognize that IHS faces trade-offs when selecting tribal infrastructure projects to fund. By reassessing the point distribution across the SDS scoring factors as part of IHS's program guidelines update, in light of trade-offs between funding projects that address the most severe sanitation deficiencies and projects that meet other needs, IHS may have better assurance that its projects address the most severe sanitation deficiencies in Indian communities. Also, by USDA implementing a scoring factor similar to the one in its Colonias program—that is, one that awards points for proposed projects that address health risks from a lack of access to safe drinking water and wastewater disposal—for the Native American program, USDA would have more assurance that it is evaluating project applications consistently and funding projects to address the most severe sanitation deficiencies in Indian communities, consistent with the program's goal.

USDA has provided thousands of Alaska Natives with safe drinking water and wastewater infrastructure through its Rural Alaska Village Grant program. However, USDA awarded some grants to recipients not authorized by statute. By ensuring that all Rural Alaska Village grants are awarded only to recipients authorized by statute, USDA will have assurance that it is complying with the law. If USDA wants to award Rural Alaska Village grants to municipalities and Alaska Native villages, it should seek authority to do so as it did to award these grants to the Alaska Native Tribal Health Consortium. Also, until USDA amends the Rural Alaska Village Grant program regulations to be consistent with USDA's authority, the agency's regulations will continue to recognize recipients not authorized by statute.

The five agencies that participate in the national tribal infrastructure task force have committed to working together at the national and regional levels to increase tribes' access to safe drinking water and basic sanitation. In our previous work, we have found that achieving important national outcomes, such as providing access to safe drinking water and

wastewater disposal, often requires collaborative efforts by a number of programs across the federal government. At the national level, the task force has not acted on most of the options it previously identified to improve member agencies' collaboration. By reviewing the 2011 task force report and identifying and implementing additional actions to help increase their collaboration, the task force member agencies could improve their ability to leverage limited program funds. At the regional level, we found that the task force member agencies had not fulfilled their commitment to collaborate in all of the six states we reviewed. Responses to our survey also indicated that there is unrealized potential for the task force member agencies' regional offices to increase the extent of their collaboration. By directing their regional offices to identify and pursue additional mechanisms to increase their collaboration, the task force member agencies would have better assurance that their regional offices are leveraging limited program funds and following through on their commitment to collaborate.

Recommendations for Executive Action

We are making 16 recommendations—two to IHS to improve information in HITS; one each to IHS and USDA to review their project selection processes; two to USDA to address issues with its Rural Alaska Village Grant program; and two each to IHS, USDA, EPA, HUD, and Reclamation to increase collaboration at the national and regional levels.

- The Director of IHS should implement a targeted, resource-efficient method to identify additional eligible Indian homes that may have existing deficiencies to include in HITS. (Recommendation 1)
- The Director of IHS should implement a mechanism to indicate in HITS whether each home with a deficiency level of 0 has been assessed. (Recommendation 2)
- The Director of IHS should reassess the point distribution across the SDS scoring factors as part of its program guidelines update, in light of trade-offs between funding projects that address the most severe sanitation deficiencies and projects that meet other needs. (Recommendation 3)
- The Assistant to the Secretary of Agriculture for Rural Development should implement a scoring factor that awards points for proposed Native American program grant projects that address health risks from a lack of access to safe drinking water and wastewater disposal, as it does with the Colonias grant program. (Recommendation 4)

- The Assistant to the Secretary of Agriculture for Rural Development should ensure that all Rural Alaska Village grants are awarded only to recipients authorized by law or seek authority to award grants to municipalities and Alaska Native villages. (Recommendation 5)
- The Assistant to the Secretary of Agriculture for Rural Development should amend the Rural Alaska Village Grant program regulations so that they are consistent with USDA's authority. (Recommendation 6)
- The Director of IHS, in cooperation with other members of the tribal infrastructure task force, should review the 2011 task force report and identify and implement additional actions to help increase the task force's collaboration at the national level. (Recommendation 7)
- The Administrator of EPA, in cooperation with other members of the tribal infrastructure task force, should review the 2011 task force report and identify and implement additional actions to help increase the task force's collaboration at the national level. (Recommendation 8)
- The Assistant to the Secretary of Agriculture for Rural Development, in cooperation with other members of the tribal infrastructure task force, should review the 2011 task force report and identify and implement additional actions to help increase the task force's collaboration at the national level. (Recommendation 9)
- The Deputy Assistant Secretary of the Department of Housing and Urban Development's Office of Native American Programs, in cooperation with other members of the tribal infrastructure task force, should review the 2011 task force report and identify and implement additional actions to help increase the task force's collaboration at the national level. (Recommendation 10)
- The Commissioner of Reclamation, in cooperation with other members of the tribal infrastructure task force, should review the 2011 task force report and identify and implement additional actions to help increase the task force's collaboration at the national level. (Recommendation 11)
- The Director of IHS, in cooperation with other members of the tribal infrastructure task force, should direct IHS area offices to identify and pursue additional mechanisms to increase their collaboration. (Recommendation 12)
- The Assistant to the Secretary of Agriculture for Rural Development, in cooperation with other members of the tribal infrastructure task force, should direct USDA state offices to identify and pursue

additional mechanisms to increase their collaboration. (Recommendation 13)

- The Administrator of EPA, in cooperation with other members of the tribal infrastructure task force, should direct EPA regional offices to identify and pursue additional mechanisms to increase their collaboration. (Recommendation 14)
- The Deputy Assistant Secretary of the Department of Housing and Urban Development's Office of Native American Programs, in cooperation with other members of the tribal infrastructure task force, should direct HUD regional offices to identify and pursue additional mechanisms to increase their collaboration. (Recommendation 15)
- The Commissioner of Reclamation, in cooperation with other members of the tribal infrastructure task force, should direct Reclamation regional offices to identify and pursue additional mechanisms to increase their collaboration. (Recommendation 16)

Agency Comments and Our Evaluation

We provided a draft of this report for review and comment to the Department of Health and Human Services (for IHS), HUD, the Department of the Interior (for Reclamation), EPA, USDA, the Department of Defense (for the Corps), and the Department of Commerce (for EDA). Of the five agencies to which we directed recommendations, three—Health and Human Services, HUD, and Interior—agreed with the recommendations directed to them. The fourth agency, EPA, agreed with one of the recommendations and agreed with the intent of the second recommendation but proposed revised language, as discussed below. The Acting Director of Grants Evaluation for HUD's Office of Native American Programs provided comments by e-mail, and Health and Human Services, Interior, and EPA provided written comments that are reproduced in appendixes V, VI, and VII, respectively. The fifth agency to which we directed recommendations, USDA, disagreed with the two recommendations regarding the Rural Alaska Village Grant program and neither agreed nor disagreed with the other three recommendations directed to it, although the agency proposed alternative language for two of these recommendations in its written comments, reproduced in appendix VIII. Of the two agencies to which we did not direct recommendations, Defense provided a letter, reproduced in appendix IX, in which it indicated the agency had no comments on the report, and Commerce's Audit Liaison stated in an e-mail that Commerce would not send a formal comment letter. In addition, Health and Human Services, USDA, and EDA (for Commerce) provided technical comments, which we incorporated in the report as appropriate.

In its written comments, EPA requested that we revise the language of the recommendation that the members of the tribal infrastructure task force direct their regional, state, or area offices to identify and pursue additional mechanisms to increase their collaboration. EPA stated that it agreed with the intent of the recommendation but that it was concerned that, as worded, the recommendation may not achieve the intended goal. Instead, EPA stated that it can accomplish increased regional collaboration through multiple avenues and as such, provided revised language that would remove reference to its regional offices taking the recommended action. We encourage EPA to take advantage of increasing regional collaboration through all avenues it sees fit. However, because EPA's regional offices are the entities that collaborate with other agencies in the various regions, we continue to believe it is important for these offices to participate in identifying and implementing the means for increasing collaboration in their respective regions. As a result, we did not modify the recommendation language in response to EPA's comment.

In its written comments, USDA stated it disagreed with our statements concerning the Rural Alaska Village Grant program and asked that we remove the two corresponding recommendations from our report. Specifically, USDA stated that our recommendations are unnecessary because the agency is operating within its authorities. USDA stated that it believes providing grants directly to parties other than the state—including Alaska Native villages and municipalities—under the 2011 memorandum of agreement is consistent with the purpose of section 306D of the Consolidated Farm and Rural Development Act and appropriations made for the program. As we state in the report, we agree that the State of Alaska can choose to make subgrants once it receives the Rural Alaska Village grant. We also state in the report that we did not see any evidence of grants being used for other than their intended purposes during the course of our review. However, the language of section 306D only authorizes USDA to award grants to the State of Alaska and not directly to other entities. Therefore, we believe that our recommendations are necessary. If USDA wants to make Rural Alaska Village grants to municipalities and Alaska Native villages, it should seek authority to do so as it did to award such grants to the Alaska Native Tribal Health Consortium.

Regarding our fourth recommendation that USDA implement a scoring factor that awards points for proposed Native American program projects that address health risks, USDA stated that it would like clarification as to what form of scoring factor would be acceptable to address this recommendation. USDA stated that it would prefer to use its discretionary

points under the program's existing regulations to award additional points to give a higher priority to projects that address a lack of access to safe drinking water and wastewater disposal, and that the agency could implement this change at the start of fiscal year 2019 or sooner. In contrast, USDA stated that changing the program's regulations to implement the scoring factor could take 18 months or longer. USDA also stated that this approach would only have a programmatic effect in fiscal years when demand for Native American program grant funds exceeds the available funding. Our intent for the recommendation as written is to provide USDA with the flexibility to best determine how to implement it. If USDA has determined that using its discretionary points under the program's existing regulations gives greater priority to addressing health risks faced by Native American communities, and that such an approach is consistent with applicable law, such an approach could meet the intent of our recommendation.

USDA also requested in its written comments that we modify the language of the ninth recommendation aimed at increasing collaboration at the national level by removing reference to increasing national collaboration and that we modify the thirteenth recommendation aimed at increasing regional collaboration by removing reference to the agency's state offices and regional level collaboration. USDA did not provide a clear rationale for its requested change for either recommendation. We continue to believe that implementing these recommendations, as worded, would help improve collaboration at the national and regional levels. Therefore, we did not modify the language in response to USDA's comments.

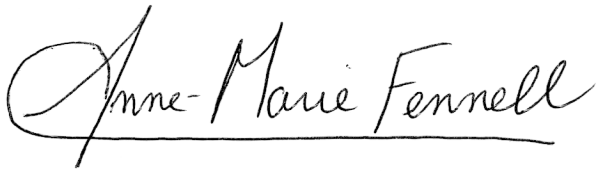
In several places in its written comments, USDA stated that our draft either omitted information or contained inaccurate information and requested that we make modifications. Specifically, USDA stated that we omitted statutory language for the Native American program in a few places in the report. In response, we added additional language from and about the Native American program's authorizing statute in several places. USDA also stated the report is missing information about the scope of some of its programs, including its Technical Assistance and Training program. In response, we added more information about this program, including obligations made to non-profit organizations that work on behalf of tribes. Further, USDA stated that we did not accurately characterize certain activities that USDA conducts under some of its programs, including identifying tribal needs and conducting operations and maintenance. In response, we modified language to reflect additional information about how USDA identifies tribal needs and to indicate that

the Native American program is not authorized to fund operations and maintenance. Regarding the Rural Alaska Village Grant program, USDA stated that we did not accurately represent information shared by a USDA official and information about the number of grants made to the Consortium. We revised language attributed to the official and clarified information about the number of grants awarded based on additional information that USDA provided by e-mail after submitting its written comments.

In other cases where USDA requested revisions to the draft in its written comments, we did not make suggested changes because they did not align with the scope of our review. Specifically, in addition to its Technical Assistance and Training program, USDA asked that we add information about tribal obligations under its Solid Waste Management program. Since federal agency efforts to fund solid waste management projects are outside the scope of this review, we did not make this revision. In addition, USDA requested that we limit our discussion of Rural Alaska Village Grant awards to fiscal year 2011 and forward. We did not make this change because USDA's grants to municipalities and Native villages prior to 2011 are directly relevant to our findings and are within the scope of this review. Finally, USDA asked that we edit our description of the findings of a 2010 report to Congress by citing a different report instead. We did not make this change because the original report contained relevant information for our findings.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to the appropriate congressional committees, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Defense, the Secretary of Health and Human Services, the Secretary of Housing and Urban Development, the Secretary of the Interior, the Administrator of the Environmental Protection Agency, and other interested parties. In addition, the report will be available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact Anne-Marie Fennell at (202) 512-3841 or fennella@gao.gov or J. Alfredo Gómez at (202) 512-3841 or gomezj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix X.



Anne-Marie Fennell
Director, Natural Resources and Environment

J. Alfredo Gómez
Director, Natural Resources and Environment

List of Requesters

The Honorable Frank Pallone, Jr.
Ranking Member
Committee on Energy and Commerce
House of Representatives

The Honorable Paul Tonko
Ranking Member
Subcommittee on Environment
Committee on Energy and Commerce
House of Representatives

The Honorable Jared Huffman
Ranking Member
Subcommittee on Water, Power and Oceans
Committee on Natural Resources
House of Representatives

The Honorable Grace Napolitano
Ranking Member
Subcommittee on Water Resources and Environment
Committee on Transportation and Infrastructure
House of Representatives

Appendix I: Objectives, Scope, and Methodology

The objectives of our review were to examine the extent to which the seven federal agencies, as applicable, (1) identified Indian tribes' drinking water and wastewater infrastructure needs; (2) funded tribal drinking water and wastewater infrastructure projects, including projects to address the most severe sanitation deficiencies; and (3) collaborated to meet Indian tribes' drinking water and wastewater infrastructure needs.

To address these objectives, we reviewed our previous reports, other agency reports, and agency obligations to identify the federal agencies that provide financial or other assistance to Indian tribes for drinking water and wastewater infrastructure. We identified seven agencies, as shown in table 4. We identified the Indian Health Service (IHS), Environmental Protection Agency (EPA), and U.S. Department of Agriculture (USDA) as federal agencies that have drinking water and wastewater infrastructure programs specifically targeted to provide financial assistance for planning and construction to address Indian tribes' needs. According to IHS documentation, such needs arise from a sanitation deficiency in existing drinking water or wastewater infrastructure (or lack thereof) that can negatively affect public health. In addition, the Department of Housing and Urban Development (HUD), the Department of the Interior's Bureau of Reclamation, the Department of Commerce's Economic Development Administration (EDA), and the U.S. Army Corps of Engineers administer programs that may assist tribes with drinking water and wastewater infrastructure planning and construction. The types of assistance these agencies provide vary by program, and each program has its own eligibility requirements and authorities.

Table 4: Key Federal Programs We Reviewed that Provide Assistance to Tribes for Drinking Water and Wastewater Infrastructure

Agency	Program
U.S. Department of Agriculture's Rural Utilities Service	Native American Rural Alaska Village Grant Water and Waste Disposal Loan and Grant
U.S. Department of Commerce's Economic Development Administration	Public Works Economic Adjustment Assistance
U.S. Department of Defense's Army Corps of Engineers	Specific authorizations for projects in laws, including Environmental Infrastructure Program
U.S. Department of Health and Human Services' Indian Health Service	Sanitation Facilities Construction
U.S. Department of Housing and Urban Development	Indian Community Development Block Grant

Agency	Program
U.S. Department of the Interior's Bureau of Reclamation	Specific authorizations for projects in laws, including enacted Indian water rights settlements
Environmental Protection Agency	Clean Water Indian Set-Aside
	Drinking Water Infrastructure Grants Tribal Set-Aside
	Alaska Native Villages and Rural Community Water Grant

Source: GAO analysis of agency documents. | GAO-18-309

To determine the extent to which these federal agencies identified Indian tribes' drinking water and wastewater infrastructure needs, we identified requirements for IHS and EPA to collect and report information on needs, but we did not identify such requirements for the other agencies.[1] We reviewed IHS's project-level tribal drinking water and wastewater infrastructure needs data from the Sanitation Deficiency System (SDS) for fiscal year 2016, the most recent year of data available at the time of our review. The SDS contains information about proposed drinking water and wastewater infrastructure projects, including each project's estimated cost. IHS policy directs area staff to invite all federally recognized tribes to identify potential projects each year. Area staff then work with interested tribes to develop projects and enter project information into standard fields in the SDS. As of the end of fiscal year 2016, the SDS included more than 2,000 projects for 373 tribes. We also reviewed IHS's most recent reports describing tribal drinking water and wastewater needs. In addition, we reviewed information about tribal public drinking water systems reported in EPA's 2013 Drinking Water Infrastructure Needs Survey and Assessment report. EPA assesses and reports on the nation's public water systems' capital improvement needs every 4 years, including needs of tribally owned or operated drinking water systems. For its 2013 report, EPA assessed tribal water system needs by administering a survey to a statistical sample of 306 tribal water systems out of 956 identified tribal public drinking water systems.

We assessed the reliability of SDS project-level needs data and information from EPA's 2013 Drinking Water Infrastructure Needs Survey and Assessment report by reviewing our previous related work regarding

[1]In conducting this work, we relied on the concept of needs as defined by IHS and EPA in their reports as opposed to independently defining the concept of need or evaluating the legitimacy of the reported needs. According to IHS, needs arise from a sanitation deficiency in existing drinking water or wastewater infrastructure (or lack thereof) that can negatively affect public health. According to EPA, its estimates of needs represent infrastructure projects necessary for water systems to continue to provide safe drinking water to the public.

the use of these data and documentation from IHS and EPA. We also interviewed IHS and EPA officials involved with identifying tribal water needs from headquarters and all 12 IHS areas and 9 EPA regions that administered the drinking water and clean water set-aside programs, discussing the data and any of its limitations. We tested the data for accuracy and completeness by identifying any duplicate, missing, or invalid records and cross-referencing with relevant datasets. We determined that IHS's SDS project-level needs data and information from EPA's 2013 report were sufficiently reliable to provide descriptive information on tribes' needs for drinking water and wastewater infrastructure projects for this report.

Further, we reviewed documentation on the Home Inventory Tracking System (HITS)—IHS's database containing home-specific information that the agency also uses in administering the Sanitation Facilities Construction program. The information in HITS includes each home's geographic location and individual sanitation deficiency, and IHS officials said in February 2018 that the system contained a total of 405,986 homes. We also interviewed IHS headquarters and area officials about this system's contents, uses, and limitations, and we compared this information to the agency's implementation plan and other documentation for HITS. We identified issues with the information contained in the system related to its completeness (whether it contains the correct number of homes in light of its purpose) and related to the accuracy of homes identified as having no deficiency, as we discuss in the report. These issues were sufficient for us to determine that the number of homes in the system was incomplete and that deficiency level information was not accurate for all homes in the system. As a result, we did not assess the reliability of other information in HITS that was not relevant to our review. We also interviewed officials from the other five agencies regarding any efforts to collect information on tribal drinking water and wastewater infrastructure needs.

To determine the extent to which the agencies funded tribal drinking water and wastewater infrastructure projects, we analyzed data from the seven agencies administering programs that provide assistance to tribes for drinking water and wastewater infrastructure—IHS, EPA, USDA, HUD, Reclamation, EDA, and Corps. Specifically, we obtained and analyzed obligations data for drinking water and wastewater projects under programs that are specifically for or available to tribes. Generally, we reviewed each agency's obligations data for fiscal years 2012 through 2016, the most recent 5 years of data available at the time of our review. Corps provided us with information on obligations for projects that

involved tribal drinking water or wastewater infrastructure, but none of these obligations were in fiscal years 2012 through 2016. We assessed the reliability of the other agencies' data by reviewing our previous related work regarding the use of these data and any available documentation from each agency; interviewing knowledgeable agency officials involved with collecting or analyzing these data; and testing data for accuracy and completeness by identifying any duplicate, missing, or invalid records. We present more details about each agency's data, any limitations, and how we addressed those limitations below. On the basis of these efforts, we determined that the data obtained from these agencies were sufficiently reliable for our descriptive purposes unless otherwise noted below.

- **IHS.** IHS provided us with project-level obligations data from fiscal years 2012 through 2016 for tribal drinking water and wastewater infrastructure projects from its Project Data System. In reviewing these data, we found data reliability issues that posed challenges to accurately reporting IHS's project obligations separate from other agencies' contributions to projects, which IHS also tracks in the system. We determined that the project-level obligations data from the Project Data System were not sufficiently reliable for the purposes of this objective. However, we determined that using IHS's information on allocations to areas for the same time frame would introduce fewer limitations to our reporting. IHS provided us with information from fiscal years 2012 through 2016 on allocations to each of its 12 areas by Sanitation Facilities Program activity (i.e., sanitation deficiencies, new housing, and emergency and special projects). IHS officials stated that the IHS Director of the Division of Sanitation Facilities Construction determines the area allocations amounts annually, and that IHS obligated all of its area allocations each fiscal year. IHS did not separate the area allocations information by drinking water, wastewater, or solid waste projects; therefore, we report total obligations with solid waste projects included.
- **EPA.** EPA provided us with project-level obligations data from fiscal years 2012 through 2016 from each of its three tribal-specific programs listed in table 4. EPA uses its Tribal Direct Implementation Nexus system to track project obligations for the Clean Water Indian Set-Aside and Drinking Water Infrastructure Grants Tribal Set-Aside programs, but the agency relies on the State of Alaska to provide similar project-level information for its Alaska Native Villages and Rural Community Water Grant program. In reviewing EPA's data, we found several duplicate project records. We confirmed the issue with EPA officials and deleted those duplicate records to accurately aggregate EPA's obligations by fiscal year for our report.

- **USDA.** USDA provided us with grant and loan obligations data from fiscal years 2012 through 2016 for all of its programs specifically for or available to tribes from its Community Program Application Processing system. First, we removed solid waste and landfill projects that were indicated as such in the project name. To determine the project obligations for programs specifically for tribes, we included all obligations from USDA's Native American and Rural Alaska Village Grant programs. USDA also awarded grants and loans to tribes or non-profit organizations working on behalf of tribes from non-tribal specific programs such as from its Water and Waste Disposal program as well as the Section 306C Colonias, Emergency Community Water Assistance Grant, Predevelopment Planning Grants, Special Evaluation Assistance for Rural Communities and Households, and Technical Assistance and Training programs. To determine the project obligations for those programs, we included projects that had an applicant or customer type as a tribe or tribal entity (e.g., an organization working on behalf of a tribe or tribes such as tribal health consortia or tribal utility authorities) and projects that served a population of at least 50 percent tribal users. For these awards, we included the full amount of the award regardless of the percent of tribal users served.
- **HUD.** HUD provided us with project-level obligations data from fiscal years 2012 through 2016 for its Indian Community Development Block Grant program from its Performance Tracking Database. We worked with HUD officials to identify projects that included drinking water and wastewater infrastructure and to identify the amount of the obligations used for those purposes to determine HUD's overall fiscal year project obligations for tribal water infrastructure.
- **Reclamation.** Reclamation provided us with project-level obligations data from fiscal years 2012 through 2016 for the tribal portions of authorized water system projects, including projects authorized by enacted Indian water rights settlements. For the Indian water rights settlement project obligations, Reclamation provided both mandatory and discretionary amounts. We included both rural water system projects and Indian water rights settlements projects in reporting Reclamation's overall fiscal year obligations.
- **EDA.** EDA provided us with project-level obligations data from fiscal years 2012 through 2016 for tribal projects funded by its Public Works, Economic Adjustment Assistance, and Planning programs from its Operations Planning and Control System. To determine whether the EDA projects included drinking water or wastewater infrastructure, we reviewed each project's description or scope of

work for mention of a drinking water or wastewater infrastructure component. If we determined that the project included water infrastructure, we included the entire project's obligation amount for each fiscal year we report.

In addition, to determine the extent to which agencies' funding addressed the most severe sanitation deficiencies, we identified programs that have documented goals in regulation and policy to fund projects that meet these needs, which the programs identify as the absence of safe drinking water or wastewater disposal facilities. These selected programs included IHS's Sanitation Facilities Construction program, EPA's clean water set-aside program, and USDA's Native American program. For these programs, we compared the number of funded projects to address the most severe sanitation deficiencies with the number of funded projects that met other needs for fiscal year 2016. Specifically, for IHS and EPA, we calculated the percentage of projects for each deficiency level that the agencies and other entities selected to fund from the fiscal year 2016 SDS list. For USDA, we reviewed the list of Native American program project obligations in fiscal year 2016 and determined the number of projects where USDA reported the purpose as new, replacement, renovation, or expansion. We also reviewed documentation of the agencies' project identification and selection methods to determine whether these methods aligned with stated goals. We interviewed IHS and EPA officials from headquarters and all area and regional offices that administer these programs, and USDA officials from headquarters and six state-level offices (see below for state selection information), regarding their administration of these programs. Additionally, we analyzed IHS's data from the SDS from fiscal years 2005 through 2016 to identify projects that remained unfunded and that were in the SDS for more than 5 years. We did not review the extent to which EPA's drinking water set-aside program addressed the most severe sanitation deficiencies because EPA regions implement the program using a variety of different processes.

During the course of evaluating the extent to which federal agencies have provided funding for tribal drinking water and wastewater infrastructure projects, we identified issues with USDA's Rural Alaska Village Grant program. We reviewed obligations data in light of the program's authorizing statute, implementing regulations, and relevant provisions in USDA appropriations acts. USDA provided us with the Rural Alaska Village Grant program's award amounts for fiscal years 1997 through 2016, and we determined whether the grant recipients were eligible or

ineligible at the time of the award. We interviewed agency officials who manage the program and from USDA's Office of the General Counsel.

To determine the extent to which the federal agencies collaborated to meet tribal water needs, we reviewed documentation of national-level collaboration, including federal program and interagency documents, such as national-level memorandums of understanding and interagency agreements. We interviewed headquarters officials from the seven agencies about their interagency collaboration. We compared the agencies' actions to the key features of interagency collaboration that we have previously identified.[2] We reviewed agencies' collaboration at the regional level by surveying the seven agencies about their joint actions on activities related to tribal drinking water and wastewater in six states—Alaska, Arizona, California, New York, Oklahoma, and South Dakota—and by conducting a network analysis using the survey responses. We selected agency regional offices within these six states as the unit of analysis because the federal agencies organize their field structures differently, with some using region, district, area, or state offices to work with tribes—we refer to all of these office types as regional offices. We selected the nonprobability sample of six states to include a large percentage of the number of federally recognized tribes, to obtain a range in the total federal obligations to tribes and identified needs of tribes in the SDS, and for geographic diversity. The sample of states is not generalizable, and the results of our work do not apply to all states where Indian tribes are located. However, reviewing federal agency collaboration in these states provides illustrative examples of interagency collaboration within the six selected states, which include about 70 percent of the 573 federally recognized tribes. We compared the agencies' reported collaboration with a national-level memorandum of understanding that contained commitments for collaborating at the regional level. For a detailed description of our survey methodology and the analysis of our results, see appendix II.

We also interviewed federal agency and State of Alaska officials to discuss the extent to which their drinking water and wastewater assistance programs collaborate with other agencies to meet tribal

[2]GAO, *Managing for Results: Key Considerations for Implementing Interagency Collaborative Mechanisms*, GAO-12-1022 (Washington, D.C.: Sept. 27, 2012). Key features fall into the following categories: outcomes and accountability, bridging organizational cultures, leadership, clarity of roles and responsibilities, participants, resources, and written guidance and agreements.

needs in the six selected states. We interviewed, either in person or by telephone, officials from the eight IHS areas, five EPA regions, and six USDA state offices that work with tribes and other agencies in the six states. We conducted site visits from February through April 2017 to three of the six states—Alaska, Arizona, and Oklahoma. During these visits, we met with tribal officials and staff and federal agency officials, and we visited tribal water infrastructure project sites. We selected these states for site visits based on geographic diversity and to obtain a range in the amount of tribal water infrastructure needs identified in the SDS. We met with or interviewed by telephone officials from 22 Indian tribes and representatives from 8 intertribal organizations that represent and work with tribes on water infrastructure issues to obtain their views about the water and wastewater infrastructure assistance that they receive from federal agencies. We judgmentally selected these tribes and organizations to obtain a range in their geographic locations and the amount and variety of federal drinking water and wastewater infrastructure assistance they have received. Our findings are not generalizable to all tribes but provide illustrative examples of input provided by tribal officials.

We conducted this performance audit from August 2016 to May 2018 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.

Appendix II: GAO Survey of Federal Agency Collaboration on Tribal Water Infrastructure Projects in Six Selected States

This appendix describes how we selected the sample and administered the survey, designed the survey questionnaire, and conducted the network analysis for our survey on interagency collaboration regarding tribal drinking water and wastewater infrastructure projects.

Sample Selection and Survey Administration

To determine the extent to which the selected federal agencies have collaborated to meet tribal water needs, we surveyed officials at seven federal agencies: Indian Health Service (IHS), Environmental Protection Agency (EPA), U.S. Department of Agriculture (USDA), Department of Housing and Urban Development (HUD), Economic Development Administration (EDA), Bureau of Reclamation, and the U.S. Army Corps of Engineers. Specifically, we surveyed agency officials in six states: Alaska, Arizona, California, New York, Oklahoma, and South Dakota. Appendix I describes how we selected these agencies and states. The results of this survey are not generalizable beyond these agencies in these states.

We reviewed maps of each agency's regional or state offices and identified and confirmed the offices that work with tribes and other agencies in the six selected states. If one state included multiple regions from the same agency, we administered the survey to officials in all relevant regional offices. In addition, if one agency's region covered more than one of the selected states, we administered a survey to the agency's regional office for each state. The federal agencies and regional offices we included in our survey were:

- Corps divisions: Great Lakes & Ohio River, Northwestern, Pacific Ocean, South Pacific, Southwestern;
- EDA regions: Austin, Denver, Philadelphia, Seattle;
- EPA regions: 2, 6, 8, 9, 10 (Alaska Operations Office);
- HUD regions: Alaska, Eastern Woodlands, Northern Plains, Southern Plains, Southwest;
- IHS areas: Alaska, California, Great Plains, Nashville, Navajo, Oklahoma City, Phoenix, Tucson;
- Reclamation regions: Great Plains, Lower Colorado, Mid-Pacific; and
- USDA state offices: Alaska, Arizona, California, New York, Oklahoma, South Dakota.

In Alaska, we also included the Alaska Department of Environmental Conservation as a respondent because the state provides a 25 percent

match for two federal water infrastructure programs. We did not include other state agencies because they do not provide a similar match. We also included the Alaska Native Tribal Health Consortium because it administers IHS's Sanitation Facilities Construction program in Alaska.

The practical difficulties of conducting any survey may introduce errors, commonly referred to as non-sampling errors. For example, respondents may have difficulty interpreting a question, they may have limited information to respond to a question, or officials from different agencies may have different recollections regarding the extent of collaboration on a particular project. We sought to minimize the impact of non-sampling error by conducting six pretests of the draft questionnaire with agency officials; five pretests were conducted by telephone and one pretest was conducted in person. We selected officials to cover a range of agencies and locations. During these pretests, we sought to determine whether (1) the questions were clear and unambiguous, (2) terminology was used correctly, (3) the questionnaire did not place an undue burden on agency officials, (4) the information could feasibly be obtained, and (5) the survey was comprehensive and unbiased. We modified the questionnaire in response to these pretests. To further minimize the impact of non-sampling error, we conducted a sensitivity analysis.

We customized the questionnaire for each agency regional office so that we asked each office to respond about its collaboration only with the other agencies located in its state. We e-mailed these questionnaires to 46 respondents from May 15 through May 17, 2017, and conducted follow-up as necessary. We received a 100 percent response rate.

Survey Questionnaire Design

In the survey, we asked each agency regional office whether it had jointly conducted activities related to tribal drinking water or wastewater projects during the past 3 years with each of the other agencies' regional offices within the same state. If an agency regional office responded "yes," we then provided a list of tribal drinking water and wastewater activities and asked the agency regional office if it had jointly conducted any of the listed activities related to tribal drinking water and wastewater infrastructure projects in collaboration with the other agency. The activities included: identifying infrastructure needs, communicating information to tribes about programs that fund projects, planning and designing proposed projects, evaluating proposed projects according to eligibility and scoring criteria, selecting projects to fund, constructing projects, providing technical assistance for operating and maintaining water infrastructure, and negotiating or implementing Indian water rights

settlements.[1] We developed the list of activities based on our initial interviews and pretests with agency officials.

We next provided a list of collaborative mechanisms.[2] For each of these collaborative mechanisms, we asked the agency regional office if it had used the mechanism when jointly conducting activities in collaboration with the other agency related to tribal drinking water and wastewater infrastructure projects within the same state during the past 3 years. The mechanisms included: state-, regional-, or project-level memorandum of understanding or agreement; interagency agreement to transfer funding; working group, task force, or committee; consulting on project selection; sharing project documents; geographic co-location; shared database or other data sharing; conferences or forums; informal or ad hoc communication; and personnel detailing or sharing. If the agency regional office responded that it had not used one of the listed mechanisms, we asked if it would be beneficial to use that mechanism to collaborate in the future. We identified the list of mechanisms based on our prior work on interagency collaboration and pretests with agency officials.[3] We also asked the agency regional office what factors, if any, helped it to collaborate with the other agency on tribal drinking water and wastewater infrastructure projects in the state and what factors, if any, hindered it from collaborating with the other agency. For both questions, we asked the agency regional office to consider agency policies and procedures, available resources, leadership, personalities, presence of written agreements, and accountability measures.[4]

If an agency regional office responded “no” to the initial question of whether it had jointly conducted activities related to tribal drinking water or wastewater projects during the past 3 years with another agency’s regional office, we asked a shorter set of follow-up questions. We provided the list of collaborative mechanisms and asked if it would be beneficial for the agency regional office to use any of the listed

[1]We did not include negotiating or implementing Indian water rights settlements in the list of wastewater activities based on input we received during pretesting.

[2]We used the term “method” instead of “mechanism” in the survey to improve respondents’ understanding based on input we received during pretesting.

[3]GAO, *Managing for Results: Key Considerations for Implementing Interagency Collaborative Mechanisms*, GAO-12-1022 (Washington, D.C.: Sept. 27, 2012).

[4]We created this list of items to consider based on our prior work on interagency collaboration and pretests with agency officials. See GAO-12-1022.

mechanisms to collaborate with the other agency on activities related to tribal drinking water and wastewater infrastructure projects in the future in the state. We also asked the agency regional office to describe the factors, if any, that hindered its collaboration with the other agency.

Network Analysis

To quantify the extent of interagency collaboration during the past 3 years and the potential for future collaboration among the federal agencies we surveyed, we conducted a Network Analysis—a method of analyzing the patterns of interaction among multiple entities. Specifically, we aggregated the survey responses to our questions about drinking water and wastewater activities and collaborative mechanisms for each pair of agencies in all six states.[5] We configured these aggregated data into networks representing the pattern of collaboration among the agencies. We then analyzed these networks to determine how extensively the agencies have collaborated and the extent to which additional future collaboration could be beneficial for them. We also analyzed these networks to assess how the pattern of collaboration varied by state. We describe the steps of our analysis and agency survey responses below.

Quantifying Collaboration between Pairs of Federal Agencies

To quantify the extent of collaboration among the federal agencies across the six states during the past 3 years, we aggregated the responses to our survey by agency pair. The seven federal agencies form 21 possible agency pairs. For each agency pair, we combined the first agency's responses regarding its collaboration with the second agency and the second agency's responses regarding its collaboration with the first

[5]In Alaska, Arizona, and California, for agencies where we surveyed more than one of their regional offices, we combined the offices' answers to conduct the network analysis. Specifically, we combined responses from: IHS's Alaska Area and the Alaska Native Tribal Health Consortium (Alaska); IHS's Phoenix, Tucson, and Navajo areas (Arizona); IHS's California and Phoenix areas (California); and Reclamation's Mid-Pacific and Lower Colorado regions (California).

agency.[6] We aggregated the agency pair responses in this way for each of the three measures of collaboration for all six states, specifically:

- **Drinking water and wastewater activities.** We calculated the total number of instances in which each agency in a pair reported having worked on an activity with the other agency in that pair during the past 3 years (see column 2 in table 5). We examined this measure to identify the pairs of agencies that collaborated most and least extensively. For example, IHS and EPA reported the highest number of instances of jointly conducting tribal drinking water and wastewater activities across the six states. In contrast, EDA and IHS reported no such instances of collaboration.
- **Use of collaborative mechanisms.** We calculated the total number of instances in which each agency in a pair reported having used a mechanism to collaborate with the other agency in that pair during the past 3 years (see column 3 in table 5). We examined this measure to identify the pairs of agencies that collaborated most and least extensively. The pattern of collaboration based on this measure is similar to the pattern based on drinking water and wastewater activities. For example, IHS and EPA also reported the highest number of instances of using specific collaborative mechanisms across the six states.
- **Potential future collaboration.** We calculated the total number of instances in which each agency in a pair reported that it would be beneficial to use a mechanism to collaborate with the other agency in that pair in the future (see column 4 in table 5). We compared this measure to the number of mechanisms the agency pairs reported having used during the past 3 years. Each of the agency pairs reported that it would be beneficial to use additional collaborative mechanisms in the future, including those pairs that had reported not collaborating. For example, the agency pairs of EDA-IHS and EDA-Reclamation both reported no instances of using a mechanism to

[6]To assess the robustness of the analysis presented here, we also separately conducted a sensitivity analysis using only mutual collaboration between agency pairs, and the key findings from our network analysis remained the same. In particular, in our sensitivity analysis for each of the three measures of collaboration (drinking water and wastewater activities, use of collaborative mechanisms, and potential future collaboration), we defined collaboration as existing only if both agencies in a pair reported collaborating with the other. If so, then the value of the link between the two agencies became the sum of all instances of each agency in a pair reporting working together with the other agency. While the pair-specific collaboration values differed to some degree under the new assumptions, the key network analysis results presented in this appendix still held.

collaborate with each other and both reported multiple instances in which use of a collaborative mechanism would be beneficial in the future.[7]

Table 5: Federal Agency Collaboration and Potential for Future Collaboration on Tribal Water Infrastructure Activities

Agency pair	Instances of agencies reporting having jointly conducted an activity	Instances of agencies reporting having used a mechanism to collaborate	Instances of agencies reporting it would be beneficial to use an additional mechanism to collaborate in the future
EPA – IHS	153	96	9
IHS – USDA	119	60	38
EPA – USDA	50	28	39
HUD – IHS	32	31	57
IHS – Reclamation	32	36	38
EDA – USDA	26	22	31
HUD – USDA	25	19	40
Corps – HUD	23	23	43
EPA – HUD	16	20	48
Corps – USDA	14	12	47
Reclamation – USDA	13	14	28
Corps – Reclamation	12	10	29
Corps – EPA	6	6	49
Corps – EDA	5	6	44
Corps – IHS	5	6	69
EDA – EPA	4	4	42
EPA – Reclamation	3	7	23
HUD – Reclamation	1	3	31
EDA – HUD	0	0	53
EDA – IHS	0	0	60
EDA – Reclamation	0	0	28
Total	**539**	**403**	**846**

Source: GAO analysis of survey responses. | GAO-18-309

Notes: Agencies include Bureau of Reclamation, Department of Housing and Urban Development (HUD), Economic Development Administration (EDA), Environmental Protection Agency (EPA), Indian Health Service (IHS), U.S. Army Corps of Engineers, and U.S. Department of Agriculture (USDA) in the states of Alaska, Arizona, California, New York, Oklahoma, and South Dakota. The time frame covered by this table is approximately May 2014 through April 2017, regarding the

[7]The EDA-IHS agency pair reported 60 instances of potentially beneficial future collaboration—the second highest among our agency pairs—while the EDA-Reclamation agency pair reported 28 instances—the second lowest among our agency pairs.

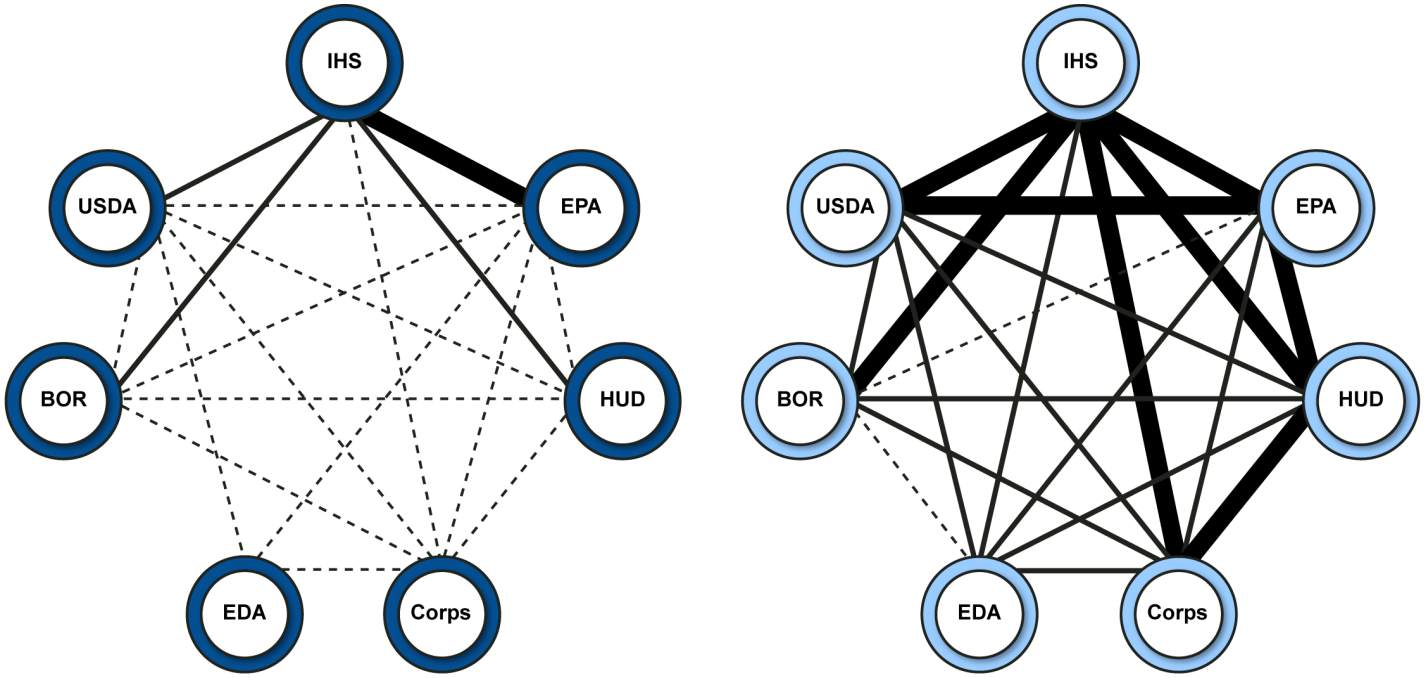
agencies reporting having jointly conducted an activity and having used a mechanism to collaborate. We disseminated the survey in May 2017 and asked agencies to report about their collaboration during the 3-year period prior to our survey.

Quantifying the Potential for Increased Collaboration

To quantify the potential to increase collaboration among the federal agencies, we configured the agency pair data into two networks. The first network represented recent collaboration among the agencies—the instances in which agencies reported having used a mechanism to collaborate during the past 3 years (based on column 3 in table 5). The second network represented potential future collaboration among the agencies (based on the sum of columns 3 and 4 in table 5). As such, it captures the instances in which agencies reported having used a mechanism to collaborate during the past 3 years plus the instances in which they reported it would be beneficial to use an additional mechanism in the future.

Figure 3 shows a graphical illustration of these two networks. In this figure, the circles represent agencies and the lines represent collaboration between the agencies. Specifically, the darkness of the lines indicates the number of mechanisms used by the corresponding pair of agencies. The left side of figure 3 illustrates reported use of collaborative mechanisms during the past 3 years, and the right side of figure 3 illustrates potential future collaboration. The figure shows that overall collaboration would increase if the agencies began using the additional mechanisms that they reported would be beneficial.

Figure 3: Federal Agency Collaboration and Potential for Future Collaboration on Tribal Drinking Water and Wastewater Infrastructure Activities



Recent collaboration (number of collaborative mechanisms that agencies reported using in six states)

Potential future collaboration (number of collaborative mechanisms that agencies reported using in six states, plus the number of mechanisms they reported would be beneficial to use in the future)

Number of collaborative mechanisms

- 1 to 30
- 31 to 60
- 61 or more

Corps – U.S. Army Corps of Engineers
EDA – Economic Development Administration
EPA – Environmental Protection Agency
HUD – Department of Housing and Urban Development
IHS – Indian Health Service
BOR – Bureau of Reclamation
USDA – U.S. Department of Agriculture

Source: Analysis of GAO survey of seven federal agencies in six states. | GAO-18-309

Notes: A count of one collaborative mechanism refers to a single agency in a single state reporting that it used a mechanism to collaborate with a second agency in that state or that it would be beneficial to do so in the future. We surveyed agency regional offices in Alaska, Arizona, California, New York, Oklahoma, and South Dakota. The time frame covered by this figure for recent collaboration is approximately May 2014 through April 2017. We disseminated the survey in May 2017 and asked agencies to report about their collaboration during the 3-year period prior to our survey.

We quantified the difference between these networks in two ways. First, we calculated the increase in overall collaboration that would occur if agencies began using the additional mechanisms that they reported would be beneficial. Based on this calculation, the number of instances of agencies using collaborative mechanisms would approximately triple. Specifically, agencies reported 403 instances of having used a specific

mechanism to collaborate with another agency—this number would increase to 1,249 if agencies began using all of the identified mechanisms that they reported would be beneficial. This difference is shown in figure 3, in which the right side of the figure (potential future collaboration) has a greater number of darker lines connecting the agencies compared with the left side of the figure (recent collaboration).

Second, we measured how the relative amount of collaboration for each agency would change if the agencies began using additional mechanisms they reported would be beneficial. To do this, we aggregated the agency pair data for each of the agencies. For the network of recent collaboration, for example, we added (1) the number of instances that each agency reported using a collaborative mechanism with any of the other agencies and (2) the number of instances that any of the other agencies reported using a collaborative mechanism with the first agency. We performed a similar calculation using the agency pair data for the network of potential future collaboration. The analysis shows that the use of collaborative mechanisms during the past 3 years was primarily centered on three agencies (IHS, EPA, and USDA). If all of the agencies began using the additional mechanisms that they reported would be beneficial, however, collaboration would be distributed more evenly across the entire network of agencies. This difference is also shown in figure 3, in which agencies such as HUD, Reclamation, and Corps are connected to other agencies with dashed lines on the left side of the figure (representing less extensive recent collaboration), but with thick lines on the right side of the figure (representing more extensive potential future collaboration).

Quantifying the Variation in Collaboration by State

To quantify the extent of variation in collaboration by state, we disaggregated the agency pair data reported in table 5 by each of the states for the three measures of collaboration we asked about in our survey. In particular, tables 6, 7, and 8 show the number of instances in which an agency reported collaborating on drinking water and wastewater infrastructure activities with another agency during the past 3 years (table 6), using collaborative mechanisms with another agency during the past 3 years (table 7), and collaborative mechanisms that would be beneficial to use with another agency in the future (table 8). The totals in the bottom rows of these tables show the extent of collaboration based on these measures by state. Specifically, tables 6 and 7 show that agencies worked together on activities and used collaborative mechanisms most extensively in Alaska and least extensively in New York and Oklahoma. Table 8 shows that agencies in New York and Oklahoma reported the

greatest potential for using additional collaborative mechanisms. The totals in the far right columns of these tables show the extent of reported collaboration by activity (table 6), collaborative mechanism (table 7), and the extent of potential future collaboration by collaborative mechanism (table 8).

Table 6: Agency Collaboration on Tribal Drinking Water and Wastewater Infrastructure Activities

Tribal drinking water and wastewater infrastructure activity	State						
	Alaska	Arizona	California	New York	Oklahoma	South Dakota	Total
Identifying water infrastructure needs	33	23	24	5	12	20	**117**
Communicating information to tribes about programs that fund projects	36	26	29	5	12	24	**132**
Planning and designing proposed projects	27	13	13	3	10	19	**85**
Evaluating proposed projects according to eligibility and scoring criteria	25	10	10	4	6	15	**70**
Selecting projects to fund	26	11	11	4	6	13	**71**
Constructing projects	28	9	11	4	11	12	**75**
Negotiating or implementing Indian water rights settlements	0	0	0	0	0	0	**0**
Providing technical assistance for operating and maintaining infrastructure	24	12	10	3	8	21	**78**
Total	**199**	**104**	**108**	**28**	**65**	**124**	**628**

Source: GAO analysis of survey responses. | GAO-18-309

Notes: A single instance in these data represents one agency reporting it jointly conducted a specific activity with another agency in a specific state. This table shows agencies' combined responses about drinking water and wastewater infrastructure activities except for negotiating or implementing Indian water rights settlements, which we only asked about with respect to drinking water infrastructure. The agencies were: Bureau of Reclamation, Department of Housing and Urban Development, Economic Development Administration, Environmental Protection Agency, Indian Health Service, U.S. Army Corps of Engineers, U.S. Department of Agriculture, and the Alaska Department of Environmental Conservation, in the states of Alaska, Arizona, California, New York, Oklahoma, and South Dakota. The time frame covered by this table is approximately May 2014 through April 2017. We disseminated the survey in May 2017 and asked agencies to report about their collaboration during the 3-year period prior to our survey.

Table 7: Agency Collaboration on Tribal Water Infrastructure Activities Using Specific Mechanisms

	State						
Collaborative mechanism	**Alaska**	**Arizona**	**California**	**New York**	**Oklahoma**	**South Dakota**	**Total**
State-, regional-, or project-level Memorandum of Understanding or Agreement	12	3	4	1	1	7	**28**
Interagency Agreement to transfer funding	8	2	4	2	3	4	**23**
Working group/task force/committee (formal or informal)	20	14	16	0	7	18	**75**
Consulting on project selection	13	12	10	1	3	15	**54**
Sharing of project documents (e.g., preliminary engineering report, project summary, environmental analysis)	17	13	11	2	5	15	**63**
Geographic co-location (office sharing)	1	1	1	0	0	2	**5**
Shared database or other data sharing	13	11	9	2	3	15	**53**
Conferences/forums	16	12	14	2	7	17	**68**
Informal or ad hoc communications	20	14	15	2	6	19	**76**
Personnel detailing or sharing	1	3	3	1	1	1	**10**
Total	**121**	**85**	**87**	**13**	**36**	**113**	**455**

Source: GAO analysis of survey responses. | GAO-18-309

Notes: A single instance in these data represents one agency reporting it worked together with another agency using a specific collaborative mechanism in a specific state. The agencies were: Bureau of Reclamation, Department of Housing and Urban Development, Economic Development Administration, Environmental Protection Agency, Indian Health Service, U.S. Army Corps of Engineers, U.S. Department of Agriculture, and the Alaska Department of Environmental Conservation, in the states of Alaska, Arizona, California, New York, Oklahoma, and South Dakota. The time frame covered by this table is approximately May 2014 through April 2017. We disseminated the survey in May 2017 and asked agencies to report about their collaboration during the 3-year period prior to our survey.

Table 8: Potential Future Agency Collaboration on Tribal Water Infrastructure Activities Using Specific Mechanisms

	State						
Collaborative mechanism	**Alaska**	**Arizona**	**California**	**New York**	**Oklahoma**	**South Dakota**	**Total**
State-, regional-, or project-level Memorandum of Understanding or Agreement	13	13	20	23	23	19	**111**
Interagency Agreement to transfer funding	4	10	9	11	10	2	**46**
Working group/task force/committee (formal or informal)	14	17	11	26	15	15	**98**
Consulting on project selection	11	14	13	17	28	4	**87**
Sharing of project documents (e.g., preliminary engineering report, project summary, environmental analysis)	16	26	20	24	31	18	**135**
Geographic co-location (office sharing)	1	1	7	0	2	1	**12**
Shared database or other data sharing	12	18	17	16	20	16	**99**
Conferences/forums	13	17	17	22	30	17	**116**
Informal or ad hoc communications	12	25	19	26	34	18	**134**
Personnel detailing or sharing	5	2	8	8	2	3	**29**
Total	**102**	**143**	**141**	**173**	**195**	**113**	**867**

Source: GAO analysis of survey responses. | GAO-18-309

Note: A single instance in these data represents one agency reporting it would be beneficial to use a specific collaborative mechanism with another agency in a specific state in the future. The agencies were: Bureau of Reclamation, Department of Housing and Urban Development, Economic Development Administration, Environmental Protection Agency, Indian Health Service, U.S. Army Corps of Engineers, U.S. Department of Agriculture, and the Alaska Department of Environmental Conservation, in the states of Alaska, Arizona, California, New York, Oklahoma, and South Dakota.

Appendix III: Federal Agency Obligations for Tribal Drinking Water and Wastewater Infrastructure Projects, Fiscal Years 2012 through 2016

Table 9: Federal Agency Obligations for Tribal Drinking Water and Wastewater Infrastructure Projects, Fiscal Years 2012 through 2016

Dollars in millions

Agency and program		Fiscal year 2012	2013	2014	2015	2016	Total obligations[a]
Indian Health Service[b]	New Housing	35.5	33.6	35.5	35.3	40.8	**411.9**
	Sanitation Deficiency	42.4	40.1	42.4	42.6	56.9	
	Special and Emergency	1.8	1.6	1.6	1.1	0.9	
Environmental Protection Agency[c]	Drinking Water Infrastructure Grants Tribal Set-Aside	18.0	17.4	17.6	19.5	18.9	**277.6**
	Clean Water Indian Set-Aside	28.9	26.9	28.5	26.7	30.0	
	Alaska Native Villages and Rural Communities	7.3	6.7	8.5	7.1	15.7	
U.S. Department of Agriculture[d]	Native American	15.0	11.1	13.5	24.7	22.7	**278.2**
	Rural Alaska Village Grant	29.4	27.7	21.5	21.6	32.0	
	Water and Waste Disposal grants	32.0	4.3	5.0	2.6	3.9	
	Other grants[e]	5.0	0.7	1.0	3.1	1.4	
	Water and Waste Disposal loans	19.2	4.8	3.3	3.7	6.1	
Bureau of Reclamation	Rural water system projects	24.1	26.8	34.8	32.8	38.7	**567.8**
	Indian water rights settlement provisions for rural water supply projects	64.4	76.8	77.1	88.7	103.7	
Housing and Urban Development	Indian Community Development Block Grant	6.3	2.0	3.1	5.1	4.5	**21.0**
Economic Development Administration[f]	Public Works; Economic Adjustment Assistance; Planning	0.0	1.8	0.2	0.1	0.3	**2.4**
Total		**309.9**	**277.7**	**290.0**	**311.0**	**370.4**	**1,559.0**

Source: GAO analysis of federal agency data. | GAO-18-309

Notes: We included federal agencies' and programs' obligations to federally recognized tribes and tribal entities that were for or partially for drinking water and wastewater infrastructure. U.S. Army Corps of Engineers did not make obligations to tribes specifically for drinking water and wastewater infrastructure projects from fiscal years 2012 through 2016.

[a]Obligations totals do not include loans, and discrepancies in totals are due to rounding.

[b]The amount of Indian Health Service obligations are based on the agency's allocations to its 12 areas per fiscal year. Indian Health Service officials stated that all areas obligated their entire allocation each year. Indian Health Service information included projects to address drinking water, wastewater, and solid waste deficiencies.

[c]According to Environmental Protection Agency officials, obligations listed may not match annual appropriations because the agency may have de-obligated and re-obligated any unexpended obligations to other projects.

[d]We determined that the U.S. Department of Agriculture awarded a grant or loan from its non-tribal specific programs for a tribal drinking water or wastewater infrastructure project if the recipient was a tribe or tribal entity (for example, an organization working on behalf of a tribe or tribes such as tribal health consortia or tribal utility authorities) and if the project was to serve a population of at least 50 percent American Indian or Alaska Native.

[e]The U.S. Department of Agriculture also awarded grants to tribes or other tribal entities from non-tribal specific programs administered by headquarters. These programs include the Section 306C Colonias, Emergency Community Water Assistance Grant, Predevelopment Planning Grants, Special Evaluation Assistance for Rural Communities and Households, and Technical Assistance and Training programs.

[f]The Economic Development Administration obligated approximately $34,000 for one project in fiscal year 2012, which is not reflected in the table due to rounding. We determined that the Economic Development Administration awarded a grant for a tribal drinking water or wastewater infrastructure project if the project's description or scope of work mentioned a drinking water or wastewater infrastructure component. Obligations are combined from three programs: Public Works, Economic Adjustment Assistance, and Planning.

Appendix IV: Examples of Tribal Water Infrastructure Projects We Visited

This appendix contains summaries and photographs of selected tribal drinking water and wastewater infrastructure projects we visited from February through April 2017 in Alaska, Arizona, and Oklahoma.

Portable Alternative Sanitation System Pilot Project, Native Village of Kivalina, Alaska

The Native Village of Kivalina, located on a barrier island above the Arctic Circle, is one of approximately 30 communities in Alaska where residents do not have access to safe drinking water and wastewater disposal facilities in their homes. Kivalina, a community of 469 residents, has a community washeteria with washing machines, dryers, and drinking water available for purchase. Like many Alaska Native villages, the harsh winter climate, limited revenue, and isolation create challenges for installing and operating water infrastructure. Erosion due to diminishing sea ice and other factors threaten Kivalina, and the community is considering relocation. As such, infrastructure improvements are limited to small projects consisting of moveable, low-water use infrastructure to provide interim sanitation improvements. In 2015, the Alaska Native Tribal Health Consortium installed a pilot sanitation system in nine homes. This system is called the Portable Alternative Sanitation System and consists of a bathroom sink, rainwater catchment, in-home water treatment, and a separating toilet, where liquid waste is collected separate from solid waste. According to a Consortium report, the system is a low-cost alternative to traditional piped infrastructure. The total cost was $633,000 to design, install, and monitor the system, with the Indian Health Service (IHS) and the Consortium contributing to the project. The Consortium recommended expanding the pilot system to the rest of Kivalina, and a Consortium official said it is working with IHS to test the system in several homes in three other unserved communities in Alaska.

Figure 4: Portable Alternative Sanitation System Pilot Project, Native Village of Kivalina, Alaska (April 2017)

Bathroom with separating toilet and sink.

Rainwater catchment pipes on side of home.

In-home storage tank for treating rainwater.

Source: GAO. | GAO-18-309

Village of Shungopavi Sewer Line Q & Dump Stations Construction Project, Hopi Tribe, Arizona

As of 2015, more than 30 percent of the nearly 80 homes in the Hopi Village of Shungopavi did not have adequate wastewater disposal. The Sewer Line Q and Dump Stations construction project included installing a sewer main to connect nine homes to sewer service. Previously, some of these homes had discharged wastewater directly onto the ground, and one had a septic system. The project also involved installing three honeybucket dump stations in the village and connecting them to the existing sewer system so that an additional 19 homes could dispose of raw sewage in an environmentally safe manner. According to IHS officials, solid rock a few feet beneath the surface made it challenging and expensive to lay the sewer pipes. The total estimated cost was $666,000, with the Environmental Protection Agency (EPA), the Village of Shungopavi, and IHS contributing to the project. According to IHS officials, the project is expected to be fully constructed in 2018.

Figure 5: Sewer Line Construction in the Village of Shungopavi, Hopi Tribe, Arizona (February 2017)

Digging a trench for sewer pipes. Laying sewer pipes.

Source: GAO. | GAO-18-309

Oaks Wastewater Lagoons Construction Project, Cherokee Nation, Oklahoma

The Cherokee Nation's Oaks Wastewater Lagoons project serves an estimated 85 Indian-owned homes in the community of Oaks, Oklahoma. The project consisted of constructing three wastewater lagoons and a spray irrigation field. According to a tribal official, because the previous lagoons leaked into the adjacent creek, local residents who used the creek for swimming, fishing, and other traditional purposes were at high risk of coming in contact with lagoon leakage. The total cost of the project was an estimated $1.22 million, and the U.S. Department of Agriculture, EPA, IHS, the Department of Housing and Urban Development, and the Oklahoma Water Resources Board made contributions to the project. The Cherokee Nation completed the project in 2012 under the provisions of its self-governance compact with IHS.

Figure 6: Oaks Wastewater Lagoons and Former Lagoon Site, Cherokee Nation, Oklahoma (March 2017)

Site of former wastewater lagoons with adjacent creek.

Newly constructed wastewater lagoons.

Source: GAO. | GAO-18-309

Drinking Water Pump Station Replacement Project, Sasakwa Rural Water District, Seminole Nation of Oklahoma

The Sasakwa Rural Water District is owned and operated by the Seminole Nation of Oklahoma and serves 61 households—about 60 percent of which are Indian homes, according to tribal officials. The Drinking Water Pump Station Replacement project involved drilling new wells and constructing a new pump station and treatment system. IHS constructed the original Sasakwa water treatment plant in 1972. According to an IHS project summary, the problems with the prior system included (1) recurring leaks in the water transmission line and distribution system and (2) deterioration of the pump and treatment building and equipment due to weather, vandalism, and poor water quality. The project cost approximately $700,000, with EPA funding the project. According to tribal officials, the replacement water treatment plant became operational in 2014.

Figure 7: Drinking Water Pump Station Replacement Project, Sasakwa Rural Water District, Seminole Nation of Oklahoma (March 2017)

Exterior and interior of new pump station building, with operator work station.

Source: GAO. | GAO-18-309

Appendix V: Comments from the Department of Health and Human Services

DEPARTMENT OF HEALTH & HUMAN SERVICES

OFFICE OF THE SECRETARY

Assistant Secretary for Legislation
Washington, DC 20201

APR 11 2018

Anne-Marie Fennell and Alfredo Gomez
Director, Natural Resources and Environment
U.S. Government Accountability Office
441 G Street NW
Washington, DC 20548

Dear Ms. Fennell and Mr. Gomez:

Attached are comments on the U.S. Government Accountability Office's (GAO) report entitled, "*Drinking Water and Wastewater Infrastructure: Opportunities Exist to Enhance Federal Agency Needs Assessment and Coordination on Tribal Projects*" (GAO-18-309).

The Department appreciates the opportunity to review this report prior to publication.

Sincerely,

Matthew D. Bassett
Assistant Secretary for Legislation

Attachment

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED - DRINKING WATER AND WASTEWATER INFRASTRUCTURE: OPPORTUNITIES EXIST TO ENHANCE FEDERAL AGENCY NEEDS ASSESSMENT AND COORDINATION ON TRIBAL PROJECTS (GAO-18-309)

The U.S. Department of Health & Human Services (HHS) appreciates the opportunity from the Government Accountability Office (GAO) to review and comment on this draft report.

Recommendation 1
The Director of the Indian Health Service (IHS) should implement a targeted, resource-efficient method to identify additional eligible Indian homes that may have existing deficiencies to include in Home Inventory Tracking System (HITS).

HHS Response
HHS concurs with GAO's recommendation.

IHS will continue to reach out to the Tribes to inform them of our joint role and desire to identify the additional eligible Indian homes that may have existing deficiencies.

Recommendation 2
The Director of IHS should implement a mechanism to indicate whether each home with a deficiency level of 0 has been assessed in HITS.

HHS Response
HHS concurs with GAO's recommendation.

IHS will create a new category for homes with a deficiency level 0 that have not been accessed and/or assessed.

Recommendation 3
The Director of IHS should reassess the point distribution across the Sanitation Deficiency System (SDS) scoring factors as part of its program guidelines update, in light of trade-offs between funding projects that address the most severe sanitation deficiencies and projects that meet other needs.

HHS Response
HHS concurs with GAO's recommendation.

As part of the update to the SDS Guidelines, IHS will reassess the scoring factors and submit updated SDS Guidelines to the Tribes for consultation.

Recommendation 7
The Director of IHS, in cooperation with other members of the tribal infrastructure task force, should review the 2011 task force report and identify and implement additional actions to help increase the task force's collaboration at the national level.

HHS Response
HHS concurs with GAO's recommendation.

Page **1** of **2**

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED - DRINKING WATER AND WASTEWATER INFRASTRUCTURE: OPPORTUNITIES EXIST TO ENHANCE FEDERAL AGENCY NEEDS ASSESSMENT AND COORDINATION ON TRIBAL PROJECTS (GAO-18-309)

IHS will re-engage with Infrastructure Task Force (ITF) members on recommended streamlining opportunities from the February 2011 report titled, "Overview of Tribal Infrastructure Funding Application Processes and Recommended Streamlining Opportunities."

Recommendation 12
The Director of IHS, in cooperation with other members of the tribal infrastructure task force, should direct IHS area offices to identify and pursue additional mechanisms to increase their collaboration.

HHS Response
HHS concurs with GAO's recommendation.

IHS will direct IHS Area Offices to identify and pursue additional mechanisms to increase their collaboration with regional ITF representatives and other technical assistance providers.

Page **2** of **2**

Appendix VI: Comments from the Department of the Interior

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

MAR 23 2018

Ms. Anne-Marie Fennell
Director, Natural Resources and Environment
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Fennell:

Thank you for providing the Department of the Interior (Department) the opportunity to review and comment on the draft Government Accountability Office (GAO) report entitled, *Drinking Water and Wastewater Infrastructure: Opportunities Exist to Enhance Federal Agency Needs Assessment and Coordination on Tribal Projects* (GAO-18-309). We appreciate GAO's review of Federal programs that provide funding for drinking water and wastewater infrastructure.

The Department notes the following GAO recommendations:

Recommendation 11: The Commissioner of Reclamation, in cooperation with other members of the tribal infrastructure task force, should review the 2011 task force report and identify and implement additional actions to help increase the task force's collaboration at the national level.

Response: Concur. Reclamation will meet with the infrastructure task force to review the 2011 task force report and identify additional actions that increase the task force's collaboration at the national level. Reclamation continues to take steps to improve collaboration with other agencies by attending meetings and conferences where tribes and agencies discuss this and similar issues.

Recommendation 16: The Commissioner of Reclamation, in cooperation with other members of the tribal infrastructure task force, should direct Reclamation regional offices to identify and pursue additional mechanisms to increase their collaboration.

Response: Concur. Reclamation has worked with task force member agencies and some Reclamation regional officials to encourage an increased level of collaboration with tribes and other agencies. Further direction and support will be made as part of on-going Reclamation management planning and implementation efforts.

If you have any questions, please contact Elizabeth Cordova-Harrison, Director, Mission Support Organization at (303) 445-2783.

Sincerely,

Timothy R. Petty, Ph.D.
Assistant Secretary
for Water and Science

Appendix VII: Comments from the Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR - 6 2018

OFFICE OF WATER

Mr. J. Alfredo Gomez, Director
Ms. Anne-Marie Fennell, Director
Natural Resources and Environment
U.S. Government Accountability Office
Washington, D.C. 20548

Dear Mr. Gomez and Ms. Fennell:

Thank you for the opportunity to review and comment on the Government Accountability Office's (GAO) draft report, "Drinking Water and Wastewater Infrastructure: Opportunities Exist to Enhance Federal Agency Needs Assessment and Coordination on Tribal Projects" (GAO-18-309).

The purpose of this letter is to provide the U.S. Environmental Protection Agency's (EPA) response to the draft report findings, conclusions, and recommendations. In this report, the GAO examined the extent to which federal agencies: (1) identify Indian tribes' drinking water and wastewater infrastructure needs, (2) fund tribal drinking water and wastewater infrastructure projects to address the most severe sanitation deficiencies, and (3) collaborate to meet Indian tribes' drinking water and wastewater infrastructure needs.

The GAO found that tribal infrastructure programs could benefit from improved collaboration. The report referenced that several agencies, including the EPA, reported examples of duplicative efforts that could be eliminated through better communications amongst federal partners at the regional level. The GAO also suggested that implementation of recommendations from a 2011 report prepared for the multi-agency tribal Infrastructure Task Force (ITF) could improve ITF members' abilities to leverage limited federal resources. The EPA agrees with the GAO's findings, conclusions, and recommendations relevant to the Agency, with minor suggested edits noted below.

GAO Recommendations:

Two of the sixteen recommendations in the report were directed at the EPA:

- The Administrator of EPA, in cooperation with other members of the tribal infrastructure task force, should review the 2011 task force report and identify and implement additional actions to help increase the task force's collaboration at the national level. (Recommendation 8)

- The Administrator of EPA, in cooperation with other members of the tribal infrastructure task force, should direct EPA regional offices to identify and pursue additional mechanisms to increase their collaboration. (Recommendation 14)

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EPA Response:

The EPA agrees with the recommendation to review the 2011 report prepared by the Streamlining Preconstruction Paperwork Workgroup for the ITF, and to identify and implement additional actions to help increase collaboration at the national level. The EPA has reached out to our federal partners and agreed to dedicate a portion of the next ITF meeting (scheduled for April) to review these recommendations.

The EPA agrees with the intent of the recommendation regarding regional collaboration. However, the EPA is concerned that, as worded, it may not achieve the intended goal. We can accomplish increased regional collaboration through multiple avenues and, as such, recommend the following, more encompassing, language:

- The Administrator of EPA, in cooperation with other members of the tribal infrastructure task force, should identify and pursue additional mechanisms to increase collaboration at the regional level.

As the ITF lead agency, the EPA will work with our federal partners to identify and disseminate successful best practices at the regional level.

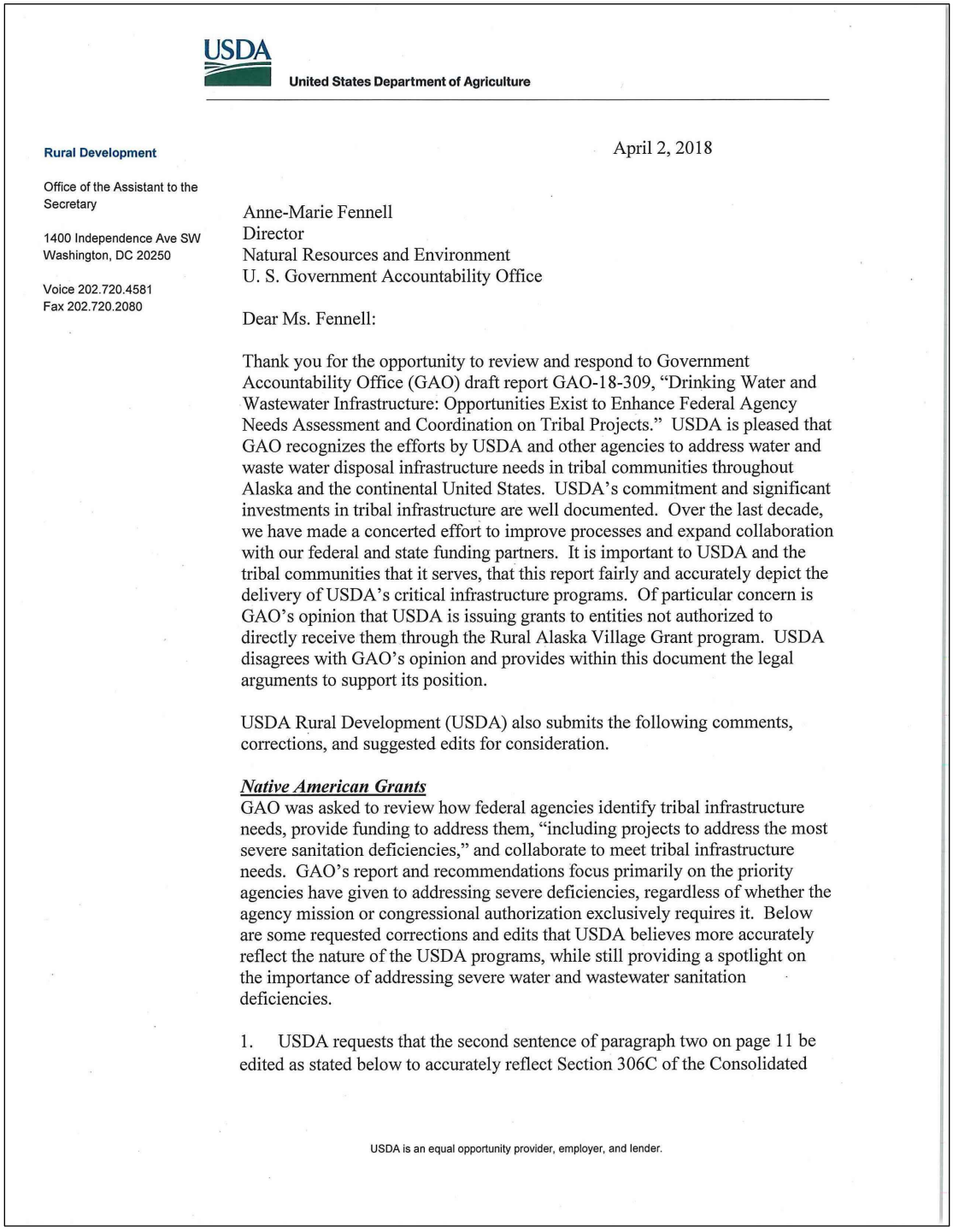
In conclusion, the EPA agrees with the GAO's analysis as it pertains to the EPA, and supports the recommendations to the Agency with the noted revision. The EPA will continue to find opportunities to improve water and wastewater infrastructure in Indian country and to collaborate with the ITF members at the headquarters and regional levels to ensure efficient and effective implementation of its tribal infrastructure programs. Thank you for the opportunity to review the draft report. For further technical details, questions, or additional information, please contact either Sam Russell (Russell.Sam@epa.gov; 202 564 4012) or Matthew Richardson (Richardson.Matthew@epa.gov; 202 564 2947).

Sincerely,

David P. Ross
Assistant Administrator

cc: EPA GAO Liaison Team
Bobbie Trent
Mark Howard
Felicia Wright

Appendix VIII: Comments from the U.S. Department of Agriculture



USDA

United States Department of Agriculture

Rural Development

Office of the Assistant to the Secretary

1400 Independence Ave SW
Washington, DC 20250

Voice 202.720.4581
Fax 202.720.2080

April 2, 2018

Anne-Marie Fennell
Director
Natural Resources and Environment
U. S. Government Accountability Office

Dear Ms. Fennell:

Thank you for the opportunity to review and respond to Government Accountability Office (GAO) draft report GAO-18-309, "Drinking Water and Wastewater Infrastructure: Opportunities Exist to Enhance Federal Agency Needs Assessment and Coordination on Tribal Projects." USDA is pleased that GAO recognizes the efforts by USDA and other agencies to address water and waste water disposal infrastructure needs in tribal communities throughout Alaska and the continental United States. USDA's commitment and significant investments in tribal infrastructure are well documented. Over the last decade, we have made a concerted effort to improve processes and expand collaboration with our federal and state funding partners. It is important to USDA and the tribal communities that it serves, that this report fairly and accurately depict the delivery of USDA's critical infrastructure programs. Of particular concern is GAO's opinion that USDA is issuing grants to entities not authorized to directly receive them through the Rural Alaska Village Grant program. USDA disagrees with GAO's opinion and provides within this document the legal arguments to support its position.

USDA Rural Development (USDA) also submits the following comments, corrections, and suggested edits for consideration.

Native American Grants

GAO was asked to review how federal agencies identify tribal infrastructure needs, provide funding to address them, "including projects to address the most severe sanitation deficiencies," and collaborate to meet tribal infrastructure needs. GAO's report and recommendations focus primarily on the priority agencies have given to addressing severe deficiencies, regardless of whether the agency mission or congressional authorization exclusively requires it. Below are some requested corrections and edits that USDA believes more accurately reflect the nature of the USDA programs, while still providing a spotlight on the importance of addressing severe water and wastewater sanitation deficiencies.

1. USDA requests that the second sentence of paragraph two on page 11 be edited as stated below to accurately reflect Section 306C of the Consolidated

USDA is an equal opportunity provider, employer, and lender.

Farm and Rural Development Act of 1972 (Con Act) and USDA program delivery:

While the USDA administers funds for the Native American program at the national level, the program is delivered locally by USDA Rural Development State and Area Offices that conduct outreach to tribes, provide application assistance, process applications, and service grants. The Native American program provides grants for water and wastewater infrastructure and services to rural and low-income tribal communities. Tribal residents must face significant health risks as a result of not having access to, or not being served by, adequate and affordable water supply systems or waste disposal facilities.

GAO has omitted the statutory phrase underlined above which makes clear Congress' intent that the USDA program provide funds to projects addressing more than just Indian Health Service's Sanitary Deficiency System (SDS) Level 4 and 5 type projects. The language above regarding program delivery at USDA is important to properly characterize the program's working relationship with tribal customers.

2. Paragraph one on page 12, the draft report is missing information regarding USDA's Technical Assistance and Training grants and Solid Waste Management grants that are available to, and serve tribal and Alaska Native communities. We request that the following language be inserted at the end of paragraph 1:

   USDA also administers a Technical Assistance and Training (TAT) Grant program, as well as a Solid Waste Management Grant (SWM) program, both of which are available to, and subscribed to by tribal and Alaska native communities. From 2007 to 2017, USDA awarded $11.86 million in SWM and $20.34 million in TAT grants to tribes and non-profit entities to help tribes with technical assistance and training needs related to water, waste water, and solid waste management.

   Without this language, the report does not accurately reflect the totality of available USDA programs from which tribes may benefit.

3. Paragraph two on page 16, does not accurately characterize USDA's understanding of tribal needs. We request that the second sentence be modified to read:

   USDA officials explained that tribes identify needs through the applications they submit to the program. USDA also identifies tribal needs through outreach to tribes and coordination with other agencies, such as the Indian Health Service.

4. Paragraph three on page 20, the report should acknowledge that the statute does not require all programs to prioritize projects that address the most severe sanitation deficiencies. Section 306C of the Con Act clearly states that the grants are to be available to communities where a significant portion of residents do not have access to, or are not served by, adequate and affordable water supply systems or waste disposal facilities. While SDS levels are certainly taken into account when reviewing project applications, the statute does not reference the SDS deficiency definitions and does not

identify correction of severe sanitation deficiencies as a purpose of USDA's Native American program. GAO should acknowledge that USDA is operating well within the guidelines of the statute.

5. Paragraph one on page 22 does not accurately reflect the scope of the USDA TAT and SWM grant programs. As written, the report only references one grant for $130,000, severely understating USDA's commitment to, and investment in tribal communities. USDA requests that the text be modified to include the language below:

   From 2007 to 2017, USDA awarded $11.86 million in SWM and $20.34 million in TAT grants to tribes and non-profit entities to serve the technical assistance and training needs of tribes related to water, waste water and solid waste management.

6. Footnote 63 needs to be corrected to reflect that none of USDA's water and waste loan or grant programs are authorized to provide funding for operations and maintenance. In addition, paragraph two, sentence one, on page 22 should be edited as stated below to avoid misleading or confusing readers:

   Most federal programs reviewed are not authorized to, and did not, provide financial assistance for routine operations and maintenance of installed community or individual infrastructure.

7. Paragraph one on page 23, the third sentence should be edited for accuracy to read:

   Finally, under the applicable USDA regulation and policy, and pursuant to statutory requirements, the Native American's program objective is.....

8. In draft recommendation number 4, GAO recommends that The Assistant to the Secretary of Agriculture for Rural Development implement a scoring factor, similar to that used in USDA's Colonias grant program that awards points for proposed Native American program grant projects that address health risks from lack of access to safe drinking water and wastewater disposal.

   USDA would like clarification as to what form of scoring factor would be acceptable to GAO to address this recommendation. Making a regulation change, such as the one made for the Colonias grant program, could take 18 months or longer to execute. USDA would prefer to utilize the Administrator discretionary points in the existing regulation to implement the scoring factor and determine whether it has a material impact on funding through the Native American program. Such an approach could be implemented at the start of Fiscal Year 2019, or possibly sooner. As GAO is aware, USDA has funded all approved Native American projects seeking funding in recent years. Adding additional points to projects to address a lack of access to safe drinking water and waste water disposal could be impactful in years when funding requests exceed available funding, but not in years when it does not. A permanent change in the regulation could also have the unintended effect of discouraging tribes with eligible projects from seeking funding if their project does not meet the SDS 4 or 5 level. This could lead to a delay in

investments in needed infrastructure and increase the deficiency level in tribal areas where the SDS Level is 3 or lower.

Utilizing the existing flexibility in the regulation, rather than permanently changing the regulation, would meet GAO's intent more quickly and avoid additional regulatory delay.

Rural Alaska Village Grants

USDA disagrees with the statements in the report regarding awards made in the Rural Alaska Village Grant Program (RAVG). As stated in the report, the legal position of USDA is that the authorization for the Rural Alaska Village Grant Program gives the State of Alaska control over the use of the funds provided. From 1997, USDA has worked directly with officials of the State of Alaska regarding the disposition of these funds, as required by law. This has led, with the concurrence of the State, to have some of the funds provided directly to parties other than the State, including Alaska Native Villages, under a Memorandum of Understanding (MOU). MOU partners include the Department of Agriculture, Rural Utilities Service (RUS); the Department of Health and Human Services, Indian Health Service (IHS); the State of Alaska, Department of Environmental Conservation (DEC); and, the Alaska Native Tribal Health Consortium (ANTHC). These are the same villages that have been specifically referenced in the statutory language of the appropriations for this program as far back as the 1998 fiscal appropriation with the inclusion of the following phrase: "shall be for water and waste disposal systems for rural and native villages in Alaska pursuant to section 306D of such Act." The State of Alaska's concurrence with project funding going directly to communities is not only provided through its signing of the 2011 MOU, but also through individual MOUs for each project where funding is direct to a community.

Starting in fiscal year 2011, after discussions with the State of Alaska, the MOU referenced above became the vehicle for the State of Alaska to inform USDA regarding the manner in which these funds would be administered. Under this MOU, as agreed to by the State of Alaska, ANTHC was provided some of these funds directly, as co-applicant with the native villages, to assist these villages with their water systems projects. This MOU was ultimately codified in regulations promulgated in 2015 (see 7 CFR 1784) through a transparent notice and comment process. Starting in fiscal year 2012, the appropriation committees adjusted the appropriation language for the RAVG program to reflect the approach taken in the MOU, and ultimately the regulations, by specifically referencing consortiums in a proviso. In sum, section 306D provides an earmarked grant to the State of Alaska and at no time in this process has the State of Alaska not had control over the manner in which the funds have been distributed by USDA.

Section 306D (7 USC 1926d) provides the State of Alaska with the grant for water systems in rural and native villages. USDA has respected this provision by working with the State of Alaska and helping the State direct a portion of these grants to parties who are helping the State carryout the purposes of the section. USDA believes that this mechanism is consistent with the purposes of section 306D and the appropriations of section 306D funds.

In addition, USDA offers the following comments and suggested edits and corrections.

1. According to USDA records, only two grants have been made directly to villages since the signing of the 2011 MOU. The last sentence of paragraph one, page 29, refers to grants back to the inception of the program and provides a skewed depiction of current activities. USDA requests than GAO note the activity since the inception of the MOU. In addition, the report states that USDA awarded 32 grants to ANTHC in 2011 before the statutory language in the appropriations bill was enacted. We are unclear as to why GAO believe 32 grants were made to ANTHC in FY 2011. Our records indicate that seven grants were made to ANTHC through the RAVG program in FY 2011. USDA has enclosed a list of all grants to ANTHC in the program's history as supporting documentation for your records. Further, USDA would like to emphasize that the grants were made pursuant to and after execution of the 2011 MOU signed by the State of Alaska, ANTHC and others. USDA requests that the paragraph be modified to correct the number of grants and give the proper context.

2. Paragraph three, page 29 should be expanded to provide the proper context in which USDA led the effort to develop the MOU. GAO's draft report, as written, does not reflect the information provided in meetings with GAO on the topic. USDA requests to modify the second sentence of the paragraph to read:

   For example, a 2010 USDA Office of Inspector General report found that the state was not properly documenting project costs and was transferring funds between projects. The result was that projects were often underfunded, delayed, or halted, and service was not being delivered to Alaskan village residents.

   As GAO acknowledges, the need for water and waste infrastructure in Alaska villages is acute. The MOU has enabled steady progress toward addressing these acute needs through a collaborative approach with funding partners.

3. The second sentence on page 30 needs to be corrected. The RD RAVG program manager stated in interviews that the agency awards grants directly to Alaska native villages that have the capacity to administer them.

4. Recommendations 5 and 6 are unnecessary given that the agency is operating within its authorities. USDA requests that GAO remove these recommendations from the report.

Collaboration

USDA offers the following technical corrections and edits related to the collaboration discussion in the draft report.

1. Paragraph two, sentence three, on page 32 should reference all of the stated purposes of the MOU, rather than just the one regarding leveraging of funds. By only referencing one of the purposes, GAO does not provide the reader with a clear understanding of the

holistic approach to serving tribes that the tribal infrastructure task force (ITF) is implementing.

2. Under the leadership section on page 32, paragraph four, GAO does not acknowledge the significant role USDA played in the development and adoption of the uniform preliminary engineering report. GAO should be aware of USDA's leadership role in this regard, as it has been highlighted in other GAO reports. USDA requests that the second sentence of the paragraph be modified to read:

   For example, in 2013 ***under USDA's leadership****, the members of the Tribal Infrastructure Task force agreed to adopt a uniform preliminary engineering report (PER) template, a key supporting document required by multiple agencies in their project application and evaluation processes.*

   We also suggest that the following language be added at the end of the paragraph: *Since the template was adopted, USDA has led an interagency effort with both federal and state water and waste funding partners to design an interactive, online version of the PER. USDA funded the development of the ePER online system, which launched in FY 2018 and is available for use by all federal and state-based water and waste funders, including the members of the ITF.*

   The ePER effort demonstrates significant collaboration amongst the ITF members and others, and facilitates better collaboration going forward.

3. Recommendation 9, page 41 – The 2011 report referred to is a working group report, not an ITF committee report. Given the length of time that has passed since the working group recommendations were made, USDA requests the report recommendation be edited to read as follows:

   The Assistant to the Secretary of Agriculture for Rural Development, in cooperation with other members of the tribal infrastructure task force, should review the 2011 working group report and determine appropriate actions to be taken.

4. Recommendation 13 – USDA requests that the recommendation be modified as follows:

   The Assistant to the Secretary of Agriculture for Rural Development, in cooperation with other members of the tribal infrastructure task force, should facilitate and promote the identification of additional mechanisms to increase collaboration.

Thank you for your consideration of the above requested edits to the draft. Please direct inquiries regarding this response to Jacqueline Ponti-Lazaruk, Rural Development's Chief Risk Officer, at jacki.ponti@wdc.usda.gov.

Anne Hazlett
Assistant to the Secretary for Rural Development
United States Department of Agriculture

Appendix IX: Comments from the Department of Defense

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
CIVIL WORKS
108 ARMY PENTAGON
WASHINGTON DC 20310-0108

MAR 22 2018

Ms. Anne-Marie Fennell
Director, Natural Resources & Environment
U.S. Government Accountability Office
441 G. Street, NW
Washington, D.C. 20548

Dear Ms. Fennell:

This is the Department of Defense (DoD) response to the Government Accountability Office (GAO) Draft Report 18-309, "DRINKING WATER AND WASTEWATER INFRASTRUCTURE: Opportunities Exist to Enhance Federal Agency Needs Assessment and coordination on Tribal Projects," dated February 23, 2018 (GAO Code 101077).

The DoD acknowledges receipt of the subject draft report and has no comments. The DoD appreciates the opportunity to review the report and wishes to thank those involved for their candor, professionalism and collaborative engagement throughout the development of this draft report.

Sincerely,

R. D. James
Assistant Secretary of the Army
(Civil Works)

Appendix X: GAO Contacts and Staff Acknowledgments

GAO Contacts

Anne-Marie Fennell, (202) 512-3841 or fennella@gao.gov and
J. Alfredo Gómez, (202) 512-3841 or gomezj@gao.gov

Staff Acknowledgments

In addition to the contacts named above, Jeffery D. Malcolm (Assistant Director, in memoriam), Leslie Kaas Pollock (Analyst in Charge), Carolyn S. Blocker, Mark Braza, John Delicath, David Dornisch, Cynthia Grant, Susan Iott, Serena Lo, Elizabeth Luke, Micah McMillan, Jon Melhus, Jeanette Soares, Sara Sullivan, Kiki Theodoropoulos, and Sarah Veale made key contributions to this report.

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