



May 2022

# ALASKA NATIVE ISSUES

## Federal Agencies Could Enhance Support for Native Village Efforts to Address Environmental Threats

# GAO Highlights

Highlights of [GAO-22-104241](#), a report to congressional requesters

## Why GAO Did This Study

Erosion, flooding, and thawing permafrost can pose environmental threats to lives and infrastructure in Alaska Native villages. According to the United States Global Change Research Program, climate change is expected to exacerbate these threats. GAO identified 10 federal agencies that administer programs that support Alaska Native village efforts to address and build resilience to environmental threats.

GAO was asked to review federal efforts to help Alaska Native villages address environmental threats. This report examines (1) information about environmental threats to Native villages; (2) federal funding provided to address such threats, and actions supported by that funding; and (3) opportunities to better support efforts to build resilience to such threats.

GAO analyzed federal risk information and obligations data from 10 federal agencies for fiscal years 2016 through 2020; reviewed agency documents and other relevant reports; and interviewed agency officials and representatives from selected Alaska Native villages and tribal organizations.

## What GAO Recommends

Congress should consider establishing a coordinating entity to assist Native villages facing environmental threats. GAO is also making eight recommendations, including that seven agencies change programs to reduce barriers that hinder Native villages' accessing federal assistance. Six of these agencies agreed with GAO's recommendations, and the seventh agency stated it agreed with the report's findings.

View [GAO-22-104241](#). For more information, contact Anna Maria Ortiz at (202) 512-3841 or [OrtizA@gao.gov](mailto:OrtizA@gao.gov).

May 2022

## ALASKA NATIVE ISSUES

### Federal Agencies Could Enhance Support for Native Village Efforts to Address Environmental Threats

## What GAO Found

More than 70 out of over 200 Alaska Native villages face significant environmental threats from erosion, flooding, or thawing permafrost, according to a 2019 statewide assessment. Consequences from even a moderate flood or increasing erosion could be significant (see fig.), and over one-third of these communities face the compounding effects of more than one threat. According to several federal officials, short-term actions are needed to address the most urgent threats without waiting for additional studies. At the same time, many Native villages also need more information to support longer-term planning.

#### Erosion-Damaged Road in the Native Village of Shishmaref



Source: Kawerak, Inc. | GAO-22-104241

Federal agencies provided a total of about \$391 million in obligations in fiscal years 2016 through 2020 to (1) repair damaged infrastructure in Alaska Native villages; and (2) build their resilience to environmental threats, including by implementing protection measures. However, since more than one-third of highly threatened Native villages did not receive such federal assistance during these 5 years, significant work remains to protect these communities.

Opportunities exist for federal agencies to better support Alaska Native village efforts to build resilience to environmental threats by improving coordination among federal, state, and tribal entities. Federal agencies coordinate in several targeted ways, including on a per-project basis, but do not systematically coordinate to address these threats statewide. Broader coordination efforts have been limited because of agencies' focus on their own projects and the absence of consistent federal support for interagency coordination. Establishing an interagency and intergovernmental coordinating entity could facilitate more strategically targeted federal investments that more effectively address the threats facing Alaska Native villages.

Further, GAO reviewed 20 programs across federal agencies and found they each had at least one characteristic that could pose an obstacle to villages' obtaining assistance, such as project cost-share requirements. Implementing changes to address those obstacles that are established in agency regulations or policy, where feasible and appropriate, could help Native villages better obtain federal assistance.

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## Abbreviations

BIA	Bureau of Indian Affairs
CDBG	Community Development Block Grant
Corps	U.S. Army Corps of Engineers
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
HUD	Department of Housing and Urban Development
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
DOT	Department of Transportation
USDA	U.S. Department of Agriculture

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May 18, 2022

The Honorable Thomas R. Carper  
Chairman  
The Honorable Shelley Moore Capito  
Ranking Member  
Committee on Environment and Public Works  
United States Senate

The Honorable Peter A. DeFazio  
Chairman  
The Honorable Sam Graves  
Ranking Member  
Committee on Transportation and Infrastructure  
House of Representatives

The Honorable John Barrasso  
United States Senate

The Honorable Dan Sullivan  
United States Senate

Coastal and river erosion, flooding, and thawing permafrost affect many Alaska Natives who live in the more than 200 Alaska Native villages located along the coasts and in the interior of Alaska.<sup>1</sup> These environmental threats pose risks to the health and safety of Alaska Natives and have damaged vital community infrastructure that is costly to repair or replace, especially in remote areas. Erosion and flooding are most commonly caused by severe storm events on Alaska’s coastline or by the spring breakup of river ice, while thawing permafrost is a widespread and generally gradual process. In some cases, just one severe storm can erode tens of feet of shoreline in a single community, as well as damage or destroy roads, water supply lines, homes, and other infrastructure, while also threatening lives. Erosion, flooding, and thawing

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<sup>1</sup>In this report, we use the terms “Alaska Native village” and “Native village” to refer to Alaskan communities that are home to at least one federally recognized Indian tribe. Many tribes in Alaska are often also referred to as Native villages, and some Alaskan communities are home to more than one federally recognized tribe. As of April 2022, there are 227 federally recognized tribes within the state of Alaska. 87 Fed. Reg. 4636 (Jan. 28, 2022).

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permafrost are exacerbated by a warming climate, and Alaska is warming faster than any other state in the United States.<sup>2</sup> According to the Fourth National Climate Assessment, continued warming of the Earth's climate will exacerbate flooding, accelerate erosion, and result in continued thawing of permafrost in Alaska.<sup>3</sup>

One way to reduce the long-term risks to people and infrastructure is to enhance resilience to environmental threats, which involves taking actions to reduce potential damage by planning and preparing for potential future environmental changes.<sup>4</sup> We have previously reported that the federal government can better manage its fiscal exposure from the effects of climate change by investing in proactive measures to reduce the vulnerability of infrastructure and cost of disaster response efforts.<sup>5</sup> Native villages confront two challenges simultaneously when facing environmental threats: (1) responding to damage to infrastructure that occurs from erosion, flooding, or thawing permafrost; and (2) proactively identifying and implementing long-term strategies to increase communities' resilience to environmental threats, such as constructing erosion and flood protection structures (e.g., berms), partially relocating to safer ground, or, in the most extreme circumstances, entirely relocating.

Numerous federal agencies and programs play a role in supporting Native villages' efforts to address erosion, flooding, and thawing permafrost. Some federal agencies administer programs that directly support efforts

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<sup>2</sup>U.S. Global Change Research Program, *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*, vol. 2 (Washington, D.C.: 2018). The U.S. Global Change Research program coordinates and integrates global change research across 13 federal agencies. The *Fourth National Climate Assessment* is the program's assessment of peer-reviewed scientific literature.

<sup>3</sup>U.S. Global Change Research Program, 2018.

<sup>4</sup>GAO, *Disaster Resilience Framework: Principles for Analyzing Federal Efforts to Facilitate and Promote Resilience to Natural Disasters*, [GAO-20-100SP](#) (Washington, D.C.: October 2019). We created the Disaster Resilience Framework to support the analysis of federal opportunities to facilitate and promote resilience to natural hazards, including erosion, flooding, and thawing permafrost.

<sup>5</sup>GAO, *Climate Resilience: A Strategic Investment Approach for High-Priority Projects Could Help Target Federal Resources*, [GAO-20-127](#) (Washington, D.C.: Oct. 23, 2019). Limiting the federal government's fiscal exposure to climate change has been on our list of programs and operations in need of transformation since 2013. See the most recent report in this series, GAO, *High-Risk Series: Dedicated Leadership Needed to Address Limited Progress in Most High-Risk Areas*, [GAO-21-119SP](#) (Washington, D.C.: Mar. 2, 2021).

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to build resilience to environmental threats and conduct disaster mitigation, including the Denali Commission, Federal Emergency Management Agency (FEMA), U.S. Army Corps of Engineers (Corps), Bureau of Indian Affairs (BIA), and the Department of Housing and Urban Development (HUD).<sup>6</sup> Other agencies, including the Department of Transportation (DOT) and the Indian Health Service, administer programs that address infrastructure damage and support specific infrastructure projects that are essential to Alaska Native villages and that are often affected by erosion, flooding, and thawing permafrost.

Over the last 2 decades, we have issued several reports that examined the threats to Native villages posed by erosion, flooding, and thawing permafrost and the challenges associated with addressing such threats. For example, in 2009, we reported that 31 Native villages faced imminent threats from erosion and flooding but had made minimal progress in addressing the threats, in part, because federal programs were limited.<sup>7</sup> Further, in 2020, we reported on the challenges with one Native village's ongoing efforts to relocate.<sup>8</sup>

You asked us to review environmental threats facing Alaska Native villages and the status of efforts to address those threats. This report examines (1) the available information about threats to Native villages from erosion, flooding, and thawing permafrost; (2) the federal funding that has been provided to address environmental threats to Native villages, and the actions supported by such funding, in fiscal years 2016

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<sup>6</sup>The Denali Commission was established by statute in 1998 as a federal agency with the statutory purpose of providing to rural areas of Alaska job training, economic development services, and infrastructure. Pub. L. No. 105-277, div. C, tit. III, 112 Stat. 2681-637 (1998) (*codified as amended at* 42 U.S.C. § 3121 Note).

<sup>7</sup>GAO, *Alaska Native Villages: Limited Progress Has Been Made on Relocating Villages Threatened by Flooding and Erosion*, [GAO-09-551](#) (Washington, D.C.: June 3, 2009).

<sup>8</sup>GAO, *Climate Change: A Climate Migration Pilot Program Could Enhance the Nation's Resilience and Reduce Federal Fiscal Exposure*, [GAO-20-488](#) (Washington, D.C.: July 6, 2020). Our report included one matter for congressional consideration related to establishing a pilot program with leadership from a defined federal organizational arrangement to identify and provide assistance to climate migration projects for communities that express affirmative interest in relocation as a resilience strategy. As of March 2022, we were not aware of any actions taken to establish such a program.



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through 2020;<sup>9</sup> and (3) opportunities to better support Native villages' efforts to build resilience to threats from erosion, flooding, and thawing permafrost.

To address all three objectives, we focused our review on 10 federal agencies we identified that administer programs that can potentially assist Native villages' efforts to address erosion, flooding, and thawing permafrost. These agencies are BIA, the Corps, the Denali Commission (Commission), DOT, HUD, the Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) and Rural Development, the Environmental Protection Agency (EPA), FEMA, Indian Health Service, and the National Oceanic and Atmospheric Administration (NOAA).<sup>10</sup>

We interviewed officials from all 10 of these federal agencies and from four selected state agencies, as well as representatives from the Alaska Native Tribal Health Consortium, three selected regional tribal organizations, and four selected Native villages, among others.<sup>11</sup> We selected and interviewed the four state agencies because they receive grants from and participate in relevant federal programs and work directly with Native villages; the four Native villages because we reported in 2009 that they were imminently threatened and, therefore, were likely to have

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<sup>9</sup>We are using the terms "funding," and "funded" to refer to obligations. Obligations are definite commitments that create a legal liability of the federal 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. For example, an agency incurs an obligation when it places an order, signs a contract, or awards a grant.

<sup>10</sup>We focused our review on federal agencies that administer programs that support Native villages with data collection, risk assessment, planning, and project implementation activities to help address erosion, flooding, and thawing permafrost. We did not include agencies or agency components that have scientific research as a primary purpose or that solely provide disaster recovery assistance. These and other agencies may provide additional assistance to Native villages.

<sup>11</sup>The state agencies include the Department of Transportation and Public Facilities, Division of Community and Regional Affairs, Division of Geological and Geophysical Surveys, and Division of Homeland Security and Emergency Management. The Alaska Native Tribal Health Consortium is a nonprofit tribal health organization that serves more than 180,000 Alaska Native and American Indian people living in Alaska. The Consortium also runs the Center for Environmentally Threatened Communities, which supports rural Alaska communities that are threatened by erosion, flooding, and thawing permafrost by helping them secure federal assistance and build capacity through training and technical assistance.

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perspectives on accessing assistance from federal agencies;<sup>12</sup> and the three regional tribal organizations because they provide services to the Native villages selected for our review. Information from our interviews with representatives from Native villages, tribal organizations, and selected state agency officials cannot be generalized to those we did not speak with as part of our review. Typically, we would conduct in-person site visits in the Native villages we selected for our review, but we were unable to conduct site visits because of the COVID-19 pandemic. Instead, we connected with Native village representatives by phone.

To describe the available information about threats to Native villages posed by erosion, flooding, and thawing permafrost, we reviewed and summarized federal and state documents that contained information about such threats, including a 2019 statewide assessment conducted by the Denali Commission. We reviewed the methodology used to create the assessment and found it sufficiently sound to describe the relative threats in our report. We asked officials from federal and state agencies about the threat information they collect, and we reviewed and summarized examples of that information.

To describe the federal funding provided to address environmental threats and the specific actions supported by this funding, we analyzed obligations information from the 10 federal agencies for 23 programs that funded relevant projects in fiscal years 2016 through 2020, the most recent 5 years of information available at the time of our review. We assessed the reliability of the information and found it sufficiently reliable for our purposes. We also reviewed and analyzed the narrative descriptions the agencies provided of the projects funded during this time frame.

To identify opportunities to better support Native villages' efforts to build resilience to environmental threats, we interviewed federal and selected state agency officials and representatives from selected Native villages and tribal organizations about existing interagency coordination efforts and available technical assistance and reviewed documentation about relevant coordination groups. We also reviewed relevant reports and other agency documents that we identified during our review to identify

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<sup>12</sup>We selected 12 Native villages that we had reported in 2009 were imminently threatened and were likely to fully relocate, or were gradually relocating to a new location or considering doing so at that time, and representatives from four Native villages agreed to speak with us. [GAO-09-551](#).

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program characteristics that could present obstacles to Native villages' obtaining federal assistance to address environmental threats.<sup>13</sup> We identified 20 programs in our review that have a purpose related to addressing or building resilience to environmental threats; for these programs, we reviewed relevant statutes, regulations, and guidance to identify whether selected program characteristics that pose obstacles to Native villages' obtaining assistance were present. We corroborated our analysis with agency officials. Appendix I contains additional information about the scope and methodology of our review.

We conducted this performance audit from April 2020 to May 2022 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 we obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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## Background

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### Alaska Native Villages and the Effects of Erosion, Flooding, and Thawing Permafrost

There are 227 federally recognized tribes in Alaska.<sup>14</sup> The federal government has a government-to-government relationship with the federally recognized tribes in Alaska and elsewhere in the United States. In addition, the United States has undertaken a unique trust responsibility to protect and support tribes and their members through treaties, statutes, and historical relations with tribes.<sup>15</sup> Nevertheless, the U.S. Commission

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<sup>13</sup>Specifically, we reviewed previous GAO reports, as well as other relevant reports and documents identified during the course of our review, to identify the obstacles that may affect Alaska Native villages' obtaining assistance from federal programs to address threats from erosion, flooding, and thawing permafrost. We also identified factors that may help Native villages obtain federal assistance. Because we relied on a specific set of sources, we may not have identified all possible obstacles or helping factors or all reports or documents that discussed such issues. Additional information about our scope and methodology is provided in app. I.

<sup>14</sup>Many tribes in Alaska are also often referred to as Native villages, and most have the term "Village" as part of their name on BIA's list of federally recognized tribes.

<sup>15</sup>Through treaties, statutes, and historical relations with Indian tribes, the United States has undertaken a unique trust responsibility to protect and support Indian tribes and Indians. Pub. L. No. 114-178, § 101(3), 130 Stat. 432 (2016) (*codified at* 25 U.S.C. § 5601(3)).

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on Civil Rights has reported that—due to factors such as historically discriminatory policies, insufficient resources, and inefficient federal program delivery—American Indians and Alaska Natives continue to rank near the bottom of all Americans in terms of health, education, and employment.<sup>16</sup> In many cases, Native villages occupy their current precarious locations because the federal government built schools in what were seasonal encampments and mandated that Alaska Native children attend those schools.<sup>17</sup>

Native villages are unique in several ways with respect to most other communities located in the contiguous 48 states. A typical Native village located near a coastline or river has a population of a couple hundred people, most of whom are Alaska Natives, and generally contains only basic infrastructure. For example, about 40 percent of Native villages do not have piped water and sewer systems,<sup>18</sup> and most are not connected to a regional electric grid—electricity is generated locally, primarily with diesel generators in many communities. Meat drying racks and ice cellars used for food storage are essential for food security and are critical parts of a community's infrastructure.

Native villages' remote locations, limited transportation infrastructure, and limited access contribute to high transportation costs that generally make construction projects more expensive compared to similar projects in communities in the contiguous 48 states. Specifically, most of the Native villages are not accessible by highways or roads; instead, they have an airport runway that provides the only year-round access to the community. The nearest community may be 50 miles away or more. Most river communities have an area along the riverbank where goods can be

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<sup>16</sup>U.S. Commission on Civil Rights, *Broken Promises: Continuing Federal Funding Shortfall for Native Americans* (Washington, D.C.: Dec. 20, 2018).

<sup>17</sup>For example, in 1905, BIA built a new school in Kivalina in the arctic community's seasonal fishing and hunting camp—the intermittent inhabitants of the camp then needed to settle permanently on the island to enroll their children in the school. Similarly, in 1959, BIA built a school in Kotlik, which had previously been a small trading hub located on a riverbank in the Yukon-Kuskokwim Delta. Neighboring communities moved there to attend, and the community footprint grew to include housing, utility systems, boardwalks, and other infrastructure.

<sup>18</sup>According to the state's Division of Water, as of March 2019, 16 percent of rural communities did not have any piped water or sewer service in homes, and 24 percent of rural communities were either served by individual wells and septic tanks, a covered haul system, or a mixture of these.

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delivered to the community during the ice-free period, but access can be limited by water levels.

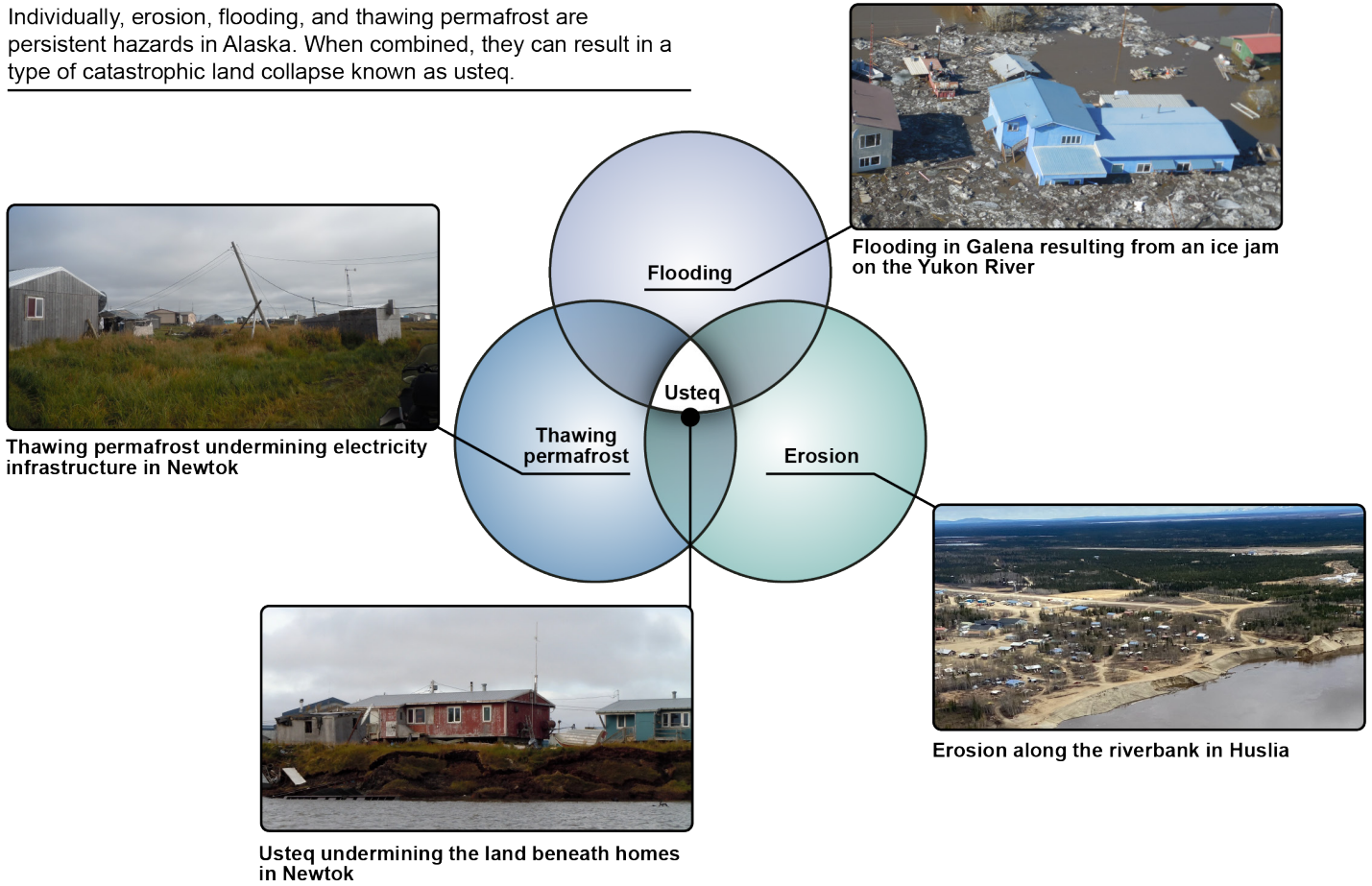
Few Native villages have substantial commercial operations, or a conventional tax base or real estate market, which would provide revenue for infrastructure investments. Rather, most Native villages have mixed cash-subsistence economies, where income from part-time or full-time work, seasonal labor, tourism, commercial fishing, or other activities is used to supplement subsistence activities. Community members use subsistence practices, including traditional hunting, fishing, and harvesting activities, to provide food for their families. Many communities have both tribal and municipal governments with few paid staff, and internet access is often limited.

Native villages' locations on Alaska's shorelines and riverbanks provide access to food, transportation, and cultural benefits, but these locations can also present dangers to the community. In particular, erosion can cause the shoreline to move toward permanent infrastructure, such as buildings, utilities, and transportation facilities, which can undermine their foundations, causing structural failures. Flooding in coastal communities can result from coastal storm surges and, in river communities, from heavy rainfall or the sudden release of water from behind breaking ice jams. Thawing permafrost involves the warming of frozen rock or soil present in the ground, which may damage the structural integrity of the soil in a way that can unsettle building foundations and lead to the failure of critical water and food storage infrastructure.

When more than one of these threats is present, the effects can be compounded and have potentially catastrophic results, in a phenomenon known as *usteq*, a Yup'ik word that roughly translates to "surface caves in." For example, when ice-rich permafrost is present in the soil along a river or coast, erosion can occur very rapidly because the river or seawater thaws the ice in the soil, causing the ground to collapse in large blocks. Communities can lose tens of feet of ground overnight in this manner. Figure 1 shows examples of how erosion, flooding, and thawing permafrost—and *usteq*—affect Native villages.

**Figure 1: Compounding Effects of Erosion, Flooding, and Thawing Permafrost in Alaska Native Villages**

Individually, erosion, flooding, and thawing permafrost are persistent hazards in Alaska. When combined, they can result in a type of catastrophic land collapse known as *usteq*.



Sources: Text: modified from Alaska State Hazard Mitigation Plan, 2018. Photos: GAO (permafrost and *usteq*); National Weather Service (flooding); and Lee DeWilde, Huslia Village (erosion). | GAO-22-104241

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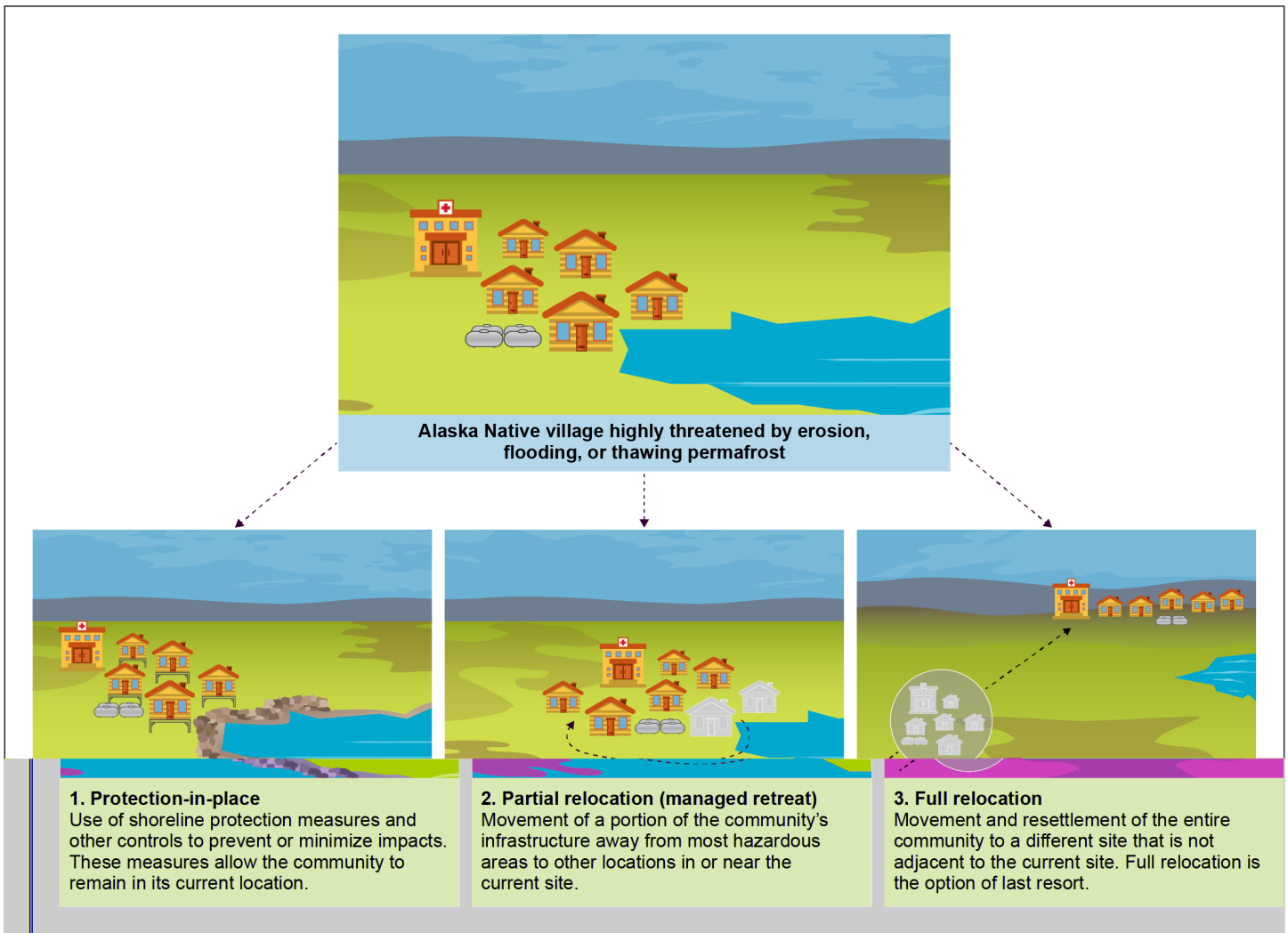
## Native Villages' Options for Building Resilience to Environmental Threats

Native villages have various options to build resilience to environmental threats and protect their communities in the long term. Building resilience involves several phases of activities, including risk assessment, planning, and project implementation.

- **Risk assessment.** This phase includes collecting site-specific baseline data, such as aerial imagery and elevation surveys, to document conditions and conducting hazard-specific studies, such as shoreline mapping and flood and erosion modeling, which help predict the timing and extent of potential damage to infrastructure.
- **Planning.** This phase includes identifying and prioritizing actions, assessing the technical feasibility of projects, and making decisions about which actions to take and which projects to implement.
- **Project implementation.** This phase includes project design, permitting, contracting, construction, project management, and fulfilling reporting requirements that may accompany federal assistance.

Generally, Native villages' options to build resilience to environmental threats and to protect their communities fall into three long-term approaches: protection-in-place, partial relocation, or full relocation (see fig. 2). Native villages may also combine these approaches.

**Figure 2: Three Options to Build Resilience to Erosion, Flooding, and Thawing Permafrost in Alaska Native Villages**



Source: GAO adaptation of information from Alaska Division of Community and Regional Affairs. | GAO-22-104241

## Role of Federal Agencies, State Agencies, and Tribal Organizations in Helping Native Villages Address Environmental Threats

The leaders and members of Alaska Native villages will ultimately select the best options for protecting their communities from environmental threats. We identified 10 federal agencies that administer a variety of federal programs that can potentially assist Native villages' efforts to address erosion, flooding, and thawing permafrost and build resilience to these threats (see table 1). Some of these federal programs have a purpose related to addressing or building resilience to environmental



threats, while other programs may help support specific types of essential infrastructure in Native villages but have a purpose that is not specifically to address environmental threats. (App. II lists the federal agencies and programs included in our review.)

**Table 1: Federal Agencies and Their Roles as They Relate to Addressing Erosion, Flooding, and Thawing Permafrost and Building Resilience to These Threats in Alaska Native Villages**

Agency	Role
Army Corps of Engineers	Provide variety of services to help protect communities from erosion and flooding, including planning, data collection, and infrastructure design and construction
Bureau of Indian Affairs	Provide assistance for planning for climate adaptation, planning, and design for options to respond to environmental threats; and grants for housing and transportation
Denali Commission	Provide assistance to rural Alaskan communities by protecting various types of community infrastructure, including energy, bulk fuel, and surface transportation, focused, in part, on communities threatened by erosion, flooding, and thawing permafrost
Department of Agriculture (Natural Resources Conservation Service (NRCS) and Rural Development)	Assist with implementing emergency measures to relieve imminent hazards within a watershed that can include erosion prevention; and assist with erosion and flood prevention (NRCS) Provide assistance to develop and construct water and wastewater systems that address dire sanitation conditions (Rural Development)
Department of Housing and Urban Development	Support development of viable communities, including housing and economic development, plus disaster mitigation
Department of Transportation (Federal Aviation Administration and Federal Highway Administration (FHWA))	Plan and develop public use airports (Federal Aviation Administration) Provide assistance to address a variety of surface transportation needs (FHWA)
Environmental Protection Agency	Provide assistance for drinking water and wastewater infrastructure
Federal Emergency Management Agency	Provide assistance for pre-disaster mitigation planning, information collection, and infrastructure projects; provide disaster response support after federally declared disaster
Indian Health Service	Provide assistance to develop and construct health and sanitation facilities, including drinking water and wastewater systems
National Oceanic and Atmospheric Administration	Provide assistance for data collection, coastal risk assessments, and planning, as well as construction of natural and nature-based infrastructure to protect coastal communities from the impacts of storms, floods, and other natural hazards

Source: GAO summary of federal agency information. | GAO-22-104241

Note: Agency roles reflect the programs included in our review that can potentially provide assistance in addressing erosion, flooding, and thawing permafrost in Alaska Native villages, including agencies and programs where that is not their purpose. Role descriptions do not encompass all aspects of the agencies' missions, purposes, or goals.

There is no single federal program that can meet all of a Native village's needs as it seeks to build resilience to environmental threats. Rather, Native villages seeking to protect in place, or partially or fully relocate,

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likely need to draw on a variety of programs that are fragmented across agencies.<sup>19</sup> For some types of projects, several agencies administer programs that may be relevant. For example, if a Native village needs to move homes located too close to an eroding riverbank, the Denali Commission, FEMA, HUD, and USDA all administer programs that may be able to help relocate the homes or construct new ones. However, other agencies may also need to be involved to install the necessary supporting infrastructure, including water and wastewater systems, roads and trails, and power generation.

Further, some programs provide assistance for certain aspects of Native villages' efforts to build resilience to environmental threats, such as planning or design, while others provide assistance only for construction. Other programs may be available only under certain circumstances, such as after a natural disaster or if there is an imminent threat to community infrastructure. Communities also often need to combine assistance from several programs to complete a project, in part because the high cost of construction may exceed a single program's grant award limit.

In January 2021, Executive Order 14008 directed federal agencies to, among other things, make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related, and other impacts on disadvantaged communities.<sup>20</sup> The executive order also created a government-wide initiative, known as Justice40, that set a goal of delivering 40 percent of the overall benefits of certain federal investments to disadvantaged communities. In July 2021, the Office of Management and Budget identified the 10 agencies included in our review as potentially administering programs that fall within the scope of the Justice40 Initiative and directed the agencies to begin examining—and considering modifications to—policies, practices, and

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<sup>19</sup>“Fragmentation” refers to circumstances in which more than one federal agency is involved in the same broad area of national need, and opportunities exist to improve service delivery.

<sup>20</sup>Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, 86 Fed. Reg. 7619, 7629 (Feb. 1, 2021).

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procedures to implement the Justice40 goals.<sup>21</sup> In addition, a 2000 executive order directs federal agencies to have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.<sup>22</sup> Federal agencies have policies for conducting tribal consultations, and a 2021 presidential memo directed federal agencies to develop detailed plans of actions to implement the policies and directives of the executive order.<sup>23</sup>

In addition to federal agencies, several state agencies and tribal organizations in Alaska play key roles in supporting Native villages' efforts to address environmental threats, working with federal agencies, each other, and tribal governments. In particular, four state agencies— the Department of Transportation and Public Facilities, Division of Community and Regional Affairs, Division of Geological and Geophysical Surveys, and Division of Homeland Security and Emergency Management— contribute to a variety of efforts, including collecting baseline information, assisting with community-wide planning, and supporting project implementation. These agencies also receive grants from and participate in relevant federal programs, including certain DOT and FEMA programs, and administer state programs that directly support Native villages' efforts.

Statewide and regional tribal organizations, including the Alaska Native Tribal Health Consortium and regional nonprofit corporations, also

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<sup>21</sup>According to interim implementation guidance issued in July 2021, programs within the scope of the Justice40 Initiative include those that make certain investment benefits, including grants, in climate change and other areas. The initial steps to implement the initiative included identifying covered programs, establishing a methodology for calculating program benefits, and reporting information to the Office of Management and Budget. Executive Office of the President, *Memorandum for the Heads of Departments and Agencies: Interim Implementation Guidance for the Justice40 Initiative*, M-21-28 (Washington, D.C.: July 20, 2021).

<sup>22</sup>Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*, 65 Fed. Reg. 67249 (Nov. 9, 2000). The executive order defines policies that have tribal implications as regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on one or more Indian tribes, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes. In addition, all federal agencies are required by statute to consult with Alaska Native Claims Settlement Act corporations on the same basis as Indian tribes under Executive Order 13175. Pub. L. No. 108-199, div. H, § 161, 118 Stat. 3, 452 (2004) as amended by Pub. L. No. 108-447, div. H, tit. V, § 518, 118 Stat. 2809, 3267 (2004).

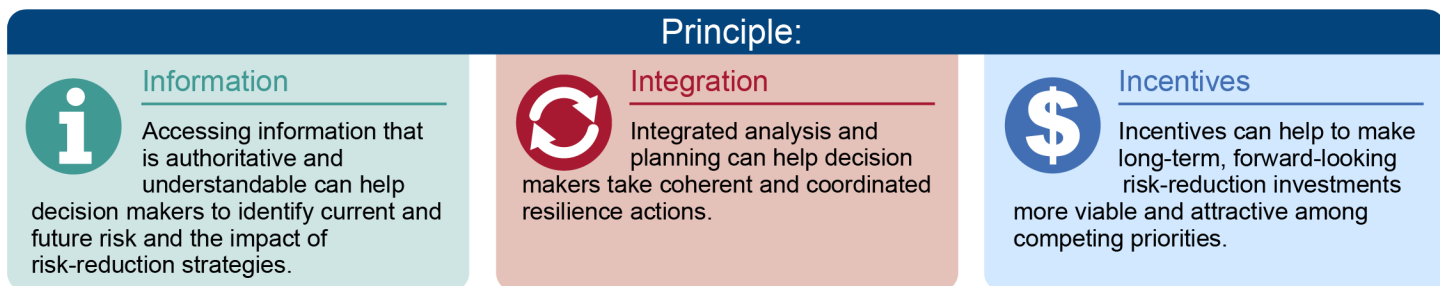
<sup>23</sup>86 Fed. Reg. 7491 (Jan. 29, 2021).

support Native villages' efforts to address environmental threats.<sup>24</sup> The Consortium runs the Center for Environmentally Threatened Communities, which supports rural Alaska communities that are threatened by erosion, flooding, and thawing permafrost by helping them secure federal assistance and build capacity through training and technical assistance. Similarly, regional nonprofit corporations may, for example, administer federal grants on behalf of tribes in their region, help tribal governments implement projects, and advocate on behalf of Alaska Natives and their communities.

## GAO's Disaster Resilience Framework

In October 2019, we released our Disaster Resilience Framework to support the analysis of federal opportunities to facilitate and promote resilience to natural hazards, including threats of erosion, flooding, and thawing permafrost.<sup>25</sup> As shown in figure 3, this framework provides three high-level and overlapping principles to help officials who oversee and manage federal agencies or programs consider actions—such as protection-in-place or partial or full relocation—to help communities build resilience to environmental threats.

**Figure 3: Principles of GAO's Disaster Resilience Framework**



Source: GAO. | GAO-22-104241

<sup>24</sup>The Alaska Native Claims Settlement Act was enacted in 1971 to resolve long-standing aboriginal land claims and to foster economic development for Alaska Natives. As directed by the act, 12 for-profit regional corporations were established to represent different geographical regions in the state. Many of the regional corporations have established nonprofit organizations. See GAO, *Regional Alaska Native Corporations: Status 40 Years after Establishment, and Future Considerations*, [GAO-13-121](#) (Washington, D.C.: Dec. 13, 2012).

<sup>25</sup>[GAO-20-100SP](#).

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More specifically, the framework can help identify opportunities to address gaps in federal efforts by asking key questions about the federal government's ability to address government-wide challenges under each principle. These questions can be used to analyze federal efforts to enhance resilience to environmental threats. According to the framework, the federal government can help build resilience to environmental threats by, for example

- bringing together agencies with different missions and varying resources. In this regard, federal efforts can (1) encourage governance mechanisms that foster coordination and integrated decision-making within and across levels of government; and (2) ensure consistent and complementary policies and procedures, as well as timing, across relevant federal funding mechanisms;
- providing technical assistance to assist decision makers in identifying and selecting among alternatives to build resilience to environmental threats, which is particularly important for smaller, low-income, and disadvantaged communities; and
- reducing disincentives, or obstacles, to taking actions that build resilience to environmental threats by streamlining confusing or overly complex practices and reducing administrative burden where necessary and appropriate.

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## More Than 70 Native Villages Are Highly Threatened by Erosion, Flooding, or Thawing Permafrost, but Information Gaps Remain

Available information indicates that more than 70 Native villages are highly threatened by erosion, flooding, or thawing permafrost, and many face the compounding effects of more than one of these threats. However, many Native villages do not have site-specific data and risk information, and these information gaps may affect their long-term decision-making and ability to obtain federal assistance to address the environmental threats facing their communities.

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## More Than 70 Alaska Native Villages Are Highly Threatened by Erosion, Flooding, or Thawing Permafrost

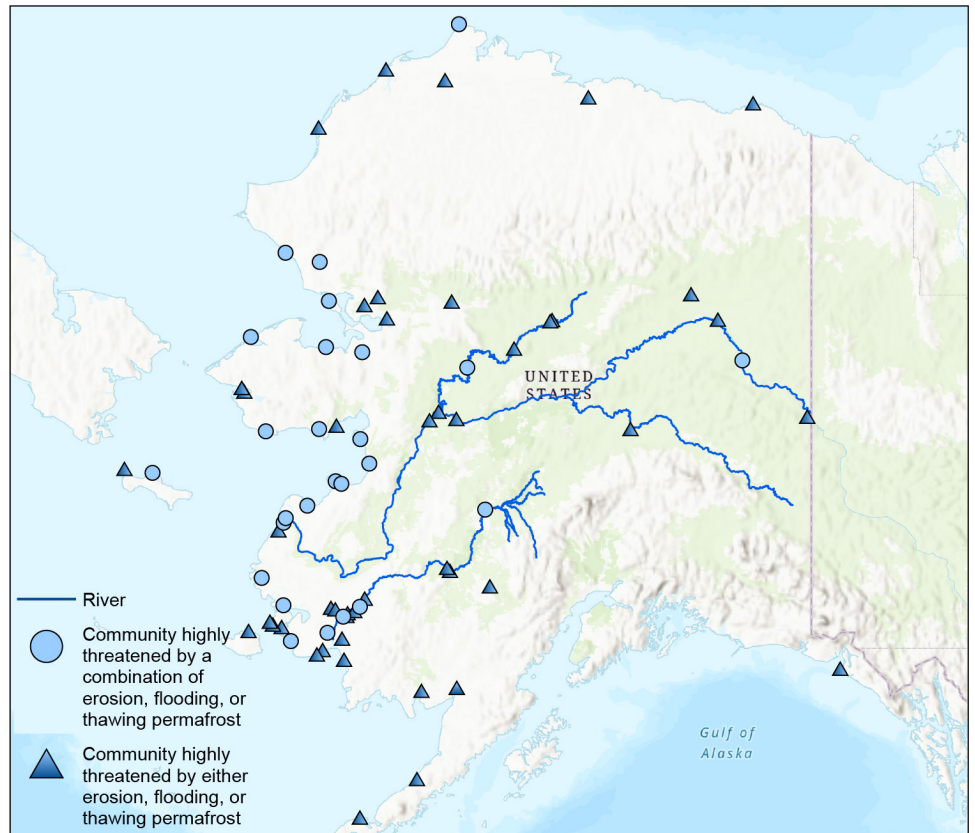
A 2019 statewide assessment of environmental threats facing Native villages conducted by the Denali Commission found that 73 Native villages are highly threatened by erosion, flooding, or thawing permafrost (see fig. 4).<sup>26</sup> The Commission's assessment used available federal and state information about the environmental threats to 187 Native villages to evaluate the severity and immediacy of these threats to infrastructure.<sup>27</sup>

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<sup>26</sup>The Commission's 2019 assessment evaluated threats from erosion, flooding, and thawing permafrost in Alaska Native villages and assigned a score for each threat to each Native village based on a set of criteria. The assessment then ranked the Native villages' scores for each threat, splitting the scores into three groups from 1 to 3, with group 1 representing the highest threat. See Denali Commission, *Statewide Threat Assessment: Identification of Threats from Erosion, Flooding, and Thawing Permafrost in Remote Alaska Communities*, Report #INE 19 03 (November 2019). We reviewed the methodology and information supporting the assessment and found that they were sufficiently sound for the purposes of describing (1) the relative threats of erosion, flooding, and thawing permafrost; and (2) the number of Native villages that scored in group 1 for each threat. We refer to the Native villages that scored in group 1 for one or more threats as "highly threatened."

<sup>27</sup>The 187 Native villages included in the assessment are home to at least one federally recognized tribe. The assessment did not include all 227 of the federally recognized tribes in Alaska because the Commission did not assess communities with fewer than 30 year-round residents, which excluded some of the smallest tribes. In some cases, the assessment evaluated threats to a single Native village that is home to multiple tribes. The assessment also did not include Alaska's larger, more urban communities, since it was designed to address information gaps regarding threats to remote communities.

**Figure 4: The 73 Native Villages Identified by the Denali Commission as Highly Threatened by Erosion, Flooding, or Thawing Permafrost, as of 2019**



Source: GAO analysis of Denali Commission information. | GAO-22-104241

According to the Commission's assessment, Native villages that are highly threatened by erosion or flooding face immediate threats to their infrastructure, and the consequences from even a moderate flood or increasing erosion could be significant. Because thawing permafrost tends to occur gradually over time, the assessment rated Native villages as highly threatened by thawing permafrost if the risk of damage to infrastructure was high. Further, the assessment found that more than one-third of the highly threatened Native villages face compounding effects from more than one of these threats. For example, 15 Native villages are highly threatened by both thawing permafrost and flooding or erosion, which can lead to the type of catastrophic land collapse known as *usteq*.

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The 73 highly threatened Native villages identified in the Commission's assessment are more than double the number that we and others had previously identified, in part because the Commission's assessment considered more data than prior assessments.<sup>28</sup> Nevertheless, due to certain limitations of the information used in the Commission's assessment, it may still underestimate the number of Native villages that are currently highly threatened by erosion, flooding, or thawing permafrost. For example, the Commission's assessment primarily used erosion data that were more than 10 years old.<sup>29</sup> Erosion data from a state of Alaska report published in 2020 indicate that the rate of erosion in some communities is actually higher than reported in the Commission's assessment.<sup>30</sup> The 2020 state report also found that other communities are more at risk from erosion than communities that were identified as having a higher erosion threat in the Commission's assessment, in part because the latter communities had implemented erosion protection measures since 2009 that the Commission's assessment did not consider.

Current and former Commission officials we interviewed acknowledged limitations in the data used to develop the assessment. These officials also noted that the 2019 assessment provided a valuable snapshot of the

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<sup>28</sup>Specifically, in our 2009 report ([GAO-09-551](#)), we stated that 31 Native villages were imminently threatened by erosion or flooding. Our report primarily relied on a 2009 Corps erosion assessment and flooding information available at the time. However, the Commission's 2019 assessment included flooding information and permafrost data that were not available in 2009. Our 2009 report included a matter for congressional consideration related to directing the Corps to conduct a baseline flooding assessment to augment its 2009 erosion assessment. As of March 2022, we were not aware of any legislation being enacted to address this matter. Nevertheless, the Corps contributed additional flooding information to the Commission's 2019 assessment but, according to Corps officials, it was not as comprehensive as the 2009 baseline erosion assessment.

<sup>29</sup>Most of the erosion information used for the Commission's 2019 assessment was from the same 2009 Corps assessment that we used in our 2009 report ([GAO-09-551](#)). In addition, staff we interviewed from the University of Alaska Fairbanks, who worked on the 2019 assessment, said that there is significant uncertainty in the assessment's permafrost scores because they were based on the limited permafrost data available for communities across the state. These staff members said the absence of permafrost data may have contributed to underestimating the level of threat posed by thawing permafrost.

<sup>30</sup>Specifically, in 2020, the Alaska Division of Geological and Geophysical Surveys assessed coastal erosion in 48 Native villages and found that seven Native villages had experienced a rate of erosion that was higher than their rating in the Commission's 2019 assessment indicated—in some cases the rate of coastal erosion was more than 13 feet per year. J.R. Overbeck et al., *Shoreline Change at Alaska Coastal Communities: Alaska Division of Geological & Geophysical Surveys Report of Investigation 2020-10* (2020).



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threats that Native villages faced from erosion, flooding, and thawing permafrost and could provide agencies with information that could help them prioritize where to provide assistance based on the severity and immediacy of the threats facing specific Native villages.

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### Information Gaps May Affect Native Villages' Long-Term Decision-Making and Ability to Obtain Federal Assistance

According to the Denali Commission's 2019 assessment and additional information compiled by the state of Alaska and the Alaska Native Tribal Health Consortium, many highly threatened Native villages need further information about future environmental threats to support long-term decision-making, such as determining whether to protect in place or to partially or fully relocate.<sup>31</sup> Specifically, the Denali Commission, the state, and the Consortium have recommended that highly threatened Native villages obtain baseline data and risk assessments that are specific to the environmental threats they face. This information can support Native villages' evaluation of potential long-term options and is required to apply for assistance from certain federal programs. Representatives from the Consortium said that such risk assessments could also help inform federal agency decisions about which of the 73 highly threatened Native villages are in the most urgent need of assistance.

Following the completion of the 2019 assessment, the Denali Commission funded an effort led by the Alaska Division of Geological and Geophysical Surveys and the Consortium to create the Environmentally Threatened Communities online database, which shows whether each highly threatened Native village has obtained baseline data—such as aerial imagery—and risk assessments that evaluate threats to their infrastructure.<sup>32</sup> According to information we reviewed in the database, as of October 2021, assessments for 33 of the 73 highly threatened Native villages were in various stages of completion, while 40 of the 73 needed a risk assessment. Later in this report, we recommend actions for federal agencies to better support Native villages' efforts to build resilience to environmental threats, which includes obtaining additional risk assessments.

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<sup>31</sup>For example, one Native village representative told us that, as of August 2021, the community was awaiting the completion of a flood study that was needed to help determine when the entire community will need to relocate—if it will be in 10 years, 20 years, or longer.

<sup>32</sup>Denali Commission and state officials we interviewed said that they are working to connect the Environmentally Threatened Communities database with another state database that contains a repository of completed community planning and risk assessment documents, such as adaptation plans and Hazard Mitigation Plans.

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Several federal officials and tribal organization representatives we interviewed said that short-term actions are needed to address the immediate threats facing highly threatened Native villages without waiting for additional assessments. HUD officials said that, in the absence of baseline data or risk assessments, agencies can leverage traditional forms of knowledge provided by tribal elders and other tribal members—such as insights and direct observations of the environment—to validate the need for a project intended to address an immediate threat.

In addition, in 2021, the National Congress of American Indians adopted a resolution calling for Indigenous traditional knowledge to be acknowledged, respected, and promoted in federal climate change and disaster resilience programs.<sup>33</sup> Also in 2021, two entities within the Executive Office of the President issued a memorandum stating that, where appropriate, Indigenous traditional knowledge can and should inform federal decision-making, along with scientific inquiry.<sup>34</sup>

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<sup>33</sup>National Congress of American Indians, *Amending and Updating NCAI Resolution #SD-15-024 and Supporting Tribal Disaster Resilience and Climate Change Principles, Resolution #SAC-21-036* (Washington, D.C.: October 2021).

<sup>34</sup>The memorandum states that Indigenous traditional ecological knowledge is knowledge owned by Indigenous people and that has evolved over millennia, continues to evolve, and includes insights based on evidence acquired through direct contact with the environment and long-term experiences, as well as extensive observations, lessons, and skills passed from generation to generation. The memorandum notes that the federal government has previously received requests to develop guidance for federal agencies on how to partner with tribal nations and native organizations regarding the application of traditional ecological knowledge. The memorandum announced that the Office of Science and Technology Policy and Council on Environmental Quality were developing guidance for federal agencies, with tribal consultation, on Indigenous traditional ecological knowledge. Executive Office of the President, Office of Science and Technology Policy and Council on Environmental Quality, *Memorandum for the Heads of Departments and Agencies: Indigenous Traditional Ecological Knowledge and Federal Decision Making* (Washington, D.C.: Nov. 15, 2021).

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## Federal Agencies Funded Actions to Repair Damaged Infrastructure and Build Resilience to Environmental Threats, but Significant Work Remains

Federal agencies provided (obligated) a total of about \$391 million in funding to address erosion, flooding, and thawing permafrost, as well as build resilience to these threats, in Alaska Native villages in fiscal years 2016 through 2020.<sup>35</sup> About half of the funding was for actions to repair damaged infrastructure, while the other half was for proactive efforts to build resilience to environmental threats, primarily in a handful of Native villages. We found, however, that significant work remains to be done to build Native villages' resilience to environmental threats that are expected to become more pronounced with the continued warming of the Earth's climate.

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## Federal Funds Supported Efforts to Address Damaged Infrastructure

In fiscal years 2016 through 2020, seven federal agencies provided (obligated) about \$201 million in funding to repair infrastructure damage caused, in part, by erosion, flooding, or thawing permafrost in Native villages.<sup>36</sup> Appendix III identifies the federal agencies and programs that supported efforts to address damaged infrastructure.

Specifically, almost all (92 percent) of the about \$201 million was provided to address damage to airport and surface transportation infrastructure in 22 Native villages. For example, DOT's Federal Aviation Administration provided about \$530,000 in funding in one community to repair an airport runway and other surface areas after thawing permafrost caused the ground to settle and become uneven, compromising airport safety. Several state and federal officials we interviewed emphasized the importance of repairing damage to airport runways, because airports are often the only means of connecting Native villages to hospitals, food and merchandise supplies, and other communities.

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<sup>35</sup>The amount provided reflects federal obligations in nominal dollars. An obligation is a definite commitment that creates a legal liability of the government for the payment of goods and services ordered or received. An agency incurs an obligation, for example, when it places an order, signs a contract, or awards a grant.

<sup>36</sup>This funding does not include funding from FEMA's disaster recovery programs because, according to FEMA officials, there were no federally declared disasters in Native villages in fiscal years 2016 through 2020. According to FEMA officials, both Kivalina and Newtok applied for federal disaster assistance, but their applications were denied because the type of coastal erosion they are experiencing does not qualify for federal disaster relief under the Stafford Act.

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The rest (8 percent) of the \$201 million was provided to address damage to other infrastructure, including water systems and homes. For example, the Denali Commission, HUD, Indian Health Service, and USDA provided a total of more than \$6 million in funding to repair critical water infrastructure in seven communities where thawing permafrost or storms had damaged central water facilities and community water lines. Ninety-five percent of the funds provided by federal agencies that were used to repair infrastructure were delivered through programs that do not have a specific purpose to address environmental threats but where doing so can be a part of actions that they support.

We have previously reported that, in the long run, it can cost more to repair damaged infrastructure as part of disaster responses than to invest in enhancing resilience to environmental threats.<sup>37</sup> Representatives from one Native village and a tribal organization we interviewed said that although efforts to repair infrastructure are important, there are opportunity costs associated with them. For example, because small Native villages generally have limited administrative capacities for managing and implementing projects, efforts to repair damaged infrastructure can result in less available capacity to take proactive efforts to build resilience to environmental threats.

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### Federal Funds Supported Efforts to Build Resilience, but Significant Work Remains

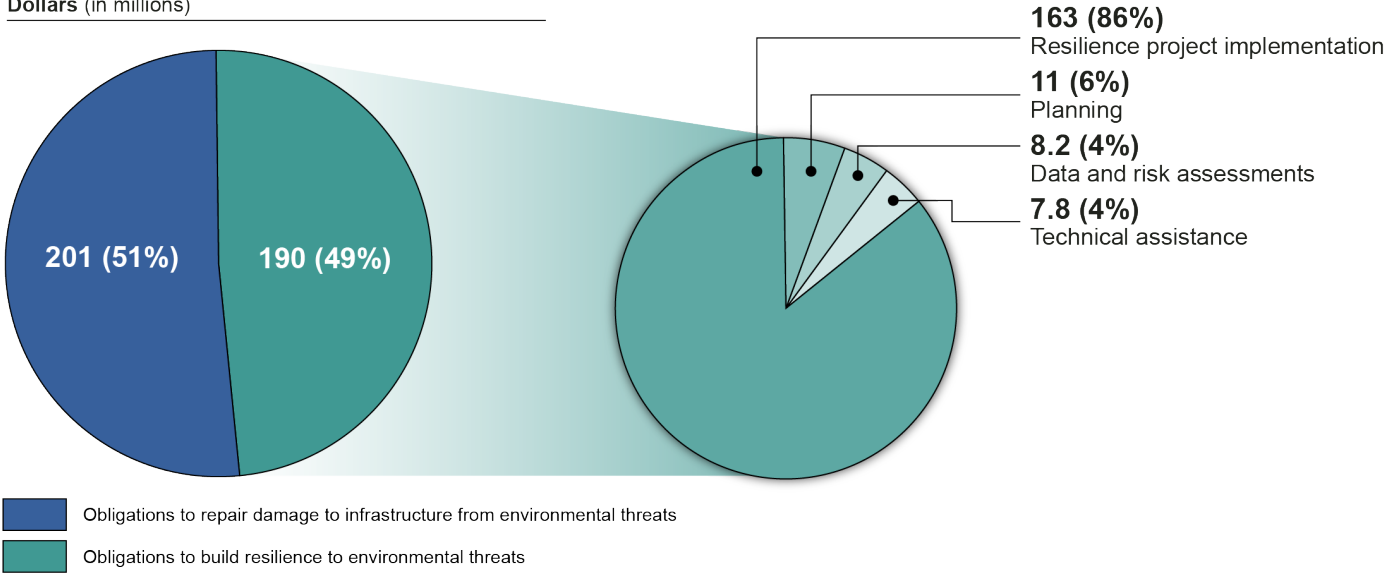
In fiscal years 2016 through 2020, nine federal agencies provided (obligated) about \$190 million in funding to build resilience to environmental threats facing Native villages. Figure 5 illustrates federal funding by the type of efforts that were supported, relative to the total. These efforts included building infrastructure that is resilient to erosion, flooding, and thawing permafrost and conducting risk assessments and planning activities needed to support future resilience efforts. However, significant additional work is necessary to build Native villages' resilience to both immediate and future environmental threats.

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<sup>37</sup>[GAO-20-100SP](#) and [GAO-20-127](#).

**Figure 5: Federal Obligations to Repair Infrastructure and Build Resilience to Erosion, Flooding, and Thawing Permafrost in Alaska Native Villages, by Type of Effort, Fiscal Years 2016 through 2020**

Dollars (in millions)



Source: GAO analysis of federal agency obligations data. | GAO-22-104241

Specifically, federal agencies provided about \$27 million in funding to collect baseline data, develop risk assessments, undertake community-wide planning efforts, and provide technical assistance in support of

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building resilience to environmental threats.<sup>38</sup> For example, BIA's Tribal Climate Resilience Program funded data collection and risk assessments for 28 Native villages, as well as community-wide plans for 14 Native villages. Further, FEMA funded the development of Hazard Mitigation Plans, which are needed to apply for certain FEMA grants, for at least 27 Native villages.<sup>39</sup> In addition, BIA, the Denali Commission, and FEMA provided funding for staff positions with the Alaska Native Tribal Health Consortium and the state of Alaska, as well as in specific communities, to provide grant writing support and other technical assistance designed to help Native villages obtain federal support from the myriad of federal programs, among other efforts.

Federal agencies also provided about \$163 million in funding to implement infrastructure projects that were designed to increase resilience to environmental threats. Ninety percent of this amount went to projects in five highly threatened Native villages. These projects included constructing new roads and bridges, installing new water infrastructure, designing and building new homes in Native villages that are partially or entirely relocating, and constructing new storm protection infrastructure for communities that are protecting in place. For example, DOT's Federal Highway Administration provided about \$53 million in funding to construct a new road leading to the site of a new school that will be located about 7 miles from Kivalina, which is currently located on a barrier island. The

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<sup>38</sup>This amount reflects funding for data collection from federal programs that also fund other activities, such as risk assessments and planning, and does not include funding from federal programs that fund data collection as part of their scientific research missions. In addition, we did not include in our review funding from agencies, or components of agencies, with scientific research as their primary mission, such as the National Science Foundation, the Department of the Interior's U.S. Geological Survey, and NOAA's Office of Oceanic and Atmospheric Research. Tribal organization representatives and state officials we interviewed said they believe that these agencies could play a significant role in meeting Native villages' data collection needs. In particular, they noted that the National Science Foundation's Navigating the New Arctic program's goals include research outcomes that enable resilient and sustainable Arctic communities. In commenting on a draft of this report, the U.S. Geological Survey stated that several of its activities, including data collection and modeling studies, could help Native villages address environmental threats. Furthermore, this amount also does not include funding from programs that solely provide technical assistance, such as NRCS's Conservation Technical Assistance program, since the agencies were unable to identify the portion of the technical assistance that was specific to addressing environmental threats or the program did not provide relevant support during our time frames.

<sup>39</sup>FEMA awarded planning grants directly to nine Native village tribal governments. FEMA funded the other plans through awards to the state of Alaska for municipalities or boroughs in which at least one tribal government is also located.

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Kivalina tribal officials we interviewed said the road helped provide a safe evacuation route in the event of severe storms and, according to a community plan, the road will also support access to the site if the community decides to relocate there.<sup>40</sup>

Federal agencies also provided funding for emergency efforts to move homes and other structures to avert the imminent loss of infrastructure and human lives. For example, USDA, the Denali Commission, and HUD provided almost \$5 million to move homes and community structures in 11 Native villages that are facing immediate threats from eroding riverbanks or coastlines. Several representatives we interviewed from tribal organizations and Native villages said that funding for emergency efforts is a critical need because threats can become imminent overnight, for example, as tens of feet of shoreline can be eroded by a single storm.

Federal agencies funded these resilience efforts through 21 federal programs—10 of which have a purpose to address or build resilience to environmental threats, while the other 11 do not have that specific purpose. However, some of the federal programs that we identified as having a purpose to address or build resilience to environmental threats, including several administered by the Corps and FEMA, did not fund relevant projects in Alaska Native villages during the 5 years we reviewed. Appendix III has additional information about the federal agencies and programs that funded these efforts.

We found that significant work remains to build resilience to the threats from erosion, flooding, and thawing permafrost, likely at significant costs. According to BIA's 2020 report on unmet infrastructure needs in tribal communities, as well as information from the state of Alaska and the Alaska Native Tribal Health Consortium, most Native villages, including the highly threatened Native villages, are in the assessment or planning phase of actions and projects. For example, we found that 39 Native villages—including 14 of the 73 highly threatened Native villages—received assistance for data collection, risk assessments, or planning but not for project implementation in fiscal years 2016 through 2020. Therefore, the funding to construct any projects identified in their plans

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<sup>40</sup>In another example, the Denali Commission, FEMA, NOAA, HUD, and BIA provided a total of about \$38 million in funding in fiscal years 2016 through 2020 to design and construct new infrastructure in the new community of Mertarvik to support Newtok Village's relocation. Federal and state agencies also provided additional support for the relocation before fiscal year 2016.

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will be needed in the coming years. Further, BIA reported in 2020 that the estimated unmet infrastructure needs that are directly related to climate change in Native villages are in the billions of dollars.<sup>41</sup>

Several of the communities that made progress in implementing resilience projects during the 5 years we reviewed still have much work remaining, according to Native village officials and representatives we interviewed. For example, Kivalina tribal officials said they were focused on addressing immediate threats and had recently restarted the process of discussing relocation; therefore, the work to actually relocate all or a portion of their community remains. Further, many Native villages, including 38 of the 73 identified as highly threatened in the Denali Commission's 2019 assessment, did not receive federal assistance to build resilience to environmental threats during the 5 years we reviewed. Consequently, efforts to protect those communities, and the costs of doing so, also lie ahead.

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<sup>41</sup>BIA and its tribal, federal, and state partners that contributed to its report roughly estimated that efforts to protect infrastructure from damage due to erosion, flooding, and thawing permafrost will cost at least \$4 billion in 2020 dollars over the next 50 years for 144 Native villages, including regional hub communities. The report states that these costs assume that projects can be implemented as pre-disaster mitigation projects prior to events that would require emergency response. The report also states that the estimates were based on the best judgment of a subject matter advisory team and did not include direct input from individual Native villages because of the short time frames in which the contributors created the cost estimates. Bureau of Indian Affairs, *Informational Report: The Unmet Infrastructure Needs of Tribal Communities and Alaska Native Villages in Process of Relocating to Higher Ground As a Result of Climate Change* (Albuquerque, NM: May 2020).



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## Several Opportunities Exist to Better Support Native Villages' Efforts to Build Resilience to Environmental Threats

We identified several opportunities for federal agencies to better support Alaska Native villages' efforts to build resilience to the threats from erosion, flooding, and thawing permafrost. These include improving interagency coordination, providing additional technical assistance, and reducing obstacles to obtaining assistance from federal programs. We identified these opportunities by reviewing our previous reports and recent relevant federal, tribal, and state reports, and interviewing federal and state officials and representatives from selected Native villages and tribal organizations.

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## Opportunities to Improve Interagency Coordination

We identified several opportunities to improve interagency coordination to better support Native villages' efforts to build resilience to erosion, flooding, and thawing permafrost. We also identified opportunities for improving coordination to streamline program delivery across agencies, which could reduce the administrative burden on Native villages and enhance their ability to obtain federal assistance.

## Improving Coordination among Federal Agencies and Their Partners

The federal agencies included in our review currently coordinate in targeted ways as they assist Native villages in addressing environmental threats, but they do not coordinate in a comprehensive manner to address these threats statewide. Specifically, agencies coordinate in several ways, such as cost sharing for specific projects, sharing information about available programs, and supporting individual Native village relocation efforts.<sup>42</sup> For example, the Community Resilience Working Group has operated as an Alaska-specific information-sharing forum and includes participants from federal and state agencies involved in addressing community resilience, including addressing imminent threats from erosion, flooding, and thawing permafrost. According to an official who facilitates the group, participants have not routinely discussed specific communities' needs or developed interagency strategies to

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<sup>42</sup>For example, several federal agencies, one state agency, and a tribal organization collaborate through a group that funds water infrastructure projects. Several current and former agency officials we interviewed said that collaboration within the group is effective, but the group focuses on water and sanitation projects. In addition, the Alaska Silver Jackets team is a collaborative group that brings together federal and state agencies to work with local partners to address flood risk issues. Also, as we reported in 2020, the Newtok Planning Group supports coordination across agencies and works with the community on its strategies for relocating to Mertarvik—efforts that have been critical to moving the relocation forward. [GAO-20-488](#).

### Newtok Relocation

Newtok Village—a Yup'ik community of almost 400 residents located on the Ninglick River—has made progress in fully relocating to a new site, named Mertarvik in the face of substantial erosion. However, Newtok has faced challenges piecing together support from many federal programs with varying purposes and requirements. As a result, relocation efforts have taken many years and have led to inefficiencies in project execution and sequencing. For example, because some federal programs can only provide assistance to existing communities, Newtok established an initial population in Mertarvik before the entire new community was to be constructed. To support these initial residents, the project team built homes with temporary, in-home water systems that will need to be replaced once a community-wide piped water and sewer system is installed.

As of 2021, Newtok had obtained assistance from at least eight federal agencies and the state for a range of relocation efforts, including constructing streets, homes, an airport, and energy infrastructure, but the relocation is incomplete. One major challenge is that about 45 more homes are needed in Mertarvik to move everyone from Newtok in the next 2 years, but the community needs to combine support from several sources to fund that many homes, according to the Newtok Project Manager. Meanwhile, the 275 residents remaining in Newtok continue to face significant risks from erosion, which is expected to severely threaten the school by fall 2022.



**Mertarvik, as of 2018**

Source: GAO. | GAO-22-104241

address community needs. However, according to several officials involved in the working group, there has been new momentum within the group in 2022, including redefining its functions and developing a charter.<sup>43</sup>

Broader coordination efforts have been limited because of agencies' focus on their own projects and the absence of consistent support for interagency coordination. For example, FEMA and Corps officials we interviewed said that they do not generally coordinate with other agencies when selecting projects to assist Native villages in addressing environmental threats because their programs respond to specific requests for assistance from communities.

Moreover, although the President designated the Denali Commission as the lead agency in 2015 to help coordinate federal, state, and tribal resources to assist communities in developing and implementing solutions to address climate change impacts, the Commission does not have statutory authority to lead and coordinate federal assistance, which

<sup>43</sup>The Community Resilience Working Group was created under the Arctic Executive Steering Committee, which was established by executive order in 2015 and operated for several years prior to becoming dormant because of changing administration priorities. When the steering committee was inactive, the working group continued to meet informally. The steering committee was reinstated in 2021.

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has limited its ability to do so.<sup>44</sup> Additionally, other interagency coordination groups and efforts have addressed environmental threats more broadly in the past, but these efforts have lacked continuity over time because state and federal administrations have provided inconsistent support as priorities changed.<sup>45</sup>

We and others have described the benefits of having a formal structure to coordinate efforts across federal, tribal, state, and other partners. For example, our Disaster Resilience Framework states that the federal government can help build resilience to environmental threats by promoting coordination across agency missions, programs, and levels of government.<sup>46</sup> In addition, federal agency and working group reports we reviewed identified the need for more coordination through a formal structure to help Native villages address and build resilience to environmental threats.<sup>47</sup>

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<sup>44</sup>We found in 2020 that, with explicit authority to lead and coordinate Newtok's relocation effort, the Denali Commission could have improved coordination across agencies to identify and access sources of federal technical and financial assistance for the communities at the most risk, according to stakeholders we interviewed. We also found that no agency has been given the authority to lead and organize federal assistance for climate migration. [GAO-20-488](#). Our 2009 report included a matter for congressional consideration related to designating or creating a lead federal entity that could work with the state to coordinate and oversee Native village relocation efforts. [GAO-09-551](#). As of March 2022, we were not aware of any legislation being enacted to address this matter.

<sup>45</sup>For example, in the past 15 years, two state-led groups—former governor Palin's Climate Change Sub-Cabinet and former governor Walker's Climate Action for Alaska Leadership Team—addressed issues related to impacts of climate change in Alaska, including environmental threats to the Native villages, but both were later disbanded due to changes in state administrations. Additionally, the Arctic Executive Steering Committee's pendulum from being active to dormant to reinstated is an example of inconsistent support for federal collaboration efforts.

<sup>46</sup>[GAO-20-100SP](#). In addition, we identified the following key features to consider when implementing interagency collaborative mechanisms: leadership; participants; clarity of roles and responsibilities; outcomes and accountability; bridging organizational cultures; resources; and written guidance and agreements. GAO, *Managing for Results: Key Considerations for Implementing Interagency Collaborative Mechanisms*, [GAO-12-1022](#) (Washington, D.C.: Sept. 27, 2012).

<sup>47</sup>See, for example, Bureau of Indian Affairs, *Informational Report*; and Climate Action for Alaska Leadership Team, *Alaska Climate Change Action Plan Recommendations to the Governor* (September 2018). In addition, as of December 2021, the Alaska Native Tribal Health Consortium, the state of Alaska, and tribal partners had drafted a report on the unmet infrastructure needs in Native villages that included a recommendation for establishing a coordination framework comprised of federal, state, and tribal representatives specifically to support environmentally threatened communities.

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Further, several individuals we interviewed from federal and state agencies, tribal organizations, and Native villages said that a comprehensive statewide group could bring together federal, state, and tribal representatives, some of which may not traditionally work together.<sup>48</sup> In addition, officials from several federal and state agencies and representatives from one tribal organization said that a coordinating entity could more efficiently support projects in a strategic, coordinated manner to focus on those communities facing the most urgent risks. For example, according to one federal official, because some Native villages apply for grants for a single project from several different programs, agencies in some instances have unknowingly selected the same project to support. Such instances led to additional work for one of the agency's staff to withdraw the grant award and make an award to another recipient.<sup>49</sup>

Moreover, several of the agencies, including BIA and the Denali Commission, received supplemental appropriations in the Infrastructure Investment and Jobs Act in November 2021 that, according to agency and White House planning documents, will help their agencies increase assistance for Native villages addressing environmental threats.<sup>50</sup> Interagency coordination among the large number of federal and state agencies that can potentially support Native villages' efforts is particularly critical in light of this increase in potential resources. Increasing interagency coordination in Alaska, through a dedicated interagency and

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<sup>48</sup>In October 2021, the National Congress of American Indians adopted a resolution that calls for fair and equitable representation for tribal nations on all federal climate and disaster resilience committees, working groups, and initiatives in which states, local governments, and other stakeholders are represented. National Congress of American Indians, *Resolution #SAC-21-036*.

<sup>49</sup>The official explained that, in these instances, the agencies then worked with the grantee to determine which agency's program best suited the project, and then one agency withdrew its award so it could award a grant to another recipient.

<sup>50</sup>For example, the act appropriated \$216 million for BIA's Operation of Indian Programs for climate resilience, adaptation, and community planning, design, and implementation of projects that address the varying climate challenges facing tribal communities across the country. According to BIA's February 2022 initial spend plan, more than \$214 million of this appropriation would be used for the Tribal Climate Resilience Program, and BIA planned to add award categories to the program to fund implementation projects for the first time. In comparison, the program's budget for fiscal year 2021 was \$17 million. In addition, the act appropriated \$75 million for the Denali Commission; the Commission's fiscal year 2021 appropriation was \$15 million. Further, the act appropriated \$492 million to NOAA for grants through the National Coastal Resilience Fund. In contrast, the explanatory statement accompanying NOAA's fiscal year 2021 appropriation directed \$34 million to the National Coastal Resilience Fund.

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Improving Coordination to  
Streamline Program Delivery  
across Agencies

intergovernmental coordinating entity, could help agencies more effectively address the threats facing Native villages by strategically targeting federal investments to Native villages facing significant environmental threats. Establishing such a coordinating entity in statute, and directing relevant agencies to participate, could allow the entity to be sustained over changes in presidential administrations, state leadership, and the leadership of executive branch agencies.

Currently, there are more than 30 federal programs across 10 agencies that can potentially help Native villages address environmental threats. Because there is no single, dedicated federal program to support all aspects of Native villages' efforts in this regard and, given the significant costs of these efforts, Native villages must currently obtain assistance from multiple agencies and programs to meet their needs, usually over many years. Navigating the variety of federal programs requires significant administrative capacity that many Native villages do not have, according to several federal and state officials, as well as several representatives from Native villages and tribal organizations we interviewed.<sup>51</sup> Also, implementing projects in this way is not cost effective, for example, because agencies may pay to mobilize supplies, equipment, and people to remote locations multiple times for one relocation.

Most of the agencies we reviewed administer their programs independently because they operate under different authorities. However, some agencies have coordinated to streamline program delivery for certain types of projects where they are authorized to do so. For example, the group of agencies that coordinates on water infrastructure projects has created a process where a village can apply for assistance from several federal and state programs through one application, which decreases the burden of completing multiple applications for the same project.

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<sup>51</sup>Several representatives from Native villages and tribal organizations we interviewed explained that it is difficult to navigate the requirements to obtain and administer assistance from federal programs, and each program has its own set of requirements. In addition, we have previously found that it is administratively challenging to manage many different programs, even for large communities. [GAO-20-127](#).

### Shishmaref Road Protection

The Native Village of Shishmaref—a traditional Inupiat village located on a small barrier island—has had difficulty obtaining federal support to repair and protect a critical roadway. A fall 2020 storm destroyed a section of the only road that leads to the community's sewage lagoon and landfill, which limited access to these facilities and created a health hazard for the community.

According to a tribal organization representative assisting the community, two federal transportation programs are not available to repair the full road because of restrictions for their funding. For example, one state agency plans to repair a portion of the road and construct an erosion barrier that will protect approximately one-quarter of the road from future storms, using funding from the Federal Aviation Administration and the state of Alaska. The repairs and barrier construction are limited to addressing the portion of the road that runs adjacent to the airport, since the funding is restricted to protecting infrastructure on airport property. As a result, the last quarter mile of road beyond the airport to the sewage lagoon and landfill—as well as the three-quarter miles of road on the other side of the airport property—will remain unprotected. Moreover, barrier construction will not begin until summer 2023, leaving the entire road vulnerable until then.



Damage to Shishmaref sanitation road

Source: Kawerak, Inc. | GAO-22-104241

In another example, any federal agency authorized to carry out an activity that is within the authority of the Denali Commission, including projects to repair damaged infrastructure and build resilience to environmental threats, is authorized to transfer appropriations to the Commission for those activities.<sup>52</sup> For example, USDA transferred appropriations to the Denali Commission, which the Commission then obligated for a project to develop an energy plan for one Native village's relocation, eliminating the need to apply for and manage awards from both agencies.

However, not every agency with relevant activities has the authority to transfer appropriations to agencies other than the Denali Commission to allow this type of streamlined project administration. Appendix IV contains additional examples of potential coordinated actions that officials and representatives we interviewed identified that could help streamline federal agencies' program delivery to Alaska Native villages, both within current statutory authority and, in some cases, requiring additional authorities.

Our Disaster Resilience Framework states that the federal government can increase communities' access to programs that build resilience to environmental threats by reducing administrative burdens, streamlining review processes, and facilitating the combination of funding streams.<sup>53</sup> One role that a dedicated coordinating entity, and its participating agencies, could play is to identify opportunities to streamline program delivery across agencies and report to Congress with any recommended statutory changes that could help reduce Native villages' total administrative burden, thereby increasing access to federal assistance.

<sup>52</sup>Pub. L. No. 105-277, div. C, tit. III, 112 Stat. 2681-637 (1998), *as amended by* Pub. L. No. 112-141, div. A, tit. I, subtit. E, § 1520(2), 126 Stat. 405, 577 (2012) (*classified as amended by* at 42 U.S.C. § 3121 Note). In commenting on a draft of this report, the Commission noted several benefits of this transfer authority, including the ability to pool funds from several agencies to make a single award for a project.

<sup>53</sup>GAO-20-100SP.

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## Opportunities to Provide Native Villages with Additional Technical Assistance

According to our review of recent relevant reports and interviews with federal and state officials, as well as representatives of Native villages and tribal organizations, several entities and programs currently provide cross-cutting technical assistance to Native villages that is specifically designed to help them navigate the variety of federal programs, secure assistance from these programs, and manage projects.<sup>54</sup> For example, the Denali Commission and BIA have funded the Alaska Native Tribal Health Consortium's Center for Environmentally Threatened Communities, in which staff help Native villages identify and pursue relevant grant and other opportunities, conduct community planning, and manage grants and projects.<sup>55</sup> According to Consortium officials, the center helped at least 28 communities obtain approximately \$27 million in grants and other assistance from federal agencies from 2018 through 2021. In addition, the Denali Commission and BIA have funded community coordinators located in eight Native villages who assist tribal officials and residents with priority setting, planning, and decision-making, as well as applying for and managing federal grants to address environmental threats.<sup>56</sup>

Further, other agencies provide some aspects of cross-cutting technical assistance. For example, FEMA's Risk Mapping, Assessment, and Planning program supports a state of Alaska staff person who provides technical assistance to Native villages, including coordinating interagency planning groups for four communities. Also, at least one Native village has used EPA's Indian Environmental General Assistance Program

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<sup>54</sup>For the purposes of this review, we define "technical assistance" as providing help with navigating federal programs and processes, including identifying relevant federal programs, assisting with developing overall strategies and specific projects, grant writing and management, and understanding different program requirements. Generally, technical assistance refers to programs, activities, and services provided by federal agencies to strengthen the capacity of grant recipients and to improve their performance of grant functions. We have found that the overall goal of technical assistance is to enhance the delivery of agency programs. See GAO, *Grants Management: Agencies Provided Many Types of Technical Assistance and Applied Recipients' Feedback*, [GAO-20-580](#) (Washington, D.C.: Aug. 11, 2020).

<sup>55</sup>The center provides technical assistance with planning, project development, grant writing, grant management, project management, and professional services solicitation. In addition, the center, along with state agency partners, received a grant from NOAA's National Coastal Resilience Fund in fiscal year 2021 to provide adaptation planning and development of hazard mitigation and restoration solutions for 44 Alaska Native villages.

<sup>56</sup>According to BIA and Denali Commission information, the agencies funded these positions from fiscal year 2016 through November 2021 although, as of 2021, the Denali Commission was no longer funding these positions.

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grants to support a coordinator who pursues and manages federal grants addressing flooding and erosion protection.<sup>57</sup>

Several federal and state officials emphasized the importance of technical assistance to help villages obtain federal assistance. According to several representatives of Native villages and tribal organizations that we interviewed, and reports we reviewed, additional, sustained technical assistance is necessary to enhance Native villages' ability to manage the administrative burdens associated with navigating the many different processes and procedures involved with seeking assistance from, and participating in, federal programs. For example:

- Consortium officials said that the need for the technical assistance they provide exceeds their available staff and budget. They also said that the center is currently supported by grants and that having consistent, long-term support would make its operations more sustainable.
- A 2020 BIA report concluded that additional technical assistance is needed to help Native villages obtain federal support, including long-term technical assistance to help communities develop an overall strategy and secure financial assistance for their needs.<sup>58</sup>
- In 2020, the Alaska Federation of Natives adopted a resolution that requested that federal agencies increase resources available for

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<sup>57</sup>The Indian Environmental General Assistance Program Act of 1992 authorizes EPA to award grants to tribes and intertribal consortia for planning, developing, and establishing environmental protection programs, as well as development and implementation of solid and hazardous waste programs for Indian lands. 42 U.S.C. § 4368b. According to EPA guidance, recipients of these grants can directly charge costs for grant proposal preparation in certain conditions, up to 5 percent of their total program budget. According to program officials we interviewed, tribes set priorities for using their grants, which can include adaptation planning and vulnerability assessments related to addressing environmental threats. According to representatives from one tribal organization and one Native village, as well as a report drafted by the Consortium and the state of Alaska, local General Assistance Program coordinators are well positioned to provide technical assistance for the Native villages in which they already work.

<sup>58</sup>Bureau of Indian Affairs, *Informational Report*.



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technical assistance providers that support Native villages addressing environmental threats.<sup>59</sup>

Our Disaster Resilience Framework states that technical assistance is particularly important for small, low-income, and historically disadvantaged communities that may not have other avenues to access this kind of expertise.<sup>60</sup> We reported in 2015 that federal agencies could consider supporting technical assistance through nonfederal entities, which can more easily provide assistance across multiple agencies and programs.<sup>61</sup> As of January 2022, according to Denali Commission officials, the Commission was determining how to allocate the supplemental appropriations it had received in the Infrastructure Investment and Jobs Act and, as of February 2022, BIA had released an initial spend plan for the appropriations it had received in the act. Having BIA and the Denali Commission identify options to provide additional cross-cutting technical assistance, including by assessing how the agencies prioritize their available resources, could enhance Native villages' ability to access the variety of federal programs potentially available to address erosion, flooding, and thawing permafrost.

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<sup>59</sup>The Alaska Federation of Natives is a statewide membership organization that includes 168 federally recognized tribes, 166 village corporations, eight regional corporations, and 12 regional nonprofit and tribal consortiums. See Alaska Federation of Natives, *Increased Coordination, Technical Assistance and Funding for Alaska Native Communities to Respond to Environmental Threats*, Resolution 20-20 (Dec. 8, 2020).

<sup>60</sup>[GAO-20-100SP](#).

<sup>61</sup>In November 2015, we reported that a nonfederal entity would be better positioned than federal agencies to provide technical assistance in a national climate information system. GAO, *Climate Information: A National System Could Help Federal, State, Local, and Private Sector Decision Makers Use Climate Information*, [GAO-16-37](#) (Washington, D.C.: Nov. 23, 2015).

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## Opportunities to Reduce Obstacles to Obtaining Assistance from Federal Programs

Through our review of recent relevant reports and interviews with federal and state officials, as well as representatives of Native villages and tribal organizations, we identified several opportunities to reduce program-specific obstacles that limit Native villages' obtaining assistance from specific federal programs. Seven of the 10 federal agencies included in our review—BIA, the Corps, the Denali Commission, FEMA, HUD, NOAA, and USDA's Natural Resources Conservation Service—administer 20 federal programs with purposes related to addressing or building resilience to environmental threats. Of these 20 programs, we found that all of them have at least one characteristic that may pose an obstacle to Native villages' obtaining assistance from the program.<sup>62</sup> Many of these programs include several such characteristics.<sup>63</sup>

Figure 6 shows the 11 characteristics that our review focused on. It also shows the frequency with which they occur across the 20 programs and whether they are in the program's authorizing statute or if they are established in agency regulations, policies, or other documents. (See app. V for additional information about these characteristics.)

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<sup>62</sup>To identify program characteristics that may pose obstacles to Native villages' obtaining assistance from federal programs to address environmental threats, we reviewed our previous reports on this topic and agency, working group, and tribal reports that we identified during the course of this review. We identified a total of 20 federal programs to include in our analysis: 17 programs with a purpose of addressing or building resilience to environmental threats, and three programs that were included in our 2009 report on this topic ([GAO-09-551](#)). We then reviewed these 20 programs' statutes, regulations, policies, and other agency directives to identify if a selection of these program characteristics were present. We corroborated our analysis with agency officials. In addition to the program-specific obstacles we identified, we identified broader obstacles that Alaska Native villages face in obtaining support from federal agencies, which are discussed elsewhere in this report. Native villages may also face additional obstacles not covered in this review.

<sup>63</sup>We focused our review on 11 characteristics that may pose obstacles to Native villages' obtaining assistance from federal programs and that were described and could be clearly identified in statutes and program documents. We reviewed these documents to determine whether the program contained any of these characteristics. The characteristics included (1) competitive grant program, (2) cost-share requirement, (3) federal disaster declaration required, (4) cost-benefit analysis required, (5) projects selected from a national pool of potential projects, (6) federally recognized tribes are ineligible recipients, (7) Hazard Mitigation Plan required, (8) addressing environmental threats is not the main program focus, (9) nonprofit tribal organizations or consortia are ineligible, (10) community participation in the National Flood Insurance Program required, and (11) recurring events are explicitly ineligible for program funding. App. V contains additional information about each characteristic.

**Figure 6: Federal Agencies, Programs, and 11 Characteristics That May Pose an Obstacle to Alaska Native Villages' Obtaining Assistance, as of June 2021**

Agency and program	Addressing environmental threats is not the main program focus	Community participation in NFIP required for all projects <sup>a</sup>	Competitive grant program	Cost-benefit analysis required	Cost-share requirement	Federal disaster declaration required	Federally recognized tribes ineligible recipients	Hazard Mitigation Plan required	Nonprofit tribal organizations or consortia are ineligible	Projects selected from national pool of potential projects	Recurring events are explicitly ineligible for program funding
<b>Army Corps of Engineers</b>											
Coastal Storm Risk Management	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> <sup>b</sup>	<input checked="" type="radio"/> <sup>c</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Emergency Streambank and Shoreline Protection	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/> <sup>c,d</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Flood Plain Management Services	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <sup>e</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Flood Risk Management	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/> <sup>c,d</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Planning Assistance to States	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/> <sup>c</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section 116 of the Energy and Water Development and Related Agencies Appropriations Act, 2010	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/> <sup>d</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> <sup>f</sup>	<input type="radio"/>	<input type="radio"/>
Tribal Partnership Program	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/> <sup>d,g</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<b>Bureau of Indian Affairs</b>											
Tribal Climate Resilience Program	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<b>Denali Commission</b>											
Village Infrastructure Protection Program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> <sup>h</sup>	<input type="radio"/>	<input checked="" type="radio"/> <sup>i</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Department of Housing and Urban Development (HUD)</b>											
Community Development Block Grant (CDBG)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/> <sup>j</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
CDBG-Mitigation <sup>k</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> <sup>l</sup>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/> <sup>m</sup>	<input type="radio"/>	<input checked="" type="radio"/> <sup>n</sup>	<input type="radio"/>	<input type="radio"/>
Indian CDBG	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/> <sup>o</sup>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Indian CDBG - Imminent Threat grants	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Source: GAO analysis of statutes, regulations, and agency documentation. | GAO-22-104241

Part 1 of 2

Agency and program	Addressing environmental threats is not the main program focus	Community participation in NFIP required for all projects <sup>a</sup>	Competitive grant program	Cost-benefit analysis required	Cost-share requirement	Federal disaster declaration required	Federally recognized tribes ineligible recipients	Hazard Mitigation Plan required	Nonprofit tribal organizations or consortia are ineligible	Projects selected from national pool of potential projects	Recurring events are explicitly ineligible for program funding
<b>Federal Emergency Management Agency (FEMA)</b>											
Building Resilient Infrastructure and Communities	○	○	●	●	●	●	○	● <sup>b</sup>	● <sup>n</sup>	● <sup>q</sup>	○
Flood Mitigation Assistance Program	○	●	●	●	● <sup>r</sup>	○	○	●	●	●	○
Hazard Mitigation Grant Program	○	○	○ <sup>s</sup>	●	●	●	○	● <sup>p</sup>	● <sup>n</sup>	○	○
Risk Mapping, Assessment, and Planning	○	○	● <sup>t</sup>	○	○	○	○	○	●	○	○
<b>National Oceanic and Atmospheric Administration (NOAA)</b>											
National Coastal Resilience Fund	○	○	●	○	○ <sup>u</sup>	○	○	○	○	● <sup>v</sup>	○
<b>U.S. Department of Agriculture's Natural Resources Conservation Service</b>											
Emergency Watershed Protection Program	○	○	○	●	●	○	○	○	○	○	○ <sup>w</sup>
Watershed Protection and Flood Prevention Program	● <sup>x</sup>	○	○	●	● <sup>y</sup>	○	○	○	○	●	○

● Characteristic present      ○ Characteristic not present      NFIP = National Flood Insurance Program  
 ■ Established in statute  
 ■ Established in regulations, policy, or other agency directive  
 □ Not applicable, because characteristic not present

Source: GAO analysis of statutes, regulations, and agency documentation. | GAO-22-104241 Part 2 of 2

**Note:** Legal analysis was conducted on the applicable statutes and regulations in force in June 2021.

<sup>a</sup>We considered this characteristic present only if participation is required for all projects.

<sup>b</sup>The Corps is required by statute to consider the economic and ecological benefits of shore protection projects.

<sup>c</sup>As of fiscal year 2022, the cost-share requirement is waived up to \$530,000 for federally recognized tribes.

<sup>d</sup>Subject to the nonfederal sponsor's ability to pay, which could reduce the nonfederal cost share to a minimum of 5 percent.

<sup>e</sup>Planning and technical services are available to private entities for a cost through this program.

<sup>f</sup>According to Corps officials, the eligibility of nonprofit tribal consortia and organizations is determined on a case-by-case basis.

<sup>g</sup>As of fiscal year 2022, the cost-share requirement is waived up to \$530,000 for federally recognized tribes for water resources development studies and projects but not for watershed studies authorized by the Tribal Partnership Program.

<sup>h</sup>The Denali Commission awarded grants competitively in 2017 only.

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<sup>i</sup>Annual appropriations acts for fiscal years 2016 through 2020 limited the amount of the Denali Commission's appropriations that could be used on construction projects. According to Denali Commission officials, the Commission requires a cost share when it is the majority funder of a construction project costing more than \$100,000.

<sup>j</sup>The CDBG program awards formula grants to states and units of local government. According to HUD officials, the state of Alaska distributes its CDBG to subgrantees through a competitive process.

<sup>k</sup>Characteristics were assessed only for grants awarded in fiscal year 2021, which were for specified states, counties, and territories that experienced disasters in 2018, and not for any federally recognized tribes in Alaska.

<sup>l</sup>For infrastructure projects with a total project cost of \$100 million or more and with at least \$50 million of CDBG funds from any source.

<sup>m</sup>States are permitted to make subgrants to Indian tribes.

<sup>n</sup>Nonprofit tribal consortia and organizations are eligible as subapplicants.

<sup>o</sup>For economic development projects only.

<sup>p</sup>Not required if recipients use the award to develop a new mitigation plan.

<sup>q</sup>A portion of the total amount available for the program is allocated to a tribal set-aside.

<sup>r</sup>Certain grants for severe repetitive loss structures do not have a cost-share requirement.

<sup>s</sup>States and tribal grant recipients award subgrants through a competitive process.

<sup>t</sup>Risk Mapping, Assessment, and Planning is supported by FEMA's Cooperating Technical Partners program, which provides federal assistance through cooperative agreements to eligible recipients.

<sup>u</sup>Applicants are encouraged, but not required, to provide a nonfederal cost share.

<sup>v</sup>The National Fish and Wildlife Foundation administers the grants—including establishing application procedures and selection procedures and criteria. The NOAA Administrator approves these procedures and criteria.

<sup>w</sup>In cases where the same type of natural event occurs within a 10-year period and a structural measure has been installed or repaired twice within that period using Emergency Watershed Protection assistance, further program assistance is limited to those sites eligible for the purchase of a floodplain easement.

<sup>x</sup>While one purpose of this program is to prevent damage to property caused by erosion, floodwater, and sediment, it has other purposes, such as funding the conservation, development, utilization, and disposal of water.

<sup>y</sup>A nonfederal cost share is not required for flood damage reduction construction and engineering costs.

These program characteristics present obstacles to Native villages' obtaining federal assistance in a number of ways. For example:

- Competitive grant programs are challenging for Native villages because of the administrative capacity required to develop and submit applications.<sup>64</sup>

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<sup>64</sup>In addition, competitive and other grants also have reporting requirements, which adds to the administrative burdens for Native villages. For example, according to FEMA documents, certain award recipients are required to submit quarterly financial and progress reports to FEMA. Future awards and fund drawdowns may be withheld if these reports are delinquent, demonstrate a lack of progress, or are insufficient in detail. Recipients are also required to submit closeout reports, which consist of the final financial and performance reports.

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- Cost-share requirements—which can range from 5 percent to 50 percent of a project’s cost—are a significant obstacle for Native villages with subsistence economies that do not have a tax base as a revenue source. Officials from the Corps told us that, although the agency has several programs focused on addressing erosion and flooding, Native villages often do not request the Corps’ assistance because they cannot meet cost-share requirements for construction projects, which could be tens of millions of dollars for a large project.
  - Programs that require a cost-benefit analysis of projects—including those that require that benefits exceed the costs—pose obstacles for Native villages because the agencies’ determinations of the economic benefits of construction projects in rural Alaska rarely exceed the generally high costs. Using these cost-benefit analyses to determine whether to support a project puts Native villages’ projects at a particular disadvantage when competing against proposed projects that would serve large communities located in the contiguous 48 states.

Through our review of recent relevant reports and interviews with federal and state officials, as well as representatives of Native villages and tribal organizations, we identified other program characteristics that can help Native villages obtain federal assistance by reducing obstacles. For example, establishing set-asides within broad programs for which only federally recognized tribes are eligible can increase Native villages’ access to those programs.<sup>65</sup> According to FEMA officials, the agency created a tribal set-aside for its competitive Pre-Disaster Mitigation grant program in 2014, and officials said more tribes were able to access program grants because they were no longer competing with larger communities with greater capacity and resources.<sup>66</sup>

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<sup>65</sup>The National Congress of American Indians has called for the implementation of tribal set-asides in natural resource and disaster resilience funding programs. Specifically, the intertribal organization adopted a resolution stating that a fair and equitable set-aside of direct monies or allowances must be made available for distribution to tribal nations through legislation, administrative actions, and existing and future federal natural resource and disaster resilience funding programs. National Congress of American Indians, *Resolution #SAC-21-036*.

<sup>66</sup>The Pre-Disaster Mitigation program was superseded by the Building Resilient Infrastructure and Communities program in fiscal year 2020, which also has a tribal set-aside. The tribal set-aside for the new program was \$20 million in the fiscal year 2020 funding solicitation, and the tribal applications submitted exceeded that amount.

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In addition, some agencies and programs have the authority to reduce, partially waive, or eliminate cost-share requirements, and some have done so for eligible projects.<sup>67</sup> For example, NRCS staff we interviewed told us they have obtained approval to waive the cost-share requirement for certain projects in Native villages. Several federal and state officials, as well as several representatives from Native villages and tribal organizations, emphasized the importance of eliminating cost-share requirements because, although some programs only require a 10 percent cost share, even that amount puts the project out of reach for most Native villages.<sup>68</sup>

Further, representatives from one tribal organization stressed that, because many federal programs have more than one characteristic that poses an obstacle to Native villages, removing a single obstacle may not significantly improve access to a given program. Appendix V contains additional information about the program characteristics we identified that can help Native villages obtain federal assistance. In addition, consultation and coordination with federally recognized tribes may help agencies identify additional obstacles for Native villages. For example, in late 2021, the Department of the Interior held listening sessions to collect information about climate change and its competitive grant programs, including barriers that tribes face when applying for these programs and recommendations for addressing those barriers. One session focused on full relocation, managed retreat (partial relocation), and protection-in-place in Alaska.

In some cases, the program characteristics that pose obstacles to certain Native villages are also important tools for the programs. For example, in 2019, we reported that cost shares can be important because they

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<sup>67</sup>In addition, the Corps was authorized to carry out certain projects in nine communities in Alaska at full federal expense, but that authority was repealed in 2009. Specifically, section 117 of the Consolidated Appropriations Act, 2005, authorized the Corps to carry out, at full federal expense, structural and nonstructural projects for storm damage prevention and reduction, coastal erosion, and ice and glacial damage in Alaska, including relocation of affected communities and construction of replacement facilities. Pub. L. No. 108-447, div. C, tit. I, § 117, 118 Stat. 2809, 2944-45 (2004), *repealed by* Pub. L. No. 111-8, div. C, tit. I, § 117, 123 Stat. 524, 608 (2009). See [GAO-09-551](#).

<sup>68</sup>According to one federal agency economist we interviewed, this is similar to wanting to sell a \$1 million house to someone for \$10,000—it is an incredibly good deal, but if the buyer only has \$5, it does not do them any good.

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leverage federal investment in local projects.<sup>69</sup> However, the federal government has recognized that there are opportunities for waiving statutory or regulatory requirements for tribes,<sup>70</sup> and some statutes exempt tribes from certain requirements, including cost shares.<sup>71</sup> In addition, in July 2021, the administration directed the agencies included in our review to begin examining—and consider modifications to—policies, practices, and procedures to implement the Justice40 Initiative’s environmental justice goals of having 40 percent of the overall benefits of certain federal investments flow to disadvantaged communities.

As shown in figure 6 above, some of the program characteristics that pose obstacles for Native villages are in the program’s authorizing statute, so any changes to those characteristics would require a change to the statute. One role that a dedicated coordinating entity, and its participating agencies, could play is to assess the statutory program characteristics that we identified that present obstacles to Alaska Native villages’ obtaining federal assistance, identify any others, and report to Congress with any recommended statutory changes needed to address these obstacles. Doing so would be consistent with the principles outlined in our Disaster Resilience Framework, which state that the federal government can enhance resilience to environmental threats by reducing obstacles and providing financial and nonfinancial incentives for communities to pursue actions that build resilience. Further, because several of the characteristics are common across different programs, it may be more efficient for the agencies to submit such recommended changes to Congress through the coordinating entity.

For six agencies, other program characteristics that pose obstacles for Native villages are established in agency regulations, policy, or guidance; therefore, the agencies can change them. If these six agencies make

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<sup>69</sup>For example, we reported that in some cases cost shares meant that funding recipients were invested in a project’s success. [GAO-20-127](#).

<sup>70</sup>For example, for statutory or regulatory requirements that are discretionary and subject to waiver by the agency, Executive Order 13175 directs federal agencies, to the extent practicable and permitted by law, to consider any application by an Indian tribe for a waiver of statutory or regulatory requirements in connection with any program administered by the agency, with a general view toward increasing opportunities for utilizing flexible policy approaches at the tribal level—in cases in which the proposed waiver is consistent with the applicable federal policy objectives and is otherwise appropriate.

<sup>71</sup>For example, the Infrastructure Investment and Jobs Act authorized the Secretary of Transportation to waive the statutory cost-share requirement for grants to tribes under the newly created PROTECT program.



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relevant, feasible, and appropriate changes to address these obstacles, in consultation with tribes, Native villages could better obtain federal assistance under those programs. Implementing such changes would also be consistent with the executive order directing federal agencies to make achieving environmental justice part of their missions.

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## Conclusions

Federal agencies have supported Alaska Native villages' efforts to address environmental threats, but these threats are expected to worsen in the future because of climate change. With more than 70 Native villages highly threatened by erosion, flooding, or thawing permafrost, significant work remains for Native villages to address imminent threats and determine and implement the best courses of action for building resilience to these threats over the long term. In light of this significant work, and the 2021 executive order on environmental justice, it is critical for federal agencies to continue to identify ways to better provide assistance to Native villages and to target that assistance to the areas facing the most significant threats.

Because federal agencies work closely with each other and tribal and state government entities, coordination is essential to doing this effectively and efficiently. Increasing interagency coordination in Alaska through a dedicated interagency and intergovernmental coordinating entity could facilitate more strategically targeted federal investments that more effectively address the threats facing Native villages. Establishing such a coordinating entity in statute, and requiring relevant agencies to participate, could allow the entity to be sustained over changes in presidential administrations, state leadership, and the leadership of executive branch agencies.

Currently, many Alaska Native villages have limited administrative capacity, which makes it difficult to navigate the more than 30 federal programs that can potentially provide assistance in addressing environmental threats. An interagency and intergovernmental coordinating entity, and its participating agencies, could identify opportunities to streamline program delivery across agencies and report to Congress about any statutory changes that would be necessary to do so. These actions could reduce Native villages' total administrative burden and increase access to federal assistance.

Additionally, one of the most effective and efficient ways of helping Native villages with limited administrative capacity is to provide cross-cutting technical assistance that is specifically designed to help Alaska Native villages navigate and obtain assistance from the variety of federal

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programs; the Denali Commission and BIA already administer programs that provide such technical assistance. Having these agencies identify options for providing additional cross-cutting technical assistance, including by assessing how they prioritize their available resources, could enhance Native villages' ability to access the federal programs potentially available to address erosion, flooding, and thawing permafrost.

Even with greater interagency coordination, including streamlined program delivery, and additional technical assistance, Native villages will likely need to continue pursuing assistance from a variety of individual federal programs. However, many programs with purposes related to addressing or building resilience to environmental threats have characteristics that pose obstacles for Native villages. Some of these characteristics are established in statute, and others are established in agency regulations, policy, or guidance. In instances where the program characteristics that pose obstacles are established in statute, a dedicated coordinating entity, and its participating agencies, could assess these characteristics, and identify others, and report to Congress with any recommended statutory changes needed to address these obstacles.

In instances where the program characteristics that pose obstacles are established in agency regulations, policy, or guidance, the relevant federal agencies could, by making relevant, feasible, and appropriate changes to these characteristics and others that the agencies may identify, allow Alaska Native villages to better access federal assistance under those programs. Agencies should also document their review, including any related consultation with tribes, and any changes made to their programs.

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## Matter for Congressional Consideration

Congress should consider establishing an interagency and intergovernmental coordinating entity and requiring the relevant agencies to participate and engage in sustained coordination to strategically target federal investments to Alaska Native villages facing significant environmental threats. Congress should also consider directing the coordinating entity and its participating agencies to identify opportunities to streamline program delivery across federal agencies; assess the statutory program characteristics we identified that pose obstacles to Alaska Native villages' obtaining assistance, and identify any others; and submit a report to Congress with any recommendations for statutory changes to streamline program delivery and to address such obstacles. (Matter for Consideration 1)

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## Recommendations for Executive Action

We are making a total of eight recommendations, including two to BIA, and one each to the Department of Defense, the Denali Commission, FEMA, HUD, NOAA, and NRCS. Specifically:

The BIA Director should identify options for providing additional technical assistance that is specifically designed to help Alaska Native villages navigate and obtain assistance from the variety of potentially available federal programs, including by assessing how BIA prioritizes its available resources. (Recommendation 1)

The Denali Commission's Federal Co-chair should identify options for providing additional technical assistance that is specifically designed to help Alaska Native villages navigate and obtain assistance from the variety of potentially available federal programs, including by assessing how the Commission prioritizes its available resources. (Recommendation 2)

The BIA Director should review BIA's programs identified in this report and, where the agency determines it feasible and appropriate, implement relevant changes to address program characteristics that are not established in statute that pose obstacles to Alaska Native villages' obtaining assistance, including characteristics we identified and others that BIA may identify. BIA should also document its review, any related consultation with tribes, and any changes made to its programs. (Recommendation 3)

The Assistant Secretary of the Army for Civil Works should direct the Chief of Engineers and the Commanding General of the U.S. Army Corps of Engineers to review the Corps' programs identified in this report and, where the agency determines it feasible and appropriate, implement relevant changes to address program characteristics that are not established in statute that pose obstacles to Alaska Native villages' obtaining assistance, including characteristics we identified and others that the Corps may identify. The Corps should also document its review, any related consultation with tribes, and any changes made to its programs. (Recommendation 4)

The Administrator of FEMA should review FEMA's programs identified in this report and, where the agency determines it feasible and appropriate, implement relevant changes to address program characteristics that are not established in statute that pose obstacles to Alaska Native villages' obtaining assistance, including characteristics we identified and others that FEMA may identify. FEMA should also document its review, any

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related consultation with tribes, and any changes made to its programs. (Recommendation 5)

The Secretary of Housing and Urban Development should direct the Deputy Assistant Secretary for Native American Programs and the Principal Deputy Assistant Secretary for Community Planning and Development to review HUD's programs identified in this report and, where the agency determines it feasible and appropriate, implement relevant changes to address program characteristics that are not established in statute that pose obstacles to Alaska Native villages' obtaining assistance, including characteristics we identified and others that HUD may identify. HUD should also document its review, any related consultation with tribes, and any changes made to its programs. (Recommendation 6)

The Administrator of NOAA should review NOAA's programs identified in this report and, where the agency determines it feasible and appropriate, implement relevant changes to address program characteristics that are not established in statute that pose obstacles to Alaska Native villages' obtaining assistance, including characteristics we identified and others that NOAA may identify. NOAA should also document its review, any related consultation with tribes, and any changes made to its programs. (Recommendation 7)

The Chief of NRCS should review NRCS's programs identified in this report and, where the agency determines it feasible and appropriate, implement relevant changes to address program characteristics that are not established in statute that pose obstacles to Alaska Native villages' obtaining assistance, including characteristics we identified and others that NRCS may identify. NRCS should also document its review, any related consultation with tribes, and any changes made to its programs. (Recommendation 8)

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## Agency Comments and Our Evaluation

We provided a draft of this report for review and comment to the Denali Commission; the Departments of Commerce (for NOAA), Defense (for the Corps), Health and Human Services, Homeland Security (for FEMA), and the Interior (for BIA); DOT; EPA; HUD; and USDA. Of the seven agencies to which we directed recommendations, five agreed with the recommendations directed to them: Commerce, Defense, Denali Commission, Homeland Security, and Interior. The sixth agency, HUD, agreed with the intent of the recommendation but stated that it was vaguely worded. We revised the recommendation to clarify. The seventh agency, USDA, did not comment on the recommendation, but the

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department's Audit Liaison stated in an email that the agency generally agreed with the report's findings. In addition, the Denali Commission said it disagreed with our matter for congressional consideration, as discussed below.

Commerce, Defense, Denali Commission, Homeland Security, and Interior provided written comments that are reproduced in appendixes VI through X, and the Director of Grants Evaluation for HUD's Office of Native American Programs provided comments by email. The three agencies to which we did not direct recommendations—EPA, DOT, and Health and Human Services—responded by email that they did not have comments on the draft report's message. In addition, Commerce, Defense, Denali Commission, DOT, EPA, Homeland Security, HUD, and Interior provided technical comments, which we incorporated in the report as appropriate.

Regarding our recommendations to implement relevant changes to program characteristics established in agency regulations, policy, or guidance that pose obstacles to Alaska Native villages' obtaining assistance, Commerce, Defense, Homeland Security, and Interior each provided information in their written comments about ongoing or planned actions to address this recommendation. The actions the agencies described, if implemented effectively, would appear to satisfy the intent of these recommendations.

Regarding our recommendation that BIA identify options for providing additional technical assistance for Native villages, in its written comments, Interior described ongoing and planned actions to address this recommendation. Specifically, Interior stated that BIA has identified additional resources to provide technical assistance and support to Alaska Native villages using supplemental appropriations provided in the Infrastructure Investment and Jobs Act as well as fiscal year 2022 appropriations. For example, in 2022, BIA created a new, separate award category for the Tribal Climate Resilience Program to fund coordinators specifically focused on full relocation, managed retreat (partial relocation), or protection-in-place. The actions described by BIA may meet the intent of our recommendation. However, because BIA has funded these types of positions without a separate award category in recent years, it is not clear if adding this category will lead to additional technical assistance positions. We will monitor if the agency prioritizes additional technical assistance in upcoming years, in addition to the status of other related actions the agency identified in its comments, to determine if these

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changes result in additional technical assistance, such as more coordinator positions.

Regarding our recommendation that Denali Commission identify options for providing additional technical assistance for Native villages, the Commission stated in its written comments that it would remain engaged in assisting Alaska Native villages, including by providing technical assistance. However, the Commission stated it cannot reprioritize its available resources in a way that negatively affects its other program areas. The Commission is best positioned to balance its program priorities. However, because the Commission has previously supported effective cross-cutting technical assistance, we continue to believe the Commission is well-positioned to provide additional technical assistance of this type.

The Commission also stated that it disagrees with our matter for congressional consideration, stating that interagency and intergovernmental coordinating entities take too long to make decisions, and, in the absence of quality leadership, cannot secure agreement among the various participants. The Commission suggested that instead, Congress should designate one agency as the lead agency on these issues, or create a new agency as the lead.

We have previously found that coordinating entities benefit from certain key features—including designated leadership and clearly defined roles and responsibilities for the participating agencies. When implementing our matter for consideration, Congress may consider designating an agency as the lead for the coordinating entity as part of requiring that specific agencies participate. In addition, helping Native villages address and build resilience to environmental threats relies on expertise that is dispersed across many federal agencies, tribal governments, and state agencies. Therefore, we continue to believe that improving interagency and intergovernmental coordination across all of these entities—to include streamlining the delivery of their different programs—is critical to improving such assistance, rather than concentrating it within one federal agency. As a result, we did not modify our matter for congressional consideration.

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We are sending copies of this report to the appropriate congressional committees, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Defense, the Federal Co-chair of the Denali Commission, the Administrator of EPA, the Secretary of Health and Human Services, the Secretary of Homeland Security, the Secretary of Housing and Urban Development, the Secretary of the Interior, the Secretary of Transportation, and other interested parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-3841 or [OrtizA@gao.gov](mailto:OrtizA@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 XI.

A handwritten signature in black ink, appearing to read 'A. Ortiz', with a stylized flourish at the end.

Anna Maria Ortiz  
Director, Natural Resources and Environment

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# Appendix I: Objectives, Scope, and Methodology

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This report examines (1) the available information about environmental threats to Alaska Native villages from erosion, flooding, and thawing permafrost;<sup>1</sup> (2) the federal funding that has been provided to address environmental threats to Alaska Native villages, and the actions supported by such funding in fiscal years 2016 through 2020;<sup>2</sup> and (3) opportunities to better support Alaska Native villages' efforts to build resilience to threats from erosion, flooding, and thawing permafrost.

To address all three objectives, we reviewed our previous reports, other agency reports, tribal organization documents, and federal obligations information to identify federal agencies that administer programs that can potentially assist Native villages in addressing or building resilience to environmental threats. We included agencies that administer programs that support Native villages with data collection, risk assessment, planning, and project implementation activities. We identified and focused on 10 federal agencies: the Bureau of Indian Affairs (BIA); the Denali Commission; the Departments of Agriculture, Housing and Urban Development (HUD), and Transportation; the Environmental Protection Agency; the Federal Emergency Management Agency; Indian Health Service; the National Oceanic and Atmospheric Administration; and the U.S. Army Corps of Engineers (Corps). We did not include federal agencies, or agency components, with scientific research as a primary purpose.

We identified a total of 49 federal programs administered by these 10 agencies that can potentially provide assistance in addressing or building resilience to environmental threats by reviewing our previous reports, a catalog of federal programs available to support community resilience in Alaska communities published by the Denali Commission, information from a tribal organization, and federal program documentation, and by interviewing federal officials from these agencies. We also shared the list of programs we identified with relevant agency

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<sup>1</sup>In this report, we use the terms "Alaska Native village" and "Native village" to refer to Alaskan communities that are home to at least one federally recognized Indian tribe. Many tribes in Alaska are often also referred to as Native villages, and some Alaskan communities are home to more than one federally recognized tribe.

<sup>2</sup>We are using the terms "funding" and "funded" 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. For example, an agency incurs an obligation when it places an order, signs a contract, or awards a grant.



officials to confirm the list and to ask if any programs should be added. We included programs that existed as of fiscal year 2021. We then focused our review on 31 of these programs that either (1) funded relevant projects in Alaska Native villages in fiscal years 2016 through 2020 or (2) have a documented purpose related to addressing or building resilience to environmental threats; some programs met both of these criteria, while the others met one of the two.<sup>3</sup> We looked at subsets of these programs for different objectives of our review, as described below. Finally, we did not review programs that provide assistance solely for data collection or disaster recovery or those administered by agencies not included in our review.

For all three objectives, we also interviewed officials from the 10 federal agencies and four selected state agencies about their roles in helping Alaska Native villages address environmental threats, including the information they collect about environmental threats, relevant funded projects, and opportunities that may exist to improve their assistance to Native villages. We identified and selected the four state agencies that receive grants from and participate in federal programs included in our review and administer state programs that also directly support Native villages' efforts to address environmental threats. We also confirmed the relevant state agencies in several of our initial federal agency interviews. The state agencies include the Department of Transportation and Public Facilities, the Division of Community and Regional Affairs, Division of Geological and Geophysical Surveys, and Division of Homeland Security and Emergency Management.

In addition, for all three objectives, we selected and interviewed representatives from four Alaska Native villages, a statewide tribal organization, and three regional nonprofit corporations about their experiences in pursuing federal assistance to address environmental threats in Native villages, including the challenges they have faced and suggestions for improvement. We selected 12 Native villages that we had reported in 2009 were imminently threatened and were likely to fully relocate, or were gradually relocating to a new location or considering

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<sup>3</sup>Of the 31 programs, we identified 10 programs that both funded relevant projects in Alaska Native villages in fiscal years 2016 through 2020 and that had a purpose related to addressing or building resilience to environmental threats; 14 programs that funded relevant projects but did not have a purpose related to addressing or building resilience to environmental threats; and seven programs that did not fund relevant projects but that have a purpose related to addressing or building resilience to environmental threats.

doing so at that time, because they were likely to have perspectives on obtaining assistance from federal agencies.<sup>4</sup> Representatives from four of these Native villages agreed to speak with us. We also interviewed these Native village representatives about the specific environmental threats their communities face and steps they have taken to address those threats. We included the Alaska Native Tribal Health Consortium, a statewide tribal organization, because it provides technical assistance to Native villages in addressing threats from erosion, flooding, and thawing permafrost. We also contacted and included three regional tribal nonprofit corporations because they provide services to the Native villages we selected for our review. We interviewed representatives from the Consortium and the three regional tribal organizations about their role assisting Native villages in addressing environmental threats and coordinating with federal, state, and other tribal entities.

Information from these interviews cannot be generalized to all Native villages or tribal organizations not included in our review. Rather, these interviews provided us with information and opinions specific to the entities we selected. Typically, we would conduct in-person site visits in the Native villages we selected for our review, but we were unable to conduct such site visits because of the COVID-19 pandemic. Instead, we connected with Native village and tribal organization representatives remotely by phone. In addition, we reviewed recent relevant resolutions adopted by national and statewide tribal organizations, including the National Congress of American Indians and the Alaska Federation of Natives.

To describe the available information about threats to Native villages posed by erosion, flooding, and thawing permafrost, we reviewed and summarized federal and state documents that contained information about such threats. These documents included the 2019 Statewide Threat Assessment conducted by the Denali Commission with contributions from the Corps' Alaska District and Cold Regions Research and Engineering Laboratory and the University of Alaska Fairbanks

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<sup>4</sup>GAO, *Alaska Native Villages: Limited Progress Has Been Made on Relocating Villages Threatened by Flooding and Erosion*, [GAO-09-551](#) (Washington, D.C.: June 3, 2009). In addition, we reviewed interviews and information collected in 2018 as part of a separate review for one Alaska Native village (Newtok), but we did not request an additional interview with them for this review to minimize the intrusion on their time. See GAO, *Climate Change: A Climate Migration Pilot Program Could Enhance the Nation's Resilience and Reduce Federal Fiscal Exposure*, [GAO-20-488](#) (Washington, D.C.: July 6, 2020).

Institute of Northern Engineering.<sup>5</sup> We reviewed the methodology used to create the assessment by examining spreadsheets that reflected the criteria and scoring methods. We also interviewed current and former Denali Commission officials about the intent for the assessment and Corps officials and University of Alaska Fairbanks representatives about their methodologies for calculating the relative threats posed by erosion, flooding, and thawing permafrost. We found the methodology sufficiently sound to describe these relative threats for the 187 Native villages included in the assessment.

We also reviewed and summarized responses from our interviews with federal and state agency officials, and representatives of tribal organizations, about the information they collect about specific environmental threats. We reviewed and summarized information about baseline data and risk assessment needs in Native villages compiled by the Alaska Division of Geological and Geophysical Surveys and the Alaska Native Tribal Health Consortium to describe the number of highly threatened Native villages that needed to conduct risk assessments as of October 2021, the most recent information available at that time.

To describe the federal funding provided to address environmental threats, we obtained and analyzed obligations information from the 10 federal agencies. Agencies provided information about obligations incurred by 23 programs for relevant projects that helped address or build resilience to erosion, flooding, or thawing permafrost in Alaska Native villages and where the obligations were made during fiscal years 2016 through 2020, the most recent 5 years of information available at the time of our review. We are reporting obligations in nominal dollars, since we are not analyzing funding trends over time and are reporting total obligations, by agency and program, for the 5-year period.

We assessed the reliability of the agencies' information by reviewing our previous related work regarding the use of this information; collecting written responses to questions from knowledgeable agency officials involved with collecting or analyzing the information; reviewing the information to identify any obvious errors; and corroborating the information with external sources, as available. On the basis of these efforts, we determined that the information was sufficiently reliable for our descriptive reporting purposes for all programs except one. We did not

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<sup>5</sup>Denali Commission, *Statewide Threat Assessment: Identification of Threats from Erosion, Flooding, and Thawing Permafrost in Remote Alaska Communities*, Report #INE 19.03 (November 2019).

report obligations for the Tribal Transportation Program, jointly administered by BIA and the Federal Highway Administration, because the agencies do not maintain project-specific federal obligations information and, therefore, could not identify federal obligations for the projects that helped address environmental threats. The agencies provided available expenditure information that tribal recipients had self-reported for relevant projects, which we included in a footnote.

In addition, to describe the actions supported by the federal obligations described above, we reviewed the project titles and narrative descriptions that the agencies provided along with the obligations information for each funded project. Two analysts reviewed the project information and fully agreed on placing each project into one of two main categories based on the type of effort supported: efforts to repair damaged infrastructure or proactive efforts to build resilience. Within the latter category, we further placed projects into the following subcategories: baseline data and risk assessments, planning, technical assistance, and resilience project implementation. In cases where a project might have spanned more than one category, we used professional judgment to identify the category that appeared to best fit the project's title and description. Because we did not include programs administered by agencies or agency components with scientific research as their mission, not all programs that may have funded relevant data collection are included in our analysis.

To identify opportunities to better support Native villages' efforts to build resilience to environmental threats, we reviewed our previous reports; federal, state, and tribal organization reports; federal program documentation; and key questions contained in our Disaster Resilience Framework. We also interviewed the officials and selected representatives described above about opportunities that could help improve federal assistance to Alaska Native villages. Using these documents and interviews, we conducted a content analysis and identified three areas with potential opportunities for federal agencies to better support Native villages' efforts: (1) interagency coordination, (2) technical assistance, and (3) addressing obstacles found in federal agency programs.

To assess the first two potential opportunities to better support Native villages' efforts—interagency coordination and technical assistance—we analyzed responses from our interviews with federal and state agency officials and selected representatives from Alaska Native villages and tribal organizations. Specifically, we summarized information these officials and representatives provided about current collaborative efforts,

including the Community Resilience Working Group, and the availability of cross-cutting technical assistance from the variety of federal programs.<sup>6</sup> We also reviewed available documentation about existing relevant coordination mechanisms, including working groups, interagency agreements, and memorandums of understanding. We reviewed recent relevant agency and tribal organization reports and resolutions that included discussions of collaboration and technical assistance. In addition, because we identified the Denali Commission and BIA as administering programs that fund cross-cutting technical assistance, we reviewed obligations information described above to identify the types of technical assistance these agencies supported in fiscal years 2016 through 2020 as part of our funding analysis.

To assess the third potential opportunity to better support Native villages' efforts—addressing obstacles found in federal agency programs—we first reviewed and analyzed documents that described various obstacles and factors that can help Native villages obtain assistance from federal programs (which we refer to as “helping factors”). More specifically, we reviewed and analyzed our previously issued, directly relevant reports and other reports that we collected in the course of conducting that work; final reports and recommendations from Alaska-specific interagency climate change working groups; and tribal organization documents, including a report and letters from Native villages and tribal organizations. We also analyzed and summarized interview responses to identify any additional obstacles or helping factors described. Two analysts reviewed the information in the documents and interviews and fully agreed on the obstacles and helping factors they contained, which resulted in identifying 56 obstacles and 21 helping factors. Given our methodology, we may not have identified all possible obstacles or factors that may help villages obtain federal assistance or documents that discussed such issues. We also did not collect information on the relative importance of the obstacles or helping factors we identified.

From the obstacles we identified, we used professional judgment to select 11 obstacles that were characteristics of agency programs and that could be clearly identified in statutes, regulations, policies, and other agency

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<sup>6</sup>In addition to interviewing federal officials involved in the working group from the agencies included in our review, we also interviewed an official with the National Science Foundation who facilitates the group.

directives.<sup>7</sup> We then reviewed these documents, as available, for the 20 federal programs that we identified as having a documented purpose related to addressing erosion, flooding, or thawing permafrost or building resilience to these threats.<sup>8</sup> We determined whether the programs contained each of the 11 selected characteristics and defined them as either (1) the characteristic was present or (2) the characteristic was not present. In addition, we determined if each characteristic was established in either (1) statute; or (2) agency regulations, policy, or other documents. We then asked agency officials to corroborate our findings, and we incorporated corrections as needed.

In addition to the program-specific obstacles we identified, we also incorporated information about other obstacles we identified that are not specific to agency programs elsewhere in the report, primarily in our discussions of interagency collaboration and technical assistance. We discuss the helping factors we identified as part of our discussion of the 11 characteristics because some of these factors can help alleviate the obstacles we identified. Appendix V contains additional information about the program characteristics we reviewed.

Additionally, we considered the information described above—used to identify opportunities that may exist to better support villages’ efforts to build resilience to environmental threats—in light of the principles identified in our Disaster Resilience Framework, our past work on interagency collaboration, and the executive order establishing the Justice40 Initiative and directing federal agencies to make achieving environmental justice part of their missions.<sup>9</sup> Finally, we use the term

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<sup>7</sup>Our analysis is limited to those obstacles that could be clearly identified in statutes and program documents. As a result, the 11 obstacles do not include all obstacles that Native villages face in obtaining federal assistance from the 20 programs we reviewed. We discuss other obstacles elsewhere in the report.

<sup>8</sup>We identified 17 programs with a purpose related to addressing or building resilience to environmental threats to include in our analysis. In addition, we included three types of grants awarded by HUD’s Community Development Block Grant (CDBG) program that do not have this purpose in our analysis because we had reported on obstacles related to CDBG providing assistance to Alaska Native villages in our 2009 report on this topic. [GAO-09-551](#).

<sup>9</sup>GAO, *Disaster Resilience Framework: Principles for Analyzing Federal Efforts to Facilitate and Promote Resilience to Natural Disasters*, [GAO-20-100SP](#) (Washington: D.C.: Oct. 23, 2019); and *Managing for Results: Key Considerations for Implementing Interagency Collaborative Mechanisms*, [GAO-12-1022](#) (Washington, D.C.: Sept. 27, 2012). See also Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, 86 Fed. Reg. 7619 (Feb. 1, 2021).

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“several” to represent three or more officials, representatives, or agencies and, in other cases, we provide the exact number of officials, representatives, or agencies who made various statements.

We conducted this performance audit from April 2020 to May 2022 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 we obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

# Appendix II: Federal Programs That May Support Alaska Native Village Efforts to Address Environmental Threats

**Table 2: 31 Federal Programs Potentially Available to Address Erosion, Flooding, or Thawing Permafrost or Building Resilience to These Threats, with a Purpose of Doing So, or That Funded Relevant Efforts in Fiscal Years 2016 through 2020**

Agency	Program	Program description	Program purpose related to addressing or building resilience to environmental threats	Program funded relevant efforts
Bureau of Indian Affairs (BIA)	Housing Improvement Program	Provides grants for housing for eligible members of federally recognized Indian tribes who live in substandard housing or are homeless and have no other resource for assistance; targeted to those who need it most	No	Yes
	Tribal Climate Resilience Program	Provides grants to support tribal resilience and ocean and coastal management and planning. Eligible activities include adaptation planning; planning and design of relocation, managed retreat and protect-in-place efforts; capacity building; travel support; and youth engagement	Yes	Yes
	Tribal Transportation Program	Distributes formula grants to tribes to address their surface transportation needs. Administered jointly with Federal Highway Administration (FHWA)	No	Yes <sup>a</sup>
Denali Commission	Energy and Bulk Fuel program	Provides financial assistance for power system projects, including renewable energy projects, and the construction, repair, and maintenance of fuel storage facilities in rural Alaskan communities	No	Yes
	Transportation program	Awards grants to rural Alaskan communities for maintaining, protecting, and developing or improving transportation infrastructure	No	Yes
	Village Infrastructure Protection program	Assists rural Alaskan communities threatened by erosion, flooding, and permafrost degradation, with the goals of mitigating impacts to safety and health, and protecting infrastructure	Yes	Yes
Environmental Protection Agency (EPA)	Drinking Water Infrastructure Grants Tribal Set-Aside program	EPA sets aside a certain percentage of its appropriation for the Drinking Water State Revolving Fund program to provide grants for drinking water infrastructure that serve tribal populations	No	Yes
Federal Emergency Management Agency	Building Resilient Infrastructure and Communities program (formerly Pre-Disaster Mitigation program)	Provides competitive grants for pre-disaster mitigation activities, including mitigation projects, capability and capacity building, and management costs, to eligible recipients in states that have received a major disaster declaration in the last 7 years	Yes	Yes (under Pre-Disaster Mitigation program)
	Flood Mitigation Assistance Program	Provides competitive grants for projects and planning to reduce risks of flood damage to structures insured under the National Flood Insurance Program	Yes	No
	Hazard Mitigation Grant Program	Awards grants for hazard mitigation projects and planning following a major disaster declaration	Yes	Yes



**Appendix II: Federal Programs That May Support Alaska Native Village Efforts to Address Environmental Threats**

<b>Agency</b>	<b>Program</b>	<b>Program description</b>	<b>Program purpose related to addressing or building resilience to environmental threats</b>	<b>Program funded relevant efforts</b>
	Risk Mapping, Assessment, and Planning program	Provides maps, information, and tools to assess flooding risks and supports community planning to reduce flood risk	Yes	Yes
Indian Health Service	Sanitation Facilities Construction program	Provides technical and financial assistance to Indian tribes for the cooperative development and construction of drinking water and wastewater systems and support facilities	No	Yes
National Oceanic and Atmospheric Administration	National Coastal Resilience Fund	Administered by the National Fish and Wildlife Foundation, the program provides grants for planning, design, and restoration of natural and nature-based solutions to help protect coastal communities from the impacts of storms, floods, and other natural hazards, and to enable them to recover more quickly	Yes	Yes
U.S. Army Corps of Engineers	Coastal Storm Risk Management (Section 103 of the River and Harbor Act of 1962, as amended)	Implements coastal storm risk management projects to protect properties and facilities against damages from storm driven waves and currents	Yes	No
	Emergency Streambank and Shoreline Protection (Section 14 of the Flood Control Act of 1946, as amended)	Provides emergency streambank and shoreline erosion protection for public facilities and services	Yes	No
	Flood Plain Management Services (Section 206 of the Flood Control Act of 1960, as amended)	Provides flood plain management services, including flood data collection and interpretation and studies to improve flood damage prevention and reduction	Yes	Yes
	Flood Risk Management (Section 205 of the Flood Control Act of 1948, as amended)	Implements flood risk management projects, including preventing and mitigating flood damages associated with ice jams	Yes	No
	Planning Assistance to States (Section 22 of the Water Resources Development Act of 1974, as amended)	Provides assistance in the preparation of comprehensive water resource plans for drainage basins, watersheds, or ecosystems and technical assistance in managing water resources	Yes	Yes

**Appendix II: Federal Programs That May Support Alaska Native Village Efforts to Address Environmental Threats**

<b>Agency</b>	<b>Program</b>	<b>Program description</b>	<b>Program purpose related to addressing or building resilience to environmental threats</b>	<b>Program funded relevant efforts</b>
	Section 116 of the Energy and Water Development and Related Agencies Appropriations Act, 2010	Carries out projects for storm damage prevention and reduction, coastal erosion, and ice and glacial damage in Alaska, including relocation of affected communities and construction of replacement facilities	Yes	Yes
	Tribal Partnership Program (Section 203 of the Water Resources Development Act of 2000, as amended)	Carries out water-related planning and activities related to the study, design, and construction of water resources development projects that substantially benefit federally recognized Indian tribes	Yes	No
U.S. Department of Agriculture	Natural Resources Conservation Service's (NRCS) Emergency Watershed Protection Program	Assists landowners and others in implementing emergency recovery measures for runoff retardation and erosion prevention to relieve imminent hazards to life and property created by a natural disaster that causes a sudden impairment of a watershed	Yes	Yes
	NRCS's Watershed Protection and Flood Prevention Program	Provides technical and financial assistance to local organizations for projects that do not exceed 250,000 acres and contribute to reducing floodwater and erosion, among other things	Yes	No
	Rural Development's Rural Alaska Village Grant program	Provides grants for the development and construction of water and wastewater systems to address dire sanitation conditions in rural or Alaska Native villages	No	Yes
U.S. Department of Housing and Urban Development	Community Development Block Grant (CDBG) Program	Provides formula grants to states and units of local government to develop viable urban communities by providing decent housing and a suitable living environment and expanding economic opportunities, primarily for low- and moderate-income residents	No	Yes
	CDBG-Mitigation	Provides assistance for mitigation activities in areas impacted by specific federally declared disasters to carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses	Yes	No
	Indian CDBG (Single Purpose)	Awards competitive grants to develop viable Indian and Alaska Native communities, including decent housing, a suitable living environment, and economic opportunities, principally for persons of low and moderate income	No	Yes
	Indian CDBG (Imminent Threat)	Provides noncompetitive grants to tribes and tribal organizations to alleviate an imminent threat to public health or safety that requires immediate resolution	No	Yes

**Appendix II: Federal Programs That May Support Alaska Native Village Efforts to Address Environmental Threats**

<b>Agency</b>	<b>Program</b>	<b>Program description</b>	<b>Program purpose related to addressing or building resilience to environmental threats</b>	<b>Program funded relevant efforts</b>
U.S. Department of Transportation (DOT)	Better Utilizing Investments to Leverage Development (formerly TIGER, now RAISE)	Provides grants for investments in surface transportation projects that will have a significant local or regional impact	No	Yes
DOT/Federal Aviation Administration	Airport Improvement Program	Provides grants to public agencies—and, in some cases, to private owners and entities—for the planning and development of public-use airports included in the National Plan of Integrated Airport Systems	No	Yes
DOT/FHWA	Emergency Relief for Federally Owned Roads	Provides for assistance for the repair or reconstruction of Indian reservation roads and federally owned roads seriously damaged by a natural disaster over a wide area or by a catastrophic failure	No	Yes
	Surface Transportation Block Grant program	Awards grants to address state and local surface transportation needs	No	Yes

Source: GAO analysis of agency information. | GAO-22-104241

Note: We are using the term “funded” to refer to obligations, which are definite commitments that create a legal liability of the federal 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.

<sup>a</sup>We did not include the Tribal Transportation Program in our analysis of funded projects in this report because the agencies provided expenditure information and not federal obligations information. BIA and FHWA jointly administer the program, which provides formula grants to federally recognized tribes. The agencies provided us with information showing that eight Alaska Native villages reported expending Tribal Transportation Program grants on projects relevant to our review.

# Appendix III: Federal Obligations Related to Erosion, Flooding, and Thawing Permafrost in Alaska Native Villages

**Table 3: Federal Obligations for Efforts to Address and Build Resilience to Erosion, Flooding, and Thawing Permafrost in Alaska Native Villages, in Fiscal Years 2016 through 2020, by Agency and Program**

Nominal dollars in thousands

Agency	Program	Program obligations	Total obligations
U.S. Department of Transportation <sup>a</sup>	<i>Federal Aviation Administration - Airport Improvement Program</i>	175,328	298,795
	<i>Federal Highway Administration (FHWA) – Surface Transportation Block Grant</i>	78,028	
	<i>Better Utilizing Investments to Leverage Development<sup>b</sup></i>	42,520	
	<i>FHWA - earmarked projects</i>	2,758	
	<i>FHWA - Emergency Relief for Federally Owned Roads</i>	162	
Denali Commission	Village Infrastructure Protection	37,536	39,263
	<i>Energy and Bulk Fuel</i>	1,335	
	<i>Transportation</i>	392	
U.S. Department of Agriculture	Natural Resources Conservation Service - Emergency Watershed Protection	8,446	14,713
	<i>Rural Development - Rural Alaska Village Grant</i>	6,267	
Federal Emergency Management Agency	Pre-Disaster Mitigation <sup>c</sup>	7,025	9,636
	Hazard Mitigation Grant Program	2,201	
	Risk Mapping, Assessment, and Planning	410	
Bureau of Indian Affairs (BIA) <sup>a</sup>	Tribal Climate Resilience Program	8,369	8,927
	<i>Housing Improvement Program</i>	558	
U.S. Department of Housing and Urban Development	<i>Indian Community Development Block Grant – Single Purpose (CDBG)</i>	3,793	8,238
	<i>Indian CDBG - Imminent Threat</i>	3,740	
	<i>CDBG</i>	704	
National Oceanic and Atmospheric Administration	National Coastal Resilience Fund	5,307	5,307
Indian Health Service	<i>Sanitation Facilities Construction</i>	3,221	3,221
U.S. Army Corps of Engineers	Section 116 of the Energy and Water Development and Related Agencies Appropriations Act, 2010	1,161	1,674
	Flood Plain Management Services	384	
	Planning Assistance to States	128	
Environmental Protection Agency	<i>Drinking Water Infrastructure Grants Tribal Set-Aside</i>	1,239	1,239
<b>Total</b>			<b>391,013</b>

Source: GAO analysis of federal agency information. | GAO-22-104241

Notes: Totals do not add due to rounding. For programs in italics, addressing or building resilience to erosion, flooding, or thawing permafrost is not a purpose of the program, but these programs funded projects related to addressing or building resilience to these environmental threats.

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**Appendix III: Federal Obligations Related to  
Erosion, Flooding, and Thawing Permafrost in  
Alaska Native Villages**

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<sup>a</sup>FHWA and BIA provided us with information showing that eight Alaska Native villages reported expending approximately \$28 million of Tribal Transportation Program grants to address damage from erosion, flooding, and thawing permafrost or to build new resilient transportation infrastructure. These expenditures are not included in the table. The agencies jointly administer the program, which provides formula grants to federally recognized tribes. Tribes report their expenditures annually to the agencies.

<sup>b</sup>Obligations for fiscal year 2017 were from the TIGER program, the predecessor to Better Utilizing Investments to Leverage Development. In fiscal year 2021, RAISE replaced the program.

<sup>c</sup>In 2020, the Pre-Disaster Mitigation program was superseded by the Building Resilient Infrastructure and Communities program, but that program did not make obligations during fiscal year 2020. In commenting on a draft of this report, FEMA stated that it awarded the first grant from the new program in fiscal year 2022 as part of the fiscal year 2020 application cycle.

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# Appendix IV: Potential Coordinated Actions to Help Streamline Federal Agency Program Delivery

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According to interviews with federal and state officials and representatives of Native villages and tribal organizations, there are several potential coordinated actions that could help streamline the delivery of federal agency programs to Alaska Native villages, both within current statutory authority and, in some cases, requiring additional authorities. These actions include (1) consolidating or eliminating applications, (2) transferring appropriations among agencies, (3) consolidating agency interactions with villages, and (4) establishing a common list of project priorities.<sup>1</sup>

- **Consolidating or eliminating applications.** Consolidating multiple applications, or eliminating certain application requirements, could reduce the administrative burden on villages applying for assistance from programs in more than one federal agency. For example, one village representative said that it was difficult to complete applications when many are due at the same time of year. According to an official from a National Oceanic and Atmospheric Administration-funded program, grant application timing sometimes conflicts with subsistence harvesting schedules, which limits the ability of communities to apply for certain grants. Having fewer applications to prepare could help village staff balance this task with subsistence activities and reduce the number of online grant application systems they need to navigate. In addition, according to officials from the Alaska Native Tribal Health Consortium, eliminating application requirements for certain applicants, or providing agency resources to assist or prepare applications on behalf of a community, could make programs more accessible to Native villages. For example, some federal agencies provide support based on requests or on a comprehensive needs assessment and prioritized list of projects.
- **Transferring appropriations among agencies.** Having the authority to transfer appropriations to other agencies so that Native villages only need to apply for and interact with one program could improve the efficiency of project implementation and reduce the challenges that Native villages face when applying for and managing awards from multiple programs. For example, the Department of Agriculture transferred appropriations to the Denali Commission, which then

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<sup>1</sup>We also reported in 2019 that better coordination of funding provided through existing federal programs, or creating a new federal funding source, could help focus funding on high-priority climate resilience projects. GAO, *Climate Resilience: A Strategic Investment Approach for High-Priority Projects Could Help Target Federal Resources*, [GAO-20-127](#) (Washington, D.C.: Oct. 23, 2019).

obligated them for a project to develop an energy plan for one Native village's relocation. This, in turn, reduced the need to apply for and manage awards from both agencies.<sup>2</sup> In another example, we have previously reported that the Environmental Protection Agency (EPA) regularly transfers funds to the Indian Health Service through an interagency agreement, which allows both agencies to contribute funding to a tribal drinking water or wastewater project that neither agency would have funded on its own.<sup>3</sup> EPA officials stated that this arrangement also allows for more effective procurement and project management.

- **Consolidating agency interactions with villages.** Agencies could decrease the burden on Native villages by limiting the number of agencies working directly with them. Interacting with representatives from multiple federal and state agencies is inefficient and takes significant time and effort. For example, the federal and state agencies that fund water infrastructure projects have designated one entity as the primary point of contact for interacting with each Native village—either the Alaska Native Tribal Health Consortium or a state water program—so that Native villages do not need to communicate separately with each of the individual funding agencies. According to officials with one federal agency, consolidating these interactions further, beyond agencies with similar missions, could help increase the efficiency of these contacts as well. According to a report drafted by the Consortium and the state of Alaska, creating a consistent point of contact would help promote effective engagement with Native villages. We have previously reported that coordinating outreach is an efficient way for agencies to reach remote communities.<sup>4</sup>

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<sup>2</sup>In commenting on a draft of this report, the Commission described other benefits associated with agencies transferring their appropriations to the Commission pursuant to the Denali Commission Act of 1998, as amended, including that certain restrictions on agency appropriations may be removed after the appropriations are transferred to the Commission. For example, if an agency's appropriations are year-limited, they become no-year funding after being transferred to the Commission, which can help in funding projects that span multiple fiscal years.

<sup>3</sup>GAO, *Drinking Water and Wastewater Infrastructure: Opportunities Exist to Enhance Federal Agency Needs Assessments and Coordination on Tribal Projects*, [GAO-18-309](#) (Washington, D.C.: May 15, 2018).

<sup>4</sup>In May 2014, we recommended that federal agencies incorporate key practices into their coordinated outreach strategy to more effectively engage with tribal communities in their efforts to address uranium contamination on Navajo and Hopi lands. GAO, *Uranium Contamination: Overall Scope, Time Frame, and Cost Information Is Needed for Contamination Cleanup on the Navajo Reservation*, [GAO-14-323](#) (Washington, D.C.: May 5, 2014).

- **Establishing a common list of project priorities.** Agencies could better coordinate their efforts and investments by establishing a common list of priorities for addressing the environmental threats to Alaska Native villages. For example, the federal and state agencies that fund water infrastructure projects in Alaska use a common priority list to identify communities with sanitation deficiencies that need federal assistance. According to officials with these agencies, having a common priority list helps them work together to determine which agency may be best suited to meeting the communities' needs. It also allows them to target federal investments to the most severe needs. According to Consortium officials, a common priority list for environmentally threatened communities could serve a similar purpose by focusing agency investments on the most urgent needs. A priority list could also help Native villages better understand when federal assistance may be available to support their needs.



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# Appendix V: Program Characteristics That May Create Obstacles to Obtaining Federal Assistance

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Based on our review of relevant reports and interviews with federal and state agency officials and representatives from tribal organizations and Alaska Native villages, we focused on 11 program-specific characteristics that may pose an obstacle to Native villages' obtaining federal assistance to address or build resilience to erosion, flooding, or thawing permafrost.<sup>1</sup> Additional information about the 11 characteristics, how they pose obstacles to Native villages, and program characteristics that could help alleviate those obstacles, is as follows:

- **Competitive grant program.** Competitive grant programs can include significant administrative requirements that can be difficult to meet, especially for Native villages with limited administrative capacity. Several individuals we interviewed from federal and state agencies and tribal organizations said that these programs favor applicants with grant writing expertise over those with the greatest need. Technical assistance, such as grant writing support and training, can help communities access competitive grants. In addition, selection criteria that consider relative risk from environmental threats could also help federal agencies better support Native villages facing significant threats.
- **Cost-share requirement.** Cost-share requirements can be a significant obstacle for Alaska Native villages. Because of their subsistence economies and lack of tax base, Native villages generally do not have the revenue streams to contribute to cost shares, which could be tens of millions of dollars for a large construction project. In the past, the state of Alaska has helped to meet cost-share requirements but, according to one state official, constrained state budgets have limited the state's ability to match federal grants in recent years. Several federal and state officials, as well as several representatives from Native villages and tribal organizations, said that eliminating or waiving these requirements for Native villages could significantly improve their ability to obtain federal assistance.<sup>2</sup> For example, in fiscal year 2022, the U.S. Army Corps of Engineers

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<sup>1</sup>We did not include Federal Emergency Management Agency (FEMA) or Department of Housing and Urban Development (HUD) disaster response programs in this analysis because the purpose of these programs is not disaster mitigation or proactively building resilience to flooding, erosion, or thawing permafrost.

<sup>2</sup>See, for example, National Congress of American Indians, *Calling on Congress, the Department of Homeland Security, and the Federal Emergency Management Agency to Remove All Non-Federal Match Requirements for Tribal Nations and Streamline Tribal Declaration Requests*, Resolution #AK-21-029 (Washington, D.C.: June 2021).

(Corps) can waive cost-share requirements up to \$530,000 for studies and projects for any federally recognized tribe or tribal organization under certain Corps programs.<sup>3</sup> Corps officials explained that this waiver amount should help Native villages access some planning programs, such as the Planning Assistance to States program, but it is insufficient when a Native village's cost share for a construction project might be in the millions of dollars.

- **Cost-benefit analysis required.** Native villages face obstacles in obtaining assistance from programs that require an analysis of economic benefits and costs, especially where programs require that the benefits exceed costs. Corps and other agency officials we interviewed said that their agencies' determination of economic benefits of construction projects in rural Alaska rarely outweigh the costs because of the high costs of construction, low population density in Native villages, and the fact that analyses typically undervalue avoided costs.<sup>4</sup> We found that modifying the requirements for cost-benefit analyses could help Native villages obtain federal assistance. For example, some programs, including the Natural Resources Conservation Service's (NRCS) Emergency Watershed Protection program, allow for the consideration of noneconomic benefits in cost-benefit analyses, which has helped Native villages obtain assistance from this program.<sup>5</sup>

Some programs also limit their use of cost-benefit analyses to certain projects. For example, for the Department of Housing and Urban Development's (HUD) Community Development Block Grant Mitigation (CDBG-Mitigation) program, the analysis of benefits and

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<sup>3</sup>33 U.S.C. § 2310. According to Corps guidance, this waiver is applicable to specifically authorized water resources development studies and projects, continuing authorities program studies and projects, and water resources development studies and projects authorized by the Tribal Partnership Program. The guidance says that the waiver is not applicable to environmental infrastructure studies or projects, watershed studies authorized by the Tribal Partnership Program, or watershed and river basin assessments under 33 U.S.C. § 2267a.

<sup>4</sup>For example, according to Corps officials, avoided costs from events such as flooding may be considered in the agency's estimate of benefits associated with a project. However, in calculating these avoided costs, the estimates do not use the higher replacement costs for buildings and other infrastructure in Alaska and, instead, use national standards of replacement costs, which results in understating the benefits of these avoided costs.

<sup>5</sup>In addition, according to a January 2021 policy directive, the Corps may consider non-economic benefits, including environmental and social considerations, in water resources development project planning. Department of the Army, Office of the Assistant Secretary Civil Works, *Policy Directive – Comprehensive Documentation of Benefits in Decision Document* (Washington, D.C.: Jan. 5, 2021).

costs is only required for projects with a total project cost of \$100 million or more and with at least \$50 million of CDBG funds from any source. In addition, according to officials from the Alaska Native Tribal Health Consortium, agencies could mitigate this obstacle by waiving the requirement for small and impoverished communities or using different thresholds for projects in those communities; however, this would depend on agencies having the authority to make these changes.

- **Projects selected from a national pool of potential projects.** Federal programs that are national in scope typically receive proposals for projects that would serve a wide variety of communities from across the United States. In many cases, competing against proposed projects that would serve communities located in the contiguous 48 states places Native villages at a disadvantage. For example, according to Department of Transportation officials, its BUILD program is highly competitive, and while it often receives a high number of applications from Alaska, the program strives to balance geographic diversity in its awards, which limits the number of awards it can make in Alaska.

In addition, according to Corps officials, Alaska projects generally do not compete well against projects from across the country, which generally have agency-calculated economic benefits that exceed project costs. Creating tribal set-asides or dedicated categories of awards within existing programs could help more Native villages access assistance through national programs. For example, in fiscal year 2020, the Bureau of Indian Affairs (BIA) established a dedicated category within its national Tribal Climate Resilience Program to support planning projects related to protection-in-place, managed retreat, and relocation in response to environmental threats.

- **Federal disaster declaration required.** Limiting funding to areas that have received a federal disaster declaration creates a significant obstacle to Alaska Native villages' obtaining federal assistance, primarily from Federal Emergency Management Agency (FEMA) programs. In 2020, we reported that most federal funding for hazard mitigation is available only after a disaster occurs and that slow-moving disasters, such as erosion and thawing permafrost, do not qualify for federal disaster relief funds under the Stafford Act.<sup>6</sup> For example, the President denied Newtok Village's 2016 request for a

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<sup>6</sup>GAO, *Climate Change: A Climate Migration Pilot Program Could Enhance the Nation's Resilience and Reduce Federal Fiscal Exposure*, [GAO-20-488](#) (Washington, D.C.: July 6, 2020).

major disaster declaration because the severe erosion the community was experiencing did not meet the definition of a disaster under the Stafford Act. One way to address this obstacle, as suggested by a resolution passed by the National Congress of American Indians in October 2021, is to make slow occurring disasters, such as erosion, eligible for federal assistance.<sup>7</sup>

- **Federally recognized tribes are ineligible recipients.** The unique governance structure in many Alaska communities creates an obstacle for villages' eligibility under HUD's CDBG program because it is restricted to states and units of local government, which are political subdivisions of the state.<sup>8</sup> As we found in 2009, this means that 64 communities that are home to Native villages cannot access CDBG because the community does not have a local government entity that is an eligible recipient.<sup>9</sup> HUD officials said that this creates a disparity between these Native villages and the other Native villages that are located in a community with an eligible municipal government. Our 2009 report included a matter for congressional consideration related to this eligibility issue but, as of February 2022, this issue remained an obstacle for these Native villages' obtaining CDBG assistance.<sup>10</sup>

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<sup>7</sup>The resolution states that slow occurring disasters, such as riverine and coastal erosion, should be codified in federal legislation and FEMA policies, regulations, and guidance and be made eligible for federal assistance and funding. National Congress of American Indians, *Additional Tribal Disaster Resilience and Climate Change Common Principles, Resolution #SAC-21-037* (Washington, DC: Oct. 14, 2021).

<sup>8</sup>Federally recognized tribes also were not eligible recipients of HUD's CDBG-Mitigation program for grants awarded in fiscal year 2021, which are the awards included in our review. However, states were permitted to use these grants to make subgrants to Indian tribes.

<sup>9</sup>GAO, *Alaska Native Villages: Limited Progress Has Been Made on Relocating Villages Threatened by Flooding and Erosion*, [GAO-09-551](#) (Washington, D.C.: June 3, 2009). We reported that 64 Alaska Native villages are located in the state of Alaska's unorganized borough and do not have an incorporated municipal government. As a result, there was no unit of local government within the state government structure eligible to receive CDBG in those communities.

<sup>10</sup>Our report included a matter for congressional consideration related to amending the Housing and Community Development Act of 1974 to acknowledge the unique governmental structure in the state of Alaska and enable the 64 unincorporated Alaska Native villages in Alaska's unorganized borough to be eligible grant recipients for HUD CDBG funds distributed through the state. [GAO-09-551](#). As of February 2022, Congress had not passed legislation to address this matter.

- **Hazard Mitigation Plan required.** FEMA requires that applicants to several of its hazard mitigation grant programs have approved Hazard Mitigation Plans when they submit an application and at the time of award, unless the grant is to develop such a plan. This requirement creates an obstacle for many Native villages because it takes significant time and resources to develop a plan, and the plans expire every 5 years. We reported in February 2021 that for some FEMA programs, the length of time between submission of the application and the grant award can be up to 2 years.<sup>11</sup> Given these potentially long time frames, and the short construction season in much of Alaska, a community's Hazard Mitigation Plan may expire between the time of application and the grant award.

State officials described one example where a Native village's plan expired after it had submitted its application but before FEMA awarded the grant. As a result, the Native village had to defer starting to work on implementing its resilience project so that it could complete a plan renewal. State officials noted that the 5-year expiration leads to a constant cycle of planning, which is burdensome for Native villages with limited administrative capacity and which reduces their capacity to implement projects that would protect their communities. According to agency guidance, FEMA can extend plan expiration dates for up to 12 months.<sup>12</sup>

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<sup>11</sup>These programs include FEMA's Hazard Mitigation Grant Program, Flood Mitigation Assistance Program, and Pre-Disaster Mitigation program (now known as Building Resilient Infrastructure and Communities). GAO, *Disaster Resilience: FEMA Should Take Additional Steps to Streamline Hazard Mitigation Grants and Assess Program Effects*, [GAO-21-140](#) (Washington, D.C.: Feb. 2, 2021). In addition, in our review of agency obligations, as of July 2021, FEMA had only awarded nine of the 24 grants selected for its fiscal year 2019 Pre-Disaster Mitigation program cycle.

<sup>12</sup>In addition, according to FEMA guidance, for Hazard Mitigation Grant Program, Flood Mitigation Assistance Program, and Pre-Disaster Mitigation program subawards, the Regional Administrator may grant an exception to the local or tribal mitigation plan requirement in extraordinary circumstances when justification is provided. For example, for the Hazard Mitigation Grant Program, extraordinary circumstances exist if (1) the proposed project is consistent with the priorities and strategies identified in the state or tribal mitigation plan and (2) the jurisdiction meets criteria for a small impoverished community or it had insufficient capacity to satisfy the planning requirement prior to the application deadline due to lack of available funding, staffing, or other necessary expertise.

However, this obstacle could be further mitigated by changing the expiration period for plans or by requiring an approved plan either at the time of grant application or grant award, but not both.<sup>13</sup> One state official said that a 10-year expiration period would be appropriate for rural Alaska communities, especially because the natural hazards and potentially vulnerable infrastructure do not typically change much in that period.

- **Addressing environmental threats is not the main focus of the program.** Programs that include addressing or building resilience to environmental threats as one of the program's purposes, but not as the primary purpose, can pose obstacles for Native villages' obtaining assistance. One state official we interviewed said that applying to federal programs that are not specific to environmental threats is challenging because it requires experienced grant writers who can market their projects to fit within a program's scope. We previously reported that cobbling together assistance from numerous federal agencies with varying missions results in a less efficient, time-consuming approach to obtaining assistance for addressing environmental threats.<sup>14</sup>
- **Nonprofit tribal organizations or consortia are ineligible.** Excluding nonprofit tribal consortia and tribal organizations as eligible recipients of federal assistance limits their ability to assist Native villages with administrative functions. For example, according to officials from one regional tribal nonprofit corporation, they have the capacity and experience to apply for and manage funding from different sources, whereas many Native villages in their region do not have the administrative capacity to navigate the various federal programs. If these organizations were eligible recipients, they could receive and administer grants on behalf of Native villages that requested their assistance. In addition, according to Alaska Native Tribal Health Consortium officials, regional tribal organizations could coordinate regionwide projects, which could increase the efficiency of certain efforts.

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<sup>13</sup>In commenting on a draft of this report, FEMA noted that for its Hazard Mitigation Grant Program and Flood Mitigation Assistance Program, the requirement for an approved Hazard Mitigation Plan at the time of application and award is established in regulation, whereas this requirement is established in an annual Notice of Funding Opportunity for the Building Resilient Infrastructure and Communities program.

<sup>14</sup>[GAO-20-488](#) and [GAO-09-551](#).

In October 2021, the National Congress of American Indians adopted a resolution stating that tribal nations should have the ability to designate a tribal organization to apply for certain FEMA programs on behalf of a tribe or tribes to better allow for direct, open access to funding.<sup>15</sup> BIA officials stated that when nonprofit organizations or consortia are eligible recipients, it is important that tribes decide whether to have these organizations act on their behalf to avoid a situation where the organizations are directly competing with tribes for funding.

- **Community participation in the National Flood Insurance Program is required.** The National Flood Insurance Program makes federally backed flood insurance available to property owners in qualifying communities.<sup>16</sup> However, many Alaska Native villages do not participate in the flood insurance program because they lack jurisdiction over the land within the Native village.<sup>17</sup> If a community does not participate in the program, it is not eligible for assistance from at least seven federal programs. For example, FEMA requires that communities participate in the National Flood Insurance Program to be eligible for assistance through its Flood Mitigation Assistance Program. In addition, the Corps is required by statute to have nonfederal project sponsors participate in the program for all flood risk management and hurricane or storm damage reduction projects. Further, certain HUD programs require participation for certain projects or activities, such as those located in a special flood hazard area.

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<sup>15</sup>National Congress of American Indians, *Resolution #SAC-21-037*.

<sup>16</sup>Community participation in the National Flood Insurance Program is voluntary. However, for a community's residents to purchase flood insurance through the program, the community must participate by agreeing to enforce regulations for land use, building standards, and new construction in special flood hazard areas. Participating communities must also adopt and enforce state and community floodplain management regulations to reduce future flood damage. See GAO, *National Flood Insurance Program: Congress Should Consider Updating the Mandatory Purchase Requirement*, [GAO-21-578](#) (Washington, D.C.: July 30, 2021).

<sup>17</sup>Some Native villages may be located in a municipality or borough that participates in the National Flood Insurance Program. See GAO, *Flood Insurance: Participation of Indian Tribes in Federal and Private Programs*, [GAO-13-226](#) (Washington, D.C.: Jan. 4, 2013).

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**Appendix V: Program Characteristics That May  
Create Obstacles to Obtaining Federal  
Assistance**

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- **Recurring events are explicitly ineligible for program funding.** Some programs, including those designed to respond quickly to emergencies, are limited to addressing onetime events—such as repairing damage caused by a large storm—rather than addressing recurring events. For example, HUD’s Indian CDBG Imminent Threat grants may only be used to address imminent threats that are not of a recurring nature and that represent a unique and unusual circumstance that impact an entire service area.<sup>18</sup> In another example, for certain project types, NRCS’s Emergency Watershed Protection Program will not provide assistance to address the same type of natural event more than twice in a 10-year period. In these cases, the program assistance is limited to the purchase of a floodplain easement.<sup>19</sup>

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<sup>18</sup>HUD has the authority to waive this regulatory requirement. In commenting on a draft of our report, HUD stated that it has waived this requirement for certain grants.

<sup>19</sup>Specifically, in cases where the same type of natural event occurs within a 10-year period and a structural measure has been installed or repaired twice within that period using Emergency Watershed Protection assistance, further program assistance is limited to those sites eligible for the purchase of a floodplain easement.



# Appendix VI: Comments from the Denali Commission



Denali Commission

510 L Street, Suite 410  
Anchorage, AK 99501

907.271.1414 (P)  
907.271.1415 (F)  
888.480.4321(TF)  
[www.denali.gov](http://www.denali.gov)

April 22, 2022

Leslie Pollock  
Assistant Director  
Natural Resources and Environment  
U.S. Government Accountability Office  
441 G St. NW  
Washington, DC 20548

ce Support

RE: Denali Commission Response to GAO Draft Report 22-104241 "Federal Agencies Could Enhance Support for Native Village Efforts to Address Environmental Threats."

Dear Ms. Pollock:

The Denali Commission has reviewed draft GAO-22-104241 and has the following comments:

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1. The Commission disagrees with GAO's Matter for Congressional Consideration. In the Commission's opinion, one single agency should be designated in law as the lead agency on these issues, or an agency/bureau created to be the lead. Interagency and intergovernmental coordinating entities are often bogged down in bureaucracy, take far too long to make decisions, and, in the absence of quality leadership, cannot secure agreement among the various participants. Additionally, there are already several such entities currently extant in the executive branch. While the creation of one in law may certainly be more enduring than one created by executive order, the designation or creation of a specific agency, to which the requisite statutory authority is given and to which the needed funding is appropriated, would be far more effective than a coordinating entity. In GAO's report, to illustrate the problem, seven agencies are provided recommendations. This will require seven agencies to take actions, which may take months or years, and may not happen at all. Ten agencies have programs potentially available to address erosion, flooding, or thawing permafrost, or building resilience to address environmental threats. The creation of a new entity to do nothing more than coordinate 31 programs across the state will be a huge task. The draft report points to three examples of obstacles to villages obtaining assistance: competitive grant programs, cost-share requirements, and cost-benefits analyses. The Commission then suggests "it may be more efficient for the agencies to submit such recommended changes to Congress through the coordinating entity." Page 36. It would make more sense for Congress to designate an agency whose enabling statute solves those challenges from the beginning. An agency designated to carry out these programs would also not need to make changes to regulations, policy, or guidance. Admittedly, the creation or designation of one agency as the lead may also take months or years, but it has been shown by the lack of Congressional action on GAO's prior recommendations. However, if an agency is stood up or designated, the process would likely be much faster than attempts to coordinate and drive all of the necessary changes across the entire federal family of agencies. One lead agency would also be able to solve all the issues raised in Appendix IV: Potential Coordinated Action to Streamline Federal Agency Program Delivery, as well as many, if not all, of the issues presented in the report.

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**Appendix VI: Comments from the Denali Commission**

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Appendix V: Additional Information on Program Characteristics that May Create Obstacles for Alaska Native Villages Obtaining Federal Assistance. Essentially, the Commission agrees with GAO's prior Matter for Congressional Consideration 3 found in GAO-09-551, "Limited Progress Has Been Made on Relocating Villages Threatened by Flooding and Erosion".

2. The Commission suggests an additional Matter for Congressional Consideration and for Executive Action: consistent, sustained, reliable funding to specifically carry out village protection or relocation projects. In the absence of such funding, villages will only make halting progress over the course of years, when such funds are made available, as the Newtok-Mertarvik relocation has demonstrated. The large pot of funding provided to the BIA under the IJA is a good start. But without consistent, sustained, reliable funding, the IJA funds will be depleted in five years, and villages will likely wind up in the same place they are now. The Executive should request such funding in each budget request, and work with Congress to secure appropriations.
3. The Commission agrees with GAO's recommendation that we should "identify options for providing additional technical assistance that is specifically designed to help Alaska Native Villages navigate and obtain assistance from the variety of potentially available federal programs." However, we do not agree that we should reprioritize our available resources to a great degree solely to provide technical assistance. While the Commission will remain engaged in assisting Alaska Native Villages, including by continuing to provide technical assistance, our statutory purview is quite broad, and there are several programs in which the Commission plays a key role – indeed, one that no other federal agency does, or would assume in the Commission's absence. The Commission cannot reprioritize its available resources to the degree that the reprioritization negatively impacts other program areas, when other federal agencies receive far more funding that is available for use in assisting villages with environmental threats, but none to, for example, help build renewable energy projects in rural Alaska or train diesel technicians to maintain rural powerhouses. Further, as noted in the report, the Commission has provided funding, in the amount of \$1.356 million, to the Center for Environmentally Threatened Communities to assist communities in precisely the way GAO is recommending. The agency is also engaged in construction projects and other means of assisting these communities, and those efforts would be detrimentally impacted if resources were reprioritized to technical assistance. The Commission also thinks that it should not be the sole responsibility of the Commission to provide technical assistance on behalf of 31 programs across 10 agencies. Other agencies should participate in providing technical assistance to access their programs.
4. The Commission thinks that one additional mechanism that would lead to "improving coordination to streamline program delivery across agencies" is more agencies being willing to utilize the Commission's transfer authority. Sec. 311 of the Denali Commission Act of 1998, found at 42 U.S.C. 3121 note, provides "any federal agency authorized to carry out an activity that is within the authority of the Commission may transfer to the Commission any appropriated funds for the activity." Since the purposes of the Commission include, "to deliver the services of the Federal Government in the most cost-effective manner practicable by reducing administrative and overhead costs;" Sec. 302(1), and "to promote rural development, provide power generation and transmission facilities, modern communication systems, water and sewer systems and *other infrastructure needs*," Sec. 302(3), emphasis supplied, it is the Commission's opinion that any agency that wishes to carry out any infrastructure project in Alaska can transfer funds to the Commission for that purpose. In addition to "improving coordination to streamline program delivery across agencies" in the manner discussed in the report, there are several other key components to the Commission's transfer authority that would address other issues raised by GAO in Appendix IV and V of the draft report. First, the authority gives the Commission the power to act as a "banker" pooling funds from various agencies which can then be utilized in an efficient manner. Including, as GAO noted in the draft report, by allowing one agency to issue one award covering all costs, rather than multiple agencies issuing multiple awards to fund one

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**Appendix VI: Comments from the Denali  
Commission**

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project. Second, the authority turns year-limited funds into no-year funds allowing for long term projects as needed. Finally, the Commission's authority removes limitations on other agency's funds reducing the number of hurdles facing Alaska Native communities. This transfer authority makes the Commission a logical focal point to federal efforts to address climate resiliency. The draft report discusses the Commission's transfer authority in a limited fashion, we think the report could benefit from additional discussion on the particulars of our authority.

The Commission thanks GAO for its attention to this matter and for your work on the draft report. It has been a pleasure to work with you.

Sincerely,

**Garrett Boyle** Digitally signed by Garrett Boyle  
Date: 2022.04.22 13:37:28 -08'00'

Garrett Boyle  
Federal Co-Chair  
Denali Commission

# Appendix VII: Comments from the Department of Commerce



UNITED STATES DEPARTMENT OF COMMERCE  
Office of the Acting Chief Financial Officer and  
Assistant Secretary for Administration  
Washington, D.C. 20230

April 27, 2022

Ms. Anna Maria Ortiz  
Director  
Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Ms. Ortiz:

the opportunity to review and comment on the Government Accountability  
report entitled *Alaska Native Issues: Federal Agencies Could Enhance*  
*the Village's Ability to Address Environmental Needs* (GAO-22-104241).

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this report and implement relevant changes to program characteristics that are  
in regulations, policy, or guidance that pose obstacles to villages' obtaining  
rough these programs. Enclosed is our response to the draft report.

Thank you for  
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Should you have any questions, please contact MaryAnn Mausser, GAO Liaison, at  
(202) 482-8120 or mmausser@doc.gov.

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Jennifer S. Lane

Senior Advisor to the Deputy Secretary  
Performing the non-exclusive duties of the Chief  
Financial Officer and Assistant Secretary for  
Administration

Enclosure

Department of Commerce  
National Oceanic and Atmospheric Administration  
Response to the GAO Draft Report Entitled  
*Alaska Native Issues: Federal Agencies Could Enhance Support  
for Native Village Efforts to Address Environmental Threats*  
(GAO-22-104241)

**General Comments**

The Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) appreciates the opportunity to review the Government Accountability Office's (GAO) report on Federal efforts to help Alaska Native villages address environmental threats. GAO did a fair and thorough job in assessing Federal agency actions that could enhance Alaska Native village efforts to address environmental threats, specifically thawing permafrost, erosion, and flooding.

As noted in the report, the NOAA program included for review is a partnership program between NOAA and the National Fish and Wildlife Foundation (NFWF) as directed by statute. NOAA will inform NFWF of the GAO report and findings and will work with them to implement the response actions. NOAA will also consult with NFWF on possible adjustments that may be made in program characteristics to mitigate identified barriers and possible adjustments that may require congressional consideration.

NOAA would also like to respond to Appendix IV: Potential Coordinated Actions to Help Streamline Federal Agency Program Delivery. The first paragraph on page 54 of the report reads, *According to interviews with federal and state officials and representatives of Native villages and tribal organizations, there are several potential coordinated actions that could help streamline the delivery of federal agency programs to Alaska Native villages, both within current statutory authority and, in some cases, requiring additional authorities. These actions include (1) consolidating or eliminating applications, (2) transferring appropriations among agencies, (3) consolidating agency interactions with villages, and (4) establishing a common list of project priorities.*

While not a formal recommendation, Appendix IV suggests future actions to improve delivery of key Federal programs to Alaska Native villages. If future action is taken on this suggestion, NOAA will conduct a legal and policy review of statutory authorizations in support of this effort to determine the feasibility of achieving improved Federal coordination as described in Appendix IV and identify any limitations that may be addressed through executive action and those that may require congressional consideration.

**NOAA Response to GAO Recommendations**

The GAO report made one recommendation pertaining to NOAA:

**Recommendation 7:** The Administrator of NOAA should review NOAA's programs identified in this report, and where feasible and appropriate, implement relevant changes to program characteristics that are established in regulations, policy, or guidance that pose obstacles to Alaska Native villages' obtaining assistance through these programs, including characteristics we

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**Appendix VII: Comments from the Department  
of Commerce**

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(GAO) identified and others NOAA may identify. NOAA should also document its review and any changes made to its programs.

**NOAA Response:** NOAA agrees with this recommendation. NOAA will conduct a policy and legal review of the National Oceans and Coastal Security Act, which authorized the establishment of the National Coastal Resilience Fund (NCRF), and NOAA's cooperative agreement with NFWF to implement the NCRF program. The policy and legal review will identify what flexibilities may exist to adjust program characteristics that are established by agency regulation, policy, or guidance that create barriers to Alaska Native villages' access to the NCRF. This includes the program characteristic identified in the GAO report as "Projects selected from a national pool of potential projects" and potential flexibilities to mitigate for this barrier through a tribal set-aside or other means.

# Appendix VIII: Comments from the Department of Defense



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

April 28, 2022

Ms. Anna Maria Ortiz  
Director, Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Ms. Ortiz:

This is the Department of Defense (DoD) response to the GAO Draft Report, GAO-22-104241, "ALASKA NATIVE ISSUES: Federal Agencies Could Enhance Support for Native Village Efforts to Address Environmental Threats," dated March 21, 2022 (GAO Code 104241).

DoD appreciates the opportunity to review the GAO Draft Report.

Recommendation 4. DoD agrees with GAO's assessment that the Corps should review Corps programs identified in this report and, where feasible and appropriate, implement relevant changes to program characteristics that are established in regulations, policy, or guidance that pose obstacles to Alaska Native villages' obtaining assistance through these programs. The Corps is committed to working with Alaska Native Villages to meet their water resources needs while engineering solutions for the nation's toughest challenges.

Thank you again for the opportunity to comment. My point of contact is Stacey Jensen who can be reached at [stacey.m.jensen.civ@army.mil](mailto:stacey.m.jensen.civ@army.mil) or 703-453-6028.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael L. Connor", is positioned above the typed name.

Michael L. Connor  
Assistant Secretary of the Army  
Civil Works

Enclosures

1. DoD Comments to Draft Report
2. DoD Technical Comments

**ENCLOSURE 1**

**GAO Draft Report Dated March 21, 2022  
GAO-21-104241 (GAO CODE 104241)**

**“ALASKA NATIVE ISSUES: FEDERAL AGENCIES COULD ENHANCE SUPPORT  
FOR NATIVE VILLAGE EFFORTS TO ADDRESS ENVIRONMENTAL THREATS”**

**DoD COMMENTS  
TO THE GAO RECOMMENDATION**

**RECOMMENDATION 4:** The Assistant Secretary of the Army for Civil Works should direct the Chief of Engineers and the Commanding General of the U.S. Army Corps of Engineers to review the Corps programs identified in this report and, where feasible and appropriate, implement relevant changes to program characteristics that are established in regulations, policy, or guidance that pose obstacles to Alaska Native villages' obtaining assistance through these programs, including characteristics we identified and others the Corps may identify. The Corps should also document its review and any changes made to its programs.

**DoD RESPONSE:** Concur.

The ASA(CW) will direct the Corps to review the Corps programs identified in this report and, where feasible and appropriate, implement relevant changes to program characteristics that are established in regulations, policy, or guidance that pose obstacles to Alaska Native villages' obtaining assistance through these programs, including characteristics GAO identified and others the Corps may identify.

Additional Information: The recommendation appears in part to relate back to the table on page 32. The fourth column, concerning the use of Cost-Benefit Analysis by the Corps (as well as other Federal infrastructure agencies), bears special mention. Reliance on this measurement resulted from the emphasis of past Administrations on project justification based on quantifiable monetary benefits in the National Economic Development (NED) account. However, emphasis on economic benefits led to concerns that adequate consideration was not being given to other important benefit categories, quantifiable and unquantifiable, such as quality of the total environment, benefits to particular regions, prevention of the loss of life, and preservation of cultural and historical values. (These are all planning criteria listed in Section 904 of the Water Resources Development Act of 1986, as amended (33 U.S.C. 2281) in addition to



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**Appendix VIII: Comments from the Department  
of Defense**

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national economic development.) Such concerns were responsible in part for the replacement of the Principles and Guidelines issued in 1983 with the current Principles, Requirements and Guidelines (PR&G) issued in 2014 (see <https://obamawhitehouse.archives.gov/administration/eop/ceq/initiatives/PandG>).

The Corps is moving towards implementation of the PR&G in accordance with the Policy Directive-Comprehensive Documentation of Benefits in Decision Document, issued by the Assistant Secretary of the Army (Civil Works) on 5 January 2021, and has initiated a rulemaking action to promulgate agency-specific procedures to implement PR&G through the Administrative Procedures Act process (see <https://www.reginfo.gov/public/do/eAgendaViewRule?publd=202110&RIN=0710-AB41>).

# Appendix IX: Comments from the Department of Homeland Security

U.S. Department of Homeland Security  
Washington, DC 20528



**Homeland  
Security**

April 25, 2022

Anna Maria Ortiz  
Director, Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Re: Management Response to Draft Report GAO-22-104241, "ALASKA NATIVE ISSUES: Federal Agencies Could Enhance Support for Native Village Efforts to Address Environmental Threats"

Dear Ms. Ortiz:

Thank you for the opportunity to comment on this draft report. The U.S. Department of Homeland Security (DHS or the Department) appreciates the U.S. Government Accountability Office's (GAO) work in planning and conducting its review and issuing this report.

The Department is pleased to note GAO's acknowledgement of the role the Federal Emergency Management Agency (FEMA) has in supporting Native villages' efforts to address environmental threats, such as erosion, flooding, and permafrost by directly supporting efforts to build resilience and conduct disaster mitigation. GAO's findings also recognized barriers that hinder Alaska Native villages from accessing federal assistance. DHS is committed to (1) supporting efforts to build resilience to such threats through FEMA's Hazard Mitigation Assistance (HMA) programs which fund both mitigation planning and project implementation activities, and (2) reducing barriers for participation by tribal organizations and Native village communities.

The draft report contained eight recommendations, including one for DHS with which the Department concurs. Enclosed, please find our detailed response to the recommendation. DHS previously submitted technical comments addressing several accuracy, contextual, and other issues under a separate cover for GAO's consideration.

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**Appendix IX: Comments from the Department  
of Homeland Security**

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Again, thank you for the opportunity to review and comment on this draft report. Please feel free to contact me if you have any questions. We look forward to working with you again in the future.

Sincerely,

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(on behalf of)  
JIM H. CRUMPACKER, CIA, CFE  
Director  
Departmental GAO-OIG Liaison Office

Enclosure

**Enclosure: Management Response to Recommendation  
Contained in GAO-22-104241**

GAO recommended that the Administrator of FEMA:

**Recommendation 5:** Review FEMA’s programs identified in this report and, where feasible and appropriate, implement relevant changes to program characteristics that are established in regulations, policy, or guidance that pose obstacles to Alaska Native villages’ obtaining assistance through these programs, including characteristics we identified and others FEMA may identify. FEMA should also document its review and any changes made to its programs.

**Response:** Concur. FEMA’s HMA Division routinely conducts internal program reviews, to include strategic program assessments, operational reviews of processes, and tactical-level assessments of tasks performed by staff in program execution. HMA Division then: (1) internally documents these program reviews; (2) shares any changes made due to those reviews by updating internal program plans; (3) provides updates to grant applicants via the FEMA website; (4) provides webinars and other activities to inform applicants of changes to HMA’s programs; and (5) updates FEMA’s consolidated HMA Program and Policy Guidance, comprised of the “Hazard Mitigation Assistance Guidance,” dated February 27, 2015 (HMA Guidance) and other interim policy/guidance documents, as appropriate. HMA is also currently updating the HMA Guidance document to incorporate interim guidance, and anticipates releasing the updated HMA Guidance document in November 2022. Further, HMA currently provides state, local, tribal, and territorial (SLTT) governments with mitigation planning grants for the development and update of mitigation plans, as well as mitigation project grants to implement actions in approved mitigation plans.

Additionally, FEMA continues to find ways to reduce barriers for participation in its grant programs, especially for tribal and Native Village communities. For example, as part of the Hazard Mitigation Grant Program’s (HMGP) 10-year strategic planning effort,<sup>1</sup> referred to as HMGP Forward, FEMA is exploring ways to reduce complexity, such as by potentially streamlining the required Benefit Cost Analysis by creating pre-calculated benefits, and simplifying the Environmental and Historic Preservation review by expanding use of Categorical Exclusions. FEMA has also made efforts to reduce barriers for participation by providing various job aids, webinars, and other outreach vehicles to assist SLTT’s with application development. A specific example particularly

<sup>1</sup> Established in 2019 to evaluate FEMA’s largest hazard mitigation grant program’s performance and determine the changes needed to improve the program moving into the next decade.

relevant to tribal entities includes the job aid, “Tribal Mitigation Planning and HMA Grant Application Development,” dated March 2021.<sup>2</sup>

During the past year, HMA has also developed grant application templates for multiple mitigation project types with the intent to assist grant applicants for HMA funding, and is currently considering ways in which applicants and sub-applicants can better partner with non-profit and charitable organizations to contribute to the non-federal cost share and/or provide the technical assistance required to develop and submit eligible and complete applications, through the efforts of the HMGP Forward working group. Throughout 2021, the HMGP Forward working group received feedback from state, regional, and internal FEMA partner offices regarding these efforts and activities, and is currently adjudicating this feedback to be incorporated into the final equity plan. While these strategic efforts are long-term, and partially depend on regulatory or legislative changes, HMGP planning effort is committed to finding ways to reduce barriers to participation and expedite the grant lifecycle.

Furthermore, several avenues exist, or are currently under development to reduce obstacles to Alaska Native villages’ ability to obtain assistance through FEMA mitigation planning and grant programs. Specifically:

- Pursuant to: (1) 44 Code of Federal Regulations (CFR) § 201, Mitigation Planning; (2) the February 27, 2015, Hazard Mitigation Assistance Guidance, Part III, Eligibility Information; and (3) and 42 United States Code (USC) § 5165, Mitigation Planning, tribal governments applying to FEMA as a sub-recipient must have an approved mitigation plan as a condition of receiving HMGP project grants and in order to apply for, and receive, FEMA mitigation project grants under all other mitigation grant programs. However, under 44 CFR § 201.7(a)(2), an exception to the mitigation plan requirement is available to tribal governments applying as sub-recipients in extraordinary circumstances, such as in a small and impoverished community, when justification is provided, in accordance with 44 CFR § 201.6(a)(3).
- In 2017, FEMA issued the tribal Mitigation Plan Review Guide, and FEMA will review, and update, this policy in accordance with FEMA’s internal policy review process as instructed in FEMA Directive 112-12, “Development and Management of FEMA Policy,” dated October 28, 2019.
- Pursuant to 42 USC § 5170, “Procedure for declaration,” tribal governments may have their cost-share waived or adjusted if the President: (a) has the authority to waive or adjust the payment under another provision; or (2) determines that the waiver of adjustment is necessary and appropriate. Further, the President, at the

<sup>2</sup> Available at fema.gov: [https://www.fema.gov/sites/default/files/documents/fema\\_hma-tribal-job-aid.pdf#:~:text=Hazard%20Mitigation%20Assistance%20%28HMA%29%20programs.%20FEMA%20mitigation%20planning.governments%20%28%22tribes%22%29%20with%20developing%20and%20implementing%20mitigation%20plans.?msclkid=c5dbd8bac19111ecba25c17f3bc0b973](https://www.fema.gov/sites/default/files/documents/fema_hma-tribal-job-aid.pdf#:~:text=Hazard%20Mitigation%20Assistance%20%28HMA%29%20programs.%20FEMA%20mitigation%20planning.governments%20%28%22tribes%22%29%20with%20developing%20and%20implementing%20mitigation%20plans.?msclkid=c5dbd8bac19111ecba25c17f3bc0b973)

request of a governor or tribal chief executive, may grant federal resources to a disaster affected state, territory, or tribal government.

- FEMA’s HMA Equity Advisor Team is in the process of conducting an equity analysis of all HMA programs, which is currently expected to be completed in the fall 2022. FEMA will consider including findings from GAO’s draft report in the analysis, as well as whether to incorporate the draft report’s specific recommended changes to program characteristics into the larger programmatic planning effort.
- As FEMA recognizes that the Benefit Cost Analysis requirement can be an impediment to communities when developing grant applications, FEMA’s HMA Data Analytics Branch utilizes several methodologies that may be used to demonstrate cost-effectiveness for applicants and sub-applicants. For example, pre-calculated benefits, in which FEMA calculates pre-determined cost-effectiveness values, can be used to eliminates the requirement for applicants to conduct a detailed benefit-cost analysis for eligible projects, and therefore reduces the time and resources needed to complete and review applications. FEMA intends to release a new pre-calculated benefit each year and has schedule in place to ensure this is accomplished.

Estimated Completion Date: December 29, 2023.

# Appendix X: Comments from the Department of the Interior



## United States Department of the Interior

OFFICE OF THE SECRETARY  
Washington, DC 20240

Ms. Anne Maria Ortiz  
Director, Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, N.W.  
Washington, DC 20548

Dear Ms. Ortiz:

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, *Alaska Native Issues: Federal Agencies Could Enhance Support for Native Village Efforts to Address Environmental Threats* (GAO-22-104241). We appreciate GAO's review of the environmental threats facing Alaska Native Villages, the Federal funding available, the Tribally led actions, and the opportunities for the Bureau of Indian Affairs and other Federal agencies to support community resilience.

The GAO issued two recommendations to the Department as part of its overall findings to improve support to Alaska Native villages. Below is our response to each recommendation and additional details for your consideration while finalizing the report.

**Recommendation 1: The Bureau of Indian Affairs (BIA), Director should identify options for providing additional technical assistance that is specifically designed to help Alaska Native Villages navigate and obtain assistance from the variety of potentially available federal programs, including by assessing how BIA prioritizes its available resources.**

**Response:** Concur. The BIA has identified additional resources to provide technical assistance specifically designed to help Tribes including Alaska Native Villages to navigate the Tribal Climate Resilience Program grants.

The Office of Trust Services, Branch Tribal Climate Resilience (TRC) has identified new avenues to provide technical assistance and support to Alaska Native Villages. Bipartisan Infrastructure Law (BIL) funds and additional appropriations in Fiscal Year 2022 (FY22) allows TRC to provide technical support specifically for Alaska Native Villages through various methods listed below:

- Use of indefinite delivery/indefinite quantity contract options to obtain technical expertise in various labor categories such as: a civil/environmental engineer, a construction analyst, a hydrologist or geologist, an environmental protection specialist, and designated administrative support. These contractors will provide technical assistance and help assess the program needs and resources. The construction analyst and the administrative support will be funded through BIL whereas the civil/environmental engineer, the

hydrologist/geologist, and the environmental protection specialist will be funded through TCR annual appropriations.

- Enhanced current Grant program by adding funding to existing categories and adding several new categories to the FY22 TCR Solicitation. Some examples are as follows:
  - Category 7. Planning for Relocation, Managed Retreat, and Protect-in-Place activities. (Since 2020)
  - Category 10. Implementation of Climate Adaptation Strategies (maximum: \$2,000,000) (New in 2022)

Category 10 is available to all federally recognized Tribes, including Alaska Native Villages and Tribal compacts -- this Category is more generally focused on climate adaptation strategy implementation.

- Category 11. Implementation of Community Relocation, Managed Retreat, or Protect-in-Place Actions (maximum: \$3,000,000) (New in 2022)
- Category 12. Relocation, Managed Retreat, or Protect-in-Place (RMP) Coordinator (maximum: \$150,000 per year for up to three years) (New in 2022)

Categories 11 and 12 are specific to community relocation, managed retreat, and protect in place activities, particularly for Alaska Native communities dealing with some of the most acute and imminent threats.

First Year Cohort Training will be provided for selected Category 12, RMP Coordinators via a cooperative agreement with the Institute of Tribal Environmental Professionals (ITEP), TCR's primary training partner. The cohort training will be mandatory for all Category 12 awardees, and a curriculum will be developed by a steering committee carefully selected, composed of individuals with background and/or experience working with Alaska Native communities. Curriculum will also be developed using feedback from a preliminary survey conducted by ITEP and from the Alaska Tribal Climate Resilience listening session on Relocation, Managed Retreat, and Protect-in-Place.

- Category 13. International ITEK Virtual Exchange (maximum: \$10,000) (New in 2022)

Category 13 is also relevant to Alaska Native Villages, by allowing communication and information exchange with other Indigenous nations facing similar issues in other countries.

- Addition of two (2) BIA TCR managed Regional Climate Resilience Planning Specialist positions to assist and support Tribes in the BIA Alaska Region.
- Relocation Pilot Projects funded by BIL:
  - Tribal projects in both Alaska and the Lower 48 were ranked according to five criteria (risk level, community readiness, lessons learned, existing plans, land already identified).



- o TCR participated in coordination with other relevant agencies and initiatives, such as the Arctic Executive Steering Committee subgroup on Coastal Resilience Working Group (CRWG).
- o TCR leads a subgroup of the CRWG on Relocation, Managed Retreat, or Protect-in-Place Pilots (RMPP) that identifies agency leveraging commitments over the course of the pilots.

**Recommendation 3: The BIA Director should review BIA’s programs identified in this report and, where feasible and appropriate, implement relevant changes to address program characteristics that are established in regulations, policy, or guidance that pose obstacles to Alaska Native villages’ obtaining assistance through these programs, including characteristics we identified, and others BIA may identify. BIA should also document its review and any changes made to its programs.**

**Response:** Concur. The BIA will review and seek avenues to enhance program characteristics that remedy obstacles.

TCR funding is awarded through a competitive grant program. These competitive programs can be challenging for Native villages because of the administrative capacity required to develop and submit applications. To address this concern, BIA has implemented:

- To support a more whole-of-government approach, BIA TCR is a coordinator for a subgroup of the Community Resilience Working Group, a subgroup of the Arctic Executive Steering Committee. The group began meeting in March 2022 and includes participation from all the primary agencies mentioned in this report. The group is supporting the identification and development of several relocation, managed retreat, protect-in-place demonstration pilots.
- The addition of a funding for a Grant Category 6. Capacity Building for Scoping Efforts (maximum: \$65,000) (developed in 2016)
  - o Capacity building awards are designed to support Tribes with limited technical or staffing capacity to hire part time staff or consulting to develop a Category 2 proposal for subsequent award cycles. Capacity building awards support Tribes in performing risk scoping activities with the community to address climate change impacts to Tribal Treaty and Trust resources and economies. These efforts highlight risks and alternative options for Tribes to begin to plan, thus building greater capacity for climate resilience. Proposals under this Category fund staff to develop a general scoping needs assessment (or similar process).
- The creation of a Tribal Liaison network
  - o The Tribal Climate Resilience Liaisons are a multi-regional support network to assist Tribes in addressing science-based needs available to them at Department of the Interior’s Climate Adaptation Science Centers (CASC), for improved climate adaptation planning efforts. Their role serves to technically assist Tribal Nations and

Alaska Native Villages in response to specific, yet diverse challenges faced from increasing environmental hazards and extreme weather events due to a changing climate. Tribal Liaisons serve as extension agents, facilitating research, linking Tribal needs to available resources, and coordinating trainings, workshops, forums and exchanges. These liaisons can also work with Tribes to support identification of funding sources and develop proposals for such opportunities, among other duties. More information about the Liaison Network can be found here: Tribal Resilience Liaisons <https://www.bia.gov/bia/ots/tribal-resilience-program/liaisons>. In Alaska, three liaisons will be funded in 2022 through a cooperative agreement with the Native American Fish and Wildlife Society, increasing the AK liaisons from one to three compared to the 2016-2021 period.

- o Annual grant writing webinar and a funding opportunity FAQ webinar. The liaisons are key in providing outreach regarding the TCR annual funding program.

The Department held multiple Tribal climate listening sessions in late 2021, coordinated by BIA TCR. One of these sessions held in December 2021, focused specifically on the Relocation, Managed Retreat, and Protect-in-Place Issues in Alaska. Several recommendations that came out of that included:

- Implementing a “one-stop-shop.” Tribes are not always aware of the opportunities that are available to them in the Department and having a single place to go to for guidance, where they are able to filter through the opportunities to find ones most relevant to them would greatly reduce obstacles to accessing these opportunities. In 2016, BIA developed Tribal Resilience Resource Guide that was meant to be a one-stop-shop for Tribes & Partners to find resources related to both Tribes and other Resilience Programs in a single format across agencies, regions, Tribes, and groups. The BIA TCR is considering updating this Guide, or looking to a different format. It is available here: <https://biamaps.doi.gov/resourceguide/index.html>
- Another barrier that was brought up was broadband access, particularly remote communities in Alaska. Several initiatives across the Department address this, outside of BIA TCR, including the Department’s Field Communications Modernizations (DIFCOM) initiative and the National Tribal Broadband Strategy, developed in collaboration with several Federal agencies.
- After obtaining input from Tribes TCR understood that GrantSolutions was not easy for Tribes to use or access, commenting that they ran into problems related to the speed of the site compared to others and that they found the registration and account creation processes burdensome. Tribes are often less familiar with this system and struggle with the administrative capacity required to keep up with grants management. In 2022, TCR is transitioning to utilizing the Indian Self-Determination and Education Assistance Act (ISDEA, P.L. 93-638) and Indian Self-Governance compacts or contracts/grants, rather than Federal grants mechanism.

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Appendix X: Comments from the Department of the Interior

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If you have any questions or need additional information, please contact Rachael Novak, Chief, Branch of Tribal Climate Resilience, at [rachael.novak@bia.gov](mailto:rachael.novak@bia.gov).

Sincerely,

JOAN  
MOONEY

Digitally signed by JOAN  
MOONEY  
Date: 2022.04.27  
10:25:55 -04'00'

Joan M. Mooney  
Principal Deputy Assistant Secretary  
Exercising the Delegated Authority of the  
Assistant Secretary - Policy, Management  
and Budget

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# Appendix XI: GAO Contact and Staff Acknowledgments

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## GAO Contact

Anna Maria Ortiz at (202) 512-3841 or [OrtizA@gao.gov](mailto:OrtizA@gao.gov)

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## Staff Acknowledgments

In addition to the contact named above, key contributors to this report include Leslie Kaas Pollock (Assistant Director), Lisa Van Arsdale (Assistant Director), Emily E. Eischen (Analyst-in-Charge), Adrian Apodaca, Gioia Chaouch, Frederick K. Childers, John Delicath, George Fox, Emily Gamelin, Cindy Gilbert, Jon Melhus, John Mingus, Brenda Rabinowitz, Jeanette M. Soares, and Sara Sullivan.

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