

INSPECTOR GENERAL'S STATEMENT SUMMARIZING THE MAJOR MANAGEMENT AND PERFORMANCE CHALLENGES FACING THE U.S. DEPARTMENT OF THE INTERIOR



Memorandum

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To:	Secretary Zinke
From:	Mary L. Kendall Deputy Inspector General

Subject: Inspector General's Statement Summarizing the Major Management and Performance Challenges Facing the U.S. Department of the Interior Report No. 2017-ER-050

In accordance with the Reports Consolidation Act of 2000, the Office of Inspector General (OIG) is submitting what it determined to be the most significant management and performance challenges facing the U.S. Department of the Interior (DOI), for inclusion in the DOI's *Agency Financial Report* for fiscal year 2017.

We met with DOI officials to gain their perspective on the challenge areas. These areas are important to the DOI's mission, involve large expenditures, require continuous management improvements, or involve significant fiduciary relationships.

If you have any questions, please do not hesitate to call me at 202-208-5745.

cc: Scott Hommel, Chief of Staff, U.S. Department of the Interior David Bernhardt, Deputy Secretary, U.S. Department of the Interior Douglas Glenn, Director, Office of Financial Management Teresa Hunter, Deputy Director, Office of Financial Management

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Introduction and Approach

In accordance with the Reports Consolidation Act of 2000, the Office of Inspector General (OIG) is reporting what it has determined to be the most significant management and performance challenges facing the U.S. Department of the Interior (DOI). By statute this report is required to be included in the DOI's *Agency Financial Report*.

The identified challenge areas reflect continuing vulnerabilities and emerging issues faced by the DOI. Each area is connected to the DOI's mission, includes large expenditures, requires continuous management improvements, or involves significant fiduciary relationships.

The OIG identified the top management and performance challenges for fiscal year (FY) 2017 as:

- Energy management
- Public safety and disaster response
- Information technology
- Water programs
- Responsibility to American Indians and Insular Areas
- Acquisition and financial assistance
- Climate effects
- Operational efficiencies
- Workplace culture and ethics

These nine challenges are not presented in order of priority. Some of the critical topics discussed span multiple challenge areas, serving as a reminder of the complex nature of the DOI's mission. This year we have added workplace culture and ethics as a new challenge area, reflecting recent attention and serious concerns at multiple bureaus.

This report is based on specific OIG and U.S. Government Accountability Office (GAO) reviews and other reports, as well as our general knowledge of the DOI's programs and operations. Our analysis generally considers the accomplishments that the DOI reported as of September 30, 2017.

We met with DOI officials to gain their perspective and together agreed on the challenge areas. We received varying degrees of input from the Bureau of Indian Affairs (BIA)/Bureau of Indian Education (BIE), Bureau of Land Management (BLM), Bureau of Ocean Energy Management (BOEM), Bureau of Reclamation (USBR), Bureau of Safety and Environmental Enforcement (BSEE), National Park Service (NPS), Office of Surface Mining Reclamation and Enforcement (OSMRE), U.S. Fish and Wildlife Service (FWS), and U.S. Geological Survey (USGS). We did not receive information from the Office of the Secretary; Office of Policy, Management and Budget; Office of Insular Affairs; Office of the Solicitor; Office of the Chief Information Officer; or the Office of the Special Trustee for American Indians. We also provided a draft copy of our views to DOI officials and considered all comments received when finalizing this report.

In addition, we reviewed the GAO's list of Federal programs and operations at high risk for waste, fraud, abuse, and mismanagement or in need of broad-based transformation (updated every 2 years; see http://www.gao.gov/highrisk/overview). The GAO's High-Risk List for 2017 identifies issues in three of our challenge areas—energy management, information technology, and climate effects—as well as in strategic human capital management, which have impacts across multiple challenge areas. The GAO also added two relevant high-risk issues in 2017: environmental liability and management of Federal programs that serve tribes and their members. GAO findings inform and guide actions to resolve management and operational challenges.

This report marks the first year of a new Administration, and with this transition comes new perspectives and approaches to addressing the DOI's top management and performance challenges. The 5-year DOI Strategic Plan extends to the end of FY 2018. As the next Strategic Plan is developed, bureau and program plans that direct the DOI's mission will undoubtedly be updated or replaced to reflect current priorities and set milestones.

Energy Management

As the steward of 700 million acres of subsurface minerals and manager of onefifth of the Nation's landmass and 1.7 billion offshore acres, the DOI plays a critical role in the development of domestic energy resources. Through its bureaus and offices, the DOI is responsible for ensuring that the country's coal, oil, gas, wind, solar, hydropower, and geothermal resources are developed in a responsible manner. The DOI also safeguards the collection and disbursement of revenue derived from energy development on both Federal and tribal lands, which totaled \$6.23 billion in FY 2016.

In managing energy resources the DOI faces many continuing and emerging challenges, including (1) problems with the collection, verification, and distribution of revenues, (2) reduced offsetting collections, (3) challenges posed by aging energy infrastructure both offshore and onshore, and (4) barriers to renewable energy development. OIG findings have highlighted these or similar issues in energy management for multiple years.

Revenue Collection, Verification, and Distribution

Ensuring proper compensation for public resources remains a challenge for the DOI. Its bureaus and offices struggle to determine the fair market value of and collect revenue from public and tribal mineral and energy resources.

Compounding these difficulties, the BLM has not implemented four of the GAO's recommendations to improve the verification of oil and gas produced from Federal leases and the reasonableness and completeness of royalty data. In addition, the BIA has encountered technical and informational difficulties in making the mineral and energy resource ownership determinations needed for proper revenue disbursement.

Reduced Offsetting Collections

Offsetting collections¹ make up 57 percent of both the BOEM's and the BSEE's total budget authority. A downturn in the energy market has decreased revenue used to offset the bureaus' appropriated funding, which has challenged their capacity for leasing, inspection, and enforcement. Total offsetting rental receipts in FY 2018 are anticipated to be \$47.3 million below the estimated FY 2017 level, and that funding gap is projected to increase in the coming years. A prolonged downturn in collections may significantly affect the bureaus' ability to meet their leasing, regulatory, and enforcement responsibilities.

¹ So called because they reduce (or "offset") congressional funding. Examples include revenue from rents and service fees (such as for the processing of applications, inspection of oil and gas facilities, and exploration plans, among others).

Aging Offshore and Onshore Infrastructure

Unplugged and abandoned infrastructure poses financial and environmental risks, as well as safety and offshore navigational risks. Mitigating these risks through permanent reclamation of orphaned oil and gas wells, offshore production platforms, and related infrastructure could cost hundreds of millions of Federal dollars. In addition, the BLM estimates that an excess of \$200 million is needed to repair or remediate legacy wells and mines that exist on Federal lands, and estimates that there may be as many as 41,000 mines that pose additional safety risks. Abandoned coal mines in particular have been identified as a concern, as the OSMRE does not have a reliable inventory of abandoned mine lands and has not used its authority to ensure that certified States receiving Federal funds are giving priority to coal reclamation projects.

Renewable Energy Development

Barriers to renewable energy development (such as wind, solar, geothermal, and hydropower) include both regulatory and nonregulatory hurdles. Unfavorable utility rate structures, the absence of procedures and standards for connecting renewable energy systems to the electric utility grid, environmental permitting obstacles, and insufficient or no access to transmission systems all pose challenges to expanding the Nation's renewable energy portfolio. While the DOI has attempted to facilitate renewable energy development through recent rule makings, other challenges remain.

Keeping existing renewable power infrastructure operational is also a concern, as the USBR is the second largest U.S. producer of hydroelectric power, annually generating more than 40 billion kilowatt hours of energy—enough to meet the needs of 3.5 million homes. The USBR's water-related infrastructure assets have a current estimated total replacement value of \$99 billion, and many of the USBR's oldest buildings and structures are functioning beyond their initial design lives.

Public Safety and Disaster Response

The DOI is responsible for the safety of more than 70,000 employees and members of the public who visit or live near the DOI's more than 500 million acres. The DOI also responds to a wide range of emergencies, including wildland fires, hazardous materials and animal diseases on public lands, and search and rescue activities, among others.

Continuing and emerging public safety challenges for the DOI include (1) safety and security on public lands, (2) infrastructure challenges to safety and services, and (3) disaster response preparedness and management.

From year to year, OIG work covers various aspects of public safety and disaster response. In FY 2017, we reported on safety issues connected to the USGS' management of the Geological Survey TRIGA Reactor laboratory that may lead to workplace injuries, workers' compensation claims, and lost productivity.²

Safety and Security on Public Lands

The DOI and its bureaus are responsible for ensuring safety and security on public lands, which include national parks, wildlife refuges, national conservation areas, recreational sites, and other federally managed areas. Critical factors affecting DOI efforts include the following:

- Increasing frequency and far-reaching effects of natural and manmade disasters
- Smuggling on public lands along the Southwest border
- Large-scale marijuana cultivation on Federal land, including the associated diversion of natural water sources and the use of herbicides and pesticides that damage public land ecosystems
- Activities of anti-Government groups that may threaten the operational safety of Federal law enforcement officers and civilian staff who work in rural and remote settings
- Population growth in urban areas near public lands, which increases pressure on public safety and resource protection efforts

In 2016, tourist activity at national parks hit a record high for the third year in a row, with nearly 331 million recreation visits, a 23.7 million increase over 2015. As the number of visits increase, a corresponding growth in special park uses and

² DOI OIG Report No. 2016-WR-076, *Opportunities Exist to Strengthen Compliance With Health and Safety Requirements at the GSTR Laboratory*, July 2017.

commercial services makes risk management more complex. Increased tourism also raises safety concerns, especially in remote regions of the parks, during inclement weather, or regarding visitor contact with wild animals. These factors challenge the DOI to manage risk, promote safety, and accommodate increased demands on its budget and staffing.

Infrastructure Challenges to Safety and Services

The DOI manages an infrastructure asset portfolio with a replacement value exceeding \$300 billion. The DOI owns and maintains approximately 43,000 buildings, 100,000 miles of road, and 80,000 structures—including dams, laboratories, employee housing, and water and power infrastructure. Because maintenance funding has not kept pace with bureaus' needs for some years, the DOI's deferred maintenance backlog³ is significant—it had grown to more than \$15 billion in 2016 (see discussion of the cost challenges under "Operational Efficiencies"). Addressing the deferred maintenance backlog for critical infrastructure is among the DOI's most challenging issues related to safety and services.

Infrastructure improvements are also essential for employee and public safety at many DOI-owned buildings, recreational sites, and roads, and for improving sportsmen's access along thousands of miles of trails and trailheads that are the key connecting points from roads to fishing, hunting, and hiking resources. As a specific example, effectively managing the DOI's dams, water conveyances, and power-generating facilities and the services they provide is among the most significant challenges facing the DOI over the next several years. Nearly 86 percent of the USBR's dams are over 50 years old, and nearly 90 percent of these dams were built before current state-of-the-art design and construction practices.⁴ Out of 492 dams managed by the USBR, the DOI has identified 363 high- and significant-hazard dams, which require evaluation and monitoring to ensure dam safety and that risks do not exceed public protection guidelines.

Additional infrastructure risks are found in the Federal Legacy Well and Abandoned Mine Land programs, which have nearly 180 oil and gas wells and mines (specifically, 29 wells and 147 mines) in need of repair and remediation, with costs totaling well over \$200 million.

The DOI can further mitigate the risks to public health and safety from aging infrastructure through intensified oversight, as well as identification and prioritization of needs, as sufficient maintenance and rehabilitation funding remains a challenge.

³ Deferred maintenance is maintenance that was not performed when it should have been and that has been delayed or postponed until funding becomes available.

⁴ DOI, Fiscal Year 2018 Budget in Brief, May 2017,

https://www.doi.gov/sites/doi.gov/files/uploads/2018_highlights_book.pdf.

Disaster Response Preparedness and Management

The DOI responds to a wide range of disasters and their aftermaths. Planning and preparedness for large-scale environmental and natural disasters is an ongoing challenge.

More recent events, including wildfires causing devastation in the States of California, Oregon, and Montana and three major hurricanes—Harvey, Irma, and Maria—occurring in rapid succession over a 3-week timeframe have only further challenged the DOI's disaster management services. The close timing and severity of these events stretched resources thin and made disaster response difficult, with little to no recovery time between them. Outcomes include impacts on lives, property, infrastructure, and the environment.

Because disaster and emergency management typically involve multiple Federal agencies, multiple levels of government, and the private and nonprofit sectors, cross-sector collaboration is a prime challenge that directly affects the social and ecological outcomes of future environmental disasters. Such collaboration, however, can be difficult due to cultural differences, misaligned incentives and missions, time pressures, and legal constraints.⁵ Effective collaboration and integration are needed before, throughout, and following a crisis, not just during a crisis.

⁵ L. A. Mease, T. Gibbs-Plessl, A. L. Erickson, K. A. Ludwig, C. M. Reddy, and J. Lubchenco, "Designing a solution to enable agency-academic scientific collaboration for disasters," Ecology and Society, 22(2):18, 2017, https://doi.org/10.5751/ES-09246-220218.

Information Technology

For decades the DOI has struggled to implement an IT governance approach that effectively aligns authority and responsibility commensurate with the DOI's overall mission. Ineffective IT governance poses challenges to the DOI's ability to implement security measures that withstand the constant threats from foreign intelligence services, cyber criminals, and hacktivists, as well as from insiders.

Continuing and emerging IT challenges for the DOI include (1) late adoption of revised security standards, (2) recurring findings in vulnerability scanning, (3) implementation of continuous monitoring and mitigation programs, (4) cloud computing, and (5) contingency planning and data backup.

Adoption of Revised Security Standards

Under the Federal Information Security Modernization Act, or FISMA (Pub. L. No. 113-283),⁶ the National Institute of Standards and Technology (NIST) develops security standards that prescribe the minimum requirements for Federal information systems.⁷ Federal agencies are required to fully comply with new security standards within 1 year from the date of final publication. However, eight of the nine systems tested by a 2016 inspection⁸ still followed the previous (outdated) version of the standards.

NIST anticipates publishing the final version of the next revision to the standards by December 29, 2017. Among others updates, the revised standards will incorporate new, state-of-the-practice controls based on threat intelligence and empirical attack data. Another delay in adoption of new standards would violate Federal policy and prevent the U.S. Government from securing its information systems.

Recurring Findings in Vulnerability Scanning

Federal and DOI security standards require the DOI to:

- Scan periodically for vulnerabilities in information systems and hosted applications
- Remediate high-risk vulnerabilities within prescribed response times (30 days, according to the DOI)

⁶ Enacted in 2014, this law amends the Federal Information Security Management Act of 2002 (Pub. L. No. 107-347).

⁷ The current version is: NIST Special Publication No. 800-53, Revision 4, *Security and Privacy Controls for Federal Information Systems and Organizations*, April 2013.

⁸ DOI OIG Report No. 2016-IT A-032, *Inspection of Federal Computer Security at the U.S. Department of the Interior*, August 8, 2016.

Share information obtained from the scanning process with designated personnel throughout the agency to help eliminate similar vulnerabilities in other information systems

Vulnerability scans in audits and inspections have identified hundreds and even thousands of the same or similar critical and high-risk vulnerabilities in numerous DOI systems in the past 3 years. These vulnerabilities largely relate to updates or patches that are available but not applied and misconfiguration of hardware and software, which can increase the risk of inappropriate system access, system errors, and loss or disclosure of information.

Implementation of Continuous Monitoring and Mitigation Programs

OMB Memorandum No. M-14-03, issued November 18, 2013, requires implementation of the Information Security Continuous Monitoring (ISCM) program by the end of FY 2017 to improve the safeguards and countermeasures protecting Federal information and information systems, and to manage information security risk on a continuous basis. In conjunction with this effort, Congress established and funded the Continuous Diagnostics and Mitigation (CDM) program, which provides capabilities and tools that enable network administrators to know the state of their respective networks on an ongoing basis by identifying and ranking problems for priority resolution. Under the "Cybersecurity Strategy and Implementation Plan for the Federal Civilian Government" (OMB Memorandum No. M-16-04, issued October 30, 2015), the U.S. Department of Homeland Security (DHS) purchases and deploys tools and integration services that it makes available for use by other Government agencies, including the DOI. In deploying products to support ISCM, the OMB requires the agencies to leverage the services and products offered by the DHS CDM program.

According to the DOI's FY 2016 FISMA audit report, however, the OCIO has not formally defined how ISCM activities will integrate with organizational risk tolerance, the threat environment, and business requirements; nor has it formally defined how ISCM information will be shared with individuals with significant security responsibilities and used to make risk-based decisions. The OCIO has not identified and defined the qualitative and quantitative performance measures that will be used to assess the effectiveness of its ISCM program and control ongoing risk.

The DOI is awaiting the DHS' plan for full implementation of the CDM program, which has been delayed.

Cloud Computing

Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources, such as computer servers, storage, software applications, and web services, that can be acquired and released with minimal management effort or service provider interactions. In a 2015 evaluation of four DOI contracts with public cloud-computing providers, we learned that none of these contracts had the controls needed to monitor and manage either the providers' or the DOI's data stored in their cloud systems.⁹ At the time of our evaluation, eight bureaus had implemented cloud services, while others were exploring how to leverage cloud technologies to increase operational efficiencies. Despite the corrective actions taken (two of the six recommendations remain open as of this writing), concerns remain that the DOI and its bureaus may not have the security controls required to monitor their systems and data as the focus of oversight shifts from fixed-time assessments and compliance reporting to continuous monitoring of IT security controls.

As the DOI expands its use of public cloud services, strengthening its governance and risk management practices could help mitigate the chance that a bureau's operations might be disrupted, data lost, or public funds misused.

Contingency Planning and Data Backup

DOI security standards require that bureaus and offices conduct at least daily incremental and weekly full backups of system-level and user-level data. The FY 2015 and FY 2016 FISMA audits, however, identified multiple system-level deficiencies in the DOI's contingency planning with respect to data backup. Specifically, some bureaus and offices did not have documented procedures for backup, or did not configure their systems to conduct incremental and full backups, or did not resolve the problems within the required timeframe when backups were not completed successfully. The OIG has also noted that a user-level solution that automatically backs up files on our laptops has not been implemented. Without backups and a process to monitor their status, the DOI may not have available the data required for continuity of operations in the event of a system compromise or if a computer fails or is lost.

⁹ DOI OIG Report No. ISD-EV-OCI0-0002-2014, *DOI's Adoption of Cloud-Computing Technologies*, May 21, 2015.

Water Programs

There are competing demands among and within agricultural, urban, municipal, industrial, tribal, ecosystem, power, and recreational uses of water. As the largest wholesaler of water in the country, the USBR is challenged to reconcile these demands and avoid or minimize operational impacts.

Continuing and emerging water-related challenges for the DOI include (1) extreme drought, (2) rural water systems, (3) expanding water demand, and (4) rehabilitation and replacement of water facilities.

OIG findings in water programs have centered on insufficient oversight of Government-funded projects, including the funding of water programs without proper authority and the funding of projects that should have been funded by the State.

Extreme Drought

As the largest supplier and manager of water in the Western States, the DOI needs to be prepared to oversee increasing competition for a dwindling supply of water in that region. The USBR also faces challenges in water management, including appropriately issuing and managing cooperative agreements with water contractors.¹⁰

After enduring an exceptional years-long drought, California experienced record levels of precipitation and snowpack last winter, which in turn increased the summer expectations for hydroelectricity's share of generation in the West to rise to 27 percent. Despite the year of record precipitation in California, drought in the West remains. The USBR must carefully prioritize use due to water scarcity as it looks to optimize hydropower value and production at USBR-owned facilities.¹¹

In addition, the USBR faces a shortage of technically qualified staff to support drought planning and implementation, which requires collaboration with the USGS and other agencies.

Rural Water Systems

The USBR's FY 2017 budget included \$66 million for rural water construction projects. The high costs of replacing or upgrading aging and obsolete water systems in rural communities present a significant challenge, as does ensuring that rural water projects not only prolong the lives of these structures but also make efficiency improvements.

¹⁰ See OIG Report No. 2015-WR-80, Audit of the Bureau of Reclamation's Klamath Basin Water User Mitigation Program, October 11, 2016; and OIG Report No. 2016-WR-040, The Bureau of Reclamation Not Transparent in Its Participation in the Bay Delta Conservation Plan, September 7, 2017.

¹¹ The USBR continues to work to develop new Federal and non-Federal hydropower assets, for example at nonpowered dams, canals and other small conduits, and pumped storage facilities.

Some rural water projects stem from settlements of disputes over water rights and access between tribes, Federal and State governments, and other parties. The USBR has several Indian water rights settlements in the implementation phase, as well as some not yet settled. Nearly all settlements of Indian water rights claims require significant investment in infrastructure to enable the settled "paper" water right to become "wet" water delivered to meet municipal, industrial, agricultural, and other purposes on tribal lands. In a recent evaluation report, we estimated that \$1 billion had been appropriated under the Indian Self-Determination and Education Assistance Act (Pub. L. No. 93-638) for tribal rural water construction projects as of the end of FY 2016.¹² The USBR must provide effective oversight, a sentiment echoed by the Bureau in a 2016 Quality Assurance Review it conducted of its Public Law 93-638 program. Without proper oversight and reporting, the USBR is at risk of failing to meet its fiduciary responsibilities.

Expanding Water Demand

The USBR operates 338 reservoirs, delivering water to more than 31 million people, and providing one out of five Western farmers with irrigation water for 10 million acres of farmland. The USBR is also the second largest U.S. producer of hydroelectric power, operating 53 hydroelectric power plants that generate 15 percent of the Nation's hydropower.

Urbanization has created new demands for water, power, and recreational facilities, as well as public health and safety issues. For example, canals flow through areas that were once rural but are now residential subdivisions, increasing the risk of damage to private property in the event of infrastructure failure or malfunction. The USBR owns more than 8,100 miles of canals, approximately 1,000 miles of which have been identified as crossing through or near a populated area. Some sections of the canals within those 1,000 miles have been identified as having infrastructure issues that require extensive rehabilitation or replacement to address performance and safety risks. The USBR is evaluating a new risk-based approach to assessing urban canals to better prioritize inspections and rehabilitation or mitigation measures and determine how to address the funding challenges for those that require significant work. Additional legislation may be needed to ensure the continued availability of water and power to affected communities.

Rehabilitation and Replacement

The USBR has 140 million acre-feet total water storage capacity within its 338 reservoirs and 492 dams. With a multibillion dollar 5-year estimate for major rehabilitation and replacement requirements for water facilities, the USBR must look beyond traditional financing and toward working with other agencies on alternative financing opportunities, including the use of public-private partnerships. The USBR also has significant commitments to completing new

¹² DOI OIG Report No. 2016-WR-026, Improvements Needed in the Bureau of Reclamation's Oversight of Tribal Rural Water Projects, July 31, 2017.

capital projects, including Indian water rights settlements and rural water projects, and potential future commitments for storage, hydropower, and water conveyance and treatment projects.

Responsibility to American Indians and Insular Areas

Through the BIA and the BIE, the DOI provides services to 567 federally recognized tribes with a population of about 1.9 million American Indians and Alaska Natives. For example, the DOI has trust responsibilities for 55 million surface acres and 57 million acres of subsurface mineral estates, and provides education services to about 42,000 Indian students in 183 schools and dormitories.

The DOI also coordinates Federal policy and administers Federal financial assistance to Insular Areas, which comprise the U.S. territories of American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the U.S. Virgin Islands and three Freely Associated States,¹³ namely the Federated States of Micronesia (FSM), the Republic of the Marshall Islands, and the Republic of Palau.

In executing its trust responsibilities to American Indians and the Insular Areas, the DOI faces continuing and emerging challenges that include (1) administration of the Land Buy-Back Program, (2) Indian Country schools, (3) energy development and management, and (4) financial management in the Insular Areas.

Related OIG findings have highlighted safety and oversight problems in the Indian education system and accountability problems with the handling of public funds. The GAO added management of Federal programs that serve American Indian tribes and their members to its High-Risk List for 2017.¹⁴

Administration of the Land Buy-Back Program

Fractionation¹⁵ affects nearly 11 million acres of land across Indian Country. As lands are passed down through generations, they gain more owners. Many tracts now have hundreds and even thousands of individual owners, creating an overly complicated land tenure status—for example, a single tract in the Navajo Nation has more than 1,200 owners. As a result, many highly fractionated tracts are unoccupied and unusable for agricultural, recreational, cultural, commercial, or even residential purposes. The Land Buy-Back Program consolidates fractional

¹³ The United States has a "compact of free association" with these Pacific island nations, establishing a relationship between their respective governments. Each island government is recognized as a sovereign, self-governing state, and the United States provides economic and development assistance and military defense.

¹⁴ GAO Report No. GAO-17-317, *High Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others*, February 2017.

¹⁵ "Fractionation" refers to divided ownership of Indian lands and is the result of land parcels passing to numerous heirs over generations. The Land Buy-Back Program implements the land consolidation component of the *Cobell* v. *Salazar* settlement, which provided \$1.9 billion to consolidate fractionated land interests across Indian Country within a 10-year period, which ends in November 2022.

land interests from willing sellers and restores the consolidated land to tribal trust ownership.

The funding and time limits established for the program, which is set to expire in 2022, make challenging the consolidation of all fractional interests across Indian Country. The DOI is further challenged by the sensitivity surrounding acquisition of Indian lands by the Government. A revised strategy was announced in July 2017, with the goals of maximizing the program's remaining \$540 million and achieving the greatest reduction of fractional interests, the largest possible number of participating landowners, and the most effective use of DOI resources.

Indian Country Schools

The BIE faces challenges associated with aging school infrastructure, limited broadband internet access, teacher and administrator shortages, and low graduation rates. Nationally, the American Indian/Alaskan Native high school graduation rate is 69 percent, well below the national average of 81 percent.

In the 2017 update to its High-Risk List, the GAO stated that 11 of 13 recommendations it has made in the past 3 years regarding management of BIE schools remain open. These recommendations include:

- Ensuring that inspection information collected on the schools is complete and accurate
- Implementing written procedures and a risk-based approach to guide the BIE in overseeing school spending
- Developing a strategic plan for the BIE
- Revising the BIA's strategic workforce plan to ensure that regional offices have an appropriate number of staff with the right skills to support BIE schools in their regions

Energy Development and Management

Indian Country energy resources hold potential for development, but are underdeveloped relative to surrounding non-Indian resources. Tribal-owned oil and gas resources are among the largest revenue generators in Indian Country. In the past 2 years, the GAO issued three reports on developing tribal energy resources (each discussed below) in which it made 14 recommendations to the BIA. All recommendations remain open as of this writing.

The BIA review and approval process can be lengthy and increase development costs. In its High-Risk List for 2017, the GAO noted that in one instance, the BIA took 8 years to review a tribe's energy-related documents. The tribe estimated that it lost \$95 million in revenues it could have earned in that time. To help ensure that the BIA streamlines the review and approval process for revenue-sharing

agreements, the GAO made three recommendations in a June 2016 report,¹⁶ including that the DOI establish timeframes for the review and approval of Indian revenue-sharing agreements for oil and gas and establish a system for tracking and monitoring the review and approval process to determine whether timeframes are met.

The BIA also faces challenges in the formation of its new Indian Energy Service Center (IESC), including insufficient policies, ineffective coordination with regulatory agencies, and potential employee skills gaps. In a November 2016 report,¹⁷ the GAO recommended that the BIA (1) take steps to coordinate with other regulatory agencies so the IESC can serve as a single point of contact or lead agency to navigate the review and approval process and (2) ensure that its workforce is appropriately aligned to meet goals and priorities by establishing a documented process for assessing the workforce composition at BIA offices.

In addition, in a June 2015 report,¹⁸ the GAO recommended that the BIA improve its geographic information system mapping capabilities to efficiently identify and verify ownership of resources available for development, clarify tribal energy resource agreement regulations by providing additional guidance to tribes on provisions that tribes have identified as unclear.

Regarding the Insular Areas, they currently depend almost entirely on imported petroleum products for energy, but they have abundant renewable energy sources and are beginning to transform their energy sectors from 100-percent reliance on imported fossil fuel energy to sustainable energy. The Office of Insular Affairs faces the challenge of providing the technical assistance and support needed to help the islands achieve their clean energy goals.

Financial Management in the Insular Areas

Grant and contract management in the Insular Areas remains a challenge. Many government entities do not have sufficient accounting and financial management systems. The DOI spends millions of dollars on grants for various projects, and deficient financial systems weaken accountability and internal controls.

Each Insular Area government has an Office of the Public Auditor (OPA) or equivalent entity that helps ensure the integrity of government operations and spending. OPAs face challenges in competing for and retaining qualified audit and investigative staff, largely due to insufficient budgets and limited labor pools. Through a Capacity Building Program, the OIG offers technical training to the public auditors in Insular Area governments, designed to strengthen accountability and help ensure good governance.

¹⁶ GAO Report No. GAO-16-553, Indian Energy Development: Interior Could Do More to Improve Its Process for Approving Revenue-Sharing Agreements, June 2016.

¹⁷ GAO Report No. GAO-17-43, Indian Energy Development: Additional Actions by Federal Agencies Are Needed to Overcome Factors Hindering Development, November 2016.

¹⁸ GAO Report No. GAO-15-502, *Indian Energy Development: Poor Management by BIA Has Hindered Energy Development on Indian Lands*, June 2015.

In a 2017 audit, we questioned all \$3.9 million claimed by the Virgin Islands on a FWS grant over a 2-year period.¹⁹ We determined that the DOI's financial management system did not provide for accurate recording and reporting of program revenues and expenditures.

In a recent audit of the Virgin Islands Public Finance Authority, we found significant internal control deficiencies, with questioned expenditures exceeding \$100 million and additional financial reporting discrepancies of \$50 million.²⁰ Several recommendations have yet to be implemented, including providing the DOI's Office of Insular Affairs with a policy for petty cash funds administration and safekeeping and the tracking and disposal of assets.

 ¹⁹ DOI OIG Report No. 2016-EXT-005, U.S. Fish and Wildlife Service Wildlife and Sport Fish Audit Restoration Program Grants Awarded to the Government of the Virgin Islands, Department of Planning and Natural Resources, From October 1, 2012, Through September 30, 2014, February 2017.
²⁰ DOI OIG Report No. ER-IN-VIS-0015-2014, Significant Flaws Revealed In the Financial Management and Procurement Practices of the U.S. Virgin Islands' Public Finance Authority, September 2017.

Acquisition and Financial Assistance

The OIG has consistently identified acquisition management as an area in need of improvement. It is also an area of significant spending: the DOI awarded approximately \$9.2 billion in new grants and contracts in FY 2017.

We have found problems with the DOI's presolicitation planning and competition as well as post-award performance monitoring. Bureaus also do not have an adequate number of trained staff to effectively award and manage contracts, grants, and cooperative agreements. In Indian Country, single audits and OIG audits of tribal nations have identified numerous and significant problems, including improper payments to related parties, general financial mismanagement, inadequate segregation of duties, stolen funds, unallowable commingling of Federal funds with tribal funds, and flawed reporting systems.

The DOI's continuing and emerging challenges related to acquisition and financial assistance include (1) awarding and managing contracts under Public Law 93-638, and (2) staff training and retention.

Public Law 93-638 Contracts

The DOI awarded about \$2 billion in new contracts and grants to Indian Country recipients during FY 2017. Our prior audit work has consistently identified highrisk issues with awards made under Public Law 93-638—tribal self-determination contracts—regarding contract oversight, pre-award processes, and post-award monitoring. Tribal awards from the BIA and other bureaus are a major part of the DOI's funding obligations, with these "638 contracts" accounting for approximately 22 percent of the FY 2017 assistance award and procurement obligations.

There are major differences between 638 contracts and traditional Federal acquisition contracts. For example, Public Law 93-638 allows a tribe to enter into a noncompetitive self-determination contract taking program funds from those bureaus that operate programs on behalf of the tribe. In addition, 638 contracts are generally not subject to Federal contracting and cooperative agreement laws and regulations, except to the extent that such laws and regulations expressly apply to Indian tribes. These differences, combined with a shortage of qualified contracting personnel, make 638 contracts a higher risk.

Staff Training and Retention

Similar to staffing challenges noted for other technical specialties, bureaus do not have an adequate number of trained staff to effectively award and manage contracts, grants, and cooperative agreements.

The complexity of OMB guidance referred to as the "Super-Circular" ("Uniform Administrative Requirements, Cost Principles, and Audit Requirements for

Federal Awards," issued in 2013) requires knowledgeable staff to implement its requirements for Federal financial assistance awards. Without enough qualified contracting personnel, bureaus run the risk of inconsistently applying regulations and providing inadequate oversight of awards.

Further, to administer 638 contracts, staff need to have extensive training and experience beyond the procurement training sufficient at other bureaus. Becoming awarding officials can take years to accomplish, posing a human resource challenge for the BIA and other bureaus that award 638 contracts.

Climate Effects

Since 2013, the GAO has included the management of climate change on its High-Risk List. Effects from a changing climate are a cross-cutting, complex issue that impacts the DOI and other land management agencies. Most of the risks are relatively static year-to-year, but the way those risks are managed can vary depending on departmental priorities.

The DOI's continuing and emerging challenges related to climate effects include (1) wildland fire costs and strategy, (2) impact on American Indian and Alaska Native tribes and lands, (3) water scarcity, and (4) impact on the Insular Areas.

The OIG conducted limited work in this area in FYs 2016 and 2017. Past work has found poor internal controls and coordination in climate effects programs.

Wildland Fire Costs and Strategy

Costs for containing wildland fires continue to escalate. According to the National Aeronautics and Space Administration and the National Oceanic and Atmospheric Administration, 2016 was the warmest year ever recorded—a record broken previously by both 2015 and 2014. Higher temperatures lead to drier soils, increased likelihood of drought, and a longer fire season.

The 2016 wildfire season was one of the costliest on record, with a single wildfire containment in California costing more than \$260 million. Continued drought in some regions has led to an even larger wildfire season in 2017. For example, two fires in Montana nearly reached the \$50 million mark in suppression costs, contributing to the nearly \$400 million spent in that State alone. According to the National Interagency Fire Center's Situation Report for October 18, 2017,²¹ in calendar year 2017 there have so far been 51,555 confirmed fires, burning a combined 8,777,564 acres. In 2016, 67,743 fires burned 5,509,995 acres.

In addition to funds for fighting fires, the DOI received more than \$320 million for fire preparedness and \$170 million for fuels management in FY 2016. According to a May 2017 GAO report, the DOI has been developing a Risk-Based Wildland Fire Management Model to aid in the allocation of these funds across bureaus, but the 3-year effort has not been finalized.²² Preparedness is a key component of wildland fire strategy, so until the model and guidance on using it are finalized, the DOI will continue to struggle with the increasing financial and logistical difficulties of preventing and fighting wildland fires.

²¹ The National Interagency Fire Center provides up-to-date numbers in a daily report posted at https://www.nifc.gov/nicc/sitreprt.pdf.

²² GAO Report No. GAO-17-357, Wildland Fire Risk Reduction: Multiple Factors Affect Federal-Non-Federal Collaboration, but Action Could Be Taken to Better Measure Progress, May 2017.

Impact on American Indian and Alaska Native Tribes

Tribal communities are particularly affected by climate effects. Communities in the Southwest face prolonged drought, extreme floods, and loss of traditional food sources. Similar problems affect communities in the Northwest, and several have sought to relocate because of these effects. For example, two Alaska Native communities are seeking Federal help to relocate—Newtok and Kivalina. They are facing loss of water and food sources as well as destroyed infrastructure due to melting ice and rising sea levels. The U.S. Army Corps of Engineers estimated the cost for relocating Newtok at between \$80 and \$130 million, and as much as \$400 million to relocate Kivalina.

As another example, the Biloxi-Chitimacha-Choctaw tribe of Louisiana has lost 98 percent of its land to sea-level rise. The tribe received a \$48 million grant from the U.S. Department of Housing and Urban Development to relocate, but members fear losing their cultural identity and traditions once they leave their homes. The DOI needs to develop and implement climate adaptation and resilience strategies to help preserve American Indian and Alaska Native ways of life.

Water Scarcity

Climate effects also include changes in water supplies, increasing water demands, and longer and more frequent droughts, which have resulted in water scarcity, particularly in Western reservoirs managed by the USBR. Low water levels due to drought not only threaten populations that depend on these sources, but also reduce the power generation capacities of the 53 hydroelectric dams operated by the USBR. For example, despite a wetter 2017 than normal for the Lower Colorado River, Lake Powell was at 61 percent full capacity and Lake Mead was at 39 percent full capacity.

Impact on Insular Areas

The Insular Areas²³ are affected by climate effects as well. Sea level rise, ocean acidification, and erosion all disrupt the well-being of the people and economies of these island communities. Cascading effects can include increased storm surge, coastal erosion, wetland and coastal plain flooding, property damage or loss, and loss of habitats for fish, birds, and other wildlife and plants.

Sea level rise disproportionately affects many of our Insular Areas, where populations are generally concentrated along coastlines of islands with average elevation of only 2 meters above sea level that can experience waves as high as 5 to 7 meters. The area available for human habitation, water and food sources, and ecosystems is limited and extremely vulnerable to sea-level rise. For example, unexpected high tides and 5-meter swells wreaked havoc on the Marshall Islands

²³ The U.S. Insular Areas—which include American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, the U.S. Virgin Islands, and three Freely Associated States (the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau)—rely on Federal funding to support their governments and deliver critical services.

in 2014 to such an extent that a state of emergency was declared. In FY 2016, the DOI authorized grants for Insular Areas including \$286,000 for the Commonwealth of the Northern Mariana Islands to better coordinate climate response and invasive species policies and initiatives, \$828,050 for the Virgin Islands to develop a robust, multi-sector climate adaptation strategy, and \$1 million to Insular Areas to address the impacts of climate effects and other threats to coral reefs.

Operational Efficiencies

The management and operations of DOI programs requires careful stewardship of public funds and complex problem-solving.

The DOI's continuing and emerging challenges related to program management and operations include (1) hiring, training, and retaining staff, (2) managing park fees and concessions, and (3) deferred maintenance and repair of facilities and other infrastructure.

Hiring, Training, and Retaining Staff

The DOI faces challenges in hiring and retaining qualified staff throughout its bureaus—from IT and cybersecurity professionals to specialists in science and engineering fields. A September 2016 GAO report acknowledged that the DOI has taken steps to resolve some hiring and retention challenges in oil and gas occupations, but indicated that the DOI is providing training without fully evaluating the bureaus' staff training needs or the training's effectiveness.²⁴ In addition, the GAO noted, some bureaus are not coordinating training resources across bureaus.

Along with ongoing and emerging gaps in critical skills, the DOI faces the loss of many skilled members of its workforce to retirement. In the 2017 update to its High-Risk List, the GAO reported that 40 percent of DOI employees hired by the end of FY 2015 will be eligible to retire by 2020.

Critical skill shortages hamper the DOI's ability to carry out its mission. As current employees reach the end of their careers, retirements could lead to further shortages in leadership and institutional knowledge. Strategic management approaches are required to overcome staffing obstacles and prepare workforces to meet mission requirements.

Park Fees and Concessions

We have identified issues with fee collection and with concessions programs at national parks. With nearly 331 million people from around the world visiting national parks in 2016 (a record number of NPS recreation visits for the third year in a row), recreation fees and concessions are a critical component of the DOI's budget and have a direct impact on the DOI's ability to ensure the best possible experience for visitors to public lands.

The BLM has identified ways to improve its fee and donation collection tools (for example, by using unmanned kiosks that accept credit cards, experience-based fee

²⁴ GAO Report No. GAO-16-742, Oil and Gas Oversight: Interior Has Taken Steps to Address Staff Hiring, Retention, and Training but Needs a More Evaluative and Collaborative Approach, September 2016.

and donation models, fee and fund distribution models, and public-private partnerships), but does not have authority to implement them.

The NPS issues contracts for services in parks (typically lodging, food, and retail services); in 2016, the NPS managed 488 concession contracts, with gross revenues of about \$1.4 billion the prior year. In a 2017 report, the GAO identified ongoing challenges with the NPS' management of concessions services at national parks.²⁵ The GAO highlighted three management challenges: (1) inadequate qualifications and training of concessions staff, (2) a backlog of expired contracts that were extended, and (3) insufficient accountability in the concessions program.

The DOI is challenged to find innovative fee collection techniques and provide oversight of concession contracts to make certain it receives the revenue it is due, to add to its budget appropriations.

Deferred Maintenance and Repair

The DOI has been challenged with deferred maintenance and repair of facilities and other infrastructure for years with little to no improvement. Maintenance funding has not kept pace with bureau needs for some years, resulting in increasing deferred maintenance. The GAO reported that the DOI estimated its deferred maintenance backlog in February 2002 at between \$8.1 billion and \$11.4 billion.²⁶ Comparatively, the DOI's FY 2018 Budget in Brief lists the deferred maintenance backlog at over \$15 billion as of 2016, of which more than \$11 billion belongs to the NPS.

In April 2017, the Congressional Research Service reported that three DOI bureaus (the NPS, the FWS, and the BLM) had a combined total deferred maintenance estimate for FY 2016 of \$13.1 billion—specifically, a \$10.9 billion backlog for the NPS, a \$1.4 billion backlog for the FWS, and a \$0.8 billion backlog for the BLM.²⁷ The DOI's proposed FY 2018 budget is \$11.7 billion. If all of the proposed funding were used only for deferred maintenance for the NPS, the FWS, and the BLM, it would still not be enough to clear the backlog of deferred maintenance and asset repair at these three bureaus.

Also in April 2017, the National Congress of American Indians reported the following values for deferred maintenance in Indian Country:²⁸

²⁵ GAO Report No. GAO-17-302, National Park Service—Concessions Program Has Made Changes in Several Areas, but Challenges Remain, February 2017.

²⁶ GAO Report No. GAO-03-104, *Major Management Challenges and Program Risks—Department of the Interior*, January 2003.

²⁷ Congressional Research Service, *Deferred Maintenance of Federal Land Management Agencies:* FY 2007 – FY 2016, April 25, 2017.

²⁸ National Congress of American Indians, *Tribal Infrastructure—Investing in Indian Country for a Stronger America*, April 6, 2017,

 $http://www.ncai.org/attachments/PolicyPaper_RslnCGsUDiatRYTpPXKwThNYoACnjDoBOrdDlBSRcheKxwJZDCx_NCAI-InfrastructureReport-FINAL.pdf.$

- BIA dams \$556 million
- BIA irrigation program \$576 million
- BIA roads \$289 million (not including tribal roads)
- BIE schools \$388.9 million

Without an aggressive DOI maintenance plan to address and resolve the backlog of work, the dollar amount will continue to grow because of additional maintenance and repair needs, inflation, and facility deterioration.

Workplace Culture and Ethics

Promoting and maintaining an ethical workplace culture has emerged as a management challenge in some areas of the DOI. This is the first year we have listed this challenge area in our Major Management Challenges Report.

We have identified instances in which some DOI employees, including senior officials, have engaged in unethical or illegal conduct, as well as other misconduct. These violations have included sexual harassment; the acceptance of gifts from outside sources; conflicts of interest, including the use of public office for private gain; and the misuse of Government resources. In some recent cases, DOI employees found to have engaged in misconduct were later promoted, retained, or returned to their positions. The disclosure of these violations spurred a number of congressional hearings and extensive media coverage on DOI workplace culture, and resulted in secretarial directives to address.

The DOI has taken some action to combat ethics violations and other misconduct. In April 2017, Secretary Zinke sent an email to all DOI employees ("Subject: Harassment Policy Statement") to remind employees of their responsibility to report ethics violations and misconduct, and to notify managers and supervisors of required training to prevent harassment and improve the workplace environment. In addition, Deputy Secretary David Bernhardt sent emails to all employees on his first day ("Subject: Day One Employee Message") reminding employees of basic principles of ethical conduct, and about a month later ("Subject: Month Two Message") assuring employees that reports of misconduct will be taken seriously and that action will be taken in a timely manner when appropriate.

The DOI also sponsored a "prevalence survey" at the NPS to allow employees to anonymously report whether they have faced harassment in the workplace. The results of this survey found that nearly 39 percent of NPS employees said they had experienced harassment based on sex, age, race, religion, or ability within the past 12 months.

Following reports of sexual harassment at national parks, the NPS established an ombuds office, which is an independent, neutral, and confidential resource for employees to raise concerns about a range of workplace issues, including harassment and ethics violations. In addition, the NPS implemented new required training for employees and managers, and hired a sexual harassment prevention and response coordinator.

The DOI continues to face challenges, however, in holding all of its employees, including senior officials, to the highest standards of ethical conduct; ensuring that the consequences of wrongdoing are clearly understood; taking decisive actions to address unacceptable behavior; and providing relevant ethics training to all employees.

Conclusion

The challenges described in this report encompass both the vulnerabilities that the OIG has identified in the past and the emerging issues that the DOI will face in the coming years. These are the challenges the OIG sees as potential barriers to departmental efforts to promote efficiency and effectiveness in its management and operations.

We remain committed to focusing audit and investigative resources on the issues related to these challenges to ensure greater accountability, promote efficiency and economy in operations, and provide effective oversight of the activities that embody the DOI's mission.

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