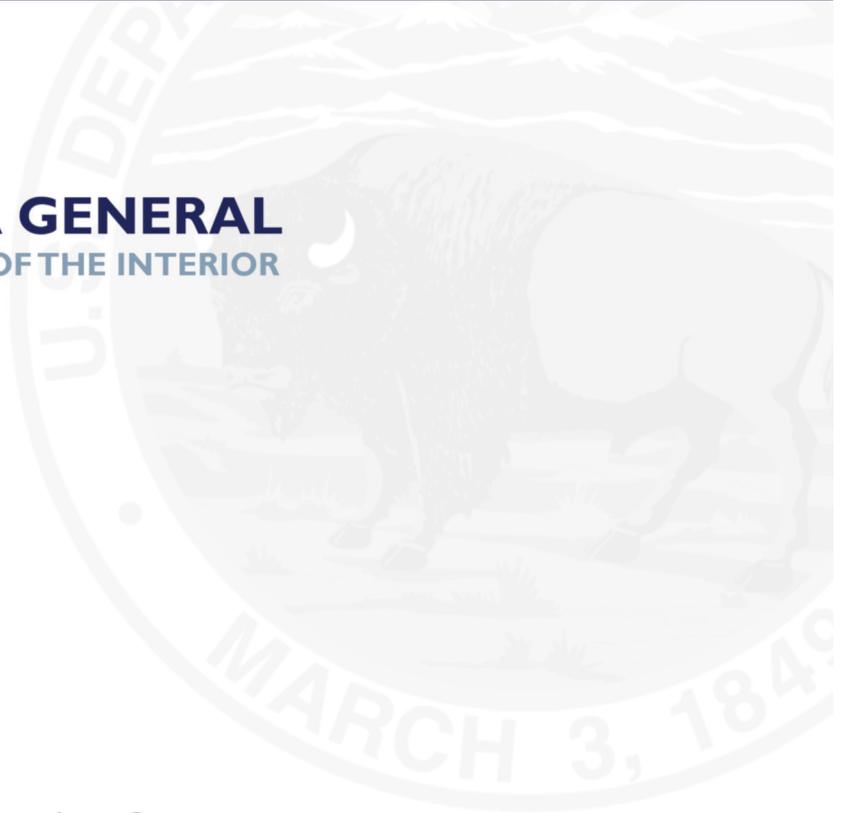




OFFICE OF
INSPECTOR GENERAL
U.S. DEPARTMENT OF THE INTERIOR



**INSPECTOR GENERAL'S STATEMENT
SUMMARIZING THE MAJOR MANAGEMENT
AND PERFORMANCE CHALLENGES FACING
THE U.S. DEPARTMENT OF THE INTERIOR
FOR FISCAL YEAR 2018**



OFFICE OF
INSPECTOR GENERAL
U.S. DEPARTMENT OF THE INTERIOR

NOV 07 2018

Memorandum

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. 2018-ER-041

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 2018.

We met with DOI officials to gain their perspective on the challenge areas. These areas connect 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: David Bernhardt, Deputy Secretary, U.S. Department of the Interior
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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 the DOI faces. Each area connects 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) 2018 as:

- Workplace culture and ethics
- 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

These nine challenges are the same as in last year's report and 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 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, 2018.

We met with DOI officials to gain their perspective on the challenge areas. We received significant 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 (BOR), 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), U.S. Geological Survey (USGS), Office of Insular Affairs (OIA), and Office of the Chief Information Officer (OCIO). 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 four of our challenge areas—energy management, information technology, responsibility to American Indians and Insular Areas, and climate effects—as well as in strategic human capital management, which have impacts across multiple challenge areas.

Workplace Culture and Ethics

Promoting and maintaining an ethical workplace culture that is free of harassment is a continued management challenge at the DOI. We included this challenge area in our Major Management Challenges Report for the first time last year, after identifying instances of unethical behavior and other misconduct over several years. Despite heightened efforts to improve the DOI's workplace culture and ethics, resistance to change remains.

We have identified instances in which DOI employees have engaged in unethical or illegal conduct, as well as other behavior that negatively affects workplace culture.¹ These violations have included inappropriate conduct or sexual harassment, insufficient actions in response to reports of 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.

Many factors affect workplace culture, including leadership behavior and employee perceptions. The Merit Systems Protection Board acknowledges that leaders' words and actions greatly influence agency culture and can shape employees' perceptions of what is, and what is not, appropriate behavior. For example, although we did not find violations of law or regulation, we found that the DOI's 2017 reassignment of senior executives resulted in the perception by most of the affected executives that the reassignments were for political or punitive reasons or were related to their proximity to retirement.

¹ Reports include (1) DOI OIG Report No. 18-0562, *Investigation of Alleged Inappropriate Conduct by NPS Deputy Director*, May 2018, (2) DOI OIG Report, *BIA Manager Allegedly Sexually Harassed Three Subordinate Employees*, January 2018, (3) DOI OIG Report, *Insufficient Actions by BIA Management and Human Resource Officials in Response to Sexual Harassment Reports*, September 2017, (4) DOI OIG Report No. 16-0647, *Violations by Former Acadia National Park Senior Official*, June 2018, (5) DOI OIG Report No. 17-0356, *Founded Allegations of Misconduct by NPS Senior Manager and Subordinate*, March 2018, and (6) DOI OIG Report, *NPS Senior Official Created the Appearance of Using His Public Office for Private Gain*, January 2018.

Results from a Departmentwide work environment survey, conducted between January 2017 and March 2017, showed 35 percent of respondents reported being harassed or discriminated against in the past 12 months. The OIG has also seen an increase in reporting of complaints over the past 3 years, including those containing allegations of sexual harassment and assault (see Figure 1). We cannot conclude that the increase in these complaints is tied to an increase in the behavior; it may be that with changes in workplace culture more employees are willing to come forward to report their experiences than in the past. Regardless of the cause, the increase in reported complaints shows that maintaining a professional and productive work environment and improving workplace culture are continuing challenges for the DOI.

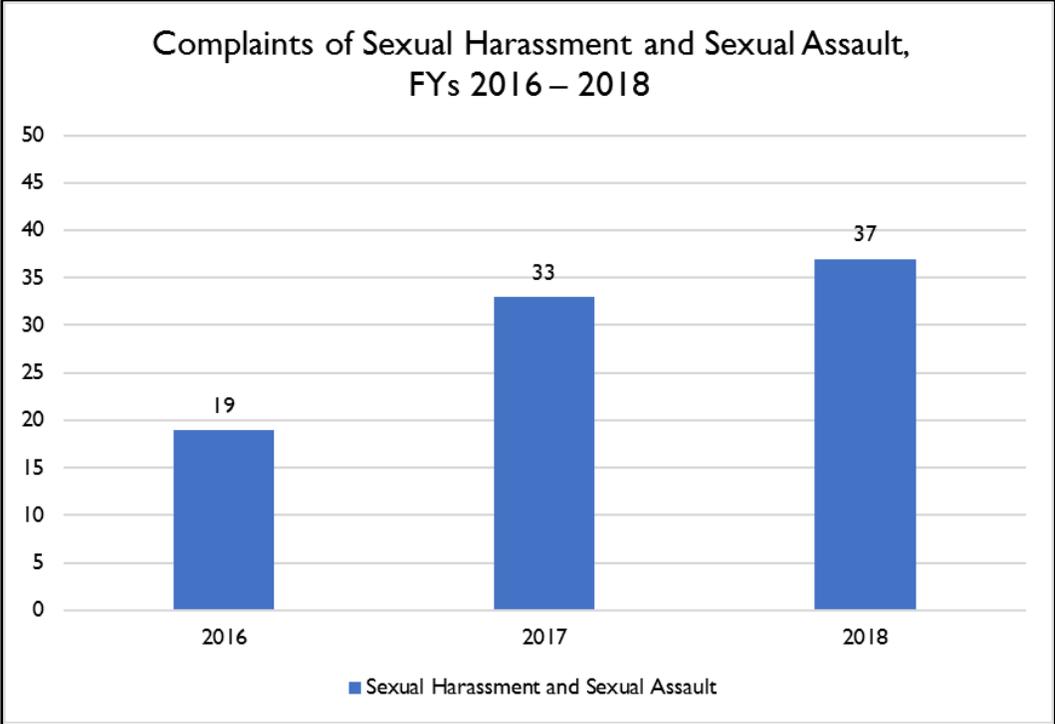


Figure 1. Complaints containing allegations of sexual harassment and sexual assault reported to the OIG, FYs 2016 – 2018.

In addition, over the past 3 years, the OIG has seen an increase in reporting of complaints containing allegations of several other types of employee misconduct² (see Figure 2). Again, we cannot conclude that the increase in these complaints is tied to an increase in the behavior, but regardless of the cause, the increase in reported complaints shows that employee misconduct is a continuing challenge for the DOI.

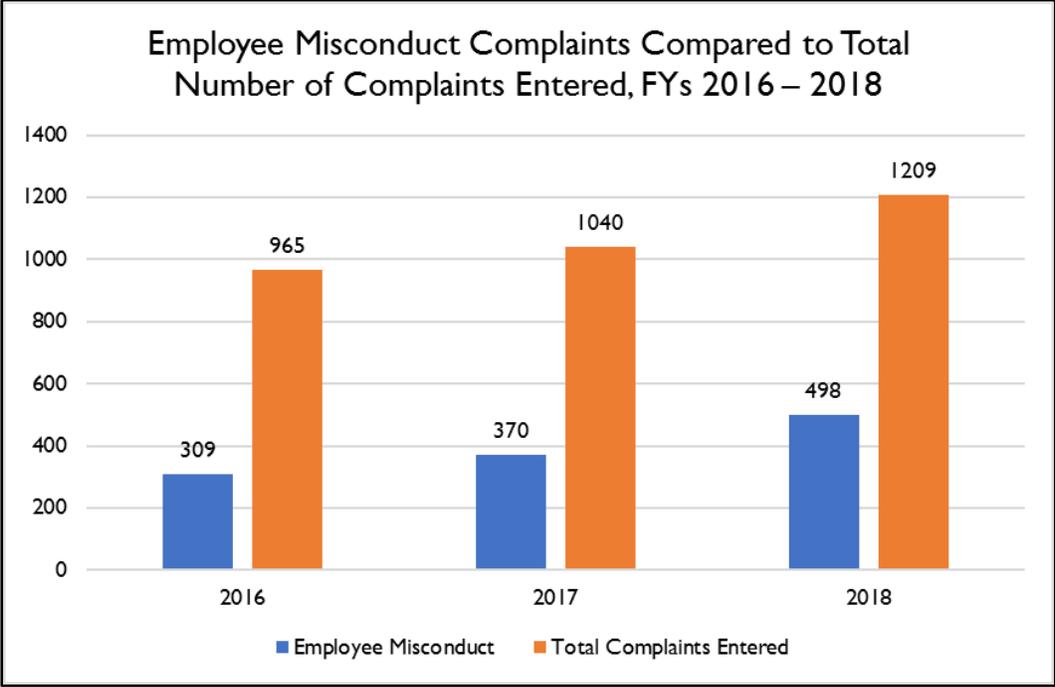


Figure 2. Complaints containing allegations of employee misconduct reported to the OIG, compared to total complaints reported, FYs 2016 – 2018.

The DOI has taken action to combat ethics violations and other misconduct and to create an environment in which employees feel more comfortable reporting instances of misconduct. After recognizing the struggle to provide employees with needed support and education at current staffing levels, the DOI has committed to investing in recruitment and retention of more ethics officials. For example, the NPS noted that after having no permanent, full-time ethics staff for several months, it now plans to establish an ethics program with 35 full-time employees and will begin the process of advertising and filling those positions in fall/winter 2018. The FWS is recruiting to fill several ethics specialist positions, as well as finalizing the creation of minimum discipline requirements for allegations that are substantiated.

² In the OIG case management system, other types of misconduct include: bribery/kickbacks, ethical violations, law enforcement/security (not misconduct), malfeasance/misfeasance, misuse of Government equipment (non-computer-related), other crime (nonfinancial), PAS/SES misconduct, public corruption, and scientific misconduct.

The DOI has also noted that additional employees alone will not create permanent and real change and has focused on building its ethics programs. The Deputy Secretary directed each bureau to develop an action plan to address its harassment-related issues and finalized a new, comprehensive anti-harassment policy for the DOI. Bureaus have completed several steps to implement their action plans, including:

- The NPS' implementation of a harassment complaint and resolution tracking system, as well as hiring a new deputy ethics counselor
- The BLM's establishment of an ombudsman program to encourage collaboration and coordination among all BLM employees
- The BOEM's engagement of an external vendor to assist in developing best practices for an anti-harassment program

Bureaus also have identified specific challenges they face. The NPS has identified conducting timely and effective investigations as a continuing challenge because contract investigators are not always readily available and sometimes do not provide useful reports. Staffing ethics offices also continues to test the DOI's ability to find and hire qualified personnel to fill all authorized positions. Limitations in ethics staffing may delay the nomination of presidentially appointed, Senate-confirmed (PAS) positions, specifically the ethics officials' capacity to review a nominee's financial disclosure report and ethics agreement. The BSEE anticipates that it may see a rise in Equal Employment Opportunity complaints because of the new anti-harassment policy, which may necessitate a reallocation of staffing resources.

Energy Management

As Federal energy leases continue to increase, resulting in more than \$7 billion dollars in revenues in 2017, the DOI plays a critical role in domestic energy production, as emphasized in the Administration's energy policy. As the steward of Federal energy resources and tasked with both protecting and promoting their development, the DOI is continually faced with management challenges unique to its dual role.

The DOI faces a complex environment as it ensures energy development in a safe, efficient, and sustainable manner. Among the challenges identified by OIG products and DOI officials are (1) energy and mineral-related liabilities, (2) barriers to expanding energy development, and (3) tribal energy development and management.

Energy and Mineral-Related Liabilities

As the development of offshore energy continues to grow, the amount of equipment—in the form of production platforms and pipelines—also increases. When the responsible parties for this equipment become bankrupt, often the responsibility for decommissioning this equipment falls to the Federal Government. The BOEM estimates that \$33 billion in decommissioning liabilities remains in the Gulf of Mexico Region (GOMR). Lower oil prices continue to increase the risk of operator bankruptcy and the amount of these unfunded liabilities and both the BOEM and the BSEE have identified these as a significant concern. The GAO has identified that the existing financial risk framework for decommissioning is not adequate to address existing and potential liabilities.

The challenge of unfunded reclamation is not limited to offshore areas. The BLM continues to hold inventories of tens of thousands of abandoned mines on Federal lands. And in a recent evaluation, we found that the BLM has difficulties identifying, tracking, and decreasing the number of idle oil and gas wells (often the precursor to orphaned wells) on BLM-managed property, as the identified number has increased from 2013 to 2016.³

Barriers to Expanding Energy Development

The draft proposal the DOI issued for the 2019 – 2024 National Outer Continental Shelf (OCS) Oil and Gas Leasing Program potentially opens up vast new areas for energy development. This expansion would also be accompanied by a significant increase in pre-lease sale activities (stakeholder outreach and a variety of environmental reviews) and permitting and inspection requirements. The DOI reported that it has begun preliminary budgetary planning, but this constitutes a significant increase in administrative burdens.

³ DOI OIG Report No. 2016-EAU-061, *Bureau of Land Management's Idle Well Program*, January 2018.

Expanding offshore renewable energy development has also resulted in increased administrative difficulties for the DOI, as the regulatory roles between the DOI, the U.S. Coast Guard, and the Occupational Safety and Health Administration need to be clarified. In addition, some State and local officials objected to the installation of offshore wind farms, claiming that the installations would interrupt ocean views and hurt tourism.

Offshore management challenges include the increasing demands on inspectors. The BSEE released Bureau Interim Directive No. 2018-033G, establishing a risk-based inspection program for the GOMR, to address ongoing concerns about risk assessment, resource allocation, and unclear inspection protocols that we and the GAO have identified several times in the past decade. The BSEE will need to continue to monitor the program and make identified improvements to address these longstanding concerns. Onshore, fluctuating energy markets make it difficult for the BLM to anticipate staffing and administrative requirements, necessitating a flexible management approach.

Often cited by industry as a barrier to development, the implementation of the National Environmental Policy Act (NEPA), and specifically the timeliness of NEPA reviews, has been a challenge for the DOI. The recently issued Secretarial Order No. 3355 (issued August 2017) tasked the DOI with improving the processing times for NEPA reviews. Some bureaus report that they will face challenges to meet the newly implemented review deadlines, including shifting workload, developing new guidance, retraining contractors and stakeholders on new processes and requirements, potential court challenges, and reconciliation with individual State requirements. A waiver process is available for unusually complex NEPA reviews. Agency officials anticipate that when the secretarial order is fully implemented it will result in a more streamlined NEPA process with fewer delays.

The processing of applications for permit to drill (APDs) as required by the BLM poses another challenge for onshore energy development. Although the BLM announced that reviews of APDs currently average 46 days, it still faced a backlog of 2,500 APDs as of 2017. Continuous improvements, including online submission of APDs, are needed to ensure a timely and accurate review process.

Tribal Energy Development and Management

Indian Country energy resources hold significant potential for development but tend to be underdeveloped relative to surrounding non-Indian resources. The multiple reasons include insufficient administrative support and potentially lengthy and costly energy development review and approval processes. BIA officials informed the GAO that the Bureau does not have the resources to implement a comprehensive workforce plan to ensure it has staff in place to meet the needs of the recently created Indian Energy Service Center.

The new NEPA review deadlines are also particularly challenging for reviews on tribal lands. According to the BIA, since litigation nearly always follows proposed tribal projects that affect the environment, the proper legal process must be followed. In some cases, the BIA voiced concerns that a complete examination of the potential impacts of a tribal project may require more time and pages than are allowed under the secretarial order, and in those cases, reducing the time spent completing the document or its length simply to meet the parameters of the secretarial order may place the BIA at risk.

For environmental impact statements started before the secretarial order was issued, bureaus report that the page and time limitations pose a particular challenge to already-established schedules and processes. For example, contractors require additional funding for accelerated reviews. Meeting shorter review deadlines also requires increased agency staffing levels or overtime for employees. The DOI must make greater efforts to ensure that tribal energy development remains a competitive and safe option.

Public Safety and Disaster Response

The DOI is responsible for the safety of more than 70,000 employees, as well as members of the public who visit or live near the more than 500 million acres of DOI-managed lands. The DOI upholds this responsibility through law enforcement, security, and emergency management, and performs a variety of emergency preparedness and continuity of operations exercises and activities. Ensuring employee and public safety is complex and requires the resources of multiple bureaus and offices.

Among the challenges identified by OIG products and DOI officials are (1) safety and security on public lands, (2) infrastructure, and (3) disaster response preparedness and management.

Safety and Security on Public Lands

The DOI responds to a wide range of threats, such as disasters, acts of terrorism, violence, vandalism, and incidents involving missing persons or visitor contact with wild animals. To ensure preparedness, the DOI must (1) evaluate and effectively manage physical security risks and incident response operations, (2) ensure adequate levels of response and support capacity, and (3) be prepared to meet the demands of a complex security environment, including multiple and simultaneous life-threatening incidents.

Challenges to safety and security include the following:

- Natural and manmade disasters, whose unpredictability poses risks and consequences to responders, communities, and assets such as water supplies and infrastructure.
- Smuggling-related activities along the Southwest border raise public safety and health concerns and cause environmental damage.
- Illegal marijuana cultivation on public lands destroys native vegetation, contaminates waterways with fertilizers and pesticides, and pollutes sites with trash.
- Arson and dumping of hazardous materials both require containment and threaten personal safety, natural resources, and infrastructure.

These events challenge the DOI to manage risk, promote safety and security, and accommodate increased demands on its budget and staffing.

In addition, according to the USGS, the DOI's ability to warn the public and emergency managers promptly about volcanic activity and eruptions and potential earthquakes is hindered due to (1) delayed installation of volcano monitoring

equipment on U.S. Forest Service-administered wilderness areas in the Pacific Northwest and (2) delayed building or upgrading of the monitoring stations required for the USGS' earthquake early warning system on the West Coast. To address these delays, the USGS recommends improvements in the permitting process for equipment installation, including giving the volcano monitoring sites explicit legal recognition by designating them as necessary for public safety consistent with Wilderness Act provisions.

Addressing these critical issues requires an integrated approach through Federal, State, tribal, and local law enforcement partnerships. Collaboration among these agencies can be difficult due to differences in individual agency missions, resources, expertise, and preparedness.

Infrastructure Challenges to Safety and Services

The DOI manages an infrastructure asset portfolio valued at more than \$300 billion, including buildings (such as visitor centers, park lodges, and housing units), roads, bridges, trails, and water and power systems, among other assets. Decline or failure in these infrastructure assets can affect health and safety, and limit access to public lands and resources.

Infrastructure assets have a finite lifespan, due to factors such as material longevity, weather, use, and design. In addition, the growing number of visitors at many parks in recent years means more wear and tear on infrastructure that is often already showing signs of deterioration. Because maintenance funding has not kept up with the needs, many aging facilities and other structures require repair and restoration to mitigate risks to public health and safety.

The DOI's deferred maintenance backlog⁴ had grown to about \$16 billion according to its FY 2019 Budget in Brief. Addressing this backlog is among the DOI's most challenging issues related to safety and services. As one example, park facilities face a variety of maintenance needs, from roads and buildings to trails, water systems, docks, parking lots, and more. The NPS estimates that 40 percent of its nearly 10,000 miles of roads are in poor to fair condition and that it has more than \$270 million in deferred maintenance for the 1,887 wastewater systems it manages across the park system. As another example, the BIA estimates that 85 percent of tribal roads are in poor condition, which delays response times for public safety services. The unacceptable road conditions, combined with the roads being mostly rural, increase the need for consistent use of interagency and use agreements to cultivate greater cooperation and ensure compliance with governing regulations among bureaus and State and local agencies.

⁴ Deferred maintenance is maintenance that was not performed when it should have been and that has been delayed or postponed until funding becomes available.

Disaster Response Preparedness and Management

The DOI responds to a wide range of disasters and their aftermaths, including earthquakes, floods, hurricanes, volcanic eruptions, and wildfires. Regardless of type or cause, the increase in frequency and severity of environmental and natural disasters creates a challenge for effective emergency response.

Recently, the State of California experienced the largest wildfire in its history and the State of Hawaii suffered extensive damage after volcanic eruption, seismic activity, and hurricane-related flooding. Disasters such as these have occurred across the country in recent years and have increased in both severity and frequency, and the DOI's response resources (including funding, training, and personnel) have been stretched thin as a result. This is especially true when disasters occur in short succession, with little time to recover between events.

The DOI faces difficulty in planning and preparing for environmental and natural disasters because each emergency presents its own unique characteristics and has the potential to grow rapidly in size, scope, or complexity. Ensuring review of previous disaster responses and analyzing both efficacy and outcomes will help the DOI prepare for future response activities.

Because effective disaster and emergency response often requires the exchange of personnel, equipment, supplies, services, and funds among Federal, State, local, and tribal entities, cross-sector collaboration is critical. Such collaboration, however, can be difficult due to cultural differences, misaligned incentives and missions, time pressures, and legal constraints.

Information Technology

For decades the DOI has struggled to implement an IT governance approach that establishes effective authority and oversight.

Among the challenges identified by OIG products and DOI officials are (1) anticipated late adoption of minimum security standards, (2) risks to DOI programs from delays in implementing an incident response program, (3) threats to DOI systems and employees, and (4) management of IT acquisitions.

Anticipated Late Adoption of Minimum Security Standards

The National Institute of Standards and Technology (NIST) develops the minimum security standards for Federal information systems. Federal agencies are required to fully comply with new security standards within 1 year from the date of publication. NIST anticipates publishing the final version of the next revision to the standards in December 2018. This new version will contain an updated catalog of security and privacy controls to protect Federal information systems from a diverse set of threats.

The current version of the security standards was released by NIST in 2013, but the DOI did not fully adopt them until 2016. Since release of those standards, technology has become increasingly complex, with security and privacy continuing to be key areas of national importance. The OCIO has indicated that adoption of the new standards to be issued in December will once again be delayed and that it will take at least 18 months to fully implement the new requirements. Another delay in adoption of new standards will cause the DOI to fail to comply with Federal policy and prevent the DOI from meeting the minimum security requirements for its information systems.

Risks to DOI Programs From Delays in Implementing an Incident Response Program

The FY 2017 independent evaluation of DOI information security programs and practices required under the Federal Information Security Modernization Act found the DOI's incident response program to be ineffective at detecting, responding to, and limiting the consequences of cyber attacks against its systems. In addition, a March 2018 OIG evaluation determined that the OCIO had not fully implemented the capabilities recommended by NIST in its incident detection and response program and made 23 recommendations for program improvement.

The OCIO's corrective action plan to address 6 of the 23 recommendations relies on the implementation of security tools and integration services that the U.S. Department of Homeland Security (DHS) will share with other Government agencies under the Continuous Diagnostics and Mitigation (CDM) program. The DHS' deployment of these tools and capabilities has been delayed and is likely to continue to experience delays. The OCIO indicated in its plan that these six

recommendations will not be addressed until 2023 (the others will be addressed between 2018 and 2021). While the DOI awaits implementation by the DHS, it has accepted the risks posed to DOI programs and systems.

Threats to DOI Systems and Employees

According to Symantec (a cybersecurity software and services company), from 2015 to 2017 the United States was the country most affected by targeted cyber attacks.⁵ Symantec noted that in recent years, attackers have exhibited a growing interest in critical infrastructure and disruptive attacks that can give them the ability to sabotage critical systems. The DHS reported that since March 2016, threat actors have targeted Government entities as well as the energy, water, aviation, nuclear, and critical manufacturing sectors and have leveraged their capabilities to compromise victims' networks.⁶ The DOI owns critical systems—such as the industrial control systems used by the BOR to control our Nation's dams and power plants—whose compromise could affect national security.

Social engineering attacks such as spear-phishing⁷ are increasingly being chosen over technical exploits to gain a foothold into Government networks. Over several months in 2017, Government employees were targeted with spear-phishing emails to their Government and personal email addresses, putting Government networks and information at risk. A November 2016 OIG investigation determined that over the course of 2 weeks more than 1,500 DOI employees received a phishing email, resulting in approximately 100 compromised DOI employee credentials. In July 2018, numerous DOI employees were targeted by a phishing attempt using a password known to the employees and seeking a Bitcoin (electronic currency) payment. Threats to Government systems are on the rise, and defending from, detecting, and responding to system compromise from IT security threats will continue to present a challenge to the DOI.

Management of IT Acquisitions

The Federal IT Acquisition Reform Act (FITARA) was enacted in 2014 to improve agencies' IT acquisition processes and to enable Congress to hold agencies accountable for reducing duplication and achieving costs savings. FITARA strengthened agency CIO authority and oversight by requiring CIOs to review and approve IT acquisitions. In June 2015, the Office of Management and Budget (OMB) released guidance describing how agencies should implement FITARA.

⁵ Symantec, *2018 Internet Security Threat Report*, March 2018.

⁶ DHS National Cybersecurity and Communications Integration Center, Technical Alert No. TA18-074A, *Russian Government Cyber Activity Targeting Energy and Other Critical Infrastructure Sectors*, March 2018.

⁷ Spear-phishing is a type of phishing that targets specific individuals or groups within an organization. Phishing is a malicious practice that uses emails, social media, instant messaging, and other platforms to get users to provide sensitive information or to perform actions that cause network compromise, data loss, or financial loss.

In a January 2018 report, the GAO found that the DOI has not properly identified for review and approval \$292 million of its spending on IT.⁸ In 2018, the DOI issued two policies that address recommendations the GAO made and that require CIO review and approval of IT acquisitions. The GAO noted that until these policies are fully implemented, the CIO may not know about all IT obligations and will not have the ability to provide effective oversight.

⁸ GAO Report No. GAO-18-42, *Information Technology: Agencies Need To Involve Chief Information Officers in Reviewing Billions of Dollars in Acquisitions*, January 2018.

Water Programs

Water managers face significant challenges in meeting current and future water demands. As the largest wholesaler of water in the country, the BOR must reconcile competing demands among and within agricultural, municipal, industrial, tribal, rural, ecological, power-generating, and recreational uses of water. OIG findings in water programs have centered on insufficient oversight of Government-funded projects.

Among the challenges identified by OIG products and DOI officials are (1) water management and pricing, (2) investment in water infrastructure, and (3) dam safety.

Water Management and Pricing

As drought persists in the West in varying degrees, the BOR continues to face challenges in water management. The BOR has to manage multiple factors that affect water management and use, both short- and long-term: its water funding, its authority to enter into financial agreements to manage or deliver water, its tools and infrastructure, and its investments in drought contingency planning, water conservation, and other collaborative efforts with customers, partners, States, tribes, and other stakeholders.

In addition to water management, the BOR is challenged to receive fair value for its hydroelectric power generation. The BOR has acknowledged that its power generation prices do not reflect the true value of that power for maintaining the stability of the Western power grid. Drought and alternative-power market prices can affect the value of BOR hydropower, particularly within California's Central Valley Project, which supplies water to 3 million acres of farmland (a third of all farmland in the State) and drinking water to more than 2.5 million people, as well as meeting the electricity needs of 416,000 customers.

Investment in Water Infrastructure

Events such as the discovery of lead in drinking water in Flint, MI, and the overflow and damage to the spillway at the Oroville Dam in California drew attention to the condition of the Nation's water supply and infrastructure.

The high cost of replacing or upgrading water systems is a significant challenge. The BOR estimates major rehabilitation and replacement requirements for its buildings and structures will cost several billion dollars. In addition, the BOR is committed to completing new capital projects (including storage, rural water projects, and wastewater recycling and reuse projects). Per the BOR, these obligations cannot be met in a timely manner without exploring alternative financing opportunities within and outside the DOI, such as loan guarantee programs and public-private partnerships.

The BOR also invests in water infrastructure in Western States through financial assistance awards such as grants and cooperative agreements via its WaterSMART (Sustain and Manage America’s Resources for Tomorrow) programs, which included appropriations of \$80.5 million in FY 2017. Through these WaterSMART programs—such as the Title XVI and Basin Studies Programs—the BOR partners with State and local governments to identify, investigate, and fund drinking water and wastewater infrastructure opportunities such as water reclamation and reuse, as well as strategies to address imbalances in water supply and demand. The BOR must oversee the many partners within these programs to ensure funds are being used correctly.

The GAO has reported that water infrastructure issues disproportionately affect Indian Country.⁹ For example, nearly all settlements of Indian water rights claims require significant investment to enable the settled right to water (on paper) to become actual water delivered to meet municipal, industrial, agricultural, and other purposes on tribal lands. As the responsible bureau, the BOR must transparently and efficiently use its discretionary appropriations to settle these claims without overstraining its budget. In addition, the BIA must address long-term staffing shortages to implement the Indian water rights settlements, train BIA and tribal staff, and put in place succession plans for long-term staffing.

Dam Safety

Effectively managing the BOR’s 492 dams will challenge the DOI for the coming years.

Nearly 90 percent of BOR dams are more than 50 years old and technologically outdated. Investment is needed for rehabilitation or replacement, as well as for evaluation and monitoring to ensure dam safety. Dams must be upgraded or rehabilitated due to deterioration, changing technical standards, increases in downstream populations, and changing land use.

The BOR has 242 facilities with dams or dikes that are classified as high- or significant-hazard potential within its inventory. The Federal Emergency Management Agency (FEMA) assigns a “significant hazard potential” classification to dams where failure or mis-operation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or other significant impacts. Dams assigned the “high hazard” classification are those whose failure or mis-operation will probably cause loss of human life.

The BOR has identified 17 facilities that require modifications to reduce risk to nearby communities, at a cost of approximately \$1.5 billion. Further, the BOR estimates an additional 6 to 10 dams will require safety improvements within the

⁹ GAO Report No. GAO-18-309, *Drinking Water and Wastewater Infrastructure: Opportunities Exist To Enhance Federal Agency Needs Assessment and Coordination on Tribal Projects*, May 2018.

next 3 to 4 years, but it has not yet developed a cost estimate for the safety modifications for these dams.

Responsibility to American Indians and Insular Areas

Through the BIA and the BIE, the DOI provides services to 573 federally recognized tribes with a population of about 1.9 million American Indians and Alaska Natives. The DOI has trust responsibilities for 55 million surface acres and 57 million acres of subsurface mineral estates and provides education services to 45,246 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,¹⁰ namely the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau.

The GAO added management of Federal programs that serve American Indian tribes and their members to its High-Risk List for 2017.¹¹ Since then, the GAO has noted that the Office of the Assistant Secretary – Indian Affairs, the BIE, and the BIA have made varying levels of progress in meeting the criteria for removal from the list, but need additional improvement to fully address management weaknesses, particularly in the areas of leadership commitment and capacity.

Among the challenges identified by OIG products and DOI officials are (1) administration of the Land Buy-Back Program, (2) management of Indian Country schools, and (3) persistent problems facing the Insular Areas.

Administration of the Land Buy-Back Program

Fractionation¹² affects much of the land across Indian Country. As lands are inherited through generations, they gain more owners. Many tracts now have hundreds and even thousands of individual owners, creating an overly complicated land ownership status. Without clear ownership, many highly fractionated tracts are unoccupied and unusable for agricultural, recreational, cultural, commercial, or even residential purposes. The DOI's Land Buy-Back Program consolidates fractional land interests from willing sellers and restores the

¹⁰ 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.

¹¹ GAO Report No. GAO-17-317, *High Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others*, February 2017.

¹² “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.

consolidated land to tribal trust ownership. The funding and time limits established for the program, set to expire in 2022, continue to challenge the DOI to consolidate all fractional interests across Indian Country.

The BIA described three specific challenges in its administration of the Land Buy-Back Program. First, the BIA must maximize the remaining program dollars. Current policy, established in July 2017, calls for the BIA to achieve the greatest reduction in fractional interests without considering the land's revenue-generating potential. Conversely, the BIA has advocated expanding the focus of land consolidation to include larger revenue-producing interests at highly fractionated reservations that would enable tribes to reinvest the revenue and thus continue to consolidate fractional interests (and elevate tribal sovereignty) long after the Land Buy-Back Program ends. Although the larger interests may have more owners and therefore cost more, if they are not acquired through the Land Buy-Back Program or by tribes using their own resources, many will continue to fractionate. Investing more now by acquiring select larger interests at highly fractionated locations will provide greater benefit in the future, but runs counter to current policy.

Second, the BIA indicated difficulties in its adoption of DOI-wide automated business practices. The DOI made an administrative decision to automate the review and approval of land conveyances, which could facilitate tribal purchase offers and transmittal of documents such as appraisals. Some tribes remain unaware that the BIA is now electronically managing and storing the land deeds for the Land Buy-Back Program. Tribes need to consult the BIA to have their deeds provided to them. The BIA must work to ensure that tribes are aware of how and where they can access land ownership documents.

Third, the BIA reported that it has more than 25,000 estate cases that need to be probated and assets distributed. While their cases are pending, the heirs are unable to participate in the Land Buy-Back Program, which limits the program's ability to consolidate those lands before its expiration.

The BIA must overcome the administrative obstacles for the Land Buy-Back Program to ensure it spends remaining funds in the most effective manner possible.

Management of Indian Country Schools

Weaknesses in the management of Indian Country schools by the BIA and the BIE have resulted in aging school infrastructure, limited broadband internet access, teacher and administrator shortages, and low graduation rates for Native students. In addition, the GAO has noted that the BIA is not effectively overseeing school safety programs¹³ and needs to improve accountability for school safety inspections.

¹³ GAO Report No. GAO-17-421, *Indian Affairs: Further Actions Needed to Improve Oversight and Accountability for School Safety Inspections*, May 2017.

In congressional testimony in June 2018, the GAO noted that Indian Affairs' leaders have addressed key weaknesses in the management of BIE schools in several ways.¹⁴ For example, the BIE Director formed an internal working group, and along with other Indian Affairs leaders met with GAO officials multiple times to discuss outstanding recommendations and corrective actions. The GAO pointed out, however, that the BIE will need to sustain this level of commitment to solve problems in Indian education.

The GAO also noted that since 2012, there have been six Assistant Secretaries of Indian Affairs and five BIE Directors, as well as leadership turnover in other key offices responsible for Indian education. The GAO stressed that stable leadership and sustained focus on needed changes are vital to the successful management of BIE schools.

In addition to the management weaknesses identified by the GAO, the BIE continues to struggle with hiring and retaining staff. The BIE has hired some officials needed for oversight of school spending and other activities, yet approximately 50 percent of all BIE positions have not been filled. The BIE must also develop a workforce plan to address staffing and training gaps for key staff, which the GAO has previously recommended.

Persistent Problems Facing the Insular Areas

The Office of Insular Affairs (OIA) has limited resources to address persistent challenges in three areas:

- **Preserving natural resources.** The OIA must work to address threats to natural resources, such as submerged land, vulnerability of coral reefs, and ocean pollution by plastics and other substances. The OIA will need to focus its resources and technical expertise to identify local priorities and apply best practices, action plans, and periodic evaluations to make adjustments as necessary.
- **Responding to natural disasters and their aftermaths.** Island officials must respond to disasters when they occur. The OIA will need to assist Insular Area governments in planning, training, and pre-positioning relief supplies and personnel to combat disaster threats. Insular Area governments will need to increase planning and training exercises, pre-position assets, use technology such as GPS for hazard mapping and mitigation, and complete general maintenance of public facilities.
- **Maintaining its relationship with the Insular Areas.** The OIA will need to continue to foster goodwill with the Insular Areas, which have differing degrees of self-governance and connection to the United States. Cultural

¹⁴ GAO Report No. GAO-18-616T, *High Risk: Agencies Need to Continue Efforts to Address Management Weaknesses of Federal Programs Serving Indian Tribes*, June 13, 2018.

and economic interactions with other countries provide opportunities for influence on these islands that hold significant strategic value to the United States. The OIA must increase coordination and communication with Insular Area governments and focus resources on developing solutions to island challenges. In addition, the OIA indicated it will need to work with other Federal agencies to advocate for and deliver assistance that is tailored to meet unique island needs.

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 \$10.1 billion in new grants and contracts in FY 2018.

We have found problems with the DOI's presolicitation planning and competition as well as post-award performance monitoring. Sudden influx of disaster relief funding also creates special challenges. In Indian Country, single audits and OIG audits of tribes 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.

Among the challenges identified by OIG products and DOI officials are (1) acquisition and management of contracts categorized as disaster relief funding, and (2) awarding and managing tribal contracts.

Acquisition and Management of Contracts Categorized as Disaster Relief Funding

In October 2017, the U.S. Congress approved \$36.5 billion in disaster relief funding for Governmentwide use following Hurricanes Harvey, Irma, and Maria. Because financial awards for disaster response are riskier than normal, the administration of these funds requires careful oversight of award administration and management.

Our audits of contracts and grants awarded for Hurricane Sandy recovery efforts identified common issues and problems in award acquisition and management.¹⁵ Overall we found deficient pre-award practices and deficient post-award oversight across NPS and FWS contracting offices, as well as weaknesses in departmental oversight. We also determined that the DOI did not have its own comprehensive emergency acquisition policy and guidance, either during or since Hurricane Sandy recovery efforts. Further, the DOI did not use the OMB's emergency acquisition guidance or disseminate it to the bureaus (as directed in the guidance). As a result, when disaster struck, the bureaus had no standing emergency acquisition response teams, no specific disaster response training, and no standardized forms or processes for awarding or maintaining contracts and grants to support emergency response.

Awarding and Managing Tribal Contracts

OIG audits of awards made under Public Law 93-638 (tribal self-determination contracts) have consistently identified high-risk issues with contract oversight,

¹⁵ DOI OIG Report No. 2017-FIN-057, *Summary of Hurricane Sandy Audit and Inspection Reports and Management Advisories*, April 2018.

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 24 percent of the FY 2018 assistance award obligation. Continued coordination is needed across all DOI bureaus to ensure the money is used effectively and that there is no duplication of work.

Similar to staffing challenges noted for other technical specialties (and identified in previous management challenges reports), the BIA remains challenged to hire and retain an adequate number of trained staff to effectively award and manage tribal contracts. These staff need to have extensive training and experience beyond the procurement training sufficient at other bureaus because 638 contracts are significantly different from 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.

Climate Effects

Since 2013, the GAO has included the management of climate change on its High-Risk List, specifically citing insufficient coordination among Federal agencies and with other stakeholders, such as State and local governments. Effects from a changing climate are a cross-cutting, complex issue for the DOI and other land management agencies. Climate effects also disproportionately affect the national parks (due to their ecosystems and elevations), beyond what is occurring throughout the rest of the country—including increasing temperatures at double the rate for the United States overall, and a significantly higher decline in precipitation across national park areas.¹⁶ Most of the risks are relatively static year to year, but the way those risks are managed can vary depending on departmental priorities.

Among the challenges identified by OIG products and DOI officials are (1) wildland fire costs and strategy, (2) impact on American Indian and Alaska Native tribes and lands, (3) water scarcity, and (4) effects on oceans and coastlines.

Wildland Fire Costs and Strategy

Costs for containing wildland fires continue to escalate, as wildfires have increased in frequency and severity over several decades due to warmer climates and human activity.¹⁷ Higher temperatures lead to drier soils, increased likelihood of drought, and a longer fire season. Continued warming along with the number of human-ignited fires near populated areas have led the DOI's wildland fire management program to request one of its largest budgets ever for FY 2019—\$870 million.

The National Interagency Fire Center (NIFC) reported that by mid-October in the 2017 fire season there had been 51,555 fires that consumed nearly 8.8 million acres of Federal land. According to the NIFC's Situation Report for October 4, 2018,¹⁸ the 2018 fire season has already seen 47,800 fires that consumed 7.7 million acres. With continued drought in high-risk areas, these numbers are likely to increase—for example, in September 2018 the NIFC noted that in the previous month nearly the entire West Coast received less than 25 percent of average precipitation.

¹⁶ Patrick Gonzalez, et al. "Disproportionate magnitude of climate change in United States national parks," *Environmental Research Letters*, Vol. 13, No. 10, September 24, 2018. <http://iopscience.iop.org/article/10.1088/1748-9326/aade09>

¹⁷ (1) "Human-started wildfires expand the fire niche across the United States," *Proceedings of the National Academy of Sciences of the United States of America*, Vol. 114, No. 11, February 27, 2017, pp. 2946 – 2951, <http://www.pnas.org/content/114/11/2946>. (2) P. E. Dennison, et al. "Large wildfire trends in the western United States, 1984 – 2011," *Geophysical Research Letters*, Vol. 41, No. 8, April 28, 2014, pp. 2928 – 2933.

¹⁸ The National Interagency Fire Center provides up-to-date numbers in a daily report posted at <https://www.nifc.gov/nicc/sitreprt.pdf>.

Wildland fire affects many DOI mission areas; the impacts on the environment, wildlife (including endangered species), livestock grazing, outdoor recreation, and energy production are unpredictable and difficult to manage, not to mention the costs associated with destruction of DOI property. Continually increasing fire risk poses a challenge not only to funding and resources, but also to logistics and strategy. Fire management requires the coordination of both preventative and active firefighting efforts across multiple departments, bureaus, tribes, States, and local authorities. The DOI has also faced difficulty finding contractors to carry out fire-related tasks, particularly for fire prevention.

Impact on American Indian and Alaska Native Tribes

Tribal communities are affected by climate effects, creating a challenge in implementing the Federal Government's trust responsibility to tribes. Communities in the Southwest face prolonged drought, extreme floods, and loss of traditional food sources. Similar problems affect communities in the Northwest, and several tribes have sought to relocate because of these effects. For example, two Alaska Native communities, Newtok and Kivalina, are seeking Federal help to relocate. They are facing loss of water and food sources as well as destroyed infrastructure from 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. In March 2018, Congress appropriated just \$15 million to address the issue of Alaska village relocation, most of which will go to Newtok.

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 tribe members fear losing their cultural identity and traditions once they leave their homes.

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 BOR. Low water levels from 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 BOR—according to the U.S. Department of Energy, a 1 percent reduction in precipitation results in a 1 percent reduction in power production.¹⁹ Prolonged drought has left Lake Powell at 45 percent full capacity and Lake Mead at just 38 percent full capacity as of October 1, 2018 (these reservoirs serve Glen Canyon and Hoover Dams, respectively). Overall, the combined BOR Upper and Lower Colorado reservoir systems were at 47 percent full capacity—a drop from 55 percent full at the same time last year. Water scarcity has a significant impact

¹⁹ U.S. Department of Homeland Security and U.S. Department of Energy, *Dams and Energy Sectors Interdependency Study*, May 2017. https://www.energy.gov/sites/prod/files/2017/05/f34/Dams-Energy-Interdependency-Study-508_0.pdf

on human and environmental assets in the West, affecting a large portion of DOI-managed land.

Effects on Oceans and Coastlines

Many DOI assets are located near or in coastal areas that are affected by climate effects. Ocean acidification, sea level rise, and erosion all pose threats to coastal parks, infrastructure, habitats, and wildlife, as well as offshore energy interests. In addition, according to a recent NPS report on sea level rise, a quarter of NPS units are located along the coast, including some of its most historic and iconic parks. Current projections put many of these properties at risk.²⁰

Sea level rise also disproportionately affects many Insular Areas, where populations are generally concentrated along island coastlines with average elevation of only 2 meters above sea level. These areas can be inundated by waves higher than 2 meters, meaning that even the low estimates for sea level rise would put them at serious risk of flooding and property damage. Many of these communities rely on fisheries as a food source. The stability of these fisheries is at risk of drastic changes, directly affecting insular and native populations.

²⁰ NPS Natural Resource Report No. 2018/1648, *Sea Level Rise and Storm Surge Projections for the National Park Service*, May 2018. <https://www.nps.gov/subjects/climatechange/upload/2018-NPS-Sea-Level-Change-Storm-Surge-Report-508Compliant.pdf>

Operational Efficiencies

Among the challenges identified by OIG products and DOI officials are (1) agency reorganization and the hiring, retaining, and training of staff, (2) recreation fees and revenue, and (3) maintenance and repair of facilities and other infrastructure.

Reorganization and the Hiring, Retaining, and Training of Staff

The reorganization of the DOI to establish common regional boundaries for bureaus was finalized in August 2018, as the DOI reduced its boundaries from 49 regions to 12. Additional elements of the plan include centralization of HR services, procurement services, and at least some IT services within each region. Bureau staff (primarily from the BLM, the FWS, and the BOR) will move from the DC metro area to regional offices.

There are still many unknowns involving the reorganization, but long-term, the DOI aims to enable more decisionmaking in the field, improve services, reduce duplication and inefficiency, and improve procurement. The moves and centralization will cost approximately \$18 million in FY 2019 (as shown in Figure 3) and may incur short-term skill shortages or overlap before the shared services are operational.

Bureau	Investment for Reorganization
Bureau of Indian Affairs	\$900,000
Bureau of Land Management	5,900,000
Bureau of Reclamation	3,400,000
National Park Service	900,000
U.S. Fish and Wildlife Service	5,900,000
U.S. Geological Survey	500,000
Total investments	\$17,500,000

Figure 3. The DOI's FY 2019 budgeted investments for reorganization, by bureau.

The DOI employs approximately 70,000 people, including expert scientists and engineers, at more than 2,400 operating locations. For employees who choose to move, the DOI will incur employee relocation costs. Employees who resign or retire rather than move will need to be replaced, which will incur expenses for hiring and training new personnel and may create hard-to-fill vacancies before projected cost savings are realized.

In addition, according to a June 2018 *Government Executive* article,²¹ 16.6 percent or 11,620 of the DOI's employees are eligible to retire. The article further stated that in 5 years the number will spike to nearly 34 percent, or 23,800 employees who will be retirement eligible. Retirements could lead to shortages in leadership and institutional knowledge.

With a national unemployment rate of 3.7 percent as of September 2018 (the lowest in nearly 50 years), the DOI is challenged to be competitive in hiring against other Federal agencies and the private sector. The DOI also will face emerging gaps in critical skills as technology and specialization advance, requiring workforce retraining.

Recreation Fees and Revenue

Modernizing fee collection continues to be a challenge for bureaus that collect recreational fees (the NPS, the BLM, the FWS, and the BOR). The NPS plans to install a bureauwide point-of-sale system that will allow mobile passes and mobile transactions to accelerate payment at entrance stations. To accomplish this, the NPS is working to ensure that internet connectivity is strong and reliable at all entrance stations that collect fees. As many entrance stations are in remote areas that have no or inconsistent connectivity, the expense associated with these improvements is substantial.

The NPS will need to find a balance between generating revenue for needed park operations and ensuring that parks remain available and affordable to the public. The GAO reported in December 2015 that the NPS' total funding did not keep pace with inflation for FYs 2005 through 2014, even as fees and donations increased.²² Recently, the DOI decided to double entrance fees at 17 popular national parks (including Yellowstone, Yosemite, Grand Canyon, and Grand Teton) in an effort to raise an estimated \$70 million to repair park infrastructure, only to reverse that decision after public opposition. The DOI then revised entrance fees from \$30 to \$35 per car, per week at 117 parks, which is estimated to increase annual entrance fee revenue by \$60 million. The price of lifetime senior passes also increased from \$10 to \$80. With an estimated 400,000 to 500,000 lifetime senior passes sold each year at national parks, this adjustment should increase revenue by between \$28 million and \$35 million annually.

The NPS expects to award a contract in 2018 to analyze entrance fee data for future pricing decisions. The study will evaluate price elasticity, substitution, and willingness to pay as well as alternative entrance fee models and fee collection technology solutions to reduce administrative costs and increase convenience for visitors.

²¹ Government Executive article by Eric Katz, "The Federal Agencies Where the Most Employees Are Eligible to Retire," June 18, 2018.

²² GAO Report No. GAO-16-166, *National Park Service: Revenues From Fees and Donations Increased, But Some Enhancements Are Needed to Continue This Trend*, December 2015.

Maintenance and Repair (Both Deferred and Annual)

The DOI's mission includes the preservation of historic and cultural assets, such as historic sites, monuments, and battlefields. As infrastructure ages and requires repair and rehabilitation, maintenance poses a significant challenge. The DOI must continue to maintain and repair these assets, many of which already exceed original design life. Due to their national significance, the DOI cannot simply divest them, as is typically done in private industry.

Maintenance funding has not kept pace with bureau needs for some years, resulting in increasing deferred maintenance. As noted previously under "Public Safety and Disaster Response," the DOI's deferred maintenance backlog is more than \$16 billion; the NPS has the largest share, with more than \$11 billion in 2017. The Congressional Research Service reported in April 2017 that the FWS had a \$1.4 billion backlog and the BLM had an \$800 million backlog.²³

As reported by the National Congress of American Indians in 2017²⁴ and in the DOI's FY 2019 Budget in Brief, the following are the approximate values for deferred maintenance in Indian Country:

- BIA dams – \$556 million
- BIA irrigation program – \$576 million
- BIA roads – \$292 million (not including tribal roads)
- BIE schools – \$634 million

In addition, the DOI must consider opportunities to fund the deferred maintenance backlog without the taxpayer shouldering all of the burden. We recently reported that the Wolf Trap Foundation for the Performing Arts, which manages performances at the Wolf Trap National Park in Vienna, VA, generated \$40 million in revenue during FY 2016 (\$2.7 million after expenses) but did not contribute anything to the park's deferred maintenance needs, an estimated \$7.2 million.²⁵ We recommended that the NPS determine whether the Foundation should help offset the park's deferred maintenance needs, and the NPS has taken steps to address the issue.

The FWS also pointed out challenges in securing adequate funding for preventive/annual maintenance programs. Performing annual maintenance is more cost effective than deferred maintenance because delayed repairs grow in scope and cost. The National Academy of Sciences states that, at a minimum, an

²³ Congressional Research Service, *Deferred Maintenance of Federal Land Management Agencies: FY 2007 – FY 2016 Estimates and Issues*, April 25, 2017.

²⁴ National Congress of American Indians, *Tribal Infrastructure—Investing in Indian Country for a Stronger America*, April 6, 2017.

²⁵ DOI OIG Report No. 2017-WR-037-A, "Financial, Ethical, and Exclusive Use Concerns About the NPS' Agreement With the Wolf Trap Foundation for the Performing Arts," September 2018.

appropriate budget allocation for routine maintenance and repair will range from 2 to 4 percent of a facility's replacement value (excluding land and major associated infrastructure).²⁶ The DOI has been unable to secure sufficient funding for annual maintenance, which has contributed to the deferred maintenance backlog.

²⁶ National Academy of Sciences, *Predicting Outcomes of Investments in Maintenance and Repair of Federal Facilities*, 2012.

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. We see these as potential barriers to departmental efforts to promote efficiency and effectiveness in DOI management and operations. The challenges do not exist in isolation; their effects often spill across many program areas, as seen in this report.

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.

Report Fraud, Waste, and Mismanagement



Fraud, waste, and mismanagement in Government concern everyone: Office of Inspector General staff, departmental employees, and the general public. We actively solicit allegations of any inefficient and wasteful practices, fraud, and mismanagement related to departmental or Insular Area programs and operations. You can report allegations to us in several ways.



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