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

The U.S. Department of the Interior Has Opportunities to Improve Disaster Preparedness and Response

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Memorandum

To: Thomas J. Balint
Director, Office of Emergency Management
U.S. Department of the Interior

From: Chris Stubbs
Director, Financial and Contract Audits

Subject: Final Inspection Report – *The U.S. Department of the Interior Has Opportunities to Improve Disaster Preparedness and Response*
Report No. 2018-FIN-052

This memorandum transmits the results of our inspection of the U.S. Department of the Interior's (DOI's) preparedness for natural disasters. We examined preparedness and response related to Hurricanes Harvey, Irma, and Maria across the three DOI bureaus that received the most supplemental funding from the U.S. Congress for disaster recovery in 2018.

We make seven recommendations to help the DOI improve its preparedness and response to future disasters. Based on the bureau responses to our draft report, we consider one recommendation to be resolved and implemented, five recommendations resolved but not implemented, and one recommendation unresolved. We will refer the resolved but not implemented and unresolved recommendations to the Assistant Secretary for Policy, Management and Budget for implementation tracking and resolution.

If you have any questions about this report, please contact me at 202-208-5745.

The legislation creating the Office of Inspector General requires that we report to Congress semiannually on all audit, inspection, and evaluation reports issued; actions taken to implement our recommendations; and recommendations that have not been implemented.

cc: Margaret Everson, Counselor to the Secretary, Exercising the Delegated Authority of the Director, National Park Service
Aurelia Skipwith, Director, U.S. Fish and Wildlife Service
James Reilly, Director, U.S. Geological Survey

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Results in Brief

The 2017 Atlantic hurricane season was one of the most active in U.S. history, causing widespread damage to or destruction of critical infrastructure, livelihoods, and property. At the same time, devastating wildfires in California burned for months. To help recovery efforts, the U.S. Congress passed the Bipartisan Budget Act of 2018, which provided funding for necessary expenses related to the consequences of the hurricanes and the 2017 wildfires.

We inspected the U.S. Department of the Interior's (DOI's) preparedness for and response to three storms that made landfall as major hurricanes in the United States in quick succession: Harvey, Irma, and Maria. Hurricane Harvey affected the Southern United States (Texas and Louisiana) and the Eastern United States, Irma affected the Caribbean and Southeastern United States, and Maria affected the Caribbean and the Mid-Atlantic States.

We focused our inspection on the three DOI bureaus that received most of the supplemental funding from Congress—the U.S. Fish and Wildlife Service (FWS), National Park Service (NPS), and U.S. Geological Survey (USGS)—as well as Departmentwide actions.

Both the NPS and the FWS performed well in some ways, such as by inventorying supplies before the storm, evacuating people to safer conditions, identifying damaged property, and clearing debris after the storms. We found, however, areas where the DOI can improve its preparedness for responding to and recovering from the next natural disaster. Specifically, we found:

1. The Office of Emergency Management's *Master Improvement Plan* did not include required information and contained unrealistic milestones.

2. The NPS and the FWS encountered problems with communication and purchase cards.

3. Recovery obligations and expenditures of supplemental funds have been slow.

4. Contracting officer training can improve overall preparedness.

5. Awareness of interbureau resources could be improved.

If these issues are not addressed, the DOI's ability to respond to future natural disasters could be hindered, which may compromise human safety, the provision of critical needs, and the DOI's ability to monitor emergency events and the status of critical infrastructure.

We make seven recommendations to help the DOI improve its ability to prepare for, respond to, and recover from future disasters. Based on the responses to our draft report, we consider one recommendation to be resolved and implemented, five recommendations resolved but not implemented, and one recommendation unresolved.

Introduction

Objective

Our objective was to inspect the U.S. Department of the Interior's (DOI's) preparedness for and response to three storms that made landfall as major hurricanes in the United States in quick succession: Harvey, Irma, and Maria (see Figure 1). Our inspection scope and methodology are included as Appendix 1.

Figure 1: Hurricanes Harvey, Irma, and Maria Made Landfall in 2017

Source: The Weather Channel, Three Category Four Hurricanes Made a U.S. Landfall in 2017.

Background

The Council of Inspectors General on Integrity and Efficiency (CIGIE) invited the DOI Office of Inspector General (OIG) to collaborate with other inspector general offices as part of a working group[1] on a Government cross-cutting initiative focused on disaster supplemental appropriations. The group provides a forum in which the OIGs can examine the agencies' rules, policies, and methods related to disaster preparedness.

The DOI has implemented the National Incident Management System, which supports the National Preparedness System. The National Preparedness System integrates efforts across five

[1] The working group consists of our OIG and the OIGs for six other U.S. Government agencies: the U.S. Department of Housing and Urban Development, U.S. Department of Transportation, U.S. Department of Homeland Security, U.S. Army Corps of Engineers, U.S. Department of Health and Human Services, and the Small Business Administration.

preparedness phases: prevention, protection, mitigation, response, and recovery. It has done so based on policy provided in the *DOI Departmental Manual*, Parts 900 – 910. That policy gives the DOI's Office of Emergency Management (OEM) responsibility for "policy development, direction, coordination, evaluation, inspection, and support of Departmental programs concerning disaster preparedness, planning, response, and recovery." The policy also requires the DOI to develop emergency management programs that include "plan(s) based on the Department's specific hazards and risks to prevent, protect against, mitigate the effects of, respond to, and recover from incidents, declared emergencies, major disasters, and special events."

On February 9, 2018, the U.S. Congress passed the Bipartisan Budget Act of 2018 (Pub. L. No. 115-123), which provided funding for recovery from the 2017 wildfires and necessary expenses related to the consequences of Hurricanes Harvey, Irma, and Maria. An initial 25 percent of the funds was apportioned to the respective bureaus, the Office of Insular Affairs, and the OIG in March of 2018. The remainder was apportioned in May of 2018 (see Figure 2 for the total amount of funds appropriated). Our report focuses on the three DOI bureaus—the National Park Service (NPS), U.S. Geological Survey (USGS), and U.S. Fish and Wildlife Service (FWS)—that received the most funding.

Figure 2: Disaster-Related Bureau Funding Per the Bipartisan Budget Act of 2018

Total DOI Appropriations	**Amount ($)**
U.S. Fish and Wildlife Service	
Construction	210,629,000
National Park Service	
Construction	207,600,000
Historic Preservation Fund*	50,000,000
U.S. Geological Survey	
Surveys, Investigations, and Research	42,246,000
Office of Insular Affairs	
Technical Assistance	3,000,000
Office of Inspector General	
Salaries and expenses related to the consequences of Hurricanes Harvey, Irma, and Maria	2,500,000
Total	**$515,975,000**

* The NPS Historic Preservation Fund provides funding to States, territories, and tribal governments (grantees) to carry out historic preservation activities. These governments distribute funds according to their own priorities and plans. In addition, Congress required the NPS to distribute funding for the Historic Preservation Fund by September 30, 2019, for subsequent obligation and expenditure by the States, territories, or tribal governments. Therefore, we did not inspect the progress of any current or future projects related to historic preservation.

Results of Inspection

We found the DOI can continue to improve its preparedness for responding to and recovering from the next natural disaster. Specifically, we found:

1. The OEM's *Master Improvement Plan* did not include required information and contained unrealistic milestones.

2. The NPS and the FWS encountered problems with communication and purchase cards.

3. Recovery obligations and expenditures of supplemental funds have been slow.

4. Contracting officer training can improve overall preparedness.

5. Awareness of interbureau resources could be improved.

Being prepared for natural disasters saves time, money, and lives. The DOI controls significant resources and infrastructure and operates in complex and geographically diverse areas, and this mission makes preparedness essential. Our recommendations should help the DOI's disaster preparedness and improve its response and recovery for future disasters.

The OEM's *Master Improvement Plan* Did Not Include Required Information and Contained Unrealistic Milestones

To improve upon its preparedness and response functions, the OEM prepared a report on the 2017 Atlantic hurricane season. Issued in July 2018, the report—*Department of the Interior 2017 Atlantic Hurricane Season: After Action Report*—contained 33 recommendations across 9 areas. Those areas included intra-agency coordination; incident support and surge staffing; policies, plans, and procedures; and information technology and support tools.

From that report, the OEM developed *The Master Improvement Plan*, which contained proposed corrective actions; however, it was missing required information and did not contain realistic milestones. We found that the *Master Improvement Plan* did not include a problem statement, the submitting bureau, correspondence, milestones for all recommendations, timelines, or a due date as required by the Emergency Management Policy Bulletin (EMPB) 2009-1.[2] The OEM said it is developing a new interactive system that will enable tracking of recommendations and address some of the deficiencies experienced when implementing EMPB 2009-1; however, the new system's data fields include Priority Duration, Status, and Recommendations and do not address all the categories required by EMPB 2009-1.

[2] The DOI issued this bulletin on December 28, 2009, to "assist bureaus and offices in establishing corrective action programs to document observations, to develop corrective action recommendations from response operations and emergency preparedness exercises, and to manage improvement plans to remedy shortfalls."

In addition, we found 10 of 12 recommendations—all listed as high priority—that should have been resolved within 6 months were not completed. For example, the OEM had not implemented:

- A formal process to access and mobilize qualified personnel to respond to natural disasters
- Standard operating procedures for financial and administrative requirements when activating personnel for disaster operations
- A proactive, goal-based communications plan for disaster response and/or recovery to address internal communication needs

The OEM Acting Director told us that deadlines for the 6-month recommendations were self-imposed. The OEM later said that it needed outside help to resolve those recommendations, which extended the completion time. It also cited problems locating the original corrective action plan in its tracking system, Microsoft SharePoint, which caused a delay in resolving the recommendations.

Maintaining complete documentation helps establish an accurate system of recordkeeping that can withstand scrutiny and also allows timely action on lessons learned and recommendations. Moreover, without a thorough implementation plan, it is more difficult to track corrective actions, and the identified issues may go unresolved.

Recommendations

We recommend that the OEM:

1. Revise the *Master Improvement Plan* to include all information required by EMPB 2009-1
2. Update the milestones for each recommendation based on current estimates for completion

The NPS and the FWS Encountered Problems During Their Hurricane Response Efforts

The immediate priorities in the National Response Framework are to save lives, protect property and the environment, stabilize the incident, and provide for basic human needs. While both the NPS and the FWS performed well in some ways—inventorying supplies before the storm, evacuating people to safer conditions, identifying damaged property, and clearing debris after the storms—each bureau also encountered problems. For example, we found the NPS and the FWS had difficulties with communication and their ability to use purchase cards to address the consequences of the three hurricanes.

Communication

It is a common misconception that satellite phones will work at any time and everywhere. In fact, satellite phone coverage, reception, quality, and speed can be subject to the same limitations as cellular phones. Both the NPS and the FWS experienced communication challenges when attempting to use satellite phones.

For the NPS, unreliable connectivity combined with a lack of texting capability and a shortage of phones impeded employees' ability to communicate during and after the storms:

- **Connectivity.** Although the satellite phones worked at the Puerto Rico San Juan Main Office, the NPS had trouble communicating with employees on the U.S. Virgin Islands of St. John, St. Thomas, and St. Croix. One NPS incident commander stated that the lack of phone service prevented him from communicating with employees on St. John, which directly affected the coordination and status of response and recovery efforts. The NPS eventually realized that voice communication required the phones' antennas to be up and pointed in the right direction and for both parties to be outside without any obstructions to the signal, such as inclement weather and buildings. Further, the phones did not have the ability to send text messages. The NPS said that it could have been more effective if it had been able to send and confirm receipt of text messages as an alternative to relying on inconsistent voice service.

- **Availability.** The islands had a limited supply of satellite phones, making it difficult for NPS employees to provide status updates. The NPS had only a few phones for the islands. The NPS' disaster plan requires a phone inventory that lists each phone's assigned user and operational status, and while the NPS provided a list to us, it did not include operational status of the phones. Including this information in the inventory would have helped inform the NPS about the limited number of phones and moreover could have provided information about whether the phones could be affected by weather or obstructions.

The FWS had similar issues with connectivity and did not always have continuous communication:

- **Connectivity.** Communication using satellite phones at the El Yunque and Maricao bird sanctuaries in Puerto Rico was inconsistent. While these facilities could use the phones to communicate with the regional office in Atlanta, GA, the process took hours because trees and debris obstructed the satellite phone signal, which required users to continuously repeat information they had already provided. The field supervisor responsible for all the bird sanctuaries in Puerto Rico experienced similar problems. Since the communications equipment did not work well, sanctuaries found it difficult to report on the condition of the facility, the birds, and the employees.

- **Continuity.** The *Caribbean Ecological Services Field Office All Hazard Disaster Action Plan* states that phones and radios must always be with the user during an emergency to ensure continuity in FWS communication. We found that employees did not keep the

phones on continuously because the phones were constantly on "roaming" status, which depletes battery life; this led employees to turn off the phones in an effort to conserve the batteries. In addition, employees were not always able to charge their phones because the generators were on for only a short time each day. This break in continuity of communications meant that the FWS could not ensure that it always had the ability to engage employees to coordinate response activities. In future disasters, this could lead to untimely confirmation of employee whereabouts, reduced information-sharing, increased stress, and unclear responsibilities.

Reliable and efficient communication methods are crucial for the DOI to provide effective guidance, monitor emergency events and the status of critical infrastructure, and ensure the safety and whereabouts of employees.

Recommendation
We recommend that the NPS and the FWS: 3. Research options for obtaining equipment that will provide reliable communication among NPS and FWS officials involved in disaster recovery (e.g., satellite phones with texting capabilities) and develop recommendations based on that research

Cash to Make Purchases

An important piece of preparedness is being able to purchase emergency goods and services to immediately respond to the aftermath of the disaster. This means having cash on hand to obtain emergency supplies, which, for these bureaus, can include everything from fuel for post-disaster cleanup to food for endangered parrots in FWS sanctuaries. Without the ability to obtain cash, the NPS and the FWS have greater difficulties in responding to and recovering from disasters.

NPS and FWS personnel did not have the ability to pay for necessities after the hurricanes passed because of communication problems or because credit card machines did not work due to power outages. While some stores or gas stations were open for business, NPS and FWS personnel could not purchase the supplies they needed quickly because they only had purchase cards, but businesses were accepting only cash. In addition, we found that neither the NPS nor the FWS addressed the need to obtain cash in their hurricane response plans.

For the NPS, this meant that employees in Puerto Rico had to take time off from work and recovery efforts to wait at banks to obtain cash so they could buy their own food and water. One NPS Caribbean superintendent gave loans using his personal cash to employees and to help with NPS response and recovery expenses.

Moreover, the FWS did not have cash on hand in the aftermath of the hurricanes, which limited employees' ability to purchase fuel for vehicles that would enable them to check on the FWS' bird sanctuary facilities or to purchase food and supplies for the endangered parrots in captivity.

In one of the sanctuaries, seven birds died due to heat exposure. At another facility, Hurricane Maria's impact resulted in approximately 56 birds escaping into the wild. While several returned to the sanctuary, only one survived. If FWS employees had cash to purchase supplies and fuel for their vehicles to return to the sanctuaries, some of the birds might have been saved.

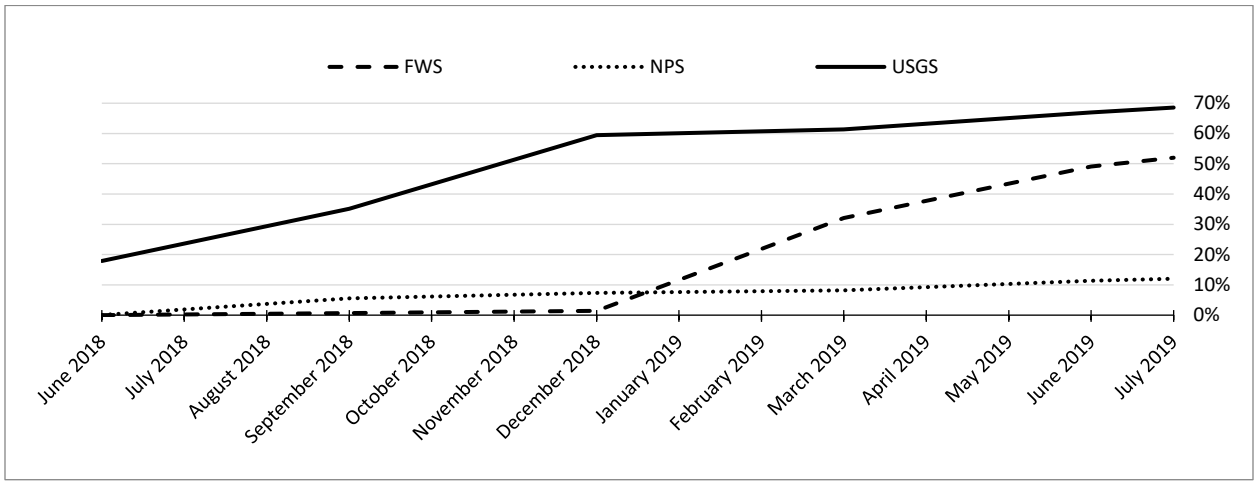
Recommendation
We recommend the NPS and the FWS: 4. Develop policies and procedures, with proper oversight, to determine cash requirements and use during a natural disaster

NPS and FWS Recovery Obligations and Expenditures of Supplemental Funds Have Been Slow

In accordance with appropriations law, once the Office of Management and Budget approves the breakdown of congressionally appropriated funds (a process referred to as apportionment funding release), the funds can be reserved for projects (referred to as commitments). The funding is considered obligated once bureaus execute a legally binding agreement that will result in expenditures. Expenses are then recorded when the bureaus pay the vendors.

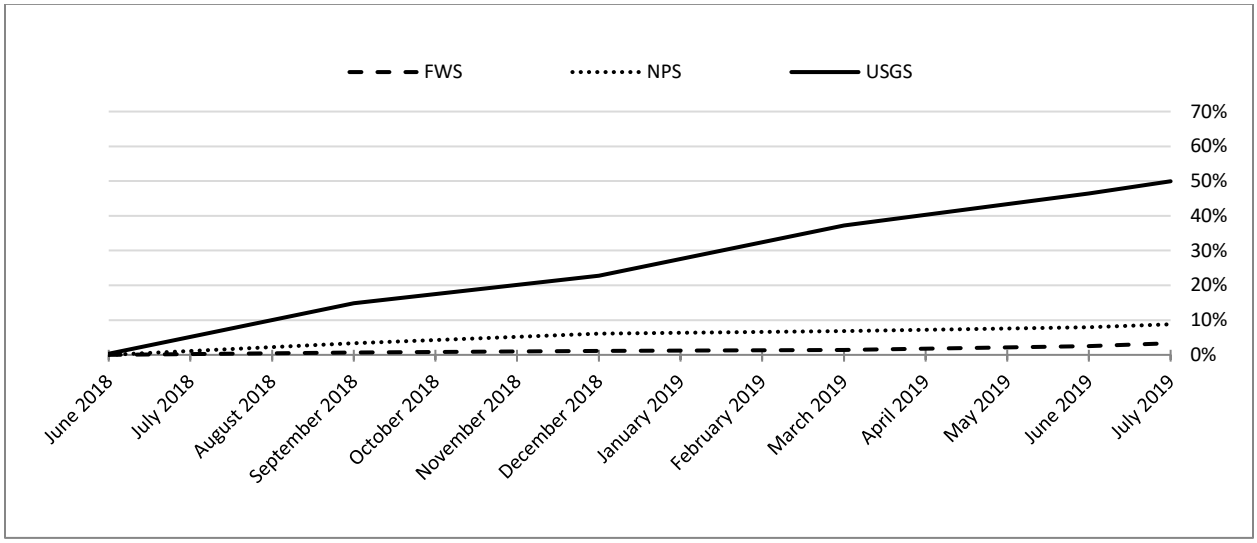
The bureaus began obligating supplemental appropriations in May 2018 for such projects as hurricane debris cleanup and repairing or replacing damaged assets, but, during the period from June 2018 to July 2019, the bureaus were slow in their recovery efforts even with minimal fiscal constraints in using the funds. Supplemental appropriations generally cover emergencies, such as disaster relief, or other needs deemed too urgent to be postponed until the enactment of the next year's regular appropriations act. Figures 3 and 4 show the obligation and expenditure rates for the FWS, the NPS, and the USGS by month from June 2018, the first month following the second apportionment, through July 2019, the end of our review period. The slow pace of obligations and expenditures leaves Government infrastructure and lands more vulnerable to subsequent disasters.

Figure 3: Obligations by Month



Source: DOI Financial Business Management System for the FWS, NPS, and USGS pulled by the OIG.

Figure 4: Expenditures by Month



Source: DOI Financial Business Management System for the FWS, NPS, and USGS pulled by the OIG.

USGS Projects

We found the USGS obligated and expended funds at a steady rate compared to the FWS and the NPS. Unlike the FWS and the NPS, the USGS does not oversee or maintain Federal lands and buildings, which can extend procurement lead times; instead, most of its funds pay the salaries of employees to conduct research. With these funds, the USGS replaced equipment, used its own staff to evaluate data, and purchased routine topographical imaging services. Therefore, its

obligation and expenditure rates of 69 percent and 50 percent, respectively, were higher than those of the NPS or the FWS as of July 2019.

NPS Projects

The NPS developed an extensive list of projects to remove debris and to repair, replace, or restore disaster-damaged publicly owned facilities such as roads. The NPS, however, has made slow progress since receiving all its supplemental appropriation in May 2018. As of July 2019, the NPS had obligated only 12.0 percent of its supplemental funds, and its expenditures were only 8.8 percent. Below are some examples of significant projects that, as of July 2019, had no obligations:

- Housing projects, including a hurricane shelter, in the Virgin Islands totaling $2.7 million (see Figure 5)
- Restoration of the shoreline and coral reefs in the Virgin Islands Coral Reef National Monument, totaling $13.8 million
- Repair to docks and marinas at Everglades National Park in Florida, totaling $7.9 million

Figure 5: Photos of Employee Housing 1 Year After the Hurricanes

Source: DOI OIG.

The NPS told us that staffing challenges and the Government shutdown in December 2018 and January 2019 affected project timetables and that it took time to obtain experts for these projects. By comparison, staff members were available to assign funds to Hurricane Sandy projects almost immediately because, at the time, the American Recovery and Reinvestment Act projects were winding down and staff members were readily available. These supplemental projects, however, had no such excess capacity to draw upon because competing programs requiring resources were beginning when the hurricanes hit, which led to a staff shortage. In addition, the NPS maintained that it has more than 138 widely dispersed, complex, environmentally challenging projects that require a longer lead time to begin. For example, some projects need design and engineering

studies performed to determine their final scope and complete the job correctly. Further, supporting national parks in the islands was difficult because no one lived on the islands to do onsite coordination, as there was no housing.

Further, the NPS' lack of milestones for its projects impacted the rate at which funds were obligated. Without deadlines, the NPS proceeded without a sense of urgency and told us projects were not prioritized. The NPS stated that its goal was to work on multiple projects on its list using all the tools and resources available. In addition, the NPS was slow in appointing a project manager to oversee the supplemental funds and projects. The project manager was not hired until August 2018, 5 months after the funds were initially apportioned in March 2018.

Finally, we asked NPS procurement officials if they used any contracting flexibilities, such as letter contracts, sole source, or oral requests for proposals, that were available to them to accelerate the contracting process. The NPS told us it increased the micropurchase thresholds and received guidance on contracting flexibilities for emergency situations; however, we did not identify any specific strategies that were actually employed.

FWS Projects

The FWS also had an extensive list of projects, such as building repairs or replacement; water management structure repair or replacement; road, bridge, and trail repair; and debris removal. As of July 2019, the FWS had obligated 52 percent of the supplemental funds appropriated but had expended only 3.3 percent of those funds. The FWS obligated 36 percent of these funds for projects in Texas, while the projects in the remaining States and territories (Georgia, Florida, South Carolina, Puerto Rico, and the U.S. Virgin Islands) were only 9.2 percent obligated as of July 2019. The following are some examples of significant projects that had no obligations as of July 2019:

- Hardscape improvements, totaling $21.2 million, at the Aransas National Wildlife Refuge (NWR) on the gulf coast of Texas

- A water management structure (i.e., a levee separating two bodies of water) totaling $6.7 million on Merritt Island NWR (see Figure 6)

- Roads, bridges, and trails on Merritt Island NWR totaling $6.4 million

- Roads, bridges, and trails on the Vieques NWR in Puerto Rico totaling $3.8 million

- A building on Matagorda Island NWR totaling $2.1 million

Figure 6: Sections of The Peacock Pocket Levee Water Management Structure Project on Merritt Island NWR Before (left) and After (right) Hurricanes

Source: DOI OIG.

The FWS told us it was satisfied with the progress of the projects; it did not have any difficulties in obligating the funds; and it overcame the need for extra accountants, contracting officers, and engineers. The FWS did, however, acknowledge problems that could create potential delays: it has made changes to buildings and their footprints; debris cleanup is more complicated in remote areas; FWS employees are conducting much of the work, which may present scheduling issues; and bids on some of the projects were higher than expected, requiring the project costs to be revised.

We also asked FWS procurement officials if they used any contracting flexibilities (e.g., letter contracts, sole source, or oral requests for proposals) available to them to speed up the contracting process. They told us they believed they had but could not provide any specific examples.

If the NPS and the FWS do not complete supplemental projects quickly, their resources may not be able to withstand another natural disaster in these areas. Furthermore, employees may work in substandard conditions and endure long commutes to duty stations while they await the repairs. Finally, if the bureaus do not complete projects quickly, habitats may suffer additional environmental impacts. All of these concerns can be addressed, at least in part, through an awareness of procurement flexibilities and an understanding of methods by which supplemental funding can be promptly and effectively obligated and expended.

Recommendation
We recommend that the NPS and the FWS: 5. Analyze the procurement process for supplemental funds to identify improvements that could be made to ensure the timely obligation and expenditure of funds

Contracting Officer Training Can Improve Overall Preparedness

We found that contracting officers at the NPS, FWS, and USGS did not receive training related to emergency contracting. The Office of Federal Procurement Policy's *Emergency Acquisition Guide* recommends training be provided before a disaster happens. It also provides detailed information and references to specific training that acquisition personnel could take.

This is not a new issue. In OIG Report No. 2017-FIN-057, *Summary of Hurricane Sandy Audit and Inspection Reports and Management Advisories*, we reported that the DOI had no specific standard disaster response training, and we suggested training be provided to improve contract administration. Both the NPS Procurement Chief and the Deputy Assistant Director of the FWS agreed to train employees to improve contract administration during disasters.

During this inspection, the NPS Bureau Procurement Chief told us that, even though training was not required, he recommended courses to contracting officers in emergency contracting that were offered commercially and by the Government. The FWS Bureau Procurement Chief, however, was unaware of the guidance recommending training and stated that the individual contracting officers determine the training required. The USGS Bureau Procurement Chief told us that the specialized training is not necessary because the process for emergency contracting is like the normal procurement process and most of its purchases are made using credit cards, which do not involve the procurement process.

Emergency acquisitions are different and allow for greater contracting flexibilities to obtain basic or complex goods and services, including the construction of temporary or permanent structures. Contracting officers must be trained how to handle funding constraints, post-award monitoring, available flexibilities, and other potentially unique circumstances that may arise during and after a disaster. Personnel trained in emergency contracting procedures will help optimize the Government's responsiveness during and after an emergency; moreover, addressing any gaps in capacity by providing training before an emergency will save valuable time.

Recommendation
We recommend that the NPS, FWS, and USGS: 6. Develop and provide mandatory training to applicable contracting staff on emergency acquisitions and disaster contracting policies and procedures

Use and Awareness of Interbureau Resources Could Be Improved

Following the Deepwater Horizon oil spill in 2010, the DOI established a resource ordering system so that incident commanders could seek and obtain help from other bureaus if needed. This leverages the DOI's many capabilities across a diverse workforce; however, we found there was confusion about the system in populating and updating data, staff responsibility, and paying for resources.

For staffing resources to be populated into the ordering system—the Interagency Resource Ordering Capability (IROC)—employees work with their supervisors, bureau coordinators, or the OEM to enter their qualifications into the Incident Qualifications and Certification Management System (IQCS). The ICQS populates IROC and is designed to record, track, and report on participants' qualifications. Like any system, the data need to be current, accurate, and complete.

Three of the six incident commanders we interviewed did not find the system helpful because: (1) qualified employees were not uploaded to the system; (2) it did not include a mechanism to pay for employees accessed; and (3) it did not clearly describe the services the employees could provide. One of the incident commanders also recommended that agencies themselves determine who would be responsible for populating and updating the qualifications in the system. For example, such positions as situation unit leader, documentation unit leader, and logistics section chief type II could not be found in the system and needed to be filled by new hires. Hiring these positions as new employees took additional time and paperwork.

An FWS incident commander similarly told us that keeping the IQCS current is an issue because of a lack of staff to maintain the system. Few account managers have regional access, and the system is updated only when a storm threatens even though it should be kept up to date all the time. The Acting Director of the OEM also stated that bureaus and offices need to add their qualified employees into the IQCS so that they can be mobilized during emergencies.

In addition, we found one USGS official was confused about how resources ordered would be paid. The official stated that USGS personnel cannot be ordered in the system unless there is an appropriate mechanism to pay for those services—a memorandum of understanding (MOU). An NPS incident commander also stated that the process for obtaining an MOU took an inordinate amount of time and that it would be helpful if the bureaus could complete MOUs prior to the incident.

If the resource ordering system is not populated appropriately and kept up to date and if its users are not taught how to pay for those resources, the DOI's disaster capacity could be diminished and response and recovery efforts could be impacted.

Recommendation

We recommend that the OEM:

7. Develop and disseminate a plan for obtaining interbureau resources that includes explaining interbureau memoranda of understanding and identifying and classifying available resources and guidance on how to add available resources into the ordering system

Conclusion and Recommendations

Conclusion

Disasters cause devastation and destruction at the individual, family, State, territorial, and Federal levels. Disaster preparedness is paramount to the DOI's ability to achieve its mission. The DOI faced many challenges in responding to and recovering from Hurricanes Harvey, Irma, and Maria in 2017 and is in position to improve upon its preparedness for the next natural disaster.

We identified five issues the DOI faces in preparing for and responding to future disasters:

1. The OEM's *Master Improvement Plan* did not include required information and contained unrealistic milestones.

2. The NPS and the FWS encountered problems with communication and purchase cards.

3. Recovery obligations and expenditures of supplemental funds have been slow.

4. Contracting officer training can improve overall preparedness.

5. Awareness of interbureau resources could be improved.

We make seven recommendations to help the DOI improve its ability to prepare for, respond to, and recover from future disasters.

Recommendations Summary

We issued a draft version of this report for review and response by the FWS, the NPS, the USGS, and the OEM. The draft report included a recommendation that the NPS develop disaster policies and procedures to address storing fuel in critical areas of Puerto Rico. After review of the NPS response and subsequent research by our office, we determined that the NPS met its benchmark for fuel storage at its locations, and we removed that recommendation.

Of the remaining seven recommendations, based on the responses received (summarized below), we consider one recommendation to be resolved and implemented, five recommendations resolved but not implemented, and one recommendation unresolved. See Appendix 2 for the status of recommendations. We will refer the resolved but not implemented and unresolved recommendations to the Assistant Secretary for Policy, Management and Budget for implementation tracking and resolution.

We recommend that:

1. The OEM revise the *Master Improvement Plan* to include all information required by EMPB 2009-1

OEM Response: The OEM concurred with the recommendation, and the target date for completion is December 31, 2020.

The OEM noted that, after issuing its hurricane after-action report in July 2018 (*Department of the Interior 2017 Atlantic Hurricane Season: After Action Report)*, it revised the *Master Improvement Plan* to include additional data fields to improve the new system's sort and filter capabilities. The OEM acknowledged that its data file nomenclature differs from that in EMPB 2009-1 but expressed the belief that most of the required information is included in the system using different names for data fields (e.g., Milestone versus Action Step, Problem Statement versus Observation). Based on our recommendation, the OEM will rename and add missing data fields to the *Master Improvement Plan* going forward.

OIG Comment: Based on the OEM response, we consider Recommendation 1 resolved but not implemented.

2. The OEM update the milestones for each recommendation based on current estimates for completion

OEM Response: The OEM concurred with the recommendation, and the target date for completion is December 31, 2020.

The OEM noted that the recommendations in its hurricane after-action report were intended to be addressed over a 5-year period, starting in 2018. To date, the OEM has completed 9 recommendations, with 13 in progress and 8 outstanding. The majority of those outstanding (5) are assigned to the "long duration" category, which means they will take longer than 1 year to complete. The OEM also noted that the *Master Improvement Plan* is not a static system. The OEM stated that its continuous improvement program and culture use each subsequent incident to "better inform and refine" the recommendations and improvement plans needed. Since the 2017 hurricanes, the OEM stated that it has responded to numerous other incidents, including the eruption of Kilauea Volcano, Hurricanes Lane and Dorian, and the coronavirus, which all inform and reprioritize the corrective actions needed. Based on our recommendation, the OEM will update the milestones for each recommendation based on current estimates for completion.

OIG Comment: Based on the OEM response, we consider Recommendation 2 resolved but not implemented.

3. The NPS and the FWS research options for obtaining equipment that will provide reliable communication among NPS and FWS officials involved in disaster recovery (e.g., satellite phones with texting capabilities) and develop recommendations based on that research

NPS Response: The NPS concurred with the recommendation, and the target date for completion is October 1, 2021. The NPS stated that it was aware of a number of Departmentwide contracts in place to help parks find and use the correct communications tools. The NPS will develop recommendations based on that already existing research.

FWS Response: The FWS concurred with the recommendation, and the target date for completion is March 31, 2021. The FWS stated that it will investigate the use of Iridium Short Burst Data devices (e.g., Garmin inReach devices), which can be used for satellite-based SMS texting. The FWS noted that these devices have long battery life (up to 90 hours), can be charged with portable cell phone backup chargers, can send and receive messages where satellite signals may be too weak (or congested) for a voice call, and can automatically send and receive messages when the devices connect with the satellite.

OIG Comment: Based on the responses received, we consider Recommendation 3 resolved but not implemented for the NPS and the FWS.

4. The NPS and the FWS develop policies and procedures, with proper oversight, to establish cash requirements during a natural disaster

NPS Response: The NPS partially concurred with the recommendation, and the target date for completion is November 1, 2021. The NPS stated that it is working on a strategic approach to ensure that affected staff have the ability to make purchases during emergencies. The NPS will consider cash as an option and is also reviewing convenience check authority for purchase cardholders who are deployed and responding to natural disasters, among other options.

FWS Response: The FWS concurred with the recommendation, and the target date for completion is January 31, 2021. The FWS stated that it is working on a strategic approach to ensure that affected staff have the ability to make purchases during emergencies. The FWS will develop procedures and internal controls to safeguard resources and personnel during these incidents. The FWS noted that its approach may include a combination of providing access to cash and using convenience check authority for purchase cardholders in affected areas.

OIG Comment: Based on the responses received, we consider Recommendation 4 resolved but not implemented for the NPS and the FWS.

5. The NPS and the FWS analyze the procurement process for supplemental funds to identify improvements that could be made to ensure the timely obligation and expenditure of funds

NPS Response: The NPS concurred with the recommendation and stated that it has already analyzed the process and thereby implemented the recommendation.

After summarizing and providing its interpretation of procurement guidance that may be implicated by the declaration of an emergency, the NPS stated that, when it responds to

natural disasters, purchases and contracts are executed under the increased micropurchase and simplified acquisition thresholds and follow the procurement rules of those thresholds. The NPS acknowledged that it could "better position" itself to respond to natural disasters and stated that it has established a task force to identify areas for improvement. One of the areas identified is better use of advance agreements for procurement of predicted supplies and services needed during an emergency. The NPS explained that it is currently working on identifying resources and establishing advance purchasing agreements.

The NPS also noted that, during the recovery phase, the nature of the work changes from incident response to project management, and the timeframe for execution changes from immediate to planned and staged. It stated that its recovery work can be "quite complex" and include a wide range of disciplines, including marine, biological, and environmental sciences; architecture and historic architecture; civil, mechanical, and electrical engineering; geotechnology; and historic and cultural preservation. The NPS further noted that acquisitions for recovery projects take place outside of the emergency declaration and the timeframe for increased thresholds in FAR part 18.

The NPS stated that, in light of these complexities, it uses standard, non-emergency contracting flexibilities to the maximum extent possible to quickly execute recovery projects. These flexibilities include limiting of competition and awarding to a sole source, if justified; using Federal Supply Schedules, blanket purchase agreements, and indefinite delivery contracts; using interagency agreements; and using various small business set-asides. The NPS stated that it considers all available contracting methods allowable under the FAR to accelerate recovery work and obligate funds as expeditiously as possible.

The NPS stated that it obligates funds within the prescribed procurement timeframes as outlined in the FAR and in the NPS' Procurement Administrative Lead Times. It noted, however, that contracts using standard, non-emergency flexibilities cannot be solicited and awarded until requirements are developed. The time spent in the development and necessary compliance clearances of these requirements affects the timeliness of obligation but is not within the purview of contracting personnel.

FWS Response: The FWS concurred with the recommendation, and the target date for completion is March 31, 2021. The FWS stated that it will review and establish a plan to address all phases of acquisition, including planning, award, and administration, to ensure the timely obligation and expenditure of funds. The FWS stated that it will engage with all stakeholders in the process, including contracting, engineering, budget, policy, and safety personnel. The FWS also stated that it will develop guidance or standard operating procedures to provide the tools and resources the acquisition workforce needs to meet the challenges of an emergency situation.

The FWS stated that it has already "made great strides in acquisition improvements," including implementation of joint administrative operations, new templates for standardization, new processes, and updates to its *Contracting Officer's Handbook* to help expedite the work of the acquisition workforce. The FWS said it will continue to

make improvements that focus on disaster response, including early involvement in the acquisition planning process; guidance that will highlight key procedures and considerations, including available contract flexibilities; standard checklists and templates for emergency situations; and training a core group of individuals who will ensure the proper execution and administration of these contracts. The FWS also noted that if a coordinated process review is necessary between the FWS and the NPS, it would look to the DOI's Office of Acquisition and Property Management (PAM) to coordinate that effort.

OIG Comment: Based on the responses received, we consider Recommendation 5 unresolved for the NPS and resolved but not implemented for the FWS.

The NPS concurred with our recommendation but did not provide any explanation of additional steps it intended to take to address the concerns articulated in this report. Moreover, we believe that even the NPS' description of available authorities understates the options that it could use.

The NPS stated that, when the President declares an emergency, certain procurement flexibilities are allowed under FAR part 18, which the NPS stated primarily pertain to significant increases in the micropurchase and simplified acquisition thresholds. We note, however, that there are many other available contracting flexibilities within FAR part 18, including the use of letter contracts, oral requests for proposals, sole-source procurements, retroactive contract modifications for overtime, etc. In addition, the NPS stated that procurement flexibilities under FAR part 18 are only available for a limited time. In fact, neither the FAR nor DOI policy contains any such time limit for use of FAR part 18. Instead, time limitations are imposed by PAM, which issues an acquisition policy after disasters invoking the increased micropurchase and simplified acquisition thresholds; PAM has chosen to include a 4-month time limit.

With respect to its own practices, the NPS stated that standard, non-emergency contracting flexibilities are available and used to the maximum extent possible and that the obligation of funds takes place within prescribed procurement timeframes. As set forth in the report itself, however, given the slow pace of NPS obligations and expenditures as of July 2019 (which the NPS does not dispute), we do not believe that these flexibilities had a significant impact on timeliness.

Finally, the NPS response did not specifically address methods by which timeliness could have been improved on the projects we cited or provide strategies for addressing the other issues we identified, including staffing challenges, lack of priorities, lack of milestones for projects, and a delay in appointing a project manager. The NPS recognized it could improve and stated that it is currently identifying areas for improvement, specifically the use of advance purchasing agreements for predicted supplies and services. The NPS, however, did not speak to how these agreements would affect the procurement process or how they could have affected the significant projects we mentioned in our finding. In short, although we commend the NPS for its effort to identify ways to improve

timeliness, the NPS response to date does not fully address our finding and recommendation.

For this recommendation to be resolved, the NPS should engage in a deeper and more rigorous analysis of emergency procurement processes to identify improvements that could be made to procurement planning or execution activities. Such improvements might include development of new documentation templates, standardization initiatives, staffing assessments, FAR part 18 training, development of an emergency contracting handbook, or pilot emergency contracting projects. In keeping with the FWS' comment, we encourage the NPS to work collaboratively with other bureaus and with PAM to identify areas for improvement, including potentially extending the period for using increased thresholds.

6. The NPS, FWS, and USGS develop and provide mandatory training to applicable contracting staff on emergency acquisitions and disaster contracting policies and procedures

NPS Response: The NPS concurred with the recommendation and stated that it had implemented the recommendation. It explained that it has initiated a policy requiring that a Regional Chief of Contracting ensure a contracting officer has taken prescribed incident procurement training courses prior to authorizing that contracting officer's deployment to an incident command team.

FWS Response: The FWS concurred with the recommendation, and the target date for completion is March 31, 2022. The FWS stated that it plans to develop and implement a mandatory "FWS Emergency Contracting" training program consisting of two existing Governmentwide courses—FEMA Incident Command System (ICS) 100: Introduction to the Incident Command System and FCN 400: Emergency Contracting Basic Course—in addition to a tailored FWS emergency contracting training that the FWS will develop. The FWS also explained that supplementary training will be delivered annually in preparation for hurricane, fire, and other anticipated seasonal risks.

The FWS stated that its tailored emergency contracting training may contain the following topics: review of common traits of incident action plans across the FWS and how contracting fits into those plans, review of the emergency resources in the *Contracting Officer's Handbook*, discussion of the different contracting flexibilities and procedures available in emergencies, how to find the most up-to-date regulations and policies for specific disaster authorities, and scenario-based exercises. The training will be updated annually, and its target audience will include all supervisory contracting staff, who will complete all three courses in the training program. Within 12 months after the initial training of supervisory staff, all remaining acquisition staff will receive the tailored FWS emergency contracting training. The FWS noted that if coordinated training is necessary between the FWS, the NPS, and the USGS, it would again look to PAM to coordinate the effort.

USGS Response: The USGS concurred with the recommendation, and the target date for completion is October 31, 2020. The USGS has added a training requirement for emergency acquisitions to its acquisition policy. All Office of Acquisition and Grants branches (National, Reston, Denver, and Sacramento) will send one staff member each to Contingency Contracting Corps training recommended by the Federal Acquisition Institute.

OIG Comment: Based on the responses received, we consider Recommendation 6 resolved but not implemented for the NPS, the FWS, and the USGS. We note specifically that, although the NPS stated that it had implemented the recommendation, the documentation provided only listed the training courses and did not confirm that contracting staff have taken the courses.

7. The OEM develop and disseminate a plan for obtaining interbureau resources that includes explaining interbureau memoranda of understanding and identifying and classifying available resources and guidance on how to add available resources into the ordering system

OEM Response: The OEM partially concurred with the recommendation to develop and disseminate a plan, noting that its 2018 hurricane after-action report included a recommendation addressing the issue we identified in this report. On June 27, 2019, the DOI issued the Master Agreement for Interagency Support During Emergency Incidents, signed by all the bureaus and offices with a role in incident management. The DOI also issued an accompanying *Master Agreement Operating Guide* that includes guidance and templates for resource requests and financial documentation. The OEM believes that these two documents address the first half of our recommendation.

The OEM did not concur with the part of the recommendation addressing policy and guidance. Instead, the OEM stated that it believes that existing policy and guidance tell bureaus how to identify and classify available resources and how to add available resources to the resource ordering system. The OEM noted that EMPB 2011-1, "Department of Interior All Hazards Incident Staffing," provides a framework for managing incident staffing for all non-fire incidents and establishes qualification parameters for positions, training requirements for responders, and procedures for dispatch and mobilization. The OEM also stated that the DOI maintains an *Incident Positions Qualifications Guide* (last updated in August 2018) that outlines specific position training and qualification requirements for incident management. The OEM chairs a subcommittee of the DOI Emergency Management Council for all hazard incident management, which manages the qualifications system and establishes new positions as emergency incidents dictate. The OEM acknowledged that the strategies for implementation of these policies and systems vary across bureaus and offices and that there are ongoing challenges with the resource identification and ordering process. The OEM expressed the belief, however, that this is not due to an absence of policies and guidance. Therefore, the OEM did not concur with the second half of our recommendation.

OIG Comment: Based on the OEM response, we consider Recommendation 7 resolved and implemented because the OEM took action by executing a new master agreement and sharing it with the bureaus to disseminate the information throughout their organizations.

Appendix 1: Scope and Methodology

Scope

We performed an inspection of the U.S. Department of the Interior's (DOI's) natural disaster preparedness from July 2018 to July 2019. We focused or work on the U.S. Fish and Wildlife Service (FWS), National Park Service (NPS), and U.S. Geological Survey (USGS) and their efforts to respond to and recover from the consequences of Hurricanes Harvey, Irma, and Maria. We chose these three bureaus because they received the most supplemental funds from the U.S. Congress. We did not examine the NPS Historic Preservation Office's recovery efforts because it owned no physical facilities or Federal lands and its funds pass through directly to State preservation offices. We performed our inspection in Florida, the Caribbean, and Texas. We also performed work in our offices in Herndon, VA, and Lakewood, CO.

Methodology

We conducted our inspection in accordance with the Quality Standards for Inspection and Evaluation as put forth by the Council of the Inspectors General on Integrity and Efficiency. We believe the work performed provides a reasonable basis for our conclusions and recommendations.

To accomplish our inspection objective, we:

- Interviewed NPS Park Superintendents and FWS Refuge Managers; NPS, FWS, and USGS incident commanders; and Office of Emergency Management officials
- Interviewed NPS, FWS, and USGS contract officials and NPS, FWS, and USGS senior management responsible for funds provided under Pub. L. No. 115-123, Bipartisan Budget Act of 2018
- Reviewed the NPS and FWS natural disaster plans
- Reviewed Pub. L. No. 115-123, Federal regulations, and DOI policies and procedures
- Conducted site visits to Everglades National Park, Merritt Island National Wildlife Refuge (NWR), Padre Island National Seashore, Aransas NWR, the El Yunque and Maricao bird sanctuaries on Puerto Rico, and the Virgin Islands National Park
- Analyzed obligation and expenditure data for the NPS, the NPS Historic Preservation, the FWS, and the USGS

To assess the reliability of the data on obligations and expenditures, we (1) interviewed the DOI officials who are responsible for compiling the data, and (2) performed some basic reasonableness

checks of the data against other sources of information. We determined that the data were sufficiently reliable for the purpose of reporting total obligations and expenditures over time.

Appendix 2: Status of Recommendations

In the table below, we have broken out Recommendations 5 and 6 by bureau to show differences in status for each bureau.

Recommendation	Status	Action Required
7	Resolved and implemented	No action is required.
1, 2, 3, 4, 5–FWS, 6–FWS, 6–NPS, and 6–USGS	Resolved but not implemented	We will refer these recommendations to the Assistant Secretary for Policy, Management and Budget for implementation tracking.
5–NPS	Unresolved	We will refer this recommendation to the Assistant Secretary for Policy, Management, and Budget for resolution.

Abbreviations:
FWS = U.S. Fish and Wildlife Service
NPS = National Park Service
USGS = U.S. Geological Survey

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