



Testimony

Before the Subcommittee on
Oversight and Investigations and
the Subcommittee on Federal Lands,
Committee on Natural Resources,
House of Representatives

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DEFERRED MAINTENANCE

Agencies' Project Selection and Challenges

Statement of Cardell D. Johnson, Director,
Natural Resources and Environment

January 10, 2024

Chairmen Gosar and Tiffany, Ranking Members Neguse and Stansbury,
and Members of the Subcommittees:

Thank you for the opportunity to discuss our work on deferred maintenance and the National Parks and Public Land Legacy Restoration Fund (LRF). The federal government manages public lands and other assets such as buildings and roads that require billions of dollars to maintain and operate annually. The land management agencies—Bureau of Land Management (BLM), U.S. Forest Service, Fish and Wildlife Service (FWS), and National Park Service (NPS)—and the Bureau of Indian Education (BIE) carry out this work.¹ These agencies have reported tens of billions of dollars in deferred maintenance—maintenance and repairs to assets that were not performed when they should have been, or were scheduled and then delayed.

As we and others have reported, deferred maintenance can have negative consequences, including limiting the agencies' ability to carry out their missions and reducing assets' value and lifespan.² Properly maintaining our public lands and their supporting infrastructure helps ensure that recreational areas are available for the public to enjoy. In 2020, the Great American Outdoors Act established, among other things, the LRF to provide additional funding to address deferred maintenance during fiscal years 2021 through 2025.³

Our January 2024 report and my statement today describe (1) how the amounts and compositions of deferred maintenance at each of the five agencies changed from fiscal year 2019 through 2022; (2) how these agencies selected projects for LRF funding and the extent to which the selection approaches followed leading practices for managing deferred maintenance; and (3) challenges the agencies reported facing in reducing

¹The Department of the Interior oversees three of the four land management agencies that receive funding from the LRF—BLM, FWS, and NPS—as well as BIE. The U.S. Department of Agriculture oversees the Forest Service, the remaining land management agency.

²GAO, *Federal Real Property: Agencies Attribute Substantial Increases in Reported Deferred Maintenance to Multiple Factors*, [GAO-23-106124](#) (Washington, D.C.: Oct. 28, 2022).

³Pub. L. No. 116-152, § 2(a), 134 Stat. 682, 682-685 (2020) (codified at 54 U.S.C. §§ 200401-200402).

deferred maintenance and how the LRF program design helps to address some challenges.⁴

For our January 2024 report, we analyzed agency data on deferred maintenance per year and per agency for fiscal years 2019 through 2022, the most recent year available at the time of our report.⁵ We determined that the data were sufficiently reliable for the purpose of describing general trends in the agencies' recorded deferred maintenance. We also reviewed agency documentation and interviewed agency officials about how their agencies prioritized LRF projects. We compared information about agency efforts with six leading practices derived from research by the National Research Council, which we identified in January 2014.⁶ These practices are recognized as effective strategies for managing deferred maintenance. Our January 2024 report provides a more detailed description of our methodology. Our work was performed in accordance with generally accepted government auditing standards.

⁴GAO, *Deferred Maintenance: Agencies Generally Followed Leading Practices in Selections but Faced Challenges*, [GAO-24-106495](#) (Washington, D.C.: Jan. 8, 2024).

⁵Departments report department-wide deferred maintenance through their annual financial reports. However, we used data from agency asset management databases in our January 2024 report and this statement because these data allowed us to report on individual agencies' deferred maintenance.

⁶GAO, *Federal Real Property: Improved Transparency Could Help Efforts to Manage Agencies' Maintenance and Repair Backlogs*, [GAO-14-188](#) (Washington, D.C.: Jan. 23, 2014).

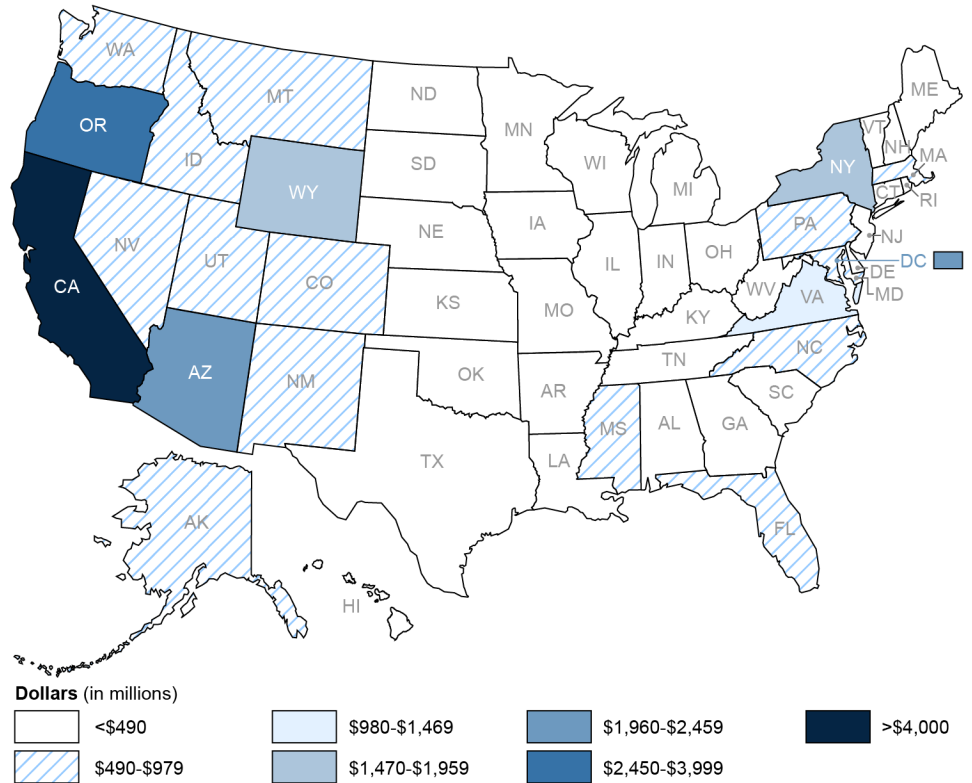
Reported Deferred Maintenance Increased for the Agencies, in Part Due to Changes in Approaches for Estimation

Reported deferred maintenance increased for all five agencies from fiscal year 2019 through 2022, according to our analysis of agency data.⁷ NPS and BLM had the largest increases, while BIE, Forest Service, and FWS experienced smaller increases.

Different types of assets accounted for the bulk of each agency's deferred maintenance in fiscal year 2022. Roads and other transportation assets accounted for most deferred maintenance for BLM and Forest Service. Schools accounted for most deferred maintenance for BIE; recreational and visitor experience assets for NPS; and water infrastructure and utilities for FWS. The most deferred maintenance was in California, Oregon, and Arizona in fiscal year 2022, according to our analysis (see fig. 1).

⁷This is consistent with government-wide increases in deferred maintenance over the past 5 years. [GAO-23-106124](#).

Figure 1: Total Reported Deferred Maintenance for All Five Agencies, by State, Fiscal Year 2022



Sources: GAO analysis of Department of the Interior and Forest Service data; Map Resources (map). | GAO-24-107234

Note: We totaled deferred maintenance reported by the Bureau of Land Management, U.S. Forest Service, Fish and Wildlife Service, National Park Service, and Bureau of Indian Education. Forest Service does not record precise location information for deferred maintenance on roads or trails. We included data on Forest Service roads approximated by multiplying a national average deferred maintenance per mile by the number of miles of road in each state.

Agency officials at NPS and BLM attributed some of their increases to changes in data management.⁸

- **NPS.** NPS changed its approach to determining total deferred maintenance in fiscal year 2022. Specifically, it began using a modeling method for non-transportation assets.⁹ This change allowed NPS to more consistently develop and track deferred maintenance data for these assets in its data system, according to NPS officials. Additionally, in fiscal year 2021, NPS added a 35 percent markup to deferred maintenance estimates for non-transportation assets to account for project execution costs, such as design, construction management, and compliance. NPS's previous assessment methodology only considered construction costs.
- **BLM.** Starting in 2018, BLM began implementing a modeling methodology for assessing deferred maintenance on roads. Under its previous method, BLM did not have the resources to perform all the required assessments and corresponding data entry, and many assessments were not completed. Therefore, condition data were inaccurate, according to BLM officials.

Agency officials also said deferred maintenance increased in part because inflation drove up costs to address deferred maintenance. From October 2019 through September 2023, the construction material price index increased 42 percent, according to our analysis of Federal Reserve data.

Additionally, agency officials said increases were due in part to agency staff putting in more effort to log all deferred maintenance because of the increased funding available from the LRF. The officials told us that when funding was limited, there was not an emphasis on logging complete data on all deferred maintenance needs because so much of it would not be funded. As a result, they did not dedicate many resources to inputting data. The LRF's creation led the agencies to reevaluate their asset

⁸BIE's, FWS's, and Forest Service's deferred maintenance did not increase significantly over this same period. Forest Service officials said they are in the process of changing the way the agency calculates deferred maintenance for roads by increasing the miles of road sampled and moving toward looking at 3 years of data. However, Forest Service officials stated these changes did not play a role in changes to the agency's deferred maintenance.

⁹Deferred maintenance estimates for the agency's transportation assets are based on assessments and modeling conducted by the Federal Highway Administration, according to NPS officials.

management approach and fostered a cultural change toward maintaining better data on deferred maintenance, according to agency officials.

Interior and some of its agencies recently took some action to address issues with how the agencies managed their deferred maintenance data. In particular, Interior had incomplete and inaccurate data on deferred maintenance for BIE and FWS for fiscal years 2019 and 2020. However, the agencies have implemented additional quality control measures, such as hiring a new employee to ensure they have adequate oversight and quality control over future reporting and implementing quarterly review of the data to prevent future errors.

Additionally, Interior agencies previously used different interpretations for the definition of deferred maintenance. Interior established a comprehensive policy in August 2023 that standardized a definition for deferred maintenance for its agencies to use. This policy will help ensure Interior has more complete and accurate information on deferred maintenance to guide its resource allocation decisions, according to our analysis of the policy.

Agencies' Processes to Select Deferred Maintenance Projects for LRF Funding Generally Followed Leading Practices

All five agencies generally considered similar factors in their processes for selecting LRF projects.¹⁰ For example:

- **Amount of deferred maintenance addressed.** All five agencies' processes for selecting LRF projects included considering projects that addressed the most deferred maintenance possible, according to agency documentation and interviews with agency officials. The four land management agencies set quantifiable objectives related to the amount of deferred maintenance that a project addressed. For example, Forest Service aimed to reduce deferred maintenance by 75 cents for every LRF dollar spent, and BLM by at least one dollar for every LRF dollar spent.¹¹

¹⁰Interior's agencies prioritized some of these factors based on a department-wide plan that established high-level goals and objectives for the LRF investment strategy. For more information see U.S. Department of the Interior, *Great American Outdoors Act National Parks and Public Land Legacy Restoration Fund Strategic Plan* (Oct. 21, 2022).

¹¹Some projects may address a lower amount of deferred maintenance than the actual cost of the project. For example, deferred maintenance estimates may not include some project development costs such as those related to environmental approvals, planning requirements, or design costs. See our January 2024 report for more information. [GAO-24-106495](#).

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- **Cost and scope of project.** All five agencies' processes to select projects considered prioritizing projects with high costs and large scopes. Such large projects were generally too costly to fund using annual appropriations. For example, BIE had a project in 2021 to consolidate education programs housed in multiple buildings into a single facility at a high school in the Navajo Nation. The project cost estimate was approximately \$70.9 million, which would have amounted to most of the agency's annual non-LRF funding of \$95.3 million for facility improvement and repair in fiscal year 2021.¹² Projects that have large scopes may be more cost-effective because they may reduce overhead costs, such as contract administration. These large projects can also create longer term improvements by thoroughly addressing maintenance issues rather than performing minimal work that will then need additional maintenance soon thereafter, according to agency officials.

Agencies also considered relevance to core mission, visitation to site, and speed of implementation. See our January 2024 report for further discussion of these factors.¹³

Our review of the agencies' processes for selecting LRF projects also found that they generally followed all six of the selected leading practices for managing deferred maintenance.¹⁴ For example:

- **Identify the primary methods to be used for delivering maintenance and repair activities.** The agencies generally have multiple methods available to address their deferred maintenance activities while implementing LRF projects. These methods were identified in agency documentation and included using outside

¹²BIE's fiscal year 2021 education construction appropriation was approximately \$264.3 million. The explanatory statement accompanying the appropriations act directed approximately \$95.3 million of that appropriation for facility improvement and repair. Pub. L. No. 116-260, 134 Stat. 1182, 1493 (2020); 166 Cong. Rec. H8311, H8536 (Dec. 21, 2020).

¹³[GAO-24-106495](#).

¹⁴In January 2014, we identified leading practices, derived from the National Research Council, for effective strategies for managing deferred maintenance. For more information on our methodology for developing these leading practices, see GAO, *Federal Real Property: Improved Transparency Could Help Efforts to Manage Agencies' Maintenance and Repair Backlogs*, [GAO-14-188](#) (Washington, D.C.: Jan. 23, 2014). Our January 2024 report contains more information on the leading practices and how agency actions followed those practices.

contractors, partnerships, flexible contract vehicles, and internal maintenance staff to conduct maintenance activities.

- **Identify the types of risks posed by lack of timely investment.** Agencies' processes to select LRF projects identified risks of not addressing deferred maintenance in a timely manner. For example, they selected LRF projects that addressed identified risks such as threats to health and safety, which are prioritized as part of the agencies' core missions. For example, as part of its weighted evaluation process for project selection BLM considered whether a project would address safety issues.
- **Identify types of facilities or specific buildings (i.e., assets) that are mission critical and mission supportive.** Agencies' processes to select LRF projects included identifying assets that are mission critical and generally prioritizing projects that address deferred maintenance for these assets. For example, according to Forest Service documentation, the agency's process assesses, selects, and approves potential decommissioning projects based on standardized factors, including how critical the asset is to the agency's mission.

Agencies Reported Facing Several Challenges to Reducing Deferred Maintenance, and the LRF Program Design Helps to Address Certain Challenges

Officials from the five agencies reported facing several challenges to reducing deferred maintenance. For example, agencies face challenges related to construction supply chain issues and inflation, according to officials at all five agencies. Recently, due to COVID-19, a shortage of materials necessary for construction has contributed to project delays and higher-than-expected construction bids. Remote project locations, extreme weather conditions, and limited contractor capacity and competition have also made it difficult to address deferred maintenance needs, according to agency officials.

In addition to general challenges related to reducing deferred maintenance, agencies also face challenges specifically related to the LRF. According to officials at the four land management agencies, the short-term nature of the LRF can create challenges with hiring. The LRF is designed as a 5-year program through 2025; however, construction projects to address deferred maintenance may take longer. Therefore, agencies could face difficult decisions on whether to hire (1) an employee to serve a 5-year term that might end during the project, or (2) a permanent employee they might not be able to justify in their budgets after the LRF funding ends.

However, some aspects of the LRF program design have helped with challenges related to project uncertainty and inflation. For example:

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- Agency officials told us having the LRF funding specified for 5 years allows them to know in advance that they will have steady funding, compared with having less predictable surges of annual funding. As a result, agencies can plan better for the coming years, according to agency officials.
 - The LRF funding does not expire or need to be spent in a particular time frame. This assists agencies because projects generally take place over a long time frame.
 - The agencies' ability to use the LRF funds to maintain, train, and expand internal maintenance teams have helped NPS and FWS tackle smaller projects more quickly and at a lower cost than through contracted work, according to agency documents.

Another benefit of the LRF's program design is the inclusion of contingency funds. Since fiscal year 2022, the explanatory statements accompanying the five agencies' annual appropriations acts have included an amount for contingency funds for each agency.¹⁵ The agencies can use these contingency funds for any project funded by the LRF that experienced a funding deficiency due to unforeseen cost overruns if certain requirements are met.¹⁶ These contingency funds allow agencies more flexibility to deal with inflation and other challenges and address deferred maintenance, according to agency officials.

In closing, while facing some challenges in managing deferred maintenance, the five agencies have generally followed leading practices for doing so. In addition, the LRF has resulted in benefits. For example, the additional funding from the LRF has helped foster a cultural change toward maintaining better data on deferred maintenance. Continued attention to these issues will position agencies to more effectively

¹⁵See Pub. L. No. 117-103, div. G, tit. IV, § 431(c), 136 Stat. 49, 417-18; 168 Cong. Rec. H2477, H2538 (Mar. 9, 2022); Pub. L. No. 117-328, div. G, tit. IV, § 431(c), 136 Stat. 4459, 4828-29 (2022); 168 Cong. Rec. S8553, S8716-S8717 (Dec. 20, 2022).¹⁶For example, the contingency funds may only be used if there is a risk to project completion resulting from unforeseen cost overruns. In addition, the contingency funds can only be used for costs of adjustments and changes within the original scope of effort for projects funded by the LRF. Pub. L. No. 117-103, div. G, tit. IV, § 431(c)(1), (2), 136 Stat. 49, 417-18; Pub. L. No. 117-328, div. G, tit. IV, § 431(c)(1), (2), 136 Stat. 4459, 4828-29 (2022).

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communicate resource needs. It will also help provide Congress and the public with a clear picture of the anticipated costs to address deferred maintenance in the future and support critical government functions.

Further, the LRF funding has allowed the agencies to tackle projects too large to address using annual appropriations. NPS and FWS used the funding for internal maintenance teams to tackle small projects more quickly and at a lower cost than through contracted work. The LRF's 5-year term can create challenges with hiring employees to assist in construction projects that might take longer than 5 years. However, the LRF funds do not expire, which can help with these long projects. Contingency funds have also helped agencies adjust quickly to unforeseen cost overruns and deal with challenges, such as inflation.

Chairmen Gosar and Tiffany, Ranking Members Neguse and Stansbury, and Members of the Subcommittees, this completes my prepared statement. I would be pleased to respond to any questions that you may have at this time.

GAO Contact and Staff Acknowledgments

If you or your staff have any questions about this testimony, please contact Cardell D. Johnson, Director, Natural Resources and Environment, at (202) 512-3841 or JohnsonCD1@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement.

GAO staff who made key contributions to this testimony are Elizabeth Erdmann (Assistant Director), Jaci Evans (Analyst in Charge), Serena Lo, Drew Parent, Dan Royer, Caitlin Scoville, Jeanette Soares, and Sara Sullivan.

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