



November 2023

FEDERAL REAL PROPERTY

Agencies Should
Provide More
Information about
Increases in Deferred
Maintenance and
Repair

Why GAO Did This Study

The federal government owns a massive portfolio of civilian buildings and structures (roads, bridges, dams, and monuments). DM&R on these assets can affect agencies' abilities to support their missions.

GAO was asked to review selected federal agencies' management of their DM&R. This report examines: (1) how the agencies' DM&R estimates changed from fiscal years 2017 through 2022, and reasons for changes; (2) the extent to which the agencies communicated DM&R needs to Congress and the public; and (3) the extent to which the agencies' prioritization policies align with leading practices for managing DM&R. GAO selected four agencies—DOE, HHS, DOI, and GSA—based on reported DM&R amounts, among other factors. GAO analyzed these agencies' DM&R and funding data for fiscal years 2017-2022. GAO reviewed the agencies' budget and financial materials to determine what DM&R information they communicated. GAO reviewed the agencies' policies on prioritizing DM&R and compared them to leading practices. In addition, GAO interviewed agency officials and conducted site visits at selected agency locations.

What GAO Recommends

GAO is making 12 recommendations, including 11 to DOE, DOI, HHS, and GSA that they provide more information on their DM&R estimates and fully follow leading practices. GAO is also recommending that OMB instruct federal agencies on communicating DM&R needs. DOI, HHS, and GSA concurred with GAO's recommendations. DOE and OMB neither agreed nor disagreed.

View [GAO-24-105485](#). For more information, contact Andrew Von Ah at (202) 512-2834 or vonaha@gao.gov.

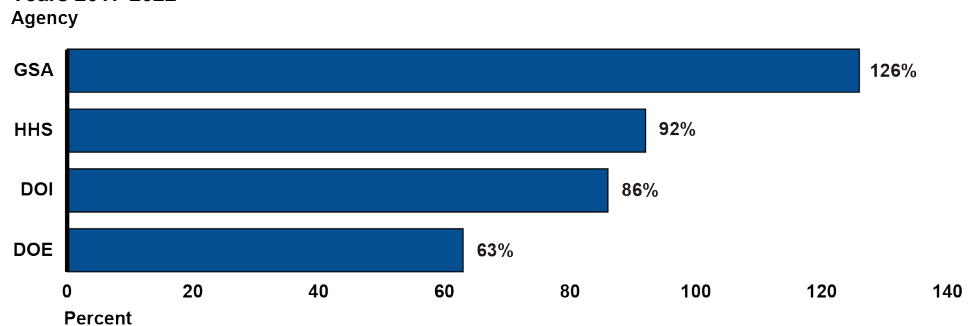
FEDERAL REAL PROPERTY

Agencies Should Provide More Information about Increases in Deferred Maintenance and Repair

What GAO Found

Estimates for deferred maintenance and repair (DM&R) increased about \$22 billion (83 percent) from fiscal years 2017 through 2022 for selected agencies—Department of Energy (DOE), Department of Health and Human Services (HHS), Department of the Interior (DOI), and General Services Administration (GSA). Agency officials attributed these increases—which ranged from 63 to 126 percent—to factors including funding constraints, labor and material cost increases, and the size and age of agencies' real property portfolios.

Percent Changes in Agencies' Estimated Deferred Maintenance and Repair Backlogs, Fiscal Years 2017-2022



Source: GAO analysis of Department of Energy (DOE), Department of the Interior (DOI), General Services Administration (GSA), and Department of Health and Human Services (HHS) Annual Financial Reports. | [GAO-24-105485](#)

The selected agencies communicate DM&R needs, along with some contextual information, to Congress and public in their budget materials and other documents. However, GAO found that the agencies could provide more information in three areas: (1) reasons for changes in DM&R estimates, (2) categories of assets included in and excluded from backlog estimates, and (3) extent of DM&R needed to support agencies' missions. For example, HHS, GSA, and DOI did not explain that the methodologies they used to estimate DM&R—or changes to those methodologies—had contributed to annual increases of up to 40 percent. Providing such information could help Congress and the public better assess the costs and funding needs associated with agencies' DM&R backlogs.

GAO found that the agencies' policies for prioritizing DM&R followed most—but not all—of five leading practices for managing DM&R. Specifically, the policies followed practices on (1) establishing maintenance and repair objectives and prioritizing outcomes, (2) identifying types of facilities that support missions, and (3) aligning portfolios with mission needs. For the practice of identifying funding in budget materials, GAO found that the agencies' materials provided information on funding for planned maintenance but not on funding or timeframes for addressing the backlog of deferred maintenance and repair. Providing such information could help decision makers better evaluate agencies' budget requests. For the practice of using models to predict investment outcomes, analyze tradeoffs, and optimize among competing investments, GAO found that agencies employed such models to varying extents. Agencies raised some concerns with the use of certain models. However, assessing the potential benefits of using models could better position them to identify investment options that would provide the greatest return on investment given budget constraints.

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Abbreviations

DM&R	Deferred Maintenance and Repair
DOE	Department of Energy
DOI	Department of the Interior
FASAB	Federal Accounting Standards Advisory Board
GSA	General Services Administration
HHS	Department of Health and Human Services
OMB	Office of Management and Budget
SFFAS	Statement of Federal Financial Accounting Standards

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November 16, 2023

The Honorable Gary C. Peters
Chairman
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Sam Graves
Chairman
The Honorable Rick Larsen
Ranking Member
Committee on Transportation and Infrastructure
House of Representatives

The federal government owns a massive portfolio of civilian buildings and structures—such as roads, bridges, dams, and monuments—that costs billions of dollars to operate and maintain annually. Federal agencies face challenges in managing their portfolios and may postpone or “defer” maintenance and repairs. Over time, the failure to keep up with needed repairs reflected by this backlog can affect agencies’ abilities to carry out their missions as well as decrease the quality or reliability of services through unplanned interruptions to facility systems and components. Deferring maintenance can also worsen the condition of agencies’ assets and lead to premature replacement, which can be significantly more costly than the cost of repairs had they not been delayed.

In recent years, agencies have reported increasing amounts of deferred maintenance and repair (DM&R), and we and others have identified continuing issues with how agencies report on and manage their backlogs.¹ As we have reported, this increase in reported DM&R makes it important to understand how agencies’ methods of managing and

¹GAO, *Federal Real Property: Agencies Attribute Substantial Increases in Reported Deferred Maintenance to Multiple Factors*, [GAO-23-106124](#) (Washington, D.C.: Oct. 28, 2022). Also see, e.g., GAO, *Overseas Real Property: Prioritizing Key Assets and Developing a Plan Could Help State Manage Its Estimated \$3 Billion Maintenance Backlog*, [GAO-21-497](#) (Washington, D.C.: Sept. 15, 2021); GAO, *Coast Guard Shore Infrastructure: Applying Leading Practices Could Help Better Manage Project Backlogs of At Least \$2.6 Billion*, [GAO-19-82](#) (Washington, D.C.: Feb. 21, 2019); Office of Inspector General, U.S. General Services Administration, *Audit of the Public Buildings Service’s Effectiveness in Managing Deferred Maintenance*, Report Number A190066/P/2/R21009 (Washington, D.C.: Sept. 30, 2021); Office of Inspector General, U.S. Department of Agriculture, *Forest Service Deferred Maintenance*, Report Number 08601-0004-31 (Washington, D.C.: May 22, 2017).

reporting DM&R affect their estimates of maintenance and repair needs and the fiscal exposure DM&R presents to the federal government.²

You asked us to review agencies' management of their DM&R. This report expands on work we issued in October 2022 on how reported DM&R estimates for federal civilian agencies changed from fiscal years 2017 through 2021, and factors affecting those changes.³

This report also examines:

- The extent to which selected agencies communicated estimated deferred maintenance and repair needs to Congress and the public; and
- The extent to which selected agencies' prioritization policies align with leading practices for managing deferred maintenance and repair.

To address these objectives, we selected four agencies to review—the Department of Energy (DOE), the Department of Health and Human Services (HHS), the Department of the Interior (DOI), and the General Services Administration (GSA)—based on DM&R and asset data reported in annual financial reports and the Federal Real Property Profile Management System database.⁴ We selected these agencies based on the following factors: (1) their total amount of reported DM&R; (2) the estimated replacement value of their portfolios of buildings, land, and structures; (3) to include a range of asset types (e.g., numbers of buildings and structures) and asset uses (e.g., office buildings, hospitals, laboratories, industrial, power generation, or flood control); and (4) whether recent GAO or other work had addressed the agencies' asset

²[GAO-23-106124](#). "Fiscal exposures" are responsibilities, programs, and activities that may either legally commit the federal government to future spending or create the expectation for future spending. GAO, *Fiscal Exposures: Improving Cost Recognition in the Federal Budget*, [GAO-14-28](#) (Washington, D.C.: Oct. 29, 2013).

³[GAO-23-106124](#).

⁴The Federal Real Property Profile Management System is a database managed by the General Services Administration of real property under the control of federal executive branch agencies. Deferred maintenance and repairs as defined by federal accounting standards differ from "repair needs" data reported to the Federal Real Property Profile Management System. The Federal Real Property Profile Management System defines "repair needs" as the non-recurring costs that reflect the amount necessary to ensure that a constructed asset is restored to a condition substantially equivalent to the originally intended and designed capacity, efficiency, or capability. Repair needs includes deferred maintenance.

management practices.⁵ We focused on civilian agencies due to recent GAO work on Department of Defense DM&R.⁶ Using Federal Real Property Profile Management System data, we then identified one component each from DOI, HHS, and DOE for closer review: DOI's Bureau of Reclamation, HHS's Indian Health Service, and Brookhaven National Laboratory within DOE's Office of Science. We reviewed data from agency financial reports and the Federal Real Property Profile Management System and determined they were sufficiently reliable for purposes of selecting agencies. We interviewed officials and reviewed documents from each of these agencies and conducted visits at selected locations at each agency. In addition, we reviewed prior GAO and inspector general's reports about federal agencies' management of DM&R.

To describe how reported DM&R estimates for federal civilian agencies have changed from fiscal years 2017 through 2022, we analyzed trends in civilian agency DM&R data (excluding the Department of Defense) as reported in their annual financial reports. To provide context for funding challenges related to the DM&R backlog described by agency officials, we requested and reviewed funding data from each agency for the same time period. We adjusted the funding data for inflation using data from the U.S. Bureau of Economic Analysis, and used Federal Real Property Profile Management System data to provide additional information on the sizes and ages of selected agencies' real property portfolios.⁷ To assess the reliability of the reported DM&R, Federal Real Property Profile Management System, and funding data, we interviewed agency officials responsible for maintaining the data, reviewed related documentation, and—for DM&R data included in annual financial reports—reviewed our prior work looking at the quality of the data. We determined that these data were sufficiently reliable for purposes of reporting broad trends in

⁵Replacement value is the cost required to design, acquire, and construct an asset to replace an existing asset of the same functionality, size, and in the same location using current costs, building codes, and standards.

⁶GAO, *Defense Infrastructure: DOD Should Better Manage Risks Posed by Deferred Facility Maintenance*, [GAO-22-104481](#) (Washington, D.C.: Jan. 31, 2022).

⁷For inflation data, we used Bureau of Economic Analysis National Income and Product Accounts structures data, which is based on non-residential structures. These data include improvements, certain types of equipment such as plumbing, heating, and electrical systems, as well as other related costs.

and contextual information about agencies' reported data.⁸ We also interviewed officials at our selected agencies about the trends in their reported DM&R and funding they received for maintenance.

To determine the extent to which selected agencies communicated estimated DM&R needs to Congress and the public, we reviewed their financial reports and other budget and financial documents. We interviewed officials at the selected agencies regarding the information they report about their DM&R backlogs. We also reviewed relevant guidance and standards on information agencies could communicate to Congress and the public when reporting DM&R. In particular, we examined the Federal Accounting Standards Advisory Board's (FASAB) Statement of Federal Financial Accounting Standards (SFFAS) 42, which describes information to be included in publicly available financial reports. We also examined the Office of Management and Budget's (OMB) Circular A-136 on financial reporting requirements and other budget and financial information provided to agencies by OMB.⁹ We compared agencies' communication of their DM&R needs to our prior work on communication regarding transparency of federal budget information and fiscal exposures faced by the federal government.¹⁰

To determine the extent to which selected agencies' prioritization policies and budget justifications aligned with leading practices for managing

⁸Although we found that the Federal Real Property Profile Management System data were sufficiently reliable for purposes of providing limited contextual information on the sizes and ages of agencies' real property portfolios, we have previously reported on long-standing challenges related to these data. See, e.g., GAO, *Federal Real Property: GSA Should Improve Accuracy, Completeness, and Usefulness of Public Data*, [GAO-20-135](#) (Washington, D.C.: Feb. 6, 2020). In this review, we continued to find issues with the data that limited our use of the data for other purposes, including one agency that reported the same data in fiscal years 2019 and 2020; multiple agencies that reported data with median condition indexes of 100, despite Federal Real Property Profile Management System guidance stating that it is unlikely that fifty percent of an agency's assets would have a condition index of 100, since that would indicate newly constructed assets with no repair needs; and entries in some fields that were missing or outside of a reasonable range.

⁹FASAB, *SFFAS 42: Deferred Maintenance and Repairs: Amending Statements of Federal Financial Accounting Standards 6, 14, 29 and 32* (Washington, D.C.: April 25, 2012); Office of Management and Budget, *Circular A-136: Financial Reporting Requirements* (Washington, D.C.: May 19, 2023).

¹⁰[GAO-14-28](#); GAO, *Fiscal Exposures: Improving the Budgetary Focus on Long-Term Costs and Uncertainties*, [GAO-03-213](#) (Washington, D.C.: Jan. 24, 2003); GAO, *Modernizing the Nuclear Security Enterprise: NNSA Increased Its Budget Estimates, but Estimates for Key Stockpile and Infrastructure Programs Need Improvement*, [GAO-15-499](#) (Washington, D.C.: Aug. 6, 2015).

DM&R, we compared the policies and justifications to leading practices we identified in prior work.¹¹ For our evaluation, we selected five of these nine leading practices we determined were related most closely to agencies' prioritization of projects.¹² We requested documentation and interviewed cognizant officials about their prioritization methods. On the basis of the documentation and interview responses, we determined whether each agency's policies and budget justifications (1) followed each leading practice by incorporating all aspects, (2) partially followed it by incorporating some but not all aspects, or (3) did not follow it by not incorporating any aspects.

We conducted this performance audit from October 2021 to November 2023 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Agencies that hold real property are generally responsible for the cost of maintaining and repairing their real property assets, which include

¹¹GAO, *Federal Real Property: Improved Transparency Could Help Efforts to Manage Agencies' Maintenance and Repair Backlogs*, [GAO-14-188](#) (Washington, D.C.: Jan. 23, 2014); [GAO-19-82](#); [GAO-21-497](#).

¹²These nine leading practices were identified in [GAO-14-188](#) and based on more than 15 years of research conducted by the National Research Council on federal facilities to include the subject of their maintenance and repair and their DM&R backlogs. See, e.g., National Research Council, *Predicting Outcomes from Investments in Maintenance and Repair of Federal Facilities* (Washington, D.C.: The National Academies Press: 2012). We have previously applied these practices in our work across a number of different federal agencies. See [GAO-14-188](#); [GAO-19-82](#); and [GAO-21-497](#). To answer our researchable objective, which focused more specifically on how agencies prioritize DM&R projects, we selected five of these nine leading practices that relate most closely to prioritization strategies for managing DM&R backlogs. The other four leading practices were: (1) conduct condition assessments as a basis for establishing appropriate levels of funding required to reduce, if not eliminate, any deferred maintenance and repair backlog; (2) establish performance goals, baselines for outcomes, and performance measures; (3) identify the primary methods to be used for delivering maintenance and repair activities; and (4) identify the types of risks posed by lack of timely investment. We did not select these practices because we did not consider them to be as closely related to agencies' processes for prioritizing maintenance projects and communicating the results.

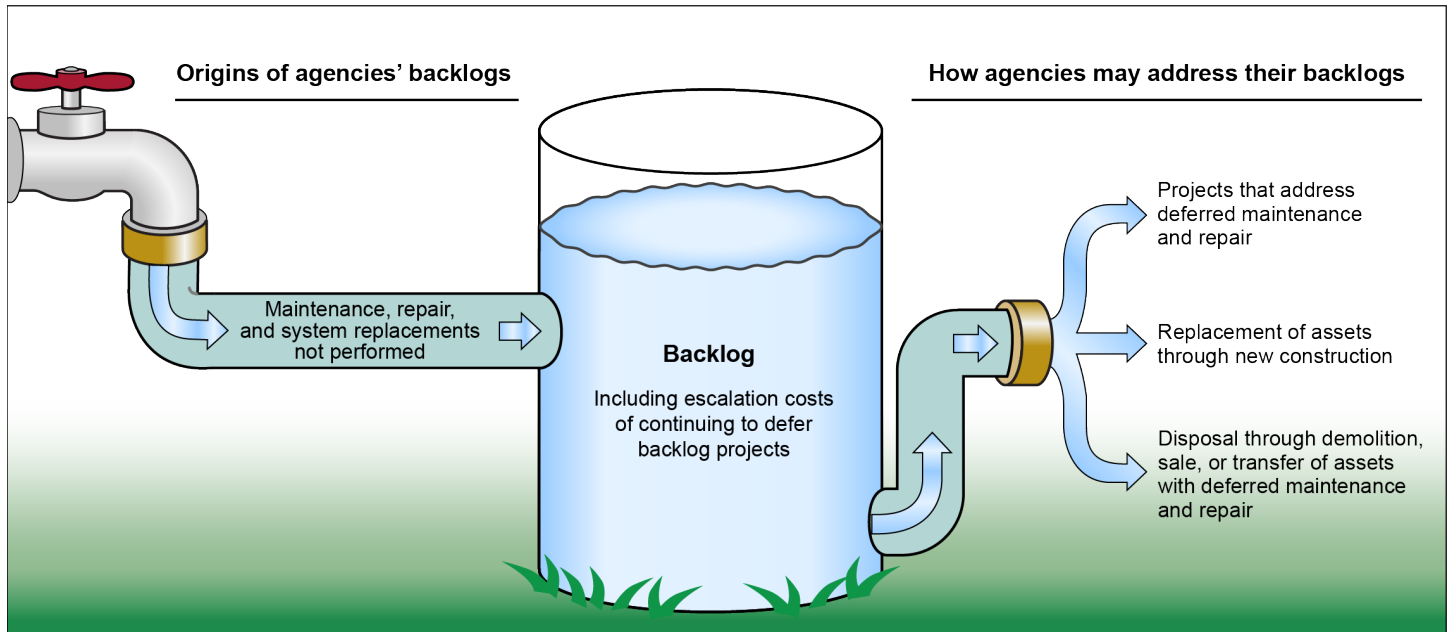
buildings and structures.¹³ Buildings and structures and their component systems (e.g., structural, electrical, heating, air conditioning, and other systems) have finite, expected useful lives. These systems should be maintained and repaired during their useful lives, after which they can be reasonably expected to need replacement. Delaying or deferring routine maintenance and repairs may, in the short term, diminish the performance of these systems and, in the long term, shorten their useful lives. As we have previously reported, deferring needed maintenance and repair can ultimately result in significantly higher maintenance, repair, and operating costs, or premature replacement.¹⁴

Federal agencies typically have backlogs of deferred maintenance and repairs, which can include projects deferred due to insufficient funding or because a project is not needed to support a current mission need. They can manage their backlogs through activities including projects to specifically address DM&R; projects to repair or replace assets (e.g., new construction); or disposing of assets (see fig. 1). Agency budgets do not request amounts specifically for deferred maintenance. Instead, agencies typically address deferred maintenance through funding provided for operations and maintenance of facilities and for capital projects.

¹³The Federal Real Property Council, an interagency council that promotes the efficient and economical use of real property assets, among other things, separates real property assets into three categories: (1) buildings, (2) structures, and (3) land. Buildings are defined as constructed assets that are enclosed with walls and a roof that provide space for agencies to perform activities or store materials as well as provide space for people to live or work in. Structures are assets that are categorized as neither buildings nor land, and include assets such as harbors, parking structures, dams, utility systems, monuments, and roads and bridges.

¹⁴GAO, *Federal Real Property: Government's Fiscal Exposure from Repair and Maintenance Backlogs Is Unclear*, [GAO-09-10](#) (Washington, D.C.: Oct. 16, 2008); [GAO-14-188](#).

Figure 1: Components of Agency Deferred Maintenance and Repair Backlogs and Methods of Addressing Them



Source: GAO. | GAO-24-105485

Note: GSA may dispose of assets for other federal entities, or an agency may dispose of them if it has the requisite independent disposal authority, through actions such as demolition, sale, or transfer of assets.

Agencies have reported cost estimates of their DM&R backlogs in annual financial reports since fiscal year 1998.¹⁵ Agencies conduct this reporting according to the financial accounting standards set by FASAB and OMB Circular A-136, which governs the form and content of agency financial reports.¹⁶

- **Maintenance and repairs.** FASAB defines “maintenance and repairs” as activities directed toward keeping fixed assets in an acceptable condition. Activities include preventive maintenance; replacement of parts, systems, or components; and other activities needed to preserve or maintain the asset.

¹⁵FASAB issued SFFAS 6, which first required deferred maintenance reporting, in November 1995, but the standard was not effective for reporting until September 1997. FASAB later rescinded the DM&R reporting requirements in SFFAS 6 and replaced them with the requirements in SFFAS 42, effective for fiscal years beginning after September 30, 2014.

¹⁶OMB, *Circular A-136*; FASAB, *SFFAS 42*.

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- **Deferred maintenance and repairs.** FASAB defines “deferred maintenance and repairs” as maintenance and repairs that were not performed when they should have been or were scheduled to be and which are put off or delayed for a future period.¹⁷

FASAB requires agencies to report DM&R as required supplementary information in their financial reports.¹⁸ These requirements allow agencies flexibility and judgment in several areas, such as how they define acceptable levels of DM&R and how they collect information at the asset level.¹⁹ We have previously reported that federal agencies’ differing methods of determining and reporting their DM&R backlogs make their estimates not comparable.²⁰ FASAB acknowledged in its DM&R reporting requirements these difficulties in developing comparable estimates, and required agencies to provide certain information that would assist in understanding how individual agencies determine and report their DM&R.²¹

Estimated deferred maintenance and repair costs represent a fiscal exposure for the government and are an indicator of the condition of

¹⁷FASAB, *SFFAS 42*. In 2011, FASAB revised its standard to clarify that agencies should report both deferred maintenance and deferred repairs. FASAB, *SFFAS 40: Definitional Changes Related to Deferred Maintenance and Repairs: Amending Statement of Federal Financial Accounting Standards 6, Accounting for Property, Plant, and Equipment* (Washington, D.C.: May 11, 2011). FASAB made this change to respond to confusion among agencies regarding the previous definition, which may have led agencies to not report deferred repairs. This clarification led to significant changes in agencies’ DM&R reporting. For example, GSA’s financial report estimate increased from \$0 in fiscal year 2011 to \$1.5 billion in fiscal year 2012. In 2012, FASAB further revised its standard to require agencies to report additional information about their DM&R. FASAB, *SFFAS 42*. This revision came into effect for fiscal year 2015 reporting.

¹⁸Under the FASAB standards, required supplementary information is a section of agency financial reports the content of which is not subject to the same level of audit as the financial sections of those reports, although it is intended to place the financial sections in an appropriate context. It is, however, subject to some scrutiny under AU-C 730, *Required Supplementary Information*, and certain procedures under Generally Accepted Government Auditing Standards Chapter 6. Further, agencies are not required to report DM&R information that is not considered material.

¹⁹See FASAB, *SFFAS 42*. See also 31 U.S.C. § 3515.

²⁰[GAO-09-10](#) and [GAO-14-188](#). In [GAO-09-10](#), we recommended that OMB, in collaboration with FASAB and the Federal Real Property Council, should explore the potential for developing a uniform reporting requirement in the FRPP that would capture the government’s fiscal exposure related to real property repair and maintenance. We closed this recommendation as implemented after FASAB issued its revised DM&R standard in 2011.

²¹See FASAB, *SFFAS 42*.

assets. We have previously reported that owning an asset creates an implicit fiscal exposure for the government, because there is an expectation that the government will incur future costs associated with operating and maintaining its assets.²² We have also reported that fiscal exposures such as DM&R present risks to the federal budget, and therefore transparency about these fiscal exposures is important to ensure adequate monitoring and oversight.²³ In particular, communicating the fiscal exposure caused by DM&R to decision makers, such as Congress, is important as it would better position them to address future costs to repair and maintain real property that is important to agencies' missions.²⁴ Further, along with other uses, an agency's DM&R data can be used to determine asset condition, prioritize maintenance projects, request appropriations, and make asset management decisions.

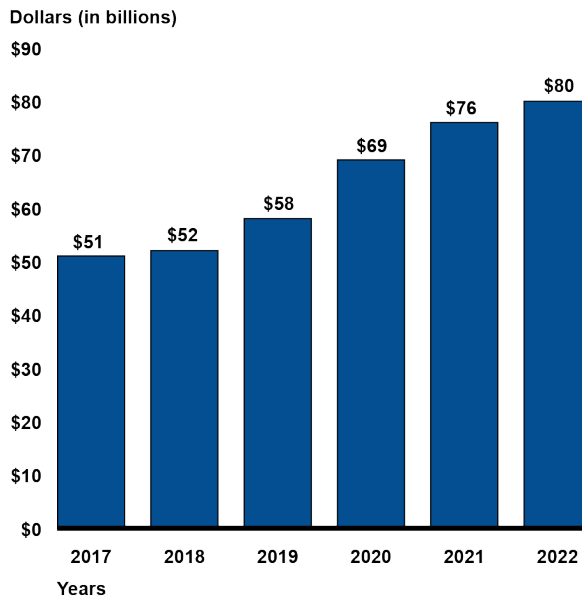
According to annual financial reports from fiscal year 2017 through fiscal year 2022, the estimated costs for civilian agencies to address deferred maintenance and repair increased by about \$29 billion, or about 58 percent. See fig. 2.

²²[GAO-09-10](#).

²³[GAO-14-28](#).

²⁴[GAO-09-10](#) and [GAO-14-188](#).

Figure 2: Federal Civilian Agencies' Reported Estimates of Deferred Maintenance and Repairs, Fiscal Years 2017–2022



Source: GAO analysis of U.S. Department of the Treasury and Department of Defense information. | GAO-24-105485

Note: These amounts are in nominal dollars and are not adjusted for inflation. To determine the deferred maintenance and repair amounts for civilian agencies, we subtracted Department of Defense deferred maintenance and repair amounts from government-wide amounts published by the Department of the Treasury.

As we reported in October 2022, officials from the selected agencies we interviewed attributed increases in their reported DM&R to multiple factors, including funding constraints; rising labor and materials costs; decisions to deliberately defer maintenance and repair projects; and changes to agencies' methods for collecting DM&R data.²⁵

Managing Federal Real Property has been on GAO's High Risk List since January 2003. Our high risk reports have consistently highlighted long-standing challenges that federal agencies face in: (1) effectively disposing of excess and underutilized property, (2) collecting reliable real property data for decision-making, and (3) improving the security of federal

²⁵[GAO-23-106124](#). That report focused on the same selected agencies as the present review. In that report, we described the increase in reported DM&R from fiscal years 2017 through 2021 and the factors identified by selected agencies' officials as contributing to this increase.

facilities.²⁶ DM&R contributed to the placement of federal real property management on the High Risk List in 2003 due to concerns with the state of deterioration of agencies' assets and the size of their DM&R backlogs.²⁷ In our 2011 High Risk Update, we found that federal agencies had improved their ability to manage their DM&R backlogs and removed the management of facility condition as a high risk component. Specifically, we identified a number of actions agencies took, including conducting facility condition assessments, prioritizing repairs, and improving the definition of DM&R. However, we did not assess whether agencies' actions reduced the government's DM&R and noted that agencies continued to face challenges in managing their DM&R backlogs.²⁸

Selected Agencies' Deferred Maintenance and Repair Estimates Substantially Increased in Recent Years, Due to Funding Constraints and Other Factors

Approximately three-quarters of the \$29 billion increase in civilian agencies' DM&R from fiscal years 2017 through 2022 (about \$22 billion) described above was reported by four agencies—DOE, DOI, HHS, and GSA. This represented an 83 percent increase across those agencies. The individual agencies' DM&R increased substantially over the period, ranging between 63 percent (for DOE) to 126 percent (for GSA). As illustrated in figure 3, these agencies reported the following DM&R amounts for fiscal year 2022 in their annual financial reports:

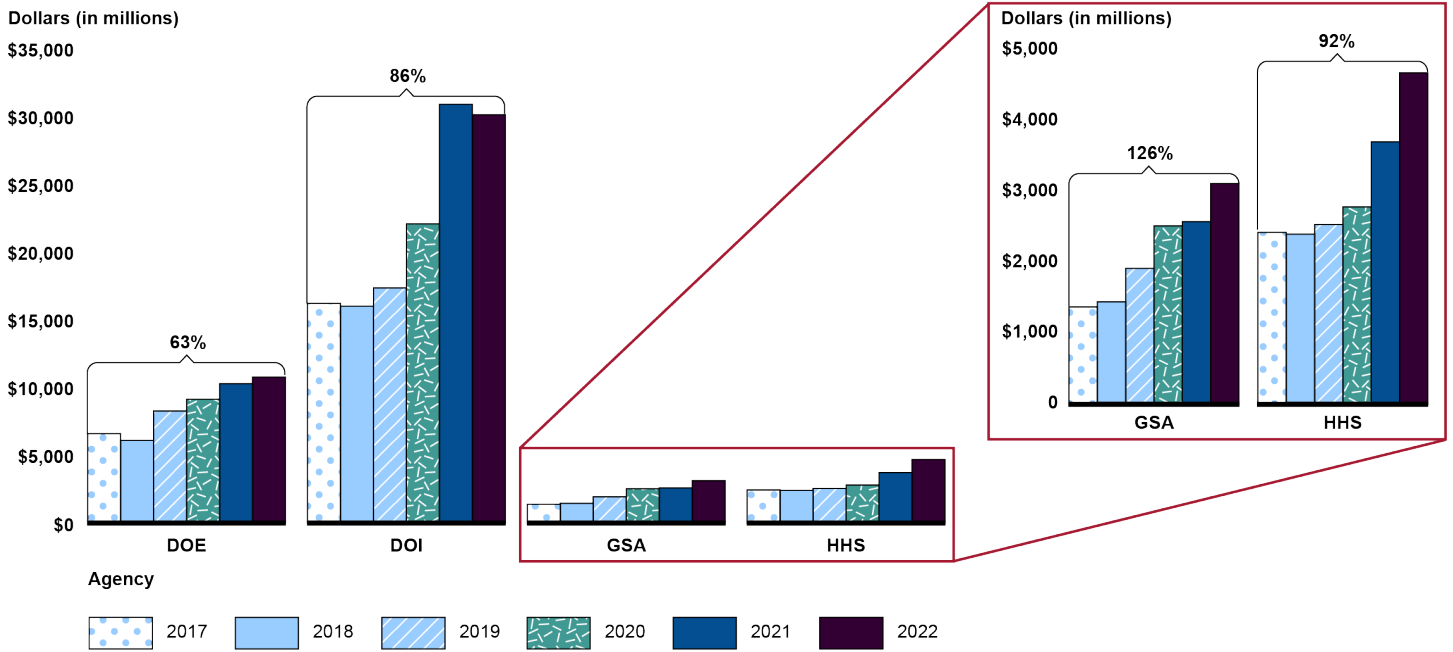
- DOE: \$10.8 billion
- DOI: \$30.1 billion
- GSA: \$3.1 billion
- HHS: \$4.7 billion

²⁶GAO, *High-Risk Series: Efforts Made to Achieve Progress Need to Be Maintained and Expanded to Fully Address All Areas*, [GAO-23-106203](#) (Washington, D.C.: April 20, 2023).

²⁷GAO, *High-Risk Series: An Update*, [GAO-03-119](#) (Washington, D.C.: Jan. 2003).

²⁸GAO, *High-Risk Series: An Update*, [GAO-11-278](#) (Washington, D.C.: Feb. 2011). In our 2023 High Risk update, we noted substantial increases in agency-reported deferred maintenance and repair and indicated GAO is considering whether this issue should be included as part of the Managing Federal Real Property high-risk area in future updates, including our next update in 2025. [GAO-23-106203](#).

Figure 3: Selected Agencies' Reported Deferred Maintenance and Repair Estimates, Fiscal Years 2017-2022



Source: GAO analysis of Department of Energy (DOE), Department of the Interior (DOI), General Services Administration (GSA), and Department of Health and Human Services (HHS) Annual Financial Reports. | GAO-24-105485

Officials we spoke with from selected agencies and their components identified several factors causing DM&R backlogs to increase. These factors included funding constraints coupled with inflation and increased costs of labor and materials, and ongoing challenges in addressing maintenance and repair for large and aging portfolios.²⁹

²⁹We previously reported on increases in selected agencies' DM&R from fiscal years 2017 through 2021 and these factors were identified by these same selected agencies in October 2022. [GAO-23-106124](#). As described in more detail below, agencies also attributed increases in their DM&R amounts to the methodologies they use to estimate DM&R and to decisions to deliberately defer maintenance on some assets.

Funding Constraints and Cost Increases

Funding Constraints: Washington National Record Center

Agency: General Service Administration
Location: Suitland, MD
Principal Tenant: National Archive and Record Administration
Principal use: warehouse, offices

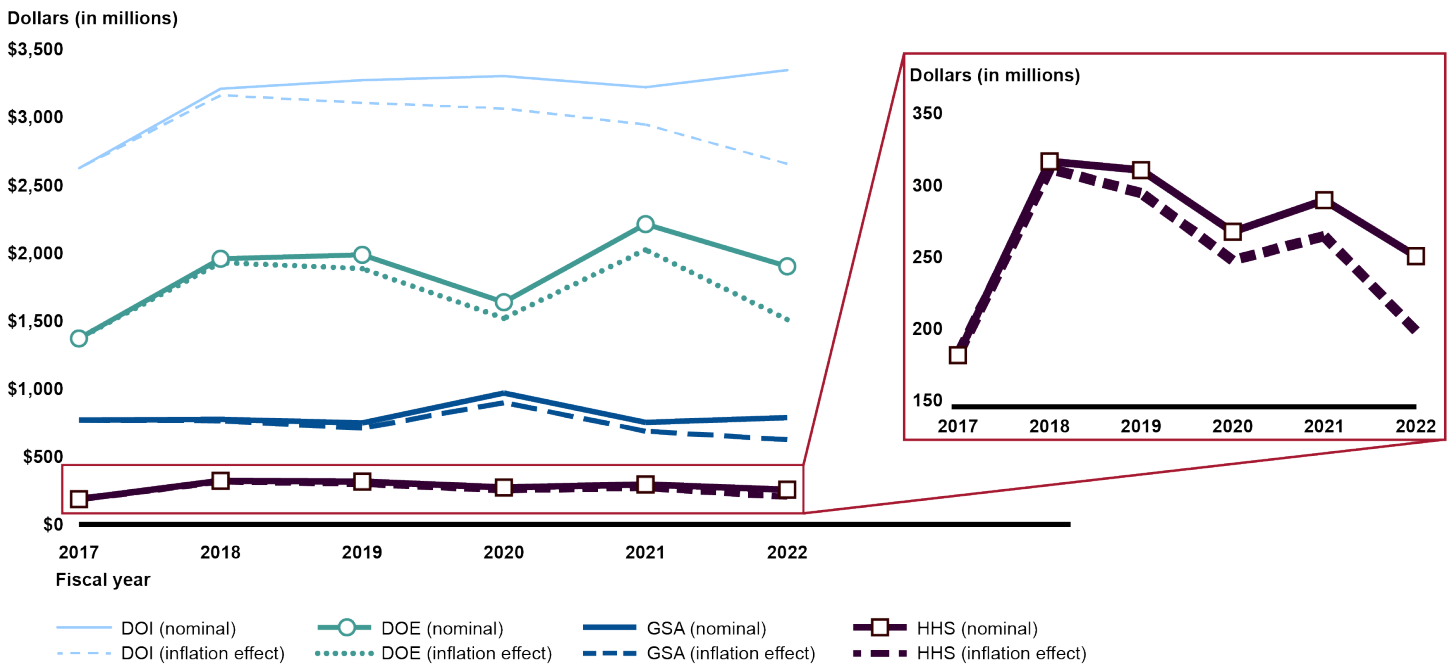
GSA's Washington National Record Center was built in 1967 and is used primarily for records storage and management. Many of the original building systems are still in operation, including roofs and retaining walls. Asset managers have sought funding for DM&R projects on the building for more than a decade and a half. For example, to address roof leak issues, a temporary membrane was installed in 2012 but this solution has now reached the end of its useful life resulting in a need to replace the entire roof. Roof leaks resulted in mold intrusion that cost the government about \$1.3 million to remediate in fiscal year 2019. GSA noted that the building, in its current state, no longer supports the missions of its principal tenant or customer agencies.

Source: GAO analysis of GSA information. | GAO-24-105485

Officials from selected agencies said that limited maintenance and repair funding—which has remained relatively constant from fiscal years 2017 through 2022—has led to increases in DM&R backlogs. For example, GSA officials stated that funding for repair and alteration projects has fallen short of needs included in their budget requests for more than 10 years. Officials noted that these funding limitations have delayed specific projects and further exacerbated problems as repairs turn into replacements, with the potential for system failures that result in cascading impacts to occupant agency missions. According to GSA officials, funding shortfalls have hindered the agency's ability to keep pace with depreciation and degradation of its portfolio and resulted in increasing DM&R needs. Similarly, officials from DOE's Office of Science, which oversees 10 of the agency's 17 laboratories, said that funding for the Science Laboratories Infrastructure program is less than what is needed to address needed utilities projects, in addition to other maintenance and repair projects. As a result, Office of Science officials said that they face challenges in addressing a backlog of infrastructure projects. Officials from our other selected agencies—DOI and HHS—voiced similar concerns over funding limitations, which they said have significantly contributed to the recent increases in their DM&R backlogs.

Inflation has further degraded agencies' ability to address DM&R. Specifically, we estimate that inflation from fiscal years 2017 through 2022 effectively eroded the purchasing power of maintenance and repair funding by about 26 percent, particularly in the past several years. Put another way, \$1 million in funding in fiscal year 2022 would only accomplish what \$740,313 would have accomplished in fiscal year 2017. These inflationary effects make it challenging to complete ongoing and deferred maintenance projects, placing further constraints on agencies' ability to address their DM&R backlogs. (See fig. 4.)

Figure 4: Selected Agency Maintenance and Repair Funding Levels, Nominal and Inflation-Adjusted, Fiscal Years 2017-2022



Source: GAO analysis of Department of Energy, Department of the Interior, Department of Health and Human Services, General Services Administration information and Bureau of Economic Analysis data. | GAO-24-105485

Note: Funding data were provided by selected agencies and expressed in nominal dollars by fiscal year. For inflation data, we used Bureau of Economic Analysis National Income and Product Accounts structures data, which are based on new non-residential buildings. These data include improvements, certain types of equipment such as plumbing and heating systems and elevators, as well as other related costs.

Marginal increases to maintenance and repair funding in nominal dollars are effectively reduced in an environment of rising inflation. Generally speaking, funding for maintenance and repair must increase at the same rate as costs or DM&R will increase. For example, officials from DOE's Brookhaven National Laboratory said that the greatest factor causing its DM&R backlog to increase was cost escalation in material and labor costs. Likewise, HHS officials attributed a nearly \$1 billion increase in DM&R from fiscal years 2020 through 2021 in part to inflation and supply chain issues, and noted this growth was also reflected in several cost indices during the same period.

Recent legislation—such as the Infrastructure Investment and Jobs Act, enacted in 2021³⁰ and what is commonly referred to as the Inflation Reduction Act of 2022³¹—has led to increases in supplemental funding for some agencies to address DM&R backlogs, according to agencies’ fiscal year 2022 data. For example, according to fiscal year 2022 data, GSA received \$89.8 million through the Infrastructure Investment and Jobs Act, and \$121.8 million through the Inflation Reduction Act of 2022. This funding was used, in part, to help reduce its \$3.1 billion DM&R backlog. According to GSA officials, the funding will allow the agency to reduce its DM&R backlog to some extent. However, these officials said that funding from both acts comes with significant limitations on the types of projects they can fund.³² Similarly, DOI officials reported that the Bureau of Reclamation received \$3.2 billion through the Infrastructure Investment and Jobs Act to be used for aging infrastructure projects that make up part of DOI’s \$30.1 billion DM&R backlog. This infusion of funds could help decrease DM&R backlogs, but given how recently the funding was received its impact is not yet known.

Large and Aging Portfolios

Officials from selected agencies also cited costs associated with maintaining aging and deteriorating assets as contributing to growth in their DM&R. As of fiscal year 2022, our selected agencies were responsible for maintaining vast portfolios, including approximately 58,000 buildings and 96,000 structures with average ages of about 49 and 42 years, respectively.³³ DOI was responsible for managing more than 120,000 of these assets, including 41,818 buildings with a median age of 58 years. In addition, while the average age for buildings and structures for our selected agencies was 49 years, many assets were more than 100 years old. See fig. 5.

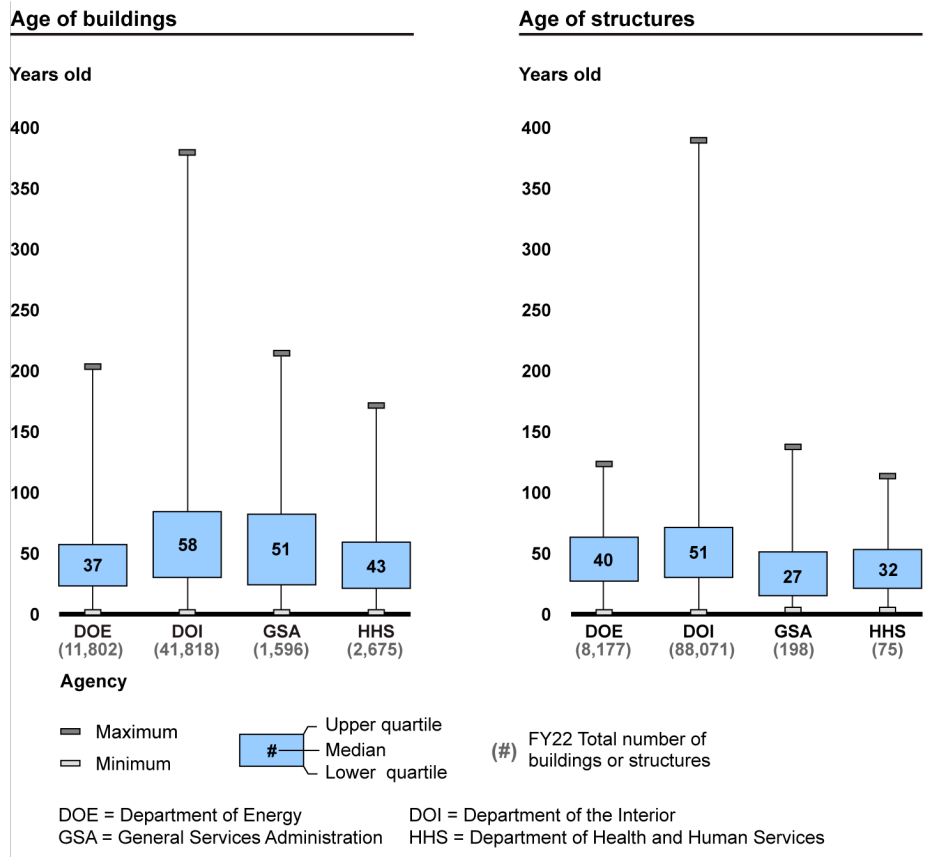
³⁰Pub. L. No. 117-58, 135 Stat. 429 (2021).

³¹Pub. L. No. 117-169, 136 Stat. 1818 (2022).

³²GSA officials noted, for example, that Infrastructure Investment and Jobs Act repairs and alterations funding was limited to border stations and land ports of entry. See Pub. L. No. 117-58, 135 Stat. 429, 1382 (2021).

³³Civilian federal agencies were responsible for maintaining approximately 110,000 buildings and 169,000 structures in fiscal year 2022, with an average age of about 49 years.

Figure 5: Numbers and Median Ages of Selected Agencies' Buildings and Structures



Source: GAO analysis of Federal Real Property Profile data. | GAO-24-105485

Note: To determine the ages of DOE, DOI, GSA, and HHS buildings and structures, we analyzed data these agencies reported to the Federal Real Property Profile Management System for fiscal year 2022, removing any data anomalies that indicated age greater than 403 years (i.e., from the present back to the beginning of the colonial era in 1620). We then determined the quartile distribution of these data and identified the median ages of the buildings and structures.

According to agency officials, managing such a large number of assets with aging systems that have often exceeded their useful lives creates a number of challenges and has contributed to increases in DM&R. For example, Indian Health Service officials said that a primary challenge in managing their agency's DM&R is that many health care facilities were built in the 1960s or 1970s, or earlier, and need extensive modernization or replacement to deliver 21st century health care. Similarly, DOI's Bureau of Reclamation reported that managing structures, such as dams that were often built between 1900 and 1950, creates complexities that

are costly to address. For example, officials responsible for managing the Grand Coulee Dam noted that one of the challenges of maintenance at the dam was obtaining parts for equipment that is no longer manufactured. Likewise, officials from DOE's Brookhaven National Laboratory said that maintaining aging buildings and infrastructure—some of which date to the World War II era—is one of their key maintenance challenges. According to GSA's 2022 budget justification, GSA had 413 buildings—about one quarter of its portfolio—listed on the National Register of Historic Places, which generally means they are over 50 years old.³⁴ We have previously reported that, according to GSA officials, GSA's historic buildings require comparatively more maintenance and repair work than its non-historic buildings.³⁵ Further, federal historic preservation law requires federal agencies undertaking actions such as repairs to these buildings to, among other things, take into account the effect of such repairs on any historic property.³⁶

³⁴The National Historic Preservation Act of 1966, as amended, requires agencies to establish a preservation program to identify, evaluate, and nominate historic federal buildings to the National Register of Historic Places and manage those buildings in a manner that considers their historic character. Pub. L. No. 89-665, 80 Stat. 915 (1966), codified as amended at 54 U.S.C. § 300101-307108. A building that has achieved significance within the past 50 years is generally not eligible for listing, unless its historic significance within the past 50 years is considered to be of exceptional importance.

³⁵GAO, *Federal Real Property: Improved Data Needed to Strategically Manage Historic Buildings, Address Multiple Challenges*, [GAO-13-35](#) (Washington, D.C.: Dec. 11, 2012).

³⁶54 U.S.C. § 306108.

Selected Agencies Do Not Fully Communicate Information to Congress and the Public Needed to Better Understand Deferred Maintenance and Repair Backlogs

Budget Materials for Selected Agencies Generally Do Not Provide Information on DM&R Estimates in Three Areas

Agencies communicate DM&R information to Congress and the public primarily through unaudited required supplementary information in annual financial reports, budget justifications, or other documents.³⁷ Our prior work has emphasized the importance of transparency regarding federal budget information and fiscal exposures, including communicating information to Congress that provides a clear understanding of how new funding requests relate to continuing resource needs.³⁸ While all selected agencies reported the overall total for DM&R costs, they did not include additional information related to their department-wide DM&R needs. Specifically, we identified three areas in which this additional information would provide context to better understand DM&R estimates: (1) reasons for changes in estimated DM&R costs from the prior year; (2) what categories of assets are included or excluded; and (3) the proportion of DM&R estimates related to critical projects that are needed to support the mission.

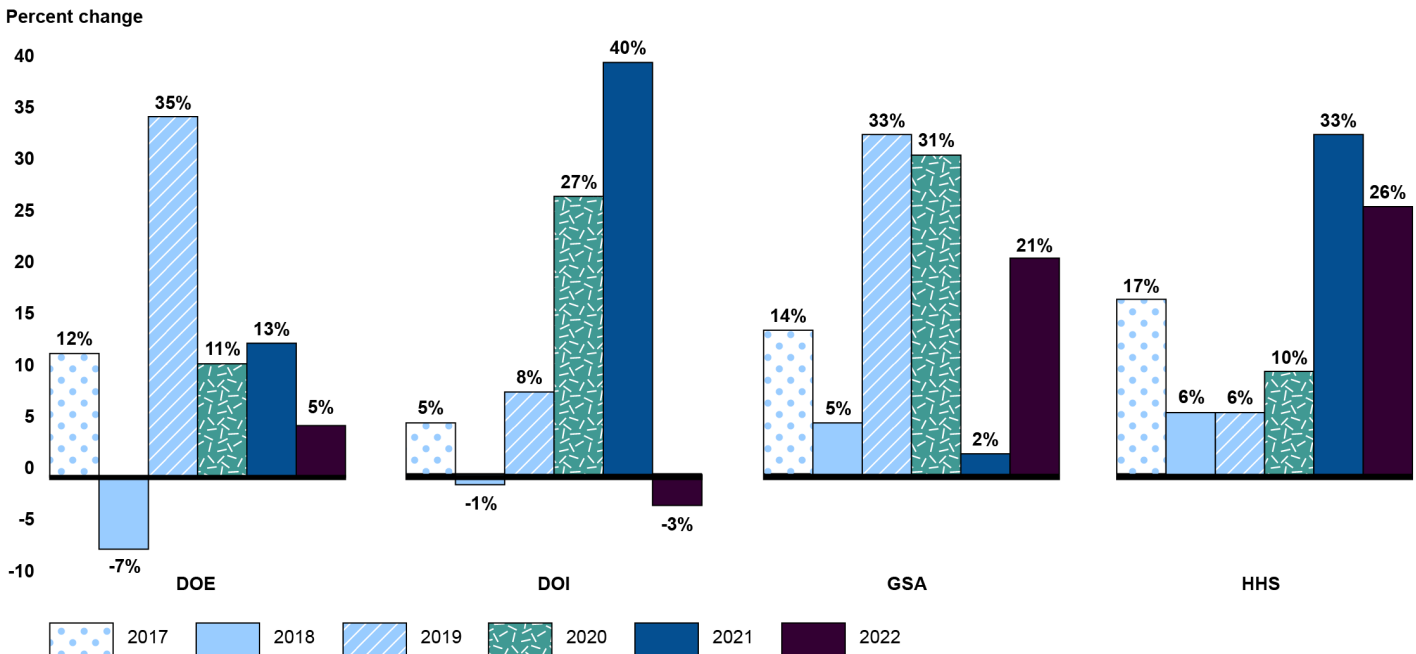
³⁷Federal financial accounting standards and OMB guidance in Circular A-136 require Chief Financial Officers Act agencies and other federal entities to report DM&R estimates in their annual financial reports. As such, agencies' annual financial reports are the only public sources for annual DM&R estimates and related information. OMB, *Circular A-136*. As required supplementary information, DM&R information is subject a lower level of scrutiny than the financial statements under AU-C 730, *Required Supplementary Information*, and certain procedures under Generally Accepted Government Auditing Standards Chapter 6.

³⁸[GAO-03-213](#) and [GAO-14-28](#).

Reasons for Estimated Changes in DM&R Costs from the Prior Year

Three of four selected agencies did not report the reasons why reported estimates of DM&R changed from year to year in budget materials or financial reports—information that would help Congress and the public understand the substantial increases in their DM&R over the last 6 years. For example, according to GSA’s annual financial reports, its reported DM&R increased by 33 percent in 2019 and by 31 percent in 2020. HHS reported its DM&R increased by double digit percentages in each of the last 3 fiscal years (see fig. 6). When we asked them, agency officials provided explanations for changes in department-wide DM&R such as those described above, including financial constraints, inflation, and challenges maintaining large and aging portfolios. However, three of the four selected agencies (DOI, GSA and HHS) did not include these or other reasons in publicly available documents, leaving it unclear why DM&R changed from year to year. DOE consistently explained changes in DM&R amounts from prior years.

Figure 6: Year-to-Year Changes in Selected Agencies’ Estimates of Deferred Maintenance and Repairs



Source: GAO analysis of Department of Energy (DOE), Department of the Interior (DOI), General Services Administration (GSA), and Department of Health and Human Services (HHS) Annual Financial Reports. | GAO-24-105485

In addition, two agencies did not provide information in their annual financial reports or budget justifications to Congress concerning

significant methodological changes for measuring and calculating their estimates that resulted in increases in reported DM&R.

- DOI officials explained that the 40 percent increase (about \$22 billion to \$30.9 billion) in DM&R from fiscal years 2020 through 2021 was partly the result of adding design, compliance, and construction management costs to National Park Service estimates.
- GSA officials told us that the increases of more than 30 percent in reported DM&R in both 2019 (from about \$1.5 to \$1.9 billion) and 2020 (from about \$1.9 to \$2.5 billion), were due to decisions to reevaluate the GSA portfolio compared to the 2016 and 2017 baselines.

While these methodological changes likely contributed to improving the quality of DM&R estimates, neither of the agencies explained the changes in budget materials provided to Congress. As a result, it was unclear that the reasons for substantial increases in the agencies' reported DM&R were based on changes to methodologies used to estimate DM&R rather than changes in the physical condition of the assets.

Further, while HHS did not significantly change its methodology, the structure of that methodology had a substantial impact on its DM&R, which was not clearly communicated. For example, HHS officials told us that the 26 percent increase from fiscal years 2021 through 2022 (from \$3.7 to \$4.7 billion) was partly the result of a 4-year assessment cycle, which last occurred in 2016. Officials believe that new assessments in 2020 likely uncovered deficiencies accrued during the intervening years as the result of increasing deterioration.³⁹ As a result, it was unclear that substantial increases in HHS' reported DM&R resulted from the methodology HHS used to estimate DM&R rather than changes in the physical condition of the assets in a specific year.

³⁹Selected agencies reported updating DM&R estimates each year, but their facility assessment cycles varied. For example, GSA reported assessing 50 percent of its portfolio each year, or all of its portfolio bi-annually, while the other selected agencies and components reported assessing facility portfolios at least once every five years or 20 percent of their portfolio annually. While all of the selected agencies update DM&R estimates each year, differing assessment cycles reflect differing rates at which agencies' entire portfolios are assessed.

Categories of Assets Included and Excluded in DM&R Estimates

Selected agencies did not always provide information to Congress concerning which assets were included or excluded in DM&R cost estimates included in annual financial reports. For example:

- GSA and HHS did not report DM&R amounts for assets they control that had historical or cultural significance.⁴⁰
- DOI did not communicate whether DM&R amounts included or excluded inactive and excess assets.⁴¹ While GSA and HHS reported that their DM&R estimates included inactive and excess assets, they did not provide the specific dollar amounts for these assets.
- HHS did not communicate that DM&R estimates for some of its components included improvements and other projects that are not typically included. For example, the Indian Health Service's DM&R estimates included improvements to address compliance with public laws—such as life safety, environmental or energy conservation laws—and to address patient care and other programmatic enhancements.

As a result, it is not always clear what types of maintenance projects are or are not included in each agencies' DM&R estimates. Without sufficient communication from agencies in DM&R reports to Congress on categories of assets included in DM&R estimates, Congress may not fully understand the meaning of those estimates, such as the fiscal exposures they represent.

⁴⁰These categories of assets include stewardship lands and heritage assets. Stewardship land and heritage assets are assets with no assigned financial value for which cost is often not determinable or relevant to their significance. Stewardship land is federally owned land, including national parks. Heritage assets include national monuments, such as the Washington Monument.

⁴¹The term "excess property" means property under the control of an agency that the head of the agency determines is not required to meet the agency's needs or responsibilities. See 42 U.S.C. § 11411(i)(2) which incorporates by reference 40 U.S.C. § 102(3).

Proportion of DM&R Needed to Support the Mission

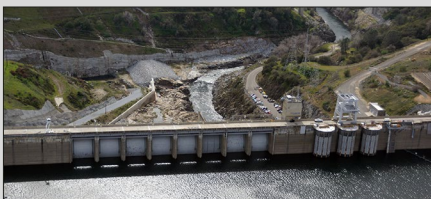
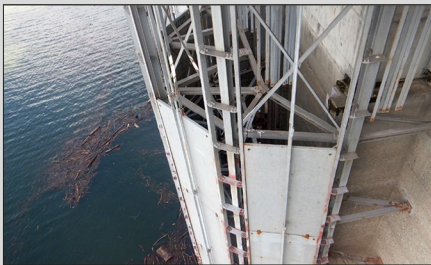
Deliberately Deferred Maintenance and Repair: Folsom Dam

Agency: Department of the Interior
Bureau: U.S. Bureau of Reclamation
Location: Folsom Dam, Folsom, CA
Structure: Cold Water Shutter Gates

Folsom Dam officials intentionally deferred maintenance on two projects because—although due for maintenance—the systems were functioning, had a low risk of failure, and had minimal impact on the mission.

Specifically, the dam's temperature control devices—large shutter-like structures mounted to the reservoir side of the dam that enable the controlled release of water at a specific temperature—remain in use and functional though the devices are long past their design life cycles. Officials said they intend to replace them in the next five years. Constructed between 1949 and 1955 as part of the Bureau's Central Valley Project, Folsom Dam is mainly used to manage the annual flood cycle of the American River; provide drinking water for the cities of Sacramento and Roseville and neighboring communities; provide irrigation water; provide water at specific temperatures to support fish and wildlife stewardship downstream; and help counter salt-intrusion in the Sacramento delta.

Folsom Dam - Deliberately Deferred Maintenance and Repair on Temperature Control Devices



Source: GAO analysis of Bureau of Reclamation information. Bureau of Reclamation (images). | GAO-24-105485

None of the selected agencies provided department-wide information to Congress that would distinguish the proportion of DM&R estimates for work that is needed to support the agencies' missions and work that is less urgent and, therefore, has been deliberately deferred. Agency officials said there are instances when a rational case exists to deliberately defer maintenance and repairs given scarce resources. For example, officials from DOI's Bureau of Reclamation said that they decided to defer maintenance on spillway gates at Hoover Dam because the water level in the Lake Mead reservoir behind the dam had decreased enough that the agency would be unlikely to need to use them for the foreseeable future.

In addition, agencies did not always clearly communicate that DM&R estimates include maintenance costs for assets not currently needed, such as those determined to be excess, or scheduled for replacement through recapitalization. For example, officials from DOE's Brookhaven National Laboratory said they were deferring all but essential maintenance to a building housing a retired steam plant slated for demolition as part of a planned recapitalization project (see fig. 7 below). Despite being deferred intentionally, agencies' DM&R estimates do not distinguish the estimated costs of maintaining and repairing these non-mission-critical and excess or unneeded facilities.

Figure 7: Deliberately Deferred Maintenance and Repair: Retired Brookhaven National Laboratory Steam Plant



Source: GAO (image). | GAO-24-105485

In addition, agencies did not always clearly communicate that DM&R estimates include assets that have exceeded their lifecycles but do not pose a threat to the mission. Such assets may continue to be maintained, used, and repaired until such time as they are replaced. For example, Brookhaven officials identified equipment as DM&R that were still in use in buildings that had either been wholly or partially renovated. We observed aging assets at Brookhaven well past their anticipated life cycles that continue to be functional that were included in DM&R estimates. These included electrical switching, pumping, and heating, ventilation, and air conditioning equipment (see fig. 8 below). Although these assets have been identified for replacement through capital improvements, funding may not yet exist, and the agency continues to use, maintain, and repair them. Thus, DM&R estimates may include both aging but functional assets that do not pose a risk to the mission as well as those assets slated for replacement in future recapitalization projects.

Because the selected agencies' DM&R estimates do not distinguish maintenance that is not needed for the agencies' missions, such as maintenance that is low risk and thus has been deliberately deferred, the agencies' DM&R estimates may not adequately inform Congress and the public regarding the true scope of their DM&R needs. As a result,

Congress and the public may have difficulty determining the amount of resources agencies actually require to address those needs.

Figure 8: Brookhaven National Laboratory: Physical Plant Equipment Slated for Capital Replacement but Included in Deferred Maintenance and Repair Estimates



Source: GAO (images). | GAO-24-105485

DOE provided more extensive and complete information on its DM&R. DOE explained in its annual financial reports substantial changes in its DM&R estimates from year-to-year. For example, to explain a 35 percent increase in DM&R in fiscal year 2019, DOE reported that its component, the National Nuclear Security Administration, updated inputs used to calculate DM&R for owned and operating buildings resulting in an increase of \$2.223 billion. In addition, DOE provided some information that would help Congress or the public assess the proportion of DM&R that would be needed to support DOE's mission by reporting the amount of DM&R held in inactive and excess properties. However, DOE did not provide other information on the proportion of DM&R estimates that would be needed to support its mission, such as the amount of maintenance that it had deliberately deferred.

Additional Details in Estimates Could More Accurately Inform Congress and the Public of DM&R Fiscal Exposure

Our prior work has emphasized the importance of transparency regarding federal budget information and fiscal exposures, including the need for supplemental information to enhance control and oversight over federal resources and aid in monitoring the financial condition of programs.⁴² As noted above, our work has emphasized the importance of transparency in federal agencies' budget information because such information helps

⁴²[GAO-03-213](#) and [GAO-14-28](#).

Congress understand the basis for new funding requests. This information could include additional details related to reasons for increases or decreases in reported DM&R, what is included and excluded in DM&R estimates, and the amount of DM&R needed to support mission critical activities.⁴³ Further, the National Academies of Sciences, Engineering and Medicine recently emphasized that communication with Congress and other stakeholders is critical to effectively implement federal facility renewal strategies.⁴⁴

Agency officials said they do not report additional information on their DM&R estimates because they are not required to do so. While OMB Circular A-136 provides some guidance on reporting of DM&R consistent with generally accepted government accounting standards and minimally references federal accounting standards, these standards provide latitude and flexibility for what information to include beyond an overall estimate.⁴⁵ In addition, OMB's budget guidance does not provide direction specific to DM&R.⁴⁶ When we discussed this issue with OMB officials, they acknowledged that this latitude and flexibility in practice has led to inconsistency between agencies in calculating DM&R estimates and in what assets are included in DM&R reporting. As a result, selected agencies provided limited context or details that, if included, could help Congress and the public better understand anticipated costs to address DM&R.⁴⁷ According to OMB officials, although OMB updates Circular A-136 annually through a collaborative process, it has not previously considered changes or clarifications to its guidance on DM&R reporting

⁴³We previously recommended that the National Nuclear Security Administration clarify the amount of its DM&R backlog that is associated with facilities that has little to no effect on programmatic operations. [GAO-15-499](#). DOE agreed with this recommendation. GAO closed this recommendation as implemented after NNSA included in its 2017 budget materials the dollar amounts for its deferred maintenance in total, on excess facilities, and on facilities that would be in excess in 10 years. NNSA also noted in those materials that it would deliberately not perform some maintenance and repair on facilities that were or soon would be in excess.

⁴⁴National Academies of Sciences, Engineering, and Medicine. 2023. *Strategies to Renew Federal Facilities*. (Washington, DC: 2023).

⁴⁵The Director of OMB is required under statute to prescribe the form and content of required financial statements consistent with applicable accounting and financial reporting principles, standards, and requirements. 31 U.S.C. § 3515(d).

⁴⁶Office of Management and Budget, *Circular A-11: Preparation, Submission, and Execution of the Budgets* (Washington, D.C.: Aug. 11, 2023).

⁴⁷We also conducted a high-level review of DM&R reporting by the remaining 15 Chief Financial Officers Act agencies that control real property and found similar issues.

because stakeholders in the federal auditing community have not requested them.

In the absence of additional information on agencies' DM&R estimates, Congress and the public are limited in their ability to determine the true impact of DM&R on agency operations or the actual amount of funding needed to address the DM&R backlog. For example, additional information from agencies on DM&R could help clarify whether recent multi-billion-dollar increases are related to changes in methodology, deliberately deferred maintenance, or other factors. In addition, guidance from OMB instructing agencies about additional information to include with DM&R estimates would help ensure agencies provide sufficient context on their DM&R needs in budget and financial documents. Without such information from agencies, Congress and the public lack insight into what portions of DM&R estimates are significant to agency missions or represent a fiscal risk to the government.

Selected Agencies' Prioritization Policies Align with Most but Not All Leading Practices for Managing Deferred Maintenance and Repair

The selected agencies followed most of five leading practices for prioritizing DM&R projects.⁴⁸ Specifically, for four of the leading practices, all four of our selected agencies followed three and partially followed one leading practice.⁴⁹ For the final leading practice on the use of models, agency adherence varied. Our analysis found that one agency followed this practice, two agencies partially followed it, and one agency did not follow it. See fig. 9.

⁴⁸As described above, these leading practices were identified in prior GAO work. See [GAO-14-188](#). Our evaluation of selected agencies was based on their responses to questions about the policies and procedures they used to prioritize maintenance projects and documentation they provided. We did not seek to determine how effectively agencies have implemented these policies and procedures. For DOE, DOI, and HHS, we reviewed department-level policies as well as those from selected component agencies—Office of Science, Bureau of Reclamation, and Indian Health Service—to determine the extent to which they met leading practices. DOE, DOI, and HHS delegated DM&R responsibilities to their components. As a result, we used our evaluations of component agencies to serve as examples for whether agencies met the leading practices but did not assess the policies and procedures for all components.

⁴⁹These leading practices are related to agencies' management of their assets. We have previously recommended that OMB should be more active in providing information to agencies on leading practices for asset management. GAO, *Federal Real Property Management: Agencies Could Benefit from Additional Information on Leading Practices*, [GAO-19-57](#) (Washington, D.C.: Nov. 5, 2018). OMB officials we interviewed said that OMB has begun developing the Federal Integrated Business Framework, an initiative to create business standards for shared services—including real property management—for use across the federal government. However, the officials said that the Framework will not be fully implemented for another two or three years. As we reported, a reliable central source of information on current effective asset management practices—such as those for managing DM&R—could support agencies in making progress in their asset management efforts, helping them more efficiently fulfill their missions and avoid unnecessarily expending resources.

Figure 9: Extent to Which Selected Agencies Followed Leading Practices for Prioritizing and Managing Deferred Maintenance and Repair

Leading Practice	Extent to which agencies followed the leading practice			
	Department of Energy	Department of the Interior	Department of Health and Human Services	General Services Administration
Establish clear maintenance and repair investment objectives and set priorities among outcomes to be achieved	●	●	●	●
Identify types of facilities or specific buildings (i.e., assets) that are mission-critical and mission-supportive	●	●	●	●
Align real property portfolios with mission needs and dispose of unneeded assets	●	●	●	●
Structure budgets to specifically identify the funding allotted (1) for maintenance and repair and (2) to address any backlog of deferred maintenance and repair deficiencies	◐	◐	◐	◐
Employ models for predicting the outcome of investments, analyzing tradeoffs, and optimizing among competing investments	◐	○	◐	●

○ Agency did not meet the leading practice ◐ Agency met some but not all aspects of the leading practice ● Agency fully met the leading practice

Source: GAO analysis of Department of Energy, Department of the Interior, Department of Health and Human Services, and General Services Administration information. | GAO-24-104585

Note: These leading practices were identified in [GAO-14-188](#) and based on more than 15 years of research conducted by the National Research Council on federal facilities to include the subject of their maintenance and repair and their DM&R backlogs.

Selected Agencies' Policies for Prioritizing Maintenance Projects Followed Three of Five Leading Practices

Establish Clear Maintenance and Repair Investment Objectives and Set Priorities

We found that all four of our selected agencies' policies followed three leading practices for prioritizing DM&R projects: (1) establishing clear maintenance and repair investment objectives and setting priorities among outcomes to be achieved; (2) identifying types of assets that are mission-critical and mission-supportive; and (3) aligning real property portfolios with mission needs and disposing of unneeded assets.

Leading practices direct agencies with maintenance and repair responsibilities to determine their most important outcomes and set priorities among them. All four of our selected agencies followed this leading practice by establishing—or delegating responsibilities to component agencies for establishing—maintenance and repair objectives and setting priorities for achieving outcomes. For example:

- DOE requires component agencies to establish methods for prioritizing maintenance work, managing their DM&R backlogs, and determining performance in relation to program goals and departmental targets. For instance, DOE's Office of Science, as part

of its annual laboratory appraisal process, established infrastructure goals related to how maintenance and repair are performed and managed. These goals included renewing the infrastructure portfolio to meet laboratory needs and managing infrastructure to optimize usage and minimize life cycle costs. In addition, DOE officials use the annual laboratory planning process to define long-term visions for their laboratories. For instance, Brookhaven National Laboratory developed a prioritized list of infrastructure projects needed to support the laboratory's mission. The Office of Science incorporates this list along with lists from other Office of Science laboratories to form a plan of prioritized projects to be addressed, subject to available funding.

- GSA established objectives in its strategic plan and fiscal year 2024 annual performance plan to achieve outcomes such as improving facility condition, obtaining a return on investment, and improving the sustainability of its portfolio. These include a strategic objective to achieve a right-sized and modernized portfolio and performance goals and initiatives to do the following: (1) modernize and optimize GSA's real estate portfolio to reduce maintenance and repair liabilities; (2) develop and implement a real estate strategy to prioritize funding to address repair and maintenance and other needs; and (3) secure funds to maintain GSA facilities in a state of good repair. In pursuit of these goals, GSA also established sets of weighted criteria for prioritizing projects in its major and minor repair and alterations programs.

Identify Assets That Are Mission-Critical and Mission-Supportive

Leading practices state that agencies should identify assets as mission-critical and mission-supportive to help establish where maintenance and repair investments should be targeted. All four of our selected agencies followed this leading practice by incorporating assessments of the mission criticality of assets into their prioritization of maintenance and repair projects.

Three of our four selected agencies—DOE, DOI, and HHS—tracked the mission dependency of their assets.⁵⁰ These agencies also used these data to evaluate and prioritize maintenance projects.⁵¹ For example:

- DOI develops an Asset Priority Index score for each of its assets, with 80 percent of the score based on the asset's mission dependency—a measure of how critical it is to a DOI component's mission—and 20 percent based on substitutability—the ability to satisfy operational requirements with an alternative. DOI incorporates the Asset Priority Index, in combination with information on the condition of each facility, as one element in scoring projects for prioritization.
- HHS employs mission dependency in prioritizing projects that address deficiencies in assets. For example, HHS' Indian Health Service tracks mission dependency for its assets and instructs regional offices to consider mission dependency when prioritizing maintenance projects.

GSA does not track mission dependency in its real property database as other agencies do, but met the leading practice by using an asset categorization and ranking methodology to categorize and prioritize its assets. Specifically, GSA uses scoring criteria, such as financial performance, vacancy rate, housing alternatives, and strategic value, to place assets into one of three categories—Core assets, Transitional

⁵⁰Although we found that agencies internally identified and tracked mission dependency of assets in accordance with leading practices, as discussed above, they did not report the proportions of their DM&R estimates that were needed to support their missions to Congress or the public.

⁵¹The Federal Real Property Council previously required agencies to report mission dependency in government-wide real property data reporting. The Council removed that requirement in guidance for fiscal year 2013 data reporting. In 2012, we reported that the Council's guidance provided very little information to agencies on how mission dependency should be reported, and the data were generally not useful for measuring performance. We found that agencies did not measure mission dependency in a consistent manner because the data element could be measured differently by each agency. GAO, *Federal Real Property: National Strategy and Better Data Needed to Improve Management of Excess and Underutilized Property*, [GAO-12-645](#) (Washington, D.C.: June 20, 2012).

Align Portfolios with Mission Needs and Dispose of Unneeded Assets

assets, and Strategic Disposal/Continued Evaluation assets.⁵² GSA officials said they will use the results of the categorization and ranking methodology as part of project evaluation metrics for prioritizing projects, as they have previous categorization methods.

Leading practices also suggest agencies efficiently employ available resources, limit construction of new assets, adapt existing buildings to new uses, and transfer ownership of unneeded buildings to other public or private organizations to align real property with mission needs. In addition, leading practices recommend disposing of assets that are functionally obsolete, not needed to support an agency's mission, not historically significant, or not suitable for transfer or adaptive reuse whenever it is cost effective to do so.⁵³ All four of our selected agencies have established—or delegated responsibilities to component agencies for establishing—processes to align their asset portfolios with mission needs and dispose of unneeded assets.⁵⁴ For example:

- GSA develops an asset business plan for each property in its portfolio that includes a holding period for the property based on asset, customer, and market information.⁵⁵ GSA also performs analyses of

⁵²GSA introduced this categorization method to replace its previous categorization method in 2022. "Core" assets are assets that have the highest strategic value and present the least amount of financial risk. "Transitional" assets are assets that either present more long-term risk, fail to provide the same level of strategic value as Core assets, or both. "Strategic Disposal/Continued Evaluation" assets provide the least strategic value and present the highest risk to the portfolio's overall performance. GSA expects that investment in the final category of assets will generally be reserved for activities needed to reposition the assets in or out of the inventory. GSA also has a category of "Strategic Hold" assets that are exempt from the ranking system due to their specific cultural, historic, or inherently governmental attributes that prevent GSA from realistically seeking housing alternatives for the existing tenants.

⁵³"Adaptive reuse" refers to the conversion of an asset to a use significantly different from that for which it was originally designed.

⁵⁴While selected agencies' policies and procedures met this leading practice, we have reported on long-standing challenges agencies have faced in implementing such policies and procedures and disposing of unneeded and under-utilized properties. Those challenges include lengthy disposal processes related to statutory and regulatory requirements, a lack of upfront funding, and limitations on data used to identify excess and underutilized properties. See, e.g., GAO, *Federal Real Property: Additional Documentation of Decision Making Could Improve Transparency of New Disposal Process*, [GAO-21-233](#) (Washington, D.C.: Jan. 29, 2021). Limited progress in addressing these issues is one of the reasons managing federal real property has remained on GAO's High Risk List since 2003. [GAO-23-106203](#).

⁵⁵The holding period can be short term (0-5 years), mid-term (6-15 years), or long term (15-plus years).

the physical condition and financial performance of each asset. If these analyses find instability in the customer, market, or financial performance of the asset, and if the holding period for the asset is short-term, then GSA will examine the property for future use. If the analyses conclude that GSA no longer needs the asset, it will enter GSA's formal disposal process. Further, GSA officials said they work with tenant agencies that occupy GSA properties to optimize the portfolio, including developing asset reinvestment strategies, regional and national portfolio plans, and disposition strategies for underutilized assets.

- DOE requires components to identify real property assets that are no longer needed to meet mission needs and may be candidates for reuse or disposal. For example, DOE's Office of Science's laboratories prepare annual plans that incorporate strategies for integrating mission and general purpose infrastructure needs, including disposing of unneeded assets. Brookhaven National Laboratory's plan incorporated a strategy to eliminate excess facilities and reduce the laboratory's footprint to realize operational efficiencies, improve facility safety, and improve utilization and quality of space.

Selected Agencies' Policies for Prioritizing Projects Followed Two of Five Leading Practices to Varying Extents

Structure Budgets to Separately Identify Funding to Address Maintenance and Repair and DM&R Backlogs

The costs to address DM&R backlogs may be significantly greater than the costs of routine maintenance and repairs if they had been undertaken when needed. Leading practices recommend agencies structure their budgets to differentiate between the two. This is to ensure that routine maintenance and repairs are sufficiently funded, and that underfunding does not affect the health and safety or reduce the productivity of employees, among other things. Although not explicitly included as part of the leading practice, we have previously reported that this information should include a plan and time frames for addressing backlogs because such information can provide important insights into an agency's ability to adequately manage real property assets.⁵⁶

All four selected agencies partially met this leading practice. Specifically, agency budget documents—which DOE, DOI, and HHS provided at the

⁵⁶[GAO-21-497](#).

component level—identified funding for maintenance, but did not identify funding for addressing DM&R backlogs separately or plans that include time frames for addressing backlogs.⁵⁷ Our review of budget documentation for selected components within each of our four agencies found the following:⁵⁸

- DOI Bureau of Reclamation’s budget materials for fiscal year 2024 included maintenance funding information at the bureau, regional, and project levels, including \$353.7 million for maintenance. However, the materials did not communicate either the amount of funding that would be used to address the DM&R backlog or the time frames for addressing the backlog.⁵⁹ Further, DOI officials said that they had not seen the amounts of funding allotted to address DM&R backlogs reported in either department-level DOI budget documents or those submitted by other DOI components. However, the officials observed that it may be difficult to quantify in advance how much DM&R costs from prior estimates would be addressed by the amount of funding they request; and the amount of funding spent on a project would not necessarily correlate to the amount of DM&R addressed.
- GSA’s fiscal year 2024 budget justification provided maintenance funding information, including \$563 million in requested funds. These materials also noted that funding shortfalls have hindered GSA’s ability to address a growing DM&R backlog, but did not communicate the amount of funding that would be used to address the backlog or time frames within which GSA would address it. Officials said that GSA’s budget justification focused generally on the overall shortfall in funding over the prior decade and noted that the projects and programs funded within GSA’s budget request are for addressing DM&R as well as other costs. The officials observed that reported

⁵⁷While agencies can identify funding to address DM&R as part of budget documents, agencies cannot specifically request funding for DM&R, i.e., as a budgetary line item, because DM&R does not exist as a budget term, according to OMB officials. However, agencies could provide contextual information regarding DM&R funding amounts and plans to address DM&R.

⁵⁸Three of our four selected agencies (DOE, DOI, and HHS) produce budget justifications at the component level. As a result, we analyzed budget materials for components (DOE’s Office of Science, DOI’s Bureau of Reclamation, and HHS’ Indian Health Service) for those agencies. Officials at all four agencies did not identify any other place where they would have reported funding allotted specifically to address DM&R.

⁵⁹While the Bureau of Reclamation’s 2024 budget justification provides narratives explaining what funding for individual projects will accomplish, including maintenance, it does not contain an estimate of the overall amount of funding that would be required to address the Bureau’s DM&R backlog or a plan or time frames for addressing that backlog.

DM&R amounts are not equivalent to project costs, and because DM&R may be embedded within GSA's broader capital budget, GSA could have difficulty mapping its capital budget to exact amounts of DM&R from prior estimates.

- HHS Indian Health Service's fiscal year 2024 budget materials provided maintenance funding information, including \$187.5 million for maintenance and improvement of facilities. The materials also provided some general information on funding that would be used to address its backlog of maintenance and other programmatic improvements (e.g., compliance with public laws and patient care).⁶⁰ For example, the budget justification noted that an additional \$10 million over the fiscal year 2023 request was to help address that backlog, as well as other items, and also included \$511 million in each of fiscal years 2025 and 2026 to address it. However, the Indian Health Service did not specifically identify what amount of fiscal year 2024 funding would address DM&R, as opposed to projects to improve health care delivery, or the time frame within which the backlog would be reduced if the agency did not receive \$511 million in fiscal years 2025 and 2026.
- DOE Office of Science's fiscal year 2024 budget justification provided information on requests for \$67.1 million in direct-funded maintenance and repair and \$298.4 million in maintenance and repair funded indirectly through laboratory overhead. However, DOE did not identify the amount of either direct or indirect funding that would be allocated to address its DM&R backlog or time frames within which DOE would address it. Officials said that DOE focuses on identifying and requesting funds for all maintenance and repair requirements rather than just those that were deferred, and that DOE's facility managers prioritize requirements that pose the greatest risk, whether or not they have been deferred.

Developing plans to address agencies' DM&R backlogs that include information on funding and time frames needed to address the backlogs—and including them in congressional budget requests, related reports to decision makers, or both—could help decision makers,

⁶⁰The Indian Health Service's Backlog of Essential Maintenance, Alterations, and Repair consists of facility deficiencies that must be addressed to meet legal requirements, to maintain or repair the facility, or to improve the facility, but were deferred due to a lack of staffing or funds to implement corrective measures. Examples of these projects include improvements to dental clinics to serve more users, remodeling reception/waiting areas, construction of new digital radiology rooms, repaving parking lots, emergency department renovations, new heating-ventilation-air conditioning systems, and sustainability projects to reduce utility costs.

including Congress, better evaluate agencies' budget requests. Agencies expressed reservations about their ability to relate project costs to precise amounts of DM&R that would be addressed. However, although agencies may not be able to determine in advance the precise amounts of funding needed to address their DM&R projects, providing information that would estimate the potential effect of funding levels on their DM&R backlogs could better inform Congress and others on how funding could affect backlogs. Further, developing plans to address DM&R that communicate information on estimated funding and time frames needed to address DM&R would give stakeholders important insights into agencies' needs. As the National Academies of Sciences, Engineering, and Medicine has recently emphasized, documenting unfunded repair and replacement costs and developing a plan to either invest in or dispose of underutilized assets is critical to building agencies' budgets for their facilities.⁶¹

Similarly, we have previously reported that providing transparency—such as shedding light on the amount of spending, what it is spent on, and the results of that spending—is essential to improving government accountability and can, among other outcomes, improve oversight and the effectiveness of federal spending.⁶² Further, DOE, DOI, and HHS have established asset management responsibilities and requirements for their component agencies. Since the components we reviewed within DOE, DOI, and HHS did not fully follow this leading practice, it will be important for those agencies to ensure that each of their component agencies provide information on the potential effect of funding on their DM&R backlogs in congressional budget requests, related reports to decision makers, or both.

Employ Models for Predicting Outcome of Investments, Analyzing Tradeoffs, and Optimizing among Competing Investments

Leading practices indicate that agencies should employ models to predict the future condition and performance of their assets as portfolios to ensure that investment decisions are aligned with agency missions and goals. Performance-prediction models predict the deterioration of building components over time and are important because certain asset components are particularly prone to deterioration or failure, thus

⁶¹National Academies of Sciences, Engineering, and Medicine, *Strategies to Renew Federal Facilities* (Washington, D.C.: 2023).

⁶²[GAO-14-188](#); GAO, *Federal Spending Data Transparency: Opportunities Remain to Incorporate Lessons Learned as Availability of Spending Data Increases*, [GAO-13-758](#) (Washington, D.C.: Sept. 12, 2013).

requiring more frequent maintenance or repairs.⁶³ Such models can help agencies determine the combination of competing investment options that would result in the greatest return on investment given budget constraints.

One of our selected agencies—GSA—met this leading practice by employing a software tool—Decision Lens—to determine which projects would provide the most benefit for its portfolio in exchange for investment at different funding levels.⁶⁴ Using the tool, GSA assigns value scores to projects based on weighted metrics, such as risk, project readiness, return, and how impactful the project would be to the entire portfolio. The tool also incorporates the previously discussed asset categorization and ranking methodology to categorize assets. GSA uses the project value scores, along with associated estimated project costs and funding levels, to allocate funding to create the highest possible cumulative portfolio value.

One of our selected agencies—HHS—partially met this leading practice because it requires components to submit a plan modeling the effect of investments, but its Indian Health Service did not use models for analyzing tradeoffs or optimizing among competing investments. Specifically, as part of annual budget submissions, HHS components submit a Condition Index, Sustainment and Improvement Funding Plan. This plan models the possible effect of components' investments on their DM&R backlogs and the condition of their portfolios under different funding scenarios, such as flat or optimal funding. While this plan meets aspects of the leading practice related to predicting investment outcomes, it does not address how HHS analyzes tradeoffs or makes decisions among competing investments. According to department-level HHS officials, components can use a variety of tools for analyzing tradeoffs,

⁶³Examples of such predictive models, according to the National Research Council, include the following: (1) Service life and remaining service life models. These models predict the expected service life or remaining service life of building systems and components and help determine the appropriate timing of investments for maintenance and repair or replacement. (2) Parametric models for cost estimating or budgeting. Economic-based (such as depreciation) or engineering-based (such as physical condition) models that can be used to develop multiyear maintenance and repair programs and cost estimates for annual budget development. (3) Simulation models. Models used to analyze the results of "what if?" scenarios that can be used to set priorities for maintenance and repair work based on different variables, including budget.

⁶⁴GSA adopted Decision Lens for use in project selection in response to GAO recommendations in a 2012 report. GAO, *Improved Transparency and Long-term Plan Needed to Clarify Capital Funding Priorities*, [GAO-12-646](#) (Washington, D.C.: Jul. 12, 2012).

such as a tool for selecting among alternative project delivery mechanisms, but officials also acknowledged that these tools do not necessarily provide predictive outcomes. Further, officials said that the different missions of its components made it unrealistic to require that all components employ a single model or set of tools. However, by not working with components to assess the benefits of leveraging models for this purpose, HHS runs the risk that models are not considered or used when the benefits outweigh the costs. For example, officials at the Indian Health Service stated they did not use any models for analyzing tradeoffs or optimizing among competing investments, noting that the Indian Health Service focused instead on quality improvement efforts for hospital and health center accreditation and certification.

DOE also partially met the leading practice. DOE officials at the department level described models available to DOE components, such as life expectancy and estimated maintenance models, but noted that DOE did not mandate a specific DOE-wide model. The officials said that DOE components have different missions, risk tolerance, regulatory requirements, and funding streams, so a single, DOE-wide approach to prioritizing projects would not be appropriate.⁶⁵

At the component level, officials from both the Office of Science and its Brookhaven National Laboratory said they did not use models that would predict the outcome of investments or determine what sets of projects would provide the greatest return under different scenarios. However, Brookhaven officials noted that the laboratory used life expectancy models in annual reviews of facility condition. DOE officials also noted that Brookhaven conducts an annual Project Planning Programming and Budgeting process to evaluate and prioritize infrastructure maintenance projects. Similarly, the Office of Science's Science Laboratories Infrastructure program has a planning process that scores and ranks proposed construction projects submitted by laboratories based on their Annual Laboratory Plans, and considers factors that include DM&R reduction. Officials also noted limitations with some software models. For example, Brookhaven officials stated that life expectancy models do not work well for assets beyond their life expectancy, as many of the Laboratory's assets are. The officials also noted that prices have

⁶⁵The officials also noted that DOE is currently developing a new planning, programming, budgeting and execution process that will allow DOE to review longer-term policy priorities and planning, including looking at tradeoffs between investments. However, the officials said that this process would not include models that would predict the outcome of investments or allow DOE to analyze different scenarios.

fluctuated significantly in recent years, which would reduce the benefit from available predictive models.

DOI officials said that they were unaware of the agency using any models to predict the outcome of investments, analyze tradeoffs, or optimize among competing investments. Officials from DOI's Bureau of Reclamation noted processes to evaluate and optimize work across the Bureau as well as the use of a risk-based tool to categorize and help prioritize capital improvements, including deferred maintenance. However, the officials also stated that the tool does not analyze tradeoffs or predict outcomes. DOI officials said that, while they recognized the value of such models, its components did not need complex models to understand that funding levels are insufficient and would lead to increased DM&R. Further, they said that tradeoffs between projects are analyzed during project prioritization at the local, regional, and headquarters levels. However, the officials also noted that one of DOI's guiding principles for asset management is making investment decisions based on data, and that such models could be helpful.

Using models for predicting the outcome of investments, analyzing tradeoffs, and optimizing among competing investments can better position agencies to identify the combination of competing investment options that would result in the greatest return on investment given budget constraints. Such models would also enable DOE, DOI, and HHS and their components to have greater visibility of the risks posed to their asset portfolios by underinvestment and help them communicate those risks to Congress and other stakeholders. Agencies noted some limitations with existing predictive models, such as recent changes in price data that could reduce the benefit of some models. However, while such models may have limitations, they can be used to help determine the combination of investment options that would provide the greatest benefit to their portfolios. Similarly, we have previously reported that requiring the use of such modeling can help agencies identify and achieve millions of dollars in cost savings.⁶⁶ OMB officials said that OMB encourages agencies' use of such models to perform scenario analysis on their portfolios. Evaluating the costs and benefits of increasing the use of such models—and employing them when benefits outweigh costs—could allow agencies to determine the extent to which they should employ them to predict the outcomes of investment in their portfolios. While DOE, DOI, and HHS have delegated the management of DM&R to their

⁶⁶[GAO-19-82](#).

component agencies, these departments establish asset management responsibilities and requirements for their component agencies. As a result, it will be important for DOE, DOI, and HHS to play a role at the department-level in helping their components to evaluate the costs and benefits of models in their operations.

Conclusions

Federal agencies have reported rapid increases in their backlogs of DM&R and estimate that tens of billions of dollars are needed to address projects that have been postponed or deferred. These large backlogs influence agencies' abilities to carry out their missions and represent costs the federal government may have to pay in the future to ensure the agencies' assets can support their infrastructure needs. While agency officials communicate these impacts to Congress, including through estimates of their DM&R backlogs, our selected agencies (DOE, DOI, GSA, and HHS) did not fully communicate information necessary to understand those numbers and the fiscal exposures they represented. Without such explanations—for example, of changes to methodology from year to year—it is difficult to understand how agencies arrived at their estimates. In addition, agencies did not provide sufficient information in their financial and budget documents on which assets were included in the reported DM&R or how much of the backlog was for projects necessary to support agency missions. As a result, Congress and the public are not provided with a clear picture of the anticipated costs to address DM&R in the future or what additional resources are needed to support critical government functions.

Furthermore, while DOE, DOI, GSA, and HHS have taken steps to prioritize their DM&R backlogs by following several leading practices, additional efforts are needed for agencies to fully address leading practices and have pertinent information to prioritize maintenance investments. Specifically, assessing the costs and benefits of increasing the use of models could better position DOE, DOI, and HHS and their components to identify the investment options that would result in the greatest return, communicate to Congress and other stakeholders the risks posed by underinvestment, and potentially achieve cost savings. Further, although all four agencies or their components have provided some information on their maintenance and repair needs in budget materials, developing plans that include funding and time frames needed to address DM&R backlogs could better inform decision makers about how funding levels could affect backlog reduction and help them evaluate the agencies' budget requests.

Recommendations for Executive Action

We are making 12 recommendations to DOE, DOI, HHS, GSA, and OMB.

We are making the following three recommendations to DOE:

- The Secretary of Energy should ensure that the department's budget materials or other documents provide more information to Congress and the public regarding the agency's deferred maintenance and repair backlog, including at a minimum, the proportion of DM&R estimates needed to support the mission. (Recommendation 1)
- The Secretary of Energy should ensure that the department works with its component agencies to develop plans to address their DM&R backlogs and identify the funding and time frames needed to reduce them in congressional budget requests, related reports to decision makers, or both. (Recommendation 2)
- The Secretary of Energy should ensure that the department works with its component agencies to evaluate the costs and benefits of increasing the use of models for predicting the outcome of investments, analyzing tradeoffs, and optimizing among competing investments, and employ models when the benefits outweigh the costs. (Recommendation 3)

We are making the following three recommendations to DOI:

- The Secretary of the Interior should ensure that the department's budget materials or other documents provide more information to Congress and the public regarding the agency's deferred maintenance and repair backlog, including at a minimum, explanations for major changes from year to year, categories of assets included in DM&R estimates, and the proportion of DM&R estimates needed to support the mission. (Recommendation 4)
- The Secretary of the Interior should ensure that the department works with its component agencies to develop plans to address their DM&R backlogs and identify the funding and time frames needed to reduce them in congressional budget requests, related reports to decision makers, or both. (Recommendation 5)
- The Secretary of the Interior should ensure that the department works with its component agencies to evaluate the costs and benefits of increasing the use of models for predicting the outcome of investments, analyzing tradeoffs, and optimizing among competing investments, and employ models when the benefits outweigh the costs. (Recommendation 6)

We are making the following three recommendations to HHS:

- The Secretary of Health and Human Services should ensure that the department's budget materials or other documents provide more information to Congress and the public regarding the agency's deferred maintenance and repair backlog, including at a minimum, explanations for major changes from year to year, categories of assets included in DM&R estimates, and the proportion of DM&R estimates needed to support the mission. (Recommendation 7)
- The Secretary of Health and Human Services should ensure that the department works with its component agencies to develop plans to address their DM&R backlogs and identify the funding and time frames needed to reduce them in congressional budget requests, related reports to decision makers, or both. (Recommendation 8)
- The Secretary of Health and Human Services should ensure that the department works with its component agencies to evaluate the costs and benefits of increasing the use of models for predicting the outcome of investments, analyzing tradeoffs, and optimizing among competing investments, and employ models when the benefits outweigh the costs. (Recommendation 9)

We are making the following two recommendations to GSA:

- The Administrator of GSA should ensure that the administration's budget materials or other documents provide more information to Congress and the public regarding the agency's deferred maintenance and repair backlog, including at a minimum, explanations for major changes from year to year, categories of assets included in DM&R estimates, and the proportion of DM&R estimates needed to support the mission. (Recommendation 10)
- The Administrator of GSA should ensure that the administration develops a plan to address its DM&R backlog and identifies the funding and time frames needed to reduce this backlog in congressional budget requests, related reports to decision makers, or both. (Recommendation 11)

We are making the following recommendation to OMB:

- The Director of OMB should update its guidance on DM&R reporting to instruct agencies to communicate additional information to Congress and the public regarding their deferred maintenance and repair backlogs. This guidance should, at a minimum, instruct

agencies to communicate explanations for major changes from year to year, categories of assets included in DM&R estimates, and the proportion of DM&R estimates needed to support the mission. (Recommendation 12)

Agency Comments

We provided a draft of this report to DOE, DOI, HHS, GSA, and OMB for comment. We received written comments from DOE, DOI, GSA, and HHS, which are reproduced in appendices I-IV. DOE and DOI also had technical comments that we incorporated as appropriate. OMB had no comments on the draft report.

DOI, GSA, and HHS agreed with our recommendations and noted plans or the intention to develop plans to address them. DOE neither agreed nor disagreed with our recommendations. The comment letter states DOE plans to establish a working group to examine the recommendations and develop specific changes to address them, including changes that will be used to inform the 2026 budget process.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Energy, the Secretary of the Interior, the Secretary of Health and Human Services, the Administrator of the General Services Administration, the Director of the Office of Management and Budget, and other interested parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-2834 or vonaha@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix V.



Andrew Von Ah
Director, Physical Infrastructure

Appendix I: Comments from the Department of Energy



Department of Energy

Washington, DC 20585

November 1, 2023

Mr. Andrew Von Ah
Director
Physical Infrastructure
U.S. Government Accountability Office
441 G Street N.W.
Washington, DC 20548

Dear Mr. Von Ah,

The Department of Energy (DOE or Department) appreciates the opportunity to comment on the Government Accountability Office's (GAO) draft report titled, "*Federal Real Property: Agencies Should Provide More Information about Increases in Deferred Maintenance and Repair (GAO-24-105485)*."

The draft report contains recommendations to the Department of Energy and three other executive branch agencies to provide additional information in the agencies' Congressional Budget Requests, which provide justification for future-years' budget requests. The report also recommends that the Office of Management and Budget update Circular A-136, which implements financial reporting requirements established by the Federal Accounting Standards Advisory Board (FASAB) for reporting on deferred maintenance identified in prior periods.

DOE plans to establish a working group to take a closer look at the best practices identified by GAO and GAO's specific recommendations. The working group will provide recommendations for specific changes by March 31, 2024, to inform the fiscal year 2026 budget process. DOE will provide its management decision for the specific GAO recommendations when responding to GAO's final report, as required by 31 U.S.C. 720.

GAO should direct any questions to Thomas Griffin, Director, CFO Office of Financial Policy and Audit Resolution, at 202-586-1585.

Sincerely,

A handwritten signature in blue ink that reads "Christopher S. Johns".

Christopher S. Johns
Deputy Chief Financial Office
Office of the Chief Financial Officer

Appendix II: Comments from the Department of the Interior



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

Mr. Andrew Von Ah
Director, Physical Infrastructure
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Mr. Von Ah,

Thank you for providing the Department of the Interior (Department) an opportunity to review and comment on the draft Government Accountability Office (GAO) report titled, "*Federal Real Property: Agencies Should Provide More Information About Increases in Deferred Maintenance and Repair*" (GAO-24-105485). We appreciate GAO's review of the Department's real property asset management programs.

The GAO issued multiple recommendations, including three to the Department of Interior to address its findings. Below is a summary of actions taken or planned to implement the recommendations:

Recommendation 4: The Secretary of the Department of the Interior should ensure the Department's budget materials or other documents provide more information to Congress and the public regarding the agency's deferred maintenance and repair backlog, including, at minimum, explanation for major changes from year to year, categories of assets included in DM&R estimates, and the proportion of DM&R estimates needed to support the mission.

Response: Concur. Interior will include in its budget materials or other documents context for factors affecting major DM&R backlog changes from year to year, the scope of the real property included in DM&R backlog, and the proportion of DM&R estimates associated with assets required to support the mission.

Responsible Official: Director, Office of Property and Acquisition Management; Director, Office of Budget

Target Date: March 29, 2024

**Appendix II: Comments from the Department
of the Interior**

Recommendation 5: The Secretary of the Department of the Interior should ensure that the Department works with its component agencies to develop plans to address their DM&R backlogs, and identify the funding and time frames needed to reduce them in congressional budget requests, related reports to decision makers, or both.

Response: Concur. As part of Interior's ongoing efforts to improve the overall lifecycle management of assets, the Department will evaluate how current bureau investment plans for real property can better communicate the relationship between lifecycle requirements and impacts to the DM&R backlog and identify such information in reports to decision makers.

Responsible Official: Director, Office of Property and Acquisition Management; Bureau Senior Asset Management Officers and Budget Officers; Director, Office of Budget

Target Date: March 29, 2024

Recommendation 6: The Secretary of the Department of the Interior should ensure that the Department works with its component agencies to evaluate the costs and benefits of increasing the use of models for predicting the outcome of investments, analyzing tradeoffs, and optimizing among competing investments, and employ models when the benefits outweigh the costs.

Response: Concur. Interior is currently coordinating with bureaus to review the availability and benefits of lifecycle investment models and will evaluate implementation alternatives.

Responsible Official: Director, Office of Property and Acquisition Management; Bureau Senior Asset Management Officers

Target Date: October 31, 2024

We've included technical comments on the draft report as an Enclosure to this correspondence for your consideration and specifically address the recommendations above. If you should have any questions or need additional information, please contact the PFM AM team at DOI_PFM_AM@ios.doi.gov.

Sincerely,

**JOAN
MOONEY**

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

Digitally signed by JOAN
MOONEY
Date: 2023.10.26 14:14:52
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Enclosure

Appendix III: Comments from the General Services Administration

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The Administrator

November 2, 2023

The Honorable Gene L. Dodaro
Comptroller General of the United States
U.S. Government Accountability Office
Washington, DC 20548

Dear Mr. Dodaro:

The U.S. General Services Administration (GSA) appreciates the opportunity to review and comment on the U.S. Government Accountability Office's (GAO) draft report, *Federal Real Property: Agencies Should Provide More Information about Increases in Deferred Maintenance and Repair* (GAO-24-105485).

GAO made the following recommendations to GSA:

- (1) The Administrator of the General Services Administration should ensure that the Administration's budget materials or other documents provide more information to Congress and the public regarding the agency's deferred maintenance and repair (DM&R) backlog, including at a minimum, explanations for major changes from year to year, categories of assets included in DM&R estimates, and the proportion of DM&R estimates needed to support the mission.
- (2) The Administrator of the General Services Administration should ensure that the Administration develops a plan to address its DM&R backlog, and identifies the funding and time frames needed to reduce this backlog in congressional budget requests, related reports to decision makers, or both.

GSA agrees with the recommendations and is developing a plan to address them.

If you have any questions or concerns, please contact me or Gianelle Rivera, Associate Administrator, Office of Congressional and Intergovernmental Affairs, at (202) 501-0563.

Sincerely,

A handwritten signature in blue ink that reads "Robin Carnahan".

Robin Carnahan
Administrator

cc: Andrew Von Ah, Director, Physical Infrastructure, GAO

U.S. General Services Administration
1800 F Street NW
Washington DC 20405-0002
www.gsa.gov

Appendix IV: Comments from the Department of Health and Human Services



DEPARTMENT OF HEALTH & HUMAN SERVICES

OFFICE OF THE SECRETARY

Assistant Secretary for Legislation
Washington, DC 20201

November 3, 2023

Andrew Von Ah
Director, Physical Infrastructure Issues
U.S. Government Accountability Office
441 G Street NW
Washington, DC 20548

Dear Mr. Von Ah:

Attached are comments on the U.S. Government Accountability Office's (GAO) report entitled, **"Federal Real Property: Agencies Should Provide More Information about Increases in Deferred Maintenance and Repair"** (GAO-24-105485).

The Department appreciates the opportunity to review this report prior to publication.

Sincerely,

Melanie Anne Egorin

Melanie Anne Egorin, PhD
Assistant Secretary for Legislation

Attachment

**Appendix IV: Comments from the Department
of Health and Human Services**

GENERAL COMMENTS OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS) ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED: FEDERAL REAL PROPERTY: AGENCIES SHOULD PROVIDE MORE INFORMATION ABOUT INCREASES IN DEFERRED MAINTENANCE AND REPAIR (GAO-24-105485)

The U.S. Department of Health & Human Services (HHS) appreciates the opportunity from the Government Accountability Office (GAO) to review and comment on this draft report.

Recommendation 7

The Secretary of the Department of Health and Human Services should ensure that the Department's budget materials or other documents provide more information to Congress and the public regarding the agency's deferred maintenance and repair backlog, including at a minimum, explanations for major changes from year to year, categories of assets included in DM&R estimates, and the proportion of DM&R estimates needed to support the mission.

HHS Response

HHS concurs with the GAO recommendation.

HHS will work with offices in the Program Support Center (PSC) to ensure the facilities exhibits for Congressional Justifications provide information on each OpDiv/StaffDiv's deferred maintenance and repair backlog, including an explanation for major changes from year to year, categories of assets included in deferred maintenance and repair (DM&R) estimates, and the proportion of DM&R estimates needed to support the mission.

Recommendation 8

The Secretary of the Department of Health and Human Services should ensure that the Department works with its component agencies to develop plans to address their DM&R backlogs, and identify the funding and time frames needed to reduce them in congressional budget requests, related reports to decision makers, or both.

HHS Response

HHS concurs with the GAO recommendation.

HHS concurs with the GAO recommendation. HHS will work with our partners in the PSC offices to include guidance in the HHSJs asking agencies to develop plans to address their DM&R backlog and identify the funding and time frames needed to reduce the backlog identified in the Congressional Justifications. HHS can work to include the DM&R backlog considerations in the package of materials reviewed and discussed in budget decision meetings.

HHS Response

HHS concurs with GAO's recommendation.

Recommendation 9

The Secretary of the Department of Health and Human Services should ensure that the Department works with its component agencies to evaluate the costs and benefits of increasing the use of models for predicting the outcome of investments, analyzing tradeoffs, and optimizing among competing investments, and employ models when the benefits outweigh the costs.

**Appendix IV: Comments from the Department
of Health and Human Services**

HHS Response

HHS concurs with the GAO recommendation to evaluate the cost and benefits of increasing the use of models and only use the models when the benefits outweigh the costs. Models used for investments in the HHS real property portfolio may encounter limitations given the vastly different missions carried out in the different facilities at HHS, in that it may not be possible to clearly establish quantifiable ways to determine benefits or outcomes for models, and measure them against the expected costs.

Appendix V: GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgements

In addition to the contact named above, Jill Naamane (Director), Matthew Cook (Assistant Director), Amelia Shachoy (Assistant Director), Tobias Gillett (Analyst-in-Charge), Michael Armes, Lindsay Bach, Jennifer Clayborne, Robert Dacey, Geoffrey Hamilton, Paul Kinney, Terence Lam, Jon Melhus, Malika Rice, Minette Richardson, Michelle Weathers, Alicia Wilson, and Elizabeth Wood made key contributions to this report.

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