STATEMENT
OF
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BEFORE THE
HOUSE COMMITTEE ON NATURAL RESOURCES
SUBCOMMITTEE ON FEDERAL LANDS
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

"NATIONAL PARK SERVICE'S DEFERRED MAINTENANCE BACKLOG: PERSPECTIVES FROM THE GOVERNMENT ACCOUNTABILITY OFFICE AND THE INSPECTOR GENERAL"

JANUARY 10, 2024

Chairman Tiffany, Chaiman Gosar, Ranking Member Neguse, Ranking Member Stansbury, and Members of the Subcommittees, thank you for giving me the opportunity to discuss the National Park Service's (NPS') deferred maintenance and in particular, our office's September 2023 evaluation report, *The National Park Service Faces Challenges in Managing Its Deferred Maintenance*. As you know, inspectors general have a direct reporting relationship to Congress. My office and I take this obligation seriously, and we appreciate your continued support for our independent and objective oversight.

According to the information that we received, when prioritizing its financial resources each year, the NPS assesses the condition of its infrastructure and calculates how much it would cost to address needed repairs. As of September 2021, the NPS reported that it had accumulated more than $23 billion in deferred maintenance—which the NPS considers as maintenance that has not been completed on schedule and is delayed for a future period. We evaluated how the NPS identified and managed deferred maintenance; specifically, we reviewed how NPS identified and managed deferred maintenance at 15 of its 397 parks for FY 2020.[1] We considered the time period of FY 2016 through FY 2021.

In short, we found that, during the period of our evaluation, the NPS was unable to effectively identify and manage its deferred maintenance, in large part due to inaccurate and unreliable data. Furthermore, the NPS applied a blanket 35-percent markup to its FY 2021 deferred maintenance, which resulted in a $3.7 billion increase to the estimated costs of the NPS' deferred maintenance in just one year. We found, however, that there was insufficient documentation demonstrating that the amount of the markup was reasonable. We also found that the NPS' broad application of the markup may lead to inaccurate estimates depending on whether work is completed by staff or contractors. In addition to data challenges, we found delayed response times for addressing critical Health, Life, and Safety (HLS) work orders. We made eight recommendations to address these issues.

[1] A full list of the parks we reviewed is included as an appendix to this testimony.

Background

The NPS' mission is "to conserve the natural and cultural resources of the National Park System for the enjoyment, education, and inspiration of this and future generations." The NPS manages approximately 400 park units—commonly referred to as "parks"—that include more than 75,000 assets. For deferred maintenance purposes, the NPS defines an asset as real or personal property that it tracks and manages as a distinct and identifiable entity. Assets may be physical structures or groupings of structures, land features, or other tangible property with a specific service or function. Examples include buildings, roads, bridges, campgrounds, marinas, and sewage treatment plants.

NPS Deferred Maintenance

The NPS relies on discretionary appropriations, allocations from the U.S. Department of Transportation, park entrance and concession fees, donations, and other funding sources to repair and maintain its more than 75,000 assets. Maintenance refers to day-to-day repair activities and planned work required to preserve facilities in such a condition that they may be used for their designated purpose over an intended service life. Under the NPS' policies and procedures, deferred maintenance is considered a subset of the NPS' asset maintenance. As noted previously, the NPS defines deferred maintenance as "[m]aintenance that was not performed when it should have been or was scheduled to be and which, therefore, is put off or delayed." Delayed or deferred maintenance can affect visitor experiences at parks due to building or bridge closures, trail limitations, and facility disrepair. In addition, deferring maintenance may result in significantly higher maintenance and operating costs or, in some cases, premature asset replacement.

To address this problem and its effect on NPS resources, Congress enacted the Great American Outdoors Act (GAOA).[2] GAOA was signed into law on August 4, 2020, and it authorized up to $1.9 billion per fiscal year from 2021 to 2025 to reduce deferred maintenance on public lands and at Indian schools through the National Parks and Public Land Legacy Restoration Fund (LRF).[3] The LRF is intended to ensure the safety of staff and the increasing number of visitors to the U.S. Department of the Interior's (DOI's) public lands by providing dedicated funding to address the growing amount of deferred maintenance. Under GAOA, the NPS will receive up to $1.3 billion per fiscal year for 5 years (FY 2021 through FY 2025) to reduce or eliminate its deferred maintenance. In addition, the Inflation Reduction Act[4] authorizes up to $200 million to the NPS for priority deferred maintenance projects through FY 2026.

At the time of our review, the NPS calculated and reported its deferred maintenance using the total of the estimated costs from open deferred maintenance work orders at the end of each fiscal year. As of FY 2021, the NPS estimated deferred maintenance of $23.7 billion. Although its

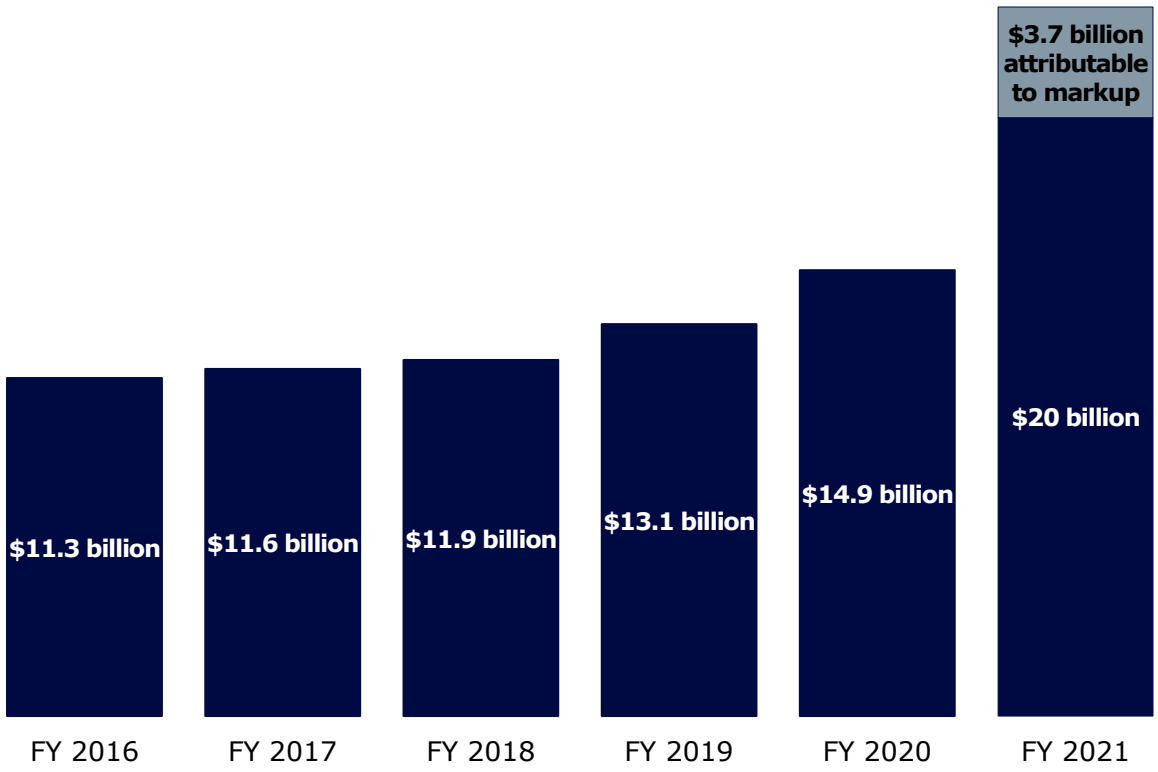
[2] Pub. L. No. 116-152.

[3] In March 2022, we published an inspection of the Department of the Interior's implementation of GAOA, *The U.S. Department of the Interior Needs a Strategy To Coordinate Implementation of the Great American Outdoors Act.* We determined that the Department did not develop a strategy to maximize the GAOA's impact and that the Department did not develop best management practices for deferred maintenance projects. We made two recommendations to the Department intended to help the Department fulfill GAOA's intent to reduce deferred maintenance. We consider both recommendations closed.

[4] Pub. L. No. 117-169.

number of assets has not increased, the estimated cost of the NPS' deferred maintenance has risen more than $12 billion from FY 2016 through FY 2021 (see Figure 1).

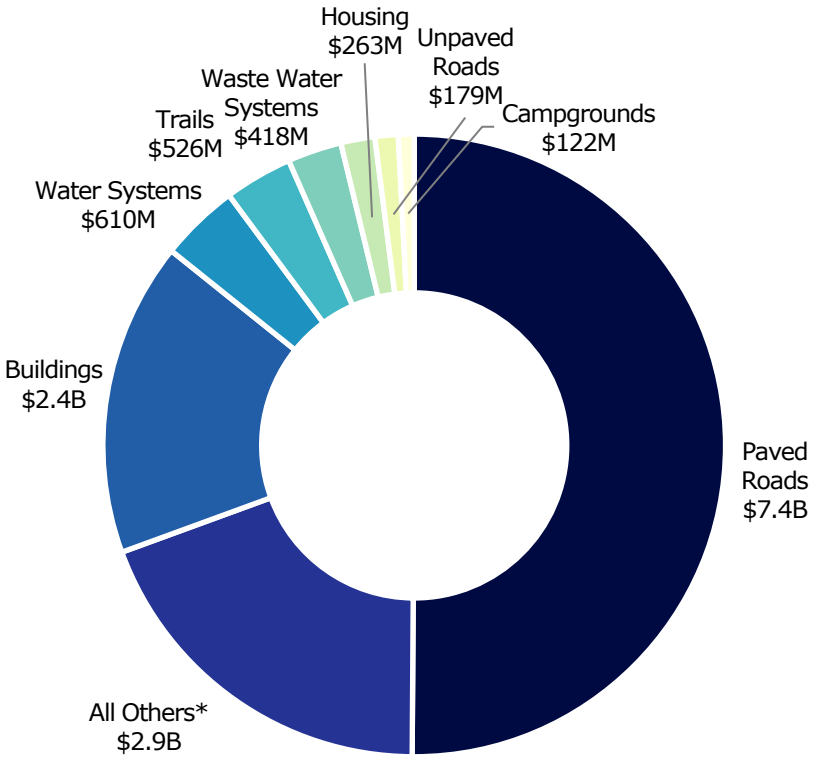
Figure 1: Reported NPS Deferred Maintenance Increase FYs 2016–2021



The NPS reported that contributing factors to the increasing deferred maintenance included aging infrastructure, heavy visitor use, and insufficient funding to keep pace with repair needs. The NPS also reported that the FY 2021 increase was due, in part, to a change in how it estimated deferred maintenance costs. Specifically, the NPS added a blanket 35 percent markup to its estimated deferred maintenance. In FY 2021, the NPS calculated approximately $20 billion in deferred maintenance, which was an increase of approximately $5.2 billion in deferred maintenance. The addition of the 35-percent markup to the $20 billion increased the NPS' FY 2021 deferred maintenance by another $3.7 billion, resulting in an $8.8 billion increase over FY 2020.

The NPS uses asset categories to track and report its 75,000 assets. Figure 2 shows these asset categories for the NPS' FY 2020 deferred maintenance estimates.

Figure 2: FY 2020 Deferred Maintenance by Asset Category



* The "All Others" asset category includes a wide variety of assets, including waysides and picnic areas, radio systems, fuel systems, marinas and boat ramps, dams, and amphitheaters.

NPS Asset Management Roles and Responsibilities

The NPS has three levels of responsibility for facility management regarding deferred maintenance: Park Facility Management, Regional Facility Management, and the Washington Support Office. In addition, the NPS GAOA Program Office provides GAOA-specific support.

The Park Facility Management staff have the greatest responsibility for addressing deferred maintenance. At the time of our evaluation, the park staff used the NPS' Facility Management Software System (FMSS) to ensure asset condition assessments were completed; they also created maintenance repair work orders, assigned work order status, and added cost estimates. The NPS used the FMSS to identify, manage, and track all park maintenance repairs, including deferred maintenance. Park staff used the Cost Estimating Software System to generate cost estimates, which they could either export to the FMSS or enter directly in a work order.[5]

[5] Work orders are the source documents for maintenance repairs for all park assets such as trails, visitor centers, and campgrounds, as well as water systems and roads. The NPS uses 10 categories for its facility maintenance work orders, including deferred maintenance. Separately, the NPS also uses the Health, Life, and Safety (HLS) classification, which is identified in the NPS' *Business Practices: Risk Assessment Codes*, to identify issues that need immediate attention—for example, an unsafe building.

Park staff were also responsible for determining when a maintenance or repair work order became deferred maintenance as well as for classifying and documenting work orders with HLS maintenance issues in the FMSS. For example, if park staff determined that a building was unsafe, it was their responsibility to create a new work order to quickly mitigate the HLS concern.

We were told that park staff may complete the maintenance identified in work orders depending on park staff availability, expertise, or direct park funding. Otherwise, during the annual budgeting process, park staff prioritized work orders that could be completed in-house or bundled work orders (which can include those classified as deferred maintenance) into projects that needed contractor technical expertise or additional funding resources. The bundled work orders were sent to the NPS Regional Facility Management staff for prioritization and funding authorization. When the maintenance or repair has been completed, the park staff are responsible for updating and closing each work order in the FMSS.

Regional Facility Management staff determine funding eligibility and prioritize project submissions for all parks within the respective region. The Washington Support Office prioritizes and reviews projects across the NPS and allocates funding to each region; it also provides guidance and oversight for all NPS facility maintenance. Finally, the NPS GAOA Program Office provides additional program management oversight and guidance for current and future projects funded through the LRF. This office was established in FY 2021 and works with the Washington Support Office to prioritize and then submit projects for LRF funding. The DOI's GAOA Program Management Office then approves the LRF funding for these projects.

Once a project is approved and funded, the work is either completed by park personnel or through a contract. At that point, the NPS should close the project and work order.

Results of Evaluation

The NPS' Deferred Maintenance Data Was Inaccurate and Unreliable

We found that the NPS did not have the quality information necessary to make informed decisions and that, instead, its deferred maintenance data were inaccurate and unreliable.[6] Specifically, the NPS did not consistently identify, enter, and classify deferred maintenance work orders or verify their accuracy—which in some cases understated and in others overstated its deferred maintenance estimates.

The NPS Did Not Consistently Identify, Enter, and Classify Deferred Maintenance Work Orders

We found inconsistencies in how the NPS identified its deferred maintenance needs, entered its deferred maintenance work orders, and classified existing work orders as deferred maintenance in the FMSS. Some work orders that were years old were not categorized as deferred maintenance, thereby underestimating the amount of needed deferred maintenance. At the 15 parks we reviewed, we identified approximately 26,000 open work orders with estimated costs of $371 million that were 3 years or older but that had not been classified as deferred maintenance. These work orders included necessary repairs for NPS employee housing assets, such as

[6] The U.S Government Accountability Office's (GAO's) internal control standards state that management must have quality information to make informed decisions to evaluate its performance in achieving its objectives. GAO characterizes quality information as information that is current, complete, and accurate.

repairing broken smoke alarms, rehabilitating kitchens, replacing heaters and roofs, repairing leaks, and providing exit signs.

When we expanded our analysis across all NPS parks, we identified a total of approximately 214,000 work orders that were 3 years or older that were not classified as deferred maintenance—this amounted to a total of $2.6 billion that was not included in the NPS' deferred maintenance calculations.

We found that park personnel had varying practices relating to when to identify and enter deferred maintenance work orders or classify existing work orders as deferred maintenance. For example, some would classify existing work orders as deferred maintenance based on the life cycle of the assets or if the work orders were delayed. Others would classify existing work orders as deferred maintenance after the work order had been open for one year.

These varying practices mean that the NPS has not fully defined, and so cannot accurately account for, the parks' deferred maintenance needs. The NPS' policies and procedures do not provide guidance on when park personnel should identify, enter, and classify work orders as deferred maintenance in the FMSS. Inconsistently identifying, entering, and classifying deferred maintenance work orders and failing to verify their status in the FMSS leads to inaccurate deferred maintenance estimates, which results in an incomplete picture of the NPS' deferred maintenance needs. Without reliable data, the NPS cannot make informed decisions to manage its deferred maintenance.

The NPS Did Not Consistently Verify the Accuracy and Completeness of FMSS Data

The NPS also did not consistently verify the accuracy and completeness of FMSS data regarding deferred maintenance work orders (e.g., work order status, cost estimates, and duplicate work orders) due to inconsistent monitoring at all levels. We found that the NPS did not consistently close deferred maintenance work orders in the FMSS after the work was completed even though changing the work order status to closed is the final step in the work order process. For the 15 parks we reviewed, we identified 580 open deferred maintenance work orders that included a "finished date" entered in the FMSS, suggesting that the work had been completed and that these work orders should have been closed. Because the work order status was not updated to "closed," the estimated cost for deferred maintenance in the work orders was included in the NPS total deferred maintenance estimate. These work orders, if closed in the system, would lower the NPS' deferred maintenance estimate by approximately $86 million.

When we expanded our analysis across all NPS parks, we identified a total of 3,667 open deferred maintenance work orders with a "finished date" entered in the FMSS. These work orders, if closed in the system, would lower the NPS' deferred maintenance cost estimate by up to $364 million.

The NPS does not have a monitoring mechanism to ensure the accuracy and completeness of its FMSS data. Failing to monitor the FMSS data consistently across the NPS results in inaccurate and incomplete deferred maintenance reporting, and it also means that inconsistencies from different park practices are built into the system. Without reliable data, the NPS cannot make informed decisions on how to manage its deferred maintenance, improve program effectiveness and accountability, and potentially enhance decision making.

The NPS' Data Quality Weaknesses Are Amplified by Its Application of a Blanket Markup

We found that the NPS added $3.7 billion to its initial deferred maintenance estimate in FY 2021 without a methodology to support this approach. It did so based on the year-end deferred maintenance balance that included each asset's deferred maintenance cost estimates for each asset, which were the basis for the NPS' deferred maintenance estimate calculation. The initial FY 2021 deferred maintenance calculation included in the balance was $20 billion; however, the NPS then added a blanket 35-percent markup, which increased the FY 2021 deferred maintenance estimate to $23.7 billion.[7]

According to an October 5, 2021, internal NPS memorandum, *Changes to National Park Service Deferred Maintenance Reporting for Fiscal Year 2021*, the NPS started adding 35 percent to deferred maintenance cost estimates for all assets reported to both the Federal Real Property Profile and the Federal Accounting Standards Advisory Board (FASAB).

We identified two major concerns with the assumptions used in NPS' approach, which call into question the validity of applying a 35-percent project execution cost to all deferred maintenance work orders. First, the NPS could not provide supporting documentation demonstrating the validity of the 35-percent project execution add-on for all NPS deferred maintenance work orders. We note that the percentage conforms with what the Federal Highway Administration uses for public road and bridge projects. Although this may be appropriate for some NPS deferred maintenance projects, adding such a significant amount to the overall balance without a methodology can lead to inaccurate cost estimates.

Second, the NPS applied this markup to all deferred maintenance included in the FY 2021 FMSS data with the assumption that all work would be completed by contractors. We learned, however, that NPS staff at multiple parks complete some work orders instead of contractors.

The NPS added this blanket 35-percent markup to all work orders instead of individually revising its deferred maintenance work order cost estimates to accurately reflect the work that would be completed by contractors or NPS staff. This occurred because the NPS does not have processes or procedures in place to identify work orders that will be completed by NPS staff or contractors. Further, the NPS' Park Facility Management Division told us that it could not determine if work had been or would be completed by NPS staff using the information available in the FMSS.

As a result, the NPS did not accurately estimate the cost of its deferred maintenance. This issue is further complicated by the data reliability issues discussed above—that is, the blanket markup is being layered on top of information that is already unreliable. This markup accordingly contributes to an inaccurate deferred maintenance figure, which may affect internal and external stakeholders alike. Without addressing both the underlying data inaccuracies and the appropriateness of the blanket markup, the NPS cannot make informed decisions to manage its deferred maintenance.

[7] The increase from $20 billion to $23.7 billion was the result of a 35-percent markup applied to all work orders except transportation deferred maintenance work orders (paved and unpaved road asset categories, including bridges). The Federal Highway Administration already included a 35-percent project execution cost markup in those work order estimates.

The NPS Did Not Consistently Monitor, Complete, and Close Open Critical Health, Life, and Safety Work Orders

The NPS identifies five classifications[8] for HLS work orders and establishes timelines for their completion. Specifically, it defines "critical" HLS work orders as those that pose "immediate danger to life, health, property, or infrastructure." According to the NPS guidance, work orders with this classification require immediate action to correct the issue or, if full remediation is not possible, implementation of an interim control measure to reduce the risk to an acceptable level until full remediation can be completed. For example, if an HLS work order identifies that a trail bridge used primarily for hiking and camping needs to be replaced, an interim control measure would be to close the bridge and temporarily relocate the trail until the NPS could replace the bridge.

For the 15 parks we reviewed, we identified timeliness concerns for 29 open critical HLS work orders. Although all 29 open critical work orders had interim control measures in place, we found two were duplicate and 12 had been open for more than 5 years.

For example, five open work orders designated as "critical" were related to mold in buildings. In these instances, NPS staff officially closed the buildings in 2014 as an interim control measure rather than immediately fix the issue, even though the staff designated the work orders as emergency maintenance. While an interim control measure mitigated the immediate risk, it did not address the original hazard. In addition, in these cases, the NPS was not able to use multiple buildings for their intended purpose—including visitor lodging, a coffee shop, a camp store, and a restaurant—for more than 5 years. Both the coffee shop and lodging were initially closed in 2010 when the NPS could not find concessionaires to run the properties. During the initial closures, the buildings began to deteriorate. When the NPS inspected the buildings in January 2014, it found mold. At that time, the NPS wrote an interim control measure work order to officially close the buildings; however, this resulted in larger deferred maintenance issues because the work order to remediate the mold was not immediately addressed. The coffee shop recently reopened after a long-term effort to raise nearly $1 million with nonprofit and community funding support, which included more than $250,000 for mold remediation.

We also noted that, even when NPS staff implemented an interim control measure instead of correcting the issue, staff may not have implemented those measures within the required response times. For example, the FMSS showed that nine of the 29 open work orders had interim control measures that were not listed as completed for more than 5 months.

The NPS told us that all 29 critical HLS work order delays occurred because it does not have sufficient guidance for monitoring or verifying the ongoing status of HLS work orders. The appliable NPS guidance includes a requirement to "Review and Update Assessment of Hazards Periodically." The guidance, however, does not define how often staff should conduct reviews beyond "periodically."

Without clear guidance on interim control measure timeliness and HLS work order closure expectations, as well as policies establishing processes to ensure compliance by monitoring those

[8] The five classifications and their required response times are (1) critical—immediate, (2) serious—15 days, (3) moderate—12 months, (4) minor—2 years, and (5) negligible—5 years.

timeframes, the NPS cannot ensure that it will timely complete HLS work orders or interim control measures to ensure the safety of both the public and NPS employees.

Office of Inspector General Recommendations and NPS Response

We made eight recommendations to help the NPS increase its effectiveness in identifying and managing its deferred maintenance. We recommend that the NPS:

1. Develop and implement policies and procedures that define the circumstances and timeframe in which to enter work orders into its maintenance software system (e.g., the Facility Management Software System).
2. Update current policies and procedures to clarify when to classify existing work orders as deferred maintenance in its maintenance software system (e.g., the Facility Management Software System).
3. Identify and update deferred maintenance data in its maintenance software system (e.g., the Facility Management Software System) to ensure all data are accurate and complete.
4. Develop and implement a monitoring mechanism for deferred maintenance data in its maintenance software system (e.g., the Facility Management Software System) to routinely verify that deferred maintenance data are accurate and complete. This monitoring mechanism should define the roles and responsibilities for each facility management level.
5. Develop and implement policies and procedures that provide guidance for appropriately estimating the cost of maintenance projects.
6. Include accurate estimates for all existing and future work orders based on the guidance developed under Recommendation 5.
7. Verify that existing Health, Life, and Safety work orders address the original hazard, are completed, and are closed.
8. Develop and implement an oversight mechanism that monitors Health, Life, and Safety work orders to verify the original hazards are addressed and completed within the required timeframes.

Based on the NPS's response and our analysis of that response, six recommendations are resolved, and two recommendations are unresolved. In particular, Recommendation 5 and Recommendation 6 are considered unresolved. Although the NPS stated that it concurred with these recommendations, we did not agree that the NPS' description of the actions it intended to take would address the concerns to which these recommendations were directed.

More generally, with respect to the issues set forth in our report, the NPS stated that it began implementing a new methodology for estimating deferred maintenance using "parametric condition assessments," a methodology based on visual assessments of conditions. The NPS stated that the new methodology removes the need to enter work orders for the purpose of *estimating* deferred maintenance because, once the new methodology is fully implemented, work orders will be created within the FMSS only when a project is *funded*. Based on the information we have received to date, it does not appear that this new methodology, on its own, addresses the

ongoing risk that the assessments may not be updated as deferred maintenance work is completed. Therefore, we believe that the NPS still faces risks in managing overdue maintenance and repairs if it does not develop and implement a process to ensure that data within the FMSS are accurate and complete. It is our belief that, even after implementation of the revised estimation approach, the NPS will need to address a number of potential concerns relating to its deferred maintenance projects.

Appendix: FY 2020 NPS Parks Reviewed[9]

Park	Region	Deferred Maintenance ($)	Total Assets
President's Park (White House)	National Capital	62,244,044	94
Herbert Hoover National Historic Site	Midwest	4,445,417	96
Presidio of San Francisco	Pacific West	32,997,744	98
White Sands National Monument	Intermountain	6,358,112	98
San Juan National Historic Site	Southeast	315,649,911	99
Wrangell St Elias National Park	Alaska	18,655,577	392
New River Gorge National Park and Preserve	Northeast	16,296,689	485
Mammoth Cave National Park	Southeast	93,414,607	490
Mesa Verde National Park	Intermountain	117,726,547	492
Voyageurs National Park	Midwest	15,861,315	492
Chesapeake and Ohio Canal National Historical Park	National Capital	163,602,569	1,246
Appalachian National Scenic Trail	Northeast	28,826,979	1,556
Blue Ridge Parkway	Southeast	681,423,081	1,846
Yosemite National Park	Pacific West	637,373,863	2,121
Yellowstone National Park	Intermountain	1,221,356,125	2,823

[9] We judgmentally selected these parks based on their total number of assets, arriving at 5 of its 249 parks with 1 to 99 assets, 5 of its 111 parks with 100 to 499 assets, and 5 of its 37 parks with 500 or more assets. We also ensured that each of the NPS' seven regions was represented by at least one park.