



DEPARTMENT OF VETERANS AFFAIRS  
**OFFICE OF INSPECTOR GENERAL**

*Office of Audits and Evaluations*

VETERANS HEALTH ADMINISTRATION

Veterans Integrated Service  
Network 21's Management  
of Medical Facilities'  
Nonrecurring Maintenance

AUDIT

REPORT #19-06004-225

OCTOBER 21, 2021



## MISSION

The mission of the Office of Inspector General is to serve veterans and the public by conducting meaningful independent oversight of the Department of Veterans Affairs.

*In addition to general privacy laws that govern release of medical information, disclosure of certain veteran health or other private information may be prohibited by various federal statutes including, but not limited to, 38 U.S.C. §§ 5701, 5705, and 7332, absent an exemption or other specified circumstances. As mandated by law, the OIG adheres to privacy and confidentiality laws and regulations protecting veteran health or other private information in this report.*

**Report suspected wrongdoing in VA programs and operations  
to the VA OIG Hotline:**

[www.va.gov/oig/hotline](http://www.va.gov/oig/hotline)

**1-800-488-8244**



## Executive Summary

The Non-Recurring Maintenance (NRM) program is the Veterans Health Administration's (VHA) primary means of addressing VA's large and growing deferred maintenance backlog for its medical facilities.<sup>1</sup> The purpose of the program is to maintain safe and efficient medical facility infrastructure by renovating, repairing, maintaining, and modernizing within the existing structure. Reducing deferred maintenance is critical because poorly maintained building infrastructure could disrupt clinical operations, impede veterans' access to health care, cause accidents, and increase operating costs. In fiscal year (FY) 2012, VA established the target of reducing its maintenance backlog by 95 percent over 10 years, but as of March 2021 the deferred maintenance cost estimates have instead more than doubled from \$11.3 billion to an estimated \$24.2 billion—an increase of over 115 percent.<sup>2</sup>

This audit sought to determine whether Veterans Integrated Service Network (VISN) 21—the regional system of hospitals serving California, Hawaii, and Nevada—effectively managed its NRM needs by executing each of its hospitals' and facilities' long-range action plans. Within VISN 21, deferred maintenance cost estimates have increased from \$599.3 million in FY 2012 to \$1.4 billion as of March 2021.<sup>3</sup>

### What the Audit Team Found

From FY 2015 through FY 2018, the VISN 21 capital asset office approved 190 NRM projects with estimated costs of over \$1 million each in medical facilities' long-range action plans. The plans identified projects the medical facilities needed to fund to achieve their target for reducing maintenance backlog in the next three fiscal years. However, as of March 2021, VISN 21 medical facilities made progress on only 34 of 190 approved NRM projects (18 percent). The projects approved in long-range action plans for VISN 21 medical facilities were not executed for the following reasons:

- Medical facilities were allowed to execute nonurgent, out-of-cycle projects instead of prioritizing long-range action plan projects.

---

<sup>1</sup> Deferred maintenance backlog is defined as infrastructure in need of repair or replacement graded D (poor) or F (critical) as identified by the facility condition assessments. VA uses the facility condition assessment as the starting point for determining the financial liability reported for the deferred maintenance. The cost estimates represent the amount needed to return the assets to their acceptable operating condition.

<sup>2</sup> VHA estimated maintenance backlog based on the Capital Asset Inventory amount reported on March 3, 2021. The FY 2020 total reported in VA's Capital Asset Management System-Business Intelligence was \$22.2 billion.

<sup>3</sup> VHA has divided its medical facilities into 18 VISNs, which are regional systems working together to better meet local healthcare needs and provide greater access to care. A map of the 18 VISNs can be found at <https://www.va.gov/HEALTH/visns.asp>.

- VISN 21's engineering staffing was insufficient to execute long-range action plans because VA lacks a staffing model to help ensure adequate project management resources for each medical facility.
- VISN 21 medical facilities' long-range action plans were not achievable based on the requested NRM budget levels.
- The NRM program lacked a deferred maintenance performance metric to measure progress.

As a result, VISN 21 has not made substantial progress on reducing its maintenance backlog. Until these issues are addressed, VISN 21's maintenance backlog will continue to grow, which poses the risk of service interruptions, environmental problems, accidents, and increased operating costs.

VA's \$24.2 billion maintenance backlog puts a significant stress on its limited NRM budget, requiring medical facilities' projects to be prioritized to address their most critical needs. Those stresses increase as VA has turned to the NRM budget to assume some of the costs associated with upgrading the physical infrastructure needed to deploy a new patient electronic health record (EHR) system. These physical infrastructure costs include improvements to electrical wiring, ventilation, and cabling.

A prior VA Office of Inspector General (OIG) report on the EHR effort indicates that in FYs 2019 and 2020, VHA used about \$6.6 million and \$55.8 million, respectively, from the medical facilities' appropriation to fund EHR program-related physical infrastructure upgrades.<sup>4</sup> That report indicates that "VA officials have stated the plan is to ensure sufficient funding is available from nonrecurring maintenance to pay for future years' [EHR modernization] infrastructure upgrades." To help accomplish these upgrades, VA requested \$685 million be added to its \$1.9 billion FY 2021 NRM budget request. The NRM program's commitment to support these EHR costs underscores the need for VA to address the program's vulnerabilities and to ensure its resources are used efficiently and effectively.

### **Medical Facilities Were Allowed to Execute Nonurgent, Out-of-Cycle Projects Instead of Prioritizing Long-Range Action Plan Projects**

From FY 2015 through FY 2018, VISN 21 managers approved 61 out-of-cycle projects and made progress on 49 of them (80 percent).<sup>5</sup> The audit team reviewed the project justifications, which were approved to address urgent needs, and determined that 28 of the 61

---

<sup>4</sup> VA OIG, *Deficiencies in Reporting Reliable Physical Infrastructure Cost Estimates for the Electronic Health Record Modernization Program*, Report No. 20-03178-116, May 25, 2021.

<sup>5</sup> Out-of-cycle project submissions occur when a project is deemed to be an "urgent need" that cannot be approved through the Strategic Capital Investment Planning process used to develop VHA's annual NRM budget requests.

projects (46 percent) did not meet the urgent-need criteria for approval set forth by the Office of Asset Enterprise Management.<sup>6</sup> Moreover, although medical facilities obligated \$115.8 million toward these projects, they obligated only \$72.5 million for projects prioritized through the Strategic Capital Investment Planning process. This disproportionate reliance on out-of-cycle approvals to fund NRM projects demonstrates that VISN 21 medical facilities were not committed to executing their long-range action plans.

Although out-of-cycle projects help address emergency maintenance needs, project approvals should be limited to those that meet the criteria for an urgent need. However, VISN 21 capital asset management officials said they adopted a very lenient interpretation of the out-of-cycle criteria, and that their primary concern when approving an out-of-cycle project was to determine whether the local medical facility had funding to finance the project.<sup>7</sup>

Out-of-cycle NRM projects that VISN 21 approved also required second- and third-level approval by officials in VHA's Office of Capital Asset Management and Engineering Support and VA's Office of Asset Enterprise Management. When the audit team interviewed the officials responsible for approving these out-of-cycle projects, they stated that they relied on VISN 21 capital asset management officials to review projects for compliance with the out-of-cycle criteria and rarely rejected a project that was initially approved by VISN 21.

### **VISN 21's Engineering Staffing Was Insufficient to Execute Long-Range Action Plans Because VA Lacks a Staffing Model to Help Ensure Adequate Project Management Resources for Each Medical Facility**

VHA needs to develop an engineering staffing model to help ensure VISN 21 medical facilities have the project managers needed to accomplish the maintenance projects in their long-range action plans. After comparing each VISN 21 medical facility's estimated maintenance backlog with its engineering staffing level, the audit team found engineering resources did not match the strategic needs of each facility. For example, within VISN 21, the San Francisco VA Medical Center had the largest maintenance backlog of \$488.4 million but had one of the smallest engineering staffs, with only seven full-time engineers. In contrast, the Palo Alto VA Healthcare System had 25 full-time engineers with a similar maintenance backlog of \$469.9 million. Reno, Las Vegas, and Martinez medical facilities also had more full-time engineers than San Francisco, but their maintenance backlogs ranged from 8 percent to 17 percent of San Francisco's backlog.

---

<sup>6</sup> Urgent needs were defined by the Office of Asset Enterprise Management's out-of-cycle project approval memorandums as projects that address potential threats to safety, protection of property, unique financial opportunities, or address VA secretary priorities that need to be completed immediately.

<sup>7</sup> This funding often came from the appropriation for medical facilities because of budget allocations exceeding actual expenses for an individual medical facility.

VISN 21 capital asset management officials explained that the discrepancies were caused by difficulties in hiring and retaining medical facility engineering staff in the highly competitive Silicon Valley job market. They discussed with the audit team alternatives to hiring engineers, such as using non-engineers as project managers, hiring contractors to support the development of project requirements, and sharing engineers between facilities located close to one another.

### **VISN 21 Medical Facility Long-Range Action Plans Were Not Achievable Based on NRM Budget Levels Requested**

In addition to the problems with VISN 21's local management processes, VA's budget process and lack of performance measures for NRM projects prevented VISN 21 from executing its long-range action plans. Specifically, VA did not make project approval contingent on expected funding or the NRM program's progress in reducing its maintenance backlog. Aligning strategic plans with expected NRM budget levels needs to occur before the medical facilities create their long-range action plans.

The audit team compared the amount of NRM resources allocated to VISN 21 (\$126.8 million) with the estimated cost of executing all NRM projects contained in the medical facilities' long-range action plans (\$817.5 million) and found that executing the plans was not possible. VISN 21 NRM budget allocations totaled about 16 percent of the estimated cost of all NRM projects listed in the medical facilities' long-range action plans.

The Office of Asset Enterprise Management's executive director explained that NRM budget requests were based on both the level of funding VHA expected to receive from the Office of Management and Budget and the amount that could be obligated based on a medical facility's ability to execute NRM projects, not the amount needed to fund all the projects approved in the plan. The executive director confirmed to the audit team that the plan and VA's budget are not consistent, despite the Office of Management and Budget's Capital Programming Guide requirements, because the prioritized list of NRM projects in a medical facility's long-range action plan is not used to support the NRM budget request.

The OIG concluded VA needs to create long-range action plans based on the expected availability of the program's budgetary resources.

### **The NRM Program Lacked a Deferred Maintenance Performance Metric to Measure Progress**

The NRM program lacks deferred maintenance performance measures because officials in VA's Office of Capital Asset Management Engineering and Support and VHA's Office of Asset Enterprise Management could not agree on a metric. The OIG found VHA did not track or report the reduction of the maintenance backlog based on the execution of projects. VHA instead reported the expected decline in the maintenance backlog if medical facilities successfully

execute their long-range action plans over a 10-year period. This projection assumes the plans are fully funded and there are adequate project management resources available.

From 2012 to 2021, VISN 21's deferred maintenance backlog costs were not reduced to the planning targets found in the long-range action plans. As previously mentioned, the backlog more than doubled. If VISN 21 had completed all 190 projects in its FY 2015 through FY 2018 long-range action plans, it would have addressed \$197.3 million of its \$1.4 billion maintenance backlog (14 percent). However, VISN 21 initiated only 34 of 190 NRM projects, which addressed just \$27.5 million of its maintenance backlog (2 percent).

## **What the OIG Recommended**

The OIG made seven recommendations to help the VISN, VHA, and VA more effectively manage NRM needs and clear its backlog. The director of VISN 21 should ensure out-of-cycle projects meet the criteria for urgent need before approving them and study options for expanding engineering resources. The under secretary for health should implement and annually review an engineering staffing model that aligns with medical facilities' NRM needs. The under secretary for health should ensure medical facilities design long-range action plans that are feasible based on expected NRM budget levels. Finally, the executive director of VA's Office of Asset Enterprise Management should enforce the urgent-need criteria and the undersecretary for health should establish performance measures and reporting standards to ensure NRM projects that align with VA's strategic goals are executed.

## **Management Comments**

The director of VISN 21 concurred with recommendations 1 and 2. The acting under secretary for health concurred with recommendations 3, 4, 5, and 7. The executive director of the Office of Asset Enterprise Management concurred with recommendation 6. See appendix B for the VISN 21 director's comments, appendix C for the acting under secretary for health's comments, and appendix D for the executive director of the Office of Asset Enterprise Management's comments in their entirety. The OIG will follow up on the implementation of the planned actions (including those marked as "complete" by VA) when the plans are found to be sufficient and will close the recommendations when adequate documentation of corrective action is received.



**LARRY M. REINKEMEYER**  
Assistant Inspector General  
for Audits and Evaluations

## Contents

Executive Summary.....	i
Abbreviations.....	vii
Introduction.....	1
Results and Recommendations .....	8
Finding: VISN 21 Medical Facilities Executed Only 18 Percent of NRM Projects on Their Long-Range Action Plans .....	8
Recommendations 1–7 .....	22
Appendix A: Scope and Methodology .....	25
Appendix B: Management Comments, VISN Director.....	27
Appendix C: Management Comments, Veterans Health Administration Under Secretary for Health.....	29
Appendix D: Management Comments, Office of Asset Enterprise Management.....	32
OIG Contact and Staff Acknowledgments.....	35
Report Distribution .....	36

## Abbreviations

EHR	electronic health record
FY	fiscal year
NRM	nonrecurring maintenance
OIG	Office of Inspector General
SCIP	Strategic Capital Investment Planning
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network



## Introduction

The Veterans Health Administration (VHA) operates a nationwide network of medical centers, divided into 18 regional Veterans Integrated Service Networks (VISNs). The VISNs work to better meet local healthcare needs and provide veterans with greater access to care. However, many of the VISNs' medical facilities are behind on maintaining their infrastructure. VHA reported that, as of March 2021, VHA medical facilities had an estimated \$24.2 billion maintenance backlog.<sup>8</sup>

The Non-Recurring Maintenance (NRM) program is VHA's primary means of addressing this growing maintenance backlog for its medical facilities. The purpose of this program is to maintain a safe and efficient medical facility infrastructure by renovating, repairing, maintaining, and modernizing the infrastructure within the existing square footage.<sup>9</sup> The program addresses medical facilities' most pressing infrastructure maintenance needs, as identified by facility condition assessments.<sup>10</sup> As of June 2018, facilities could use the program to address projects valued at less than \$20 million.<sup>11</sup>

However, there is no requirement that NRM funds be spent on maintenance needs exclusively. The NRM program is funded through VA's annual appropriations for medical facilities, which allows NRM resources to be used for projects that reconfigure space to change its function and undertake new construction for clinical-specific initiatives. For example, a May 2021 VA Office of Inspector General (OIG) report noted that in fiscal years (FY) 2019 and 2020, VHA had used about \$6.6 million and \$55.8 million, respectively, from the medical facilities' appropriation to fund its electronic health record (EHR) program-related physical infrastructure upgrades.<sup>12</sup> That report indicates that "VA officials have stated the plan is to ensure sufficient funding is available from nonrecurring maintenance to pay for future years' [EHR modernization] infrastructure upgrades." To help account for these costs going forward, VA's FY 2021 NRM budget request

---

<sup>8</sup> VHA estimated maintenance backlog based on the Capital Asset Inventory amount reported on March 3, 2021. The FY 2020 total reported in VA's Capital Asset Management System-Business Intelligence was \$22.2 billion.

<sup>9</sup> VHA Directive 1002.1, *NRM Program*, September 14, 2005, and May 6, 2020; VHA, *Capital Asset Management Guidebook*, August 2019.

<sup>10</sup> In addition to the NRM program, VHA also uses major and minor construction programs to address deficiencies identified through facility condition assessments. Major construction projects are for the acquisition, construction, or alteration of a medical facility; they have a total project cost greater than \$20 million, and they must be specifically appropriated and authorized before they can begin. Minor construction projects primarily expand existing building square footage to provide additional capacity, construct parking garages, acquire land for a specific intent, provide capital contributions for enhanced-use leases, or demolish structures for replacement. Major and minor programs are separate appropriations from the NRM program.

<sup>11</sup> VA MISSION Act of 2018, Pub. L. No. 115-182 (2018). There is no upper limit for building demolition and pure utility/building system projects, such as boiler plant or chiller plant replacements.

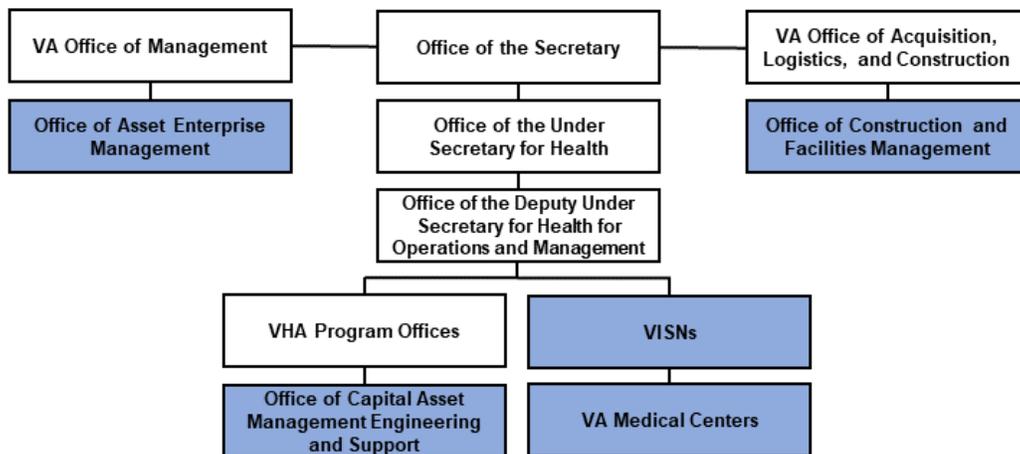
<sup>12</sup> VA OIG, *Deficiencies in Reporting Reliable Physical Infrastructure Cost Estimates for the Electronic Health Record Modernization Program*.

of \$1.9 billion included \$685 million for physical infrastructure upgrades to medical facility electrical work, cabling, heating, ventilation, and cooling for the new EHR system.<sup>13</sup>

Each year, directors at every VA medical center are required to submit a long-range action plan to their VISN capital asset manager, detailing how that facility will reduce its maintenance project backlog and meet strategic goals through the Strategic Capital Investment Planning (SCIP) process. This audit sought to determine whether VISN 21—the regional system of VA hospitals serving California, Hawaii, and Nevada—effectively managed the NRM needs of its facilities through the execution of its long-range action plans.

## Program Governance

Several offices and positions in VHA have responsibilities related to the program. Figure 1 presents VA's governance structure for NRM and the relevant offices. The figure demonstrates how leaders and staff in offices at various levels of VA and across different reporting lines need to work together to align their efforts to ensure NRM resources are spent effectively and in compliance with VA policy. Offices presented in blue are directly involved in the strategic planning and management oversight of NRM projects.



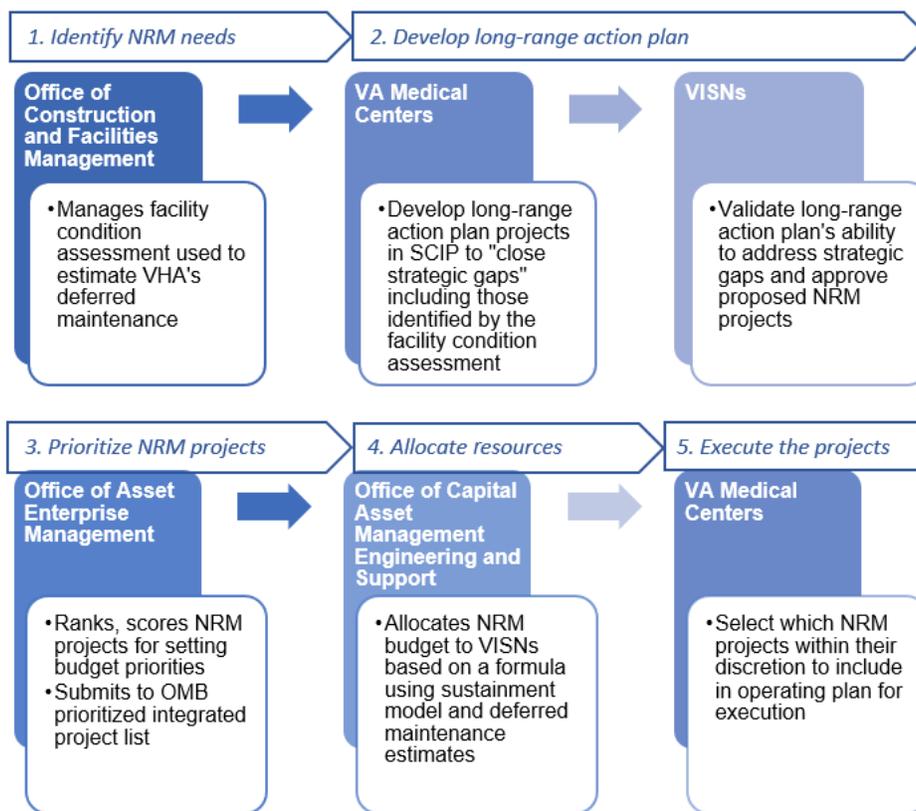
**Figure 1.** Non-Recurring Maintenance program governance structure.  
 Source: VA OIG's summary of various VA and VHA organizational charts.

<sup>13</sup> In May 2018, VA awarded Cerner Government Services Inc. a \$10 billion contract to replace the VA's electronic health record system with a new system that integrates VA and Department of Defense medical records over a 10-year period and replaces dozens of aging legacy systems.

- **VA's Office of Asset Enterprise Management** has overall responsibility for providing oversight and advice for VA's capital assets. The office manages the SCIP process, serves as the principal policy office, and provides business advice regarding capital investment selection and execution, sustainability planning, real property lease oversight, and planning for real property asset disposal.
- **VA's Office of Construction and Facilities Management** is responsible for managing contract engineers who conduct facility condition assessments of VHA infrastructure. Facility condition assessments are used to identify maintenance needs that the program seeks to address.
- **VHA's Office of Capital Asset Management Engineering and Support** provides VHA's guidance, oversight, and technical support for capital and engineering operations for various programs, including Major Construction, Minor Construction, and NRM.
- **The VISN's capital asset manager** is responsible for developing, coordinating, and validating the NRM projects in its medical facilities' long-range action plans. A significant part of this responsibility is monitoring projects to ensure they comply with established guidance.
- **The medical facility's director** is responsible for conducting an annual risk assessment of the facility's infrastructure and reviewing projects the chief of engineering recommends incorporating into the facility's long-range action plan used to address VA strategic goals.

## **NRM Strategic Planning, Budget Development, and Project Execution**

The strategic planning, budget development, and project execution for the program involves multiple management groups aligned under the VA Secretary and the under secretary for health. Figure 2 illustrates the management offices involved in assessing deferred maintenance needs, developing strategic plans to address those needs, approving and prioritizing projects to be included in the annual budget submission, allocating NRM resources to individual medical facilities, and executing NRM projects using those budgetary resources.



**Figure 2.** NRM strategic planning, budget prioritization, budget allocation, and project execution processes.

Source: VA OIG analysis of SCIP long-range action plan and NRM budget process.

Note: Strategic gaps included identified shortcomings in the areas of access, utilization, space, facility condition, energy, and others (such as correcting safety, security, and privacy issues; seismic corrections in existing buildings; and information technology deficiencies). Gaps are expected to be reduced by a specific percentage over the next 10 years.

## Facility Condition Assessments Used to Identify NRM Needs

As the first step in figure 2 indicates, VA's Office of Construction and Facilities Management is responsible for facility condition assessments, which it contracts out to architectural and engineering firms. These firms deploy multidisciplinary teams of architects and engineers who grade each infrastructure system. These teams create cost estimates to repair or replace systems that are considered deficient.<sup>14</sup> Only deficient systems are included in the recorded deferred

<sup>14</sup> A rating of D denotes poor condition and that the asset is at the end of its useful life; F denotes critical condition and requires immediate attention.

maintenance and repairs estimates.<sup>15</sup> VA, in general, uses the facility condition assessment estimates to determine its deferred maintenance and repairs liability for financial reporting purposes.<sup>16</sup> This financial liability represents VA's maintenance backlog costs that have accumulated because the facilities did not, or could not, keep their infrastructure in good working condition.

## **Development of Strategic Plans and NRM Budget Submission**

The SCIP process is VA's systematic approach to approving capital projects and developing its annual budget requests. Each year, VA medical facilities submit 10-year long-range action plans to the VISN capital asset manager for NRM projects.<sup>17</sup> Medical facilities' plans also include business cases for major construction, minor construction, and major lease projects. The long-range action plan includes projects the medical facilities plan to start in the first three fiscal years of the 10-year plan combined with a lump sum cost estimate anticipated to address SCIP gaps for the following seven-year period.<sup>18</sup>

The medical facilities' plans are validated and approved by the VISN capital asset manager for inclusion in the long-range action plan and then forwarded to VA's Office of Asset Enterprise Management for setting budget priorities. The Office of Asset Enterprise Management scores and ranks the NRM projects taking into account how much the project advances VA's strategic goals. The ranked projects are then listed in an integrated project list for all capital projects VA is seeking to fund for that budget year. This list is included within volume IV of its annual budget submission to the Office of Management and Budget.<sup>19</sup>

## **NRM Budget Allocation and Project Execution**

The NRM program is funded from VA's annual appropriation for medical facilities. The funding is allocated to VISNs as part of VA's general-purpose Veterans Equitable Resource Allocation process. NRM budget dollars are distributed to medical facilities based on a methodology developed by the program manager in VHA's Office of Capital Asset Management Engineering

---

<sup>15</sup> Deferred maintenance backlog is defined as infrastructure in need of repair or replacement graded D (poor) or F (critical) as identified by the facility condition assessments. VA uses the facility condition assessment as the starting point for determining the financial liability reported for the deferred maintenance. The cost estimates represent the amount needed to return the assets to their acceptable operating condition.

<sup>16</sup> VA Financial Policy, vol. 5, chap. 9, "General Property, Plant, and Equipment," May 2017.

<sup>17</sup> Before FY 2018, VA medical facilities were only required to submit business cases for long-range action plan projects greater than \$1 million for prioritization and approval as part of the SCIP process. As this audit's scope was focused on the long-range action plan, the OIG did not review projects under \$1 million.

<sup>18</sup> SCIP gaps are deficiencies in six strategic areas that VA is seeking to close through the execution of facilities' long-range action plans. The condition gap, measured by deferred maintenance cost estimates identified through facility condition assessments, is a SCIP gap that VA aims to reduce by 95 percent over a 10-year period.

<sup>19</sup> Volume IV of VA's annual budget submission is its construction and long-range plan.

and Support. First, funding for clinical-specific initiatives is distributed; then VA distributes the remaining funds to VISNs based on a calculation of 60 percent sustainment and 40 percent to deficiencies identified in facility condition assessments.<sup>20</sup>

Once the medical facility receives its NRM budget allocation, the medical facility director has the discretion to select which projects to include in the NRM operating plan for execution. Each fiscal year, the Office of Asset Enterprise Management sends out a call memo requesting VISNs to prepare an annual operational plan for the coming fiscal year that identifies which projects are ready for execution. The operating plan is reviewed by VHA's Office of Capital Asset Management Engineering and Support and submitted to VA's Office of Management for approval.

The medical facility is not required to strictly follow the project prioritization of its long-range action plan when developing their operating plans. According to the VISN 21 capital asset manager, facilities are only expected to execute NRM projects on the long-range action plan if they rank above a certain scoring threshold on the budget submission's integrated project list. VA's Office of Asset Enterprise Management determines which NRM project scores meet this threshold. Funding received beyond this limited set of projects can be used at the facility's discretion pending approval of their operating plan.

## **Out-of-Cycle NRM Project Approvals for Urgent Needs**

NRM projects may also be approved through the out-of-cycle approval process at any time during the fiscal year if projects meet the criteria for an urgent need. VA's Office of Asset Enterprise Management defines an urgent need as<sup>21</sup>

- a project that cannot wait for the next SCIP cycle due to a critical situation (e.g., potential threat to safety, protection of property issue, or a unique financial/market opportunity) that requires the project to be completed in the immediate fiscal year, or
- any project the VA Secretary has committed to or directed to be completed in the immediate fiscal year.

---

<sup>20</sup> A clinical-specific initiative is a stand-alone project at least 50 percent of which addresses VHA's high-profile categories that are difficult to plan through the normal SCIP cycle. High-profile categories are updated annually and include mental health, high-tech/high-cost medical equipment installations, women's health, and efforts to reduce VA's environmental footprint. Sustainment refers to estimates of the annual resources needed to sustain and prevent building systems from becoming deficient. The sustainment model uses cost factors to estimate the amount of resources needed based on the building's age, use, size, and geographical location.

<sup>21</sup> The urgent-need criteria for projects approved from FY 2015 through FY 2018 was defined in operating plan call memos sent out to medical facilities by Office of Asset Enterprise Management officials.

Facility staff submit out-of-cycle projects with a total cost greater than \$1 million to the VISN capital asset manager for approval. In addition to the VISN capital asset manager's approval, the out-of-cycle projects require the approval of the VHA Office of Capital Asset Management Engineering and Support and the Office of Asset Enterprise Management.

## Results and Recommendations

### Finding: VISN 21 Medical Facilities Executed Only 18 Percent of NRM Projects on Their Long-Range Action Plans

From FY 2015 through FY 2018, the VISN 21 capital asset office approved 190 NRM projects in medical facilities' long-range action plans with estimated costs over \$1 million each; these projects should have been started in the following three fiscal years. However, VISN 21 medical facilities made progress toward completing only 34 of 190 approved NRM projects (18 percent), as illustrated in the first two rows in table 1.

**Table 1. Status of Approved Projects in VISN 21's Long-Range Action Plan FY 2015 through FY 2018**

Status	Number of projects	Percent	Estimated cost (\$)*	Obligated amount (\$)
Completed	14	7	38,250,000	32,543,402
Active	20	11	66,964,000	33,638,085
Canceled	7	4	47,837,000	6,273,523
Not Started	149	78	664,495,000	0
<b>Total</b>	<b>190</b>	<b>100</b>	<b>817,546,000</b>	<b>72,455,010</b>

Source: VA OIG analysis of NRM projects approved in SCIP by VISN 21 for FY 2015 through FY 2018, based on project tracking reports as of March 8, 2021.

\* The total estimated costs of \$817.5 million for 190 projects would address \$197.3 million of condition gap correction costs identified by the facility condition assessment. As of March 2021, the VISN 21's maintenance backlog was approximately \$1.4 billion.

Obligated dollars are the amounts committed to project design or construction contracts.

Because so few of the projects approved on VISN 21's long-range action plans were executed, VISN 21 has not reduced its maintenance backlog. Reducing deferred maintenance is critical because poorly maintained building infrastructure could disrupt clinical operations, impede veterans' access to health care, cause accidents, and increase operating costs.

This finding explores the following reasons the medical facilities did not fully execute the NRM projects in their long-range action plans:

- VISN 21 and VA officials allowed medical facilities to execute nonurgent, out-of-cycle projects instead of long-range action plan projects.

- VISN 21's engineering staffing was insufficient to execute long-range action plans because VA lacks a staffing model to help ensure adequate project management resources for each medical facility.
- VISN 21 medical facilities' long-range action plans were not achievable based on NRM funding levels determined by VHA.
- The NRM program lacked deferred maintenance performance measures because officials in VA's Office of Capital Asset Management Engineering and Support and VHA's Office of Asset Enterprise Management could not agree on a metric.

## What the OIG Did

The audit team reviewed all 190 planned NRM projects with estimated costs over \$1 million each that VISN 21 facilities submitted in their long-range action plans for FY 2015 through FY 2018. The team conducted site visits to the VISN office and seven medical facilities in California, Hawaii, and Nevada. For each project, the team reviewed available project management documentation to evaluate whether the planned project had been executed and funded, and if it addressed deficiencies identified in facility condition assessments or other SCIP gaps. The team also interviewed medical facility engineering staff and officials from the Office of Capital Asset Management Engineering and Support, the Office of Asset Enterprise Management, the Office of Construction and Facilities Management, and the VISN. For more information on scope and methodology, see appendix A.

## VISN 21 and VA Officials Allowed Medical Facilities to Execute Nonurgent, Out-of-Cycle Projects Instead of Long-Range Action Plan Projects

NRM policy, as discussed previously, allows out-of-cycle projects to be approved by the VISN capital asset manager and the Office of Asset Enterprise Management director if the projects address an urgent need that cannot wait for the next budget planning cycle.<sup>22</sup> These out-of-cycle projects were not subject to the SCIP process in which NRM projects were prioritized for funding based on their ability to address six strategic gaps related to access, utilization, space, condition, energy, and others (such as correcting safety, security, and privacy issues; seismic corrections in existing buildings; and information technology deficiencies).<sup>23</sup>

---

<sup>22</sup> Urgent needs are projects that address potential threats to safety, protection of property, unique financial opportunities, or projects the VA Secretary has directed to be completed in the immediate fiscal year.

<sup>23</sup> The SCIP process is VA's systematic approach to approving capital projects and developing its annual budget requests. Beginning in the FY 2019 SCIP planning cycle, NRM projects were scored based on VISN project priority, condition gap, and VHA areas of emphasis for the fiscal year.

VHA Directive 1002.1, *Non-Recurring Maintenance Program*, September 14, 2005, does not define the urgent-need criteria used to justify projects that bypass strategic planning processes. Instead, the urgent-need criteria for projects approved from FY 2015 through FY 2018 was defined in operating plan call memos sent out to medical facilities by Office of Asset Enterprise Management officials.<sup>24</sup> On May 6, 2020, VHA updated its NRM policy to include the urgent-need criteria. It is consistent with prior out-of-cycle approval memos.

VISN 21 approved 61 out-of-cycle NRM projects from FY 2015 through FY 2018. The team reviewed the project descriptions and justifications for the 61 projects approved to address urgent needs and determined that 28 did not meet the criteria outlined in the project approval memos (46 percent).<sup>25</sup>

VISN 21 medical facilities made progress on 49 of these 61 projects (80 percent), obligating \$115.8 million for them from FY 2015 to FY 2018—about 60 percent more than the \$72.5 million for NRM projects prioritized through the SCIP process. The disproportionate reliance on out-of-cycle approvals to fund NRM projects demonstrates that VISN 21 facilities granted greater overall preference to out-of-cycle projects than to those in long-range action plans (see table 2).

---

<sup>24</sup> Each year, VA's assistant secretary for management and chief financial officer issues an operating plan call memo requesting the submission of VHA's major construction, minor construction, NRM, and leasing plans. As part of this memo, VA provides the criteria for out-of-cycle projects and then provides instructions for submitting projects for Office of Asset Enterprise Management approval.

<sup>25</sup> Of the 28 projects, six were canceled after the VISN had obligated \$3.7 million in NRM funding.

**Table 2. Status of Approved Out-of-Cycle NRM Projects  
FY 2015 through FY 2018**

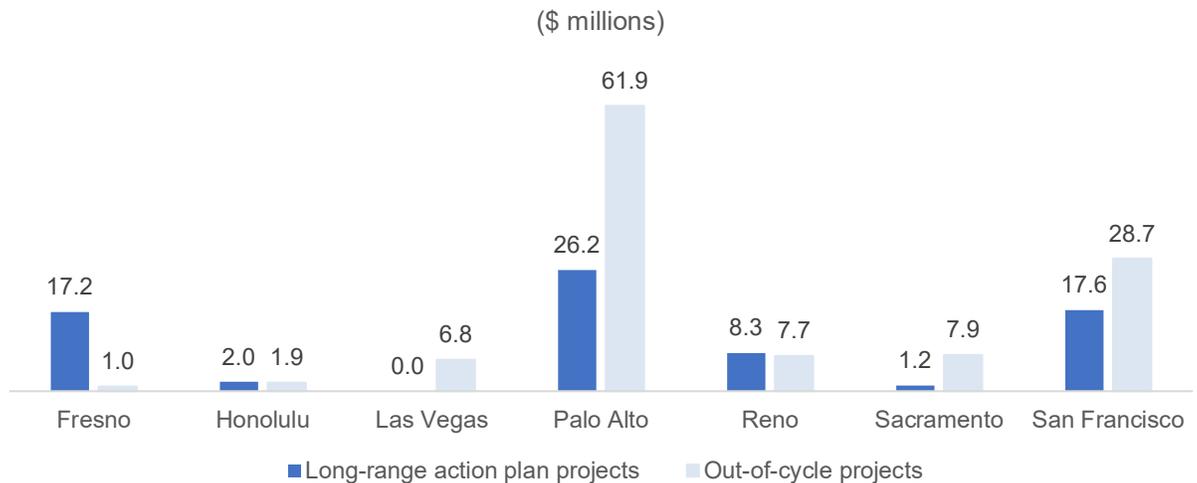
Status	Projects	Percent	Estimated cost (\$)	Obligated amount (\$)
Completed	22	36	32,385,000	35,097,678
Active	19	31	81,665,000	76,481,871
Canceled*	8	13	60,625,000	4,220,053
Not Started	12	20	40,120,000	0
<b>Total</b>	<b>61</b>	<b>100</b>	<b>214,795,000</b>	<b>115,799,602</b>

Source: VA OIG analysis of NRM out-of-cycle projects approved in SCIP by VISN 21 for FY 2015 through FY 2018, based on project tracking reports, as of March 9, 2021.

\* Out-of-cycle projects were canceled for various reasons, the most common being there was another project planned that addressed or supplanted the needs of the out-of-cycle project. For example, the Palo Alto Health Care System required an out-of-cycle project to construct surface parking for building 5. However, the project was canceled when the facility decided to incorporate the parking spaces into a future construction project.

Of the 12 out-of-cycle NRM projects that did not have funds obligated, eight were canceled, one is in scope development, and three were incorporated as part of a utility energy savings contract and seismic projects.

Figure 3 compares amounts obligated for projects funded through long-range action plans and out-of-cycle projects, by VISN 21 medical facility, from FY 2015 through FY 2018.



**Figure 3.** VISN 21 maintenance projects funded through SCIP-approved long-range action plans versus out-of-cycle projects, by medical facility, from FY 2015 through FY 2018.

Source: VA OIG analysis of NRM FY 2015–FY 2018 obligations for projects approved by VISN 21.

The OIG concluded that VISN 21 needs to limit out-of-cycle project approvals to those projects that meet the criteria for an urgent need. VISN 21 could use excess funding from its medical centers' annual appropriation for medical facilities to fund NRM out-of-cycle projects.<sup>26</sup> This excess funding was available when budget allocations exceeded actual expenses under the Medical Facilities Appropriation. With VISN chief financial officer and VHA finance approvals, medical centers can convert this money. In an interview with the audit team, VISN capital asset management officials stated that they adopted a very lenient interpretation of the out-of-cycle criteria and that their primary concern when approving an out-of-cycle project was to determine whether there was enough funding available at the medical facility to finance the project.

After medical facilities receive approval for out-of-cycle projects from the VISN capital asset manager, those projects are sent to VHA's Office of Capital Asset Management Engineering and Support and VA's Office of Asset Enterprise Management for approval. However, when the audit team interviewed officials in those offices responsible for approving out-of-cycle projects, they stated that, from FY 2015 through FY 2018, they relied on VISN 21 capital asset officials to review projects for compliance with out-of-cycle criteria and rarely disapproved projects that were initially approved by VISN 21.

The following three examples are out-of-cycle projects that the audit team determined should not have been approved under the urgent-need criteria by the VISN capital asset manager and Office of Asset Enterprise Management officials.

### **Example 1**

*In August 2017, the VA Palo Alto Health Care System submitted an NRM out-of-cycle project to upgrade landscaping. The \$2.2 million project was approved by both the VISN and the Office of Asset Enterprise Management in August 2017. The project was to upgrade the open space in front of building 530 for a new wellness zone and to develop the parcel between buildings 4 and 101 as open space for patients, visitors, and staff. According to facility staff, the landscaping work was necessary to complete unfinished areas on campus. The audit team reviewed the out-of-cycle project submission and found there was no urgent need documented, and the project did not address any strategic plan gaps. VISN capital asset management officials agreed with the team that the project did not meet the criteria for an urgent need. The medical facility spent \$310,058 on this project before canceling it in July 2020 after local management decided to include the landscaping work in the scope of a future NRM project.*

---

<sup>26</sup> The medical facilities appropriation is used for all expenditures related to the operations and maintenance of VHA's capital infrastructure, including administrative salaries, leases, utilities, and recurring and nonrecurring maintenance.

## Example 2

*In April 2017, the VA Palo Alto Health Care System submitted an NRM out-of-cycle project to construct surface parking for building 5. The system's medical facility stated in its project submission that a \$3.15 million project was necessary to create additional parking to improve veterans' access to care, as another construction project was limiting available parking on campus. The VISN and the Office of Asset Enterprise Management approved this project in August 2017. The team reviewed the out-of-cycle project submission and found no urgent need documented. When the audit team asked Palo Alto facility staff for evidence to demonstrate the urgent need, they could not. Instead, they stated they were able to initiate the project because they had surplus funding available that fiscal year. After expending \$248,239 on the project's design, the facility canceled the project in November 2018 when Palo Alto leaders decided to incorporate the parking spaces into a future construction project.*

## Example 3

*In November 2015, the VA Sierra Nevada Health Care System submitted an NRM out-of-cycle project to renovate building 7 and move the facility's maintenance shop to a new location. The \$4.1 million project was approved by the VISN in February 2016 and the Office of Asset Enterprise Management in April 2016. According to a facility engineer, the project was submitted out-of-cycle to execute the facility's five-year master plan for the campus. The audit team maintains that this project should have been included in the facility's long-range action plan. In addition to reviewing the out-of-cycle project submission, the team also discussed the project justification with VISN 21 capital asset officials. The team concluded that the facility's desire to relocate its maintenance shop did not meet the urgent-need criteria. The project was completed in July 2019.*

VA needs to improve its oversight of the out-of-cycle approval process for NRM projects. Officials at multiple management levels did not follow the Office of Asset Enterprise Management's approval criteria related to approving these projects. The out-of-cycle approval should be reserved for projects that are truly urgent and should not be used to circumvent the SCIP process.

Recommendation 1 calls on VISN 21 to strengthen controls over the approval of out-of-cycle NRM projects.

## VISN 21’s Medical Facilities Lacked Engineering Staff Because VA Does Not Have a Staffing Model to Help Ensure Adequate Project Management Resources

VISN 21 medical facilities would not be able to execute their long-range action plans even if NRM budgets were sufficient to fund all their proposed projects. According to the VISN 21 capital asset manager and medical facility chief engineers, VISN 21 does not have enough engineering staff available to manage the volume of projects submitted in its strategic plan.<sup>27</sup> The audit team reviewed the staffing levels of each VISN 21 medical facility and concluded the engineering resources do not align with the strategic needs of each facility.

The team found the number of engineering staff varied greatly among medical facilities and had little correlation to the amount of deferred maintenance that needed to be addressed. For example, the San Francisco VA Medical Center had the largest maintenance backlog but had one of the smallest engineering staffs—just seven full-time engineers to handle a backlog of maintenance projects valued at \$488.4 million. In contrast, the Palo Alto VA Healthcare System had 25 full-time engineers assigned to handle a maintenance backlog of \$469.9 million. The Reno, Las Vegas, and Martinez (Sacramento) medical facilities also had more full-time engineers than San Francisco, but their maintenance backlogs were much smaller—just 8 to 17 percent of San Francisco’s backlog. Table 3 compares the engineering staff size and maintenance backlog at each facility in VISN 21 and correlates the backlog, in millions of dollars of deferred maintenance per engineer, at each facility in FY 2018.

**Table 3. Facility Engineering Staff per Maintenance Backlog Cost Estimates for FY 2018**

Medical facility	Engineers assigned	Engineers authorized	Engineer vacancy rate (percent)	Backlog costs (\$ millions)	Backlog costs per engineer (\$ millions)*
San Francisco	7	12	42	488.4	69.8
Fresno	6	10	40	95.7	16.0
Palo Alto (Menlo Park, Livermore)	25	45	44	469.9	18.8
Reno	8	11	27	59.5	7.4

<sup>27</sup> Management tasks of engineers include planning, designing, and overseeing professional architecture/engineering and construction contracts. Engineers ensure contractors comply with all contractual requirements, healthcare regulations, and codes and that specifications and schedules are met in accordance with the government’s requirements for facilities that VA owns or leases.

Medical facility	Engineers assigned	Engineers authorized	Engineer vacancy rate (percent)	Backlog costs (\$ millions)	Backlog costs per engineer (\$ millions)*
Las Vegas	10	21	52	40.7	4.1
Honolulu	5	7	29	16.5	3.3
Martinez (Sacramento)	15	25	40	83.7	5.6
<b>VISN Total/Rate</b>	<b>76</b>	<b>131</b>	<b>42</b>	<b>1,254.4</b>	<b>16.5</b>

Source: HR Smart and facility condition assessment data from Capital Asset Management System-Business Intelligence Tool.

\* Calculated by dividing the 2018 maintenance backlog by the number of engineers assigned to the station.

When the audit team spoke with VISN capital asset management officials about this issue, the officials said they had difficulty hiring and retaining engineering staff. They explained that the job market in and around Silicon Valley is very competitive, and they believe many VA engineers choose to leave for better opportunities in the private sector.<sup>28</sup> To become more competitive with the private sector, VA submitted a request to establish special rates for general engineers on November 26, 2019. The Office of Personnel Management approved the request on April 21, 2020. Because this change was made recently, the team did not have sufficient data to evaluate if the higher rates would increase hiring and retention.

VISN capital asset management officials also discussed other options with the team to solve this problem, such as using non-engineers as project managers, contracting out more of the project requirements development work so that engineers can focus on managing projects under construction, and sharing resources between facilities near one another. Several VISN facilities are within a 100-mile radius of one another and could benefit from sharing resources.

Recommendation 2 is for VISN 21 to study using non-engineers to address project management needs, contracting out the development of project requirements, and sharing project management staff across facilities.

Beyond these immediate measures to compensate for engineer shortages, VHA needs an engineering staffing model to guide VISN 21 and its medical facilities in executing long-range actions to achieve the department's strategic goals. A 2020 National Academies of Sciences report recommended that VHA develop a comprehensive resource planning and staffing

<sup>28</sup> The audit team obtained available exit interviews for engineering staff leaving between FY 2015 and FY 2018 to determine the reasons for departure; however, exit interviews were voluntary during this period.

methodology for its engineering programs.<sup>29</sup> The report suggests VHA consider using deferred maintenance as a parameter in creating an engineering staffing model. As part of the framework for determining appropriate engineering staffing levels that the National Academies recommended, VHA would set an engineering staffing base level for all VA medical facilities and then tailor it based on parameters distinct to each VA medical facility.

Recommendations 3 and 4 describe the need for VHA to develop an engineering staffing model and review it annually.

### **VISN 21 Medical Facilities' Long-Range Plans Were Not Achievable Based on Requested NRM Budget Levels**

According to VA's annual budget submission, the SCIP long-range action plan approval process is used in formulating VA's NRM budget request. However, the team determined there is a significant disconnect between the NRM project priorities approved through the strategic planning process and the formulation of NRM budget requests.

Despite the Office of Asset Enterprise Management's target of reducing the maintenance backlog by 95 percent over 10 years, the NRM budget request did not approach the resources necessary to reach this goal.<sup>30</sup> Table 4 illustrates the significant variances between the estimated amount of funding needed to execute all projects approved in VISN 21's long-range action plans and the amount of NRM funding distributed by the VISN to medical facilities.<sup>31</sup> For the six medical facilities that were part of VISN 21 from FY 2015 through FY 2018, the NRM funding ranged from 8 to 35 percent of the costs approved in the facilities' long-range action plans.<sup>32</sup>

---

<sup>29</sup> National Academies of Sciences, Engineering, and Medicine. *Facilities Staffing Requirements for the Veterans Health Administration Resource Planning and Methodology for the Future*, Washington, DC: The National Academies Press, 2020. The National Academies of Sciences, Engineering, and Medicine is a private, nonprofit group of scholars engaged in scientific, technology, engineering, medical, and health research.

<sup>30</sup> VA's SCIP action plan call memos from FY 2015 through FY 2018 established the targets for reducing the maintenance backlog. The OIG recognizes that while major and minor construction projects can also be used to close the condition gap, the NRM program is the primary means to address deficiencies identified through facility condition assessments.

<sup>31</sup> The medical facilities' plans are validated and approved by the VISN capital asset manager for inclusion in the long-range action plan and then forwarded to VA's Office of Asset Enterprise Management for setting budget priorities.

<sup>32</sup> The Las Vegas VA medical facility was excluded from this analysis because it did not become a part of the VISN 21 SCIP process until FY 2018. For SCIP FY 2015 through FY 2017, Las Vegas was part of VISN 22.

**Table 4. Cost Estimates for Approved Projects Compared with VISN 21 Initial NRM Budget Allocations, FY 2015 through FY 2018**

Medical facility	Long-range action plan projects approved by VISN 21	Estimated cost of VISN 21 approved long-range action plan projects (\$)	NRM budget allocation to medical facility (\$)	NRM budget allocation as a percent of long-range action plan cost estimates
Fresno	20	106,450,000	12,563,693	12
Honolulu	5	16,900,000	5,885,060	35
Martinez (Sacramento)	27	88,066,000	21,631,977	25
Palo Alto (Menlo Park, Livermore)	40	286,078,000	44,544,428	16
Reno	36	158,326,000	13,413,318	8
San Francisco	62	161,726,000	28,719,013	18
<b>Total</b>	<b>190</b>	<b>817,546,000</b>	<b>126,757,489</b>	<b>16</b>

Source: VA OIG analysis of VISN 21's long-range action plan and budget allocations from FY 2015 through FY 2018.

Note: From FY 2015 through FY 2018, the VISN 21 capital asset office approved 190 NRM projects with estimated costs over \$1 million each in medical facilities' long-range action plans. The plans identified projects the medical facilities planned to reduce its maintenance backlog and meet strategic goals through the SCIP process in the next three fiscal years.

According to the Office of Management and Budget's Capital Programming Guide, an effective strategic plan should "be consistent with the level of future budgetary resources that will be available."<sup>33</sup> The Office of Asset Enterprise Management's executive director confirmed to the audit team that the prioritized list of NRM projects detailed in a medical facility's long-range action plan is not used to create the NRM budget request because the requested amount comes from VHA Office of Capital Asset and Enterprise Management Service, which was based both on the level of funding VHA expected to receive from the Office of Management and Budget and on the amount that could be obligated given the medical facilities' capacity to execute NRM projects, not the amount needed to fund all the projects approved in the plan.

Developing strategic plans that cannot be executed due to budget constraints ensures that VA will not meet its goals for reducing maintenance backlogs. In addition to underfunding the NRM program, VA has borrowed from its limited resources to cover unfunded mandates such as physical infrastructure upgrades necessary to support VA's new EHR system that were not

<sup>33</sup> Office of Management and Budget, "Capital Programming Guide," Supplement to OMB Circular A-11, rev. December 2019.

appropriately budgeted.<sup>34</sup> This disconnect between the strategic planning and budget development process further contributes to the \$24.2 billion in deferred maintenance liabilities, a total that is likely to continue to grow on VHA's balance sheet.

Recommendation 5 addresses VHA's need to create long-range action plans based on the expected availability of program budget levels.

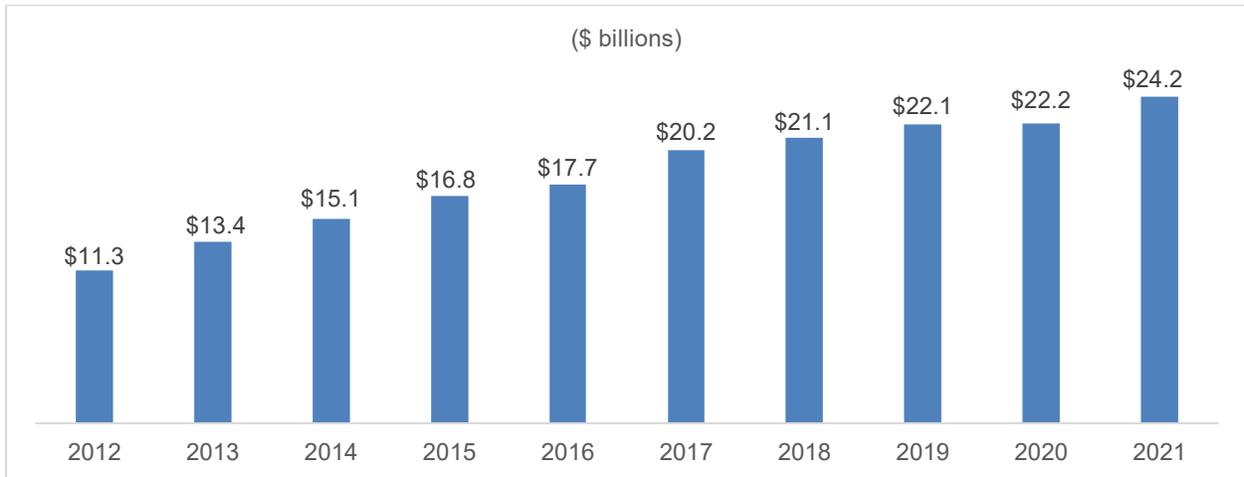
### **The NRM Program Lacked Deferred Maintenance Performance Measures Because VA and VHA Officials Could Not Agree on a Metric**

Effective management of federal facilities requires agencies to establish performance measures and track project outcomes to ensure that maintenance investments align with VA's mission and strategic goals. The NRM program is the largest portion of VA's capital budget request, larger than either the minor or major construction program. However, the OIG found that VA has not implemented meaningful performance measures to determine how effectively it is reducing its maintenance backlog. VA has no requirement that VISNs or medical facilities use the NRM funds received to complete projects that they submitted in their long-range action plans (except projects that rank high enough for prioritization on VA's integrated project list included in the annual budget submission).<sup>35</sup> Consequently, as figure 4 illustrates, since 2012, the program has not been successful in reducing the growth of the maintenance backlog to meet the planning target by 95 percent over 10 years.

---

<sup>34</sup> VA OIG, *Deficiencies in Reporting Reliable Physical Infrastructure Cost Estimates for the Electronic Health Record Modernization Program*.

<sup>35</sup> The integrated project list includes capital projects (major construction, minor construction, new leases, and NRM) over \$1 million being submitted for funding ranked by their ability to close strategic gaps. Projects that score above the threshold for that budget cycle must be started in the year they receive funding.



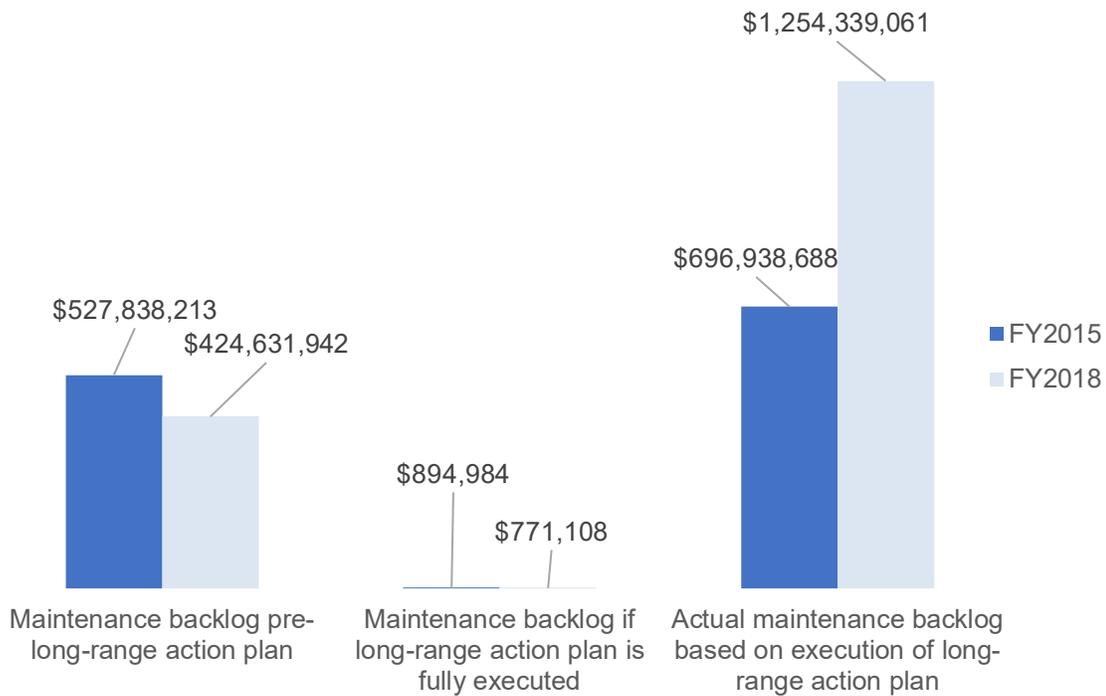
**Figure 4.** Facility condition assessment deficiencies within VHA, FY 2012 through FY 2021.

*Note:* The FY 2021 estimate was based on the VA Capital Asset Inventory amount reported on March 3, 2021.

*Source:* Facility condition assessment data extracted from Capital Asset Management System-Business Intelligence.

Instead of directly tracking or reporting the outcomes of NRM expenditures in reducing its maintenance backlog, VA reports the projected decline in the maintenance backlog if medical facilities successfully execute their long-range action plans over a 10-year period, as if the plans were fully funded and adequate project management resources were available. However, as previously discussed, these plans are not fully funded; therefore, a significant discrepancy exists between the reductions envisioned in the long-range action plans and actual NRM project execution.

VA's Office of Asset Enterprise Management requires facilities to submit long-range action plan projects to achieve maintenance backlog planning targets, but neither VA's Office of Asset Enterprise Management nor VHA's Office of Capital Asset Management Engineering and Support tracks the execution of the planned projects or measures if facilities are making progress toward meeting their targets. Figure 5 illustrates VISN 21's maintenance backlog before developing the long-range action plan, the expected maintenance backlog if the long-range action plan were executed, and the actual maintenance backlog based on NRM project execution for FY 2015 and FY 2018.



**Figure 5.** Maintenance backlog addressed in long-range action plan for VISN 21.

Source: FY 2015 and FY 2018 facility condition assessment maintenance backlog data from SCIP and Capital Asset Management System-Business Intelligence.

Note: FY 2015 and FY 2018 long-range action plans are developed to close FY 2012 and FY 2015 maintenance backlogs respectively.

In April 2020, when the audit team spoke to Office of Asset Enterprise Management officials about measuring the progress of the program, they explained that previous attempts had been made to create more meaningful performance measures. In March 2016, VHA’s Office of Capital Asset Management Engineering and Support discussed tying performance metrics to network directors’ performance standards, but they were concerned that maintenance backlog reduction targets would be too reliant on the varying availability of funding. In April 2018, they discussed using software to analyze performance metrics regarding overall capital asset spending, which would have included funds used to address the maintenance backlog. Ultimately, neither of these discussions led VA to implement a facility condition assessment-specific performance measure.

The director of VHA’s Office of Capital Asset Management Engineering and Support expressed concern with creating a performance metric focusing only on facility condition assessment completion, since medical facilities have multiple priorities to consider when allocating NRM funding, including patient-focused services. A facility condition assessment-specific performance metric could prompt VISN officials to overlook other priorities when selecting projects. The Office of Asset Enterprise Management’s executive director cited issues of funding and cost inflation for existing projects as problematic for creating an accurate performance

metric; he reasoned that, since many of the costs for replacing or repairing systems or buildings are subject to inflation and are out of the relevant field offices' control, they should not be tied to performance.

The Office of Asset Enterprise Management is aligned under the Office of the Secretary, and the Office of Capital Asset Management Engineering and Support reports to the Office of the Under Secretary of Health. This divided management chain could lead to conflict because responsibilities are shared between the two offices. In this case, the Office of Asset Enterprise Management is responsible for creating strategic planning targets that establish the goal of reducing deferred maintenance liabilities through the SCIP process, whereas the Office of Capital Asset Management Engineering and Support is responsible for allocating funds to VISNs for executing NRM projects in the medical facilities' strategic plans. Establishing performance metrics to measure the execution of NRM projects within medical facilities' long-range action plans is critical to achieving the Office of Asset Enterprise Management's strategic goal of reducing VA's maintenance backlog.

The OIG acknowledges that creating meaningful performance measures for the program is not a simple process. However, until VA develops meaningful measures and reports on the results of its NRM investments, VA cannot report accurately on its progress or identify areas needing improvement.

Recommendations 6 and 7 require VA to enforce urgent-need criteria for out-of-cycle project approvals and for VHA to establish performance measures and reporting standards to track its progress in achieving its strategic targets for reducing its maintenance backlog.

## Conclusion

The NRM program's purpose is to maintain a safe and efficient medical facility infrastructure. VHA uses NRM projects to renovate, repair, maintain, and modernize the infrastructure within the existing square footage. This audit determined that VISN 21 was only able to execute 34 of 190 of the NRM projects (18 percent) approved on its long-range action plans for FY 2015 through FY 2018, which addressed just \$27.5 million (2 percent) of its maintenance backlog. One of the goals of these strategic plans is to reduce a medical facilities maintenance backlog by 95 percent over a 10-year period. Since 2012, VHA's deferred maintenance backlog has not been reduced but has instead more than doubled from \$11.3 billion in to an estimated \$24.2 billion as of March 2021—an increase of over 115 percent.<sup>36</sup>

VISN 21, like most VHA facilities, saw its maintenance backlog grow significantly since 2012. Within VISN 21, deferred maintenance cost estimates have increased from \$599.3 million in FY 2012 to \$1.4 billion in FY 2021, as of March 2021. VA, VHA, and VISN 21 management

---

<sup>36</sup> VHA estimate based on VA Capital Asset Inventory amount reported on March 3, 2021.

officials need to improve the NRM strategic planning process, resource allocation, and performance monitoring to ensure strategic goals are achieved. Without these improvements, VISN 21's deferred maintenance backlog will continue to grow. Clinical operations run the risk of being disrupted, which could diminish veterans' access to health care; environmental problems and accidents could occur and jeopardize veteran and employee safety; and operating costs could increase. These problems could also impair VA's ability to upgrade physical infrastructure needed for its new \$10 billion EHR system, which also relies on NRM program's budget.

The OIG made the following recommendations to help VA effectively manage NRM needs and reduce the backlog.

## **Recommendations 1–7**

These seven recommendations are directed to the following officials:

1. The director of the VA Sierra Pacific Network (VISN 21) should ensure out-of-cycle projects conform to NRM policy urgent-need criteria before approving projects.
2. The director of VISN 21 should study the feasibility of using non-engineering staff to oversee NRM contracts, contracting out for project requirements to free up VISN engineering resources, and sharing engineering resources between VISN 21 facilities.
3. The under secretary for health should implement an engineering staffing model for medical facilities that supports the achievement of VA strategic goals.
4. The under secretary for health should perform annual reviews of the engineering staffing model to determine if adjustments are needed to achieve VA strategic goals.
5. The under secretary for health should ensure medical facilities design long-range action plans that are feasible based on expected NRM budget levels.
6. The executive director of the Office of Asset Enterprise Management, in coordination with the under secretary for health, should enforce NRM policy's urgent-need criteria on out-of-cycle NRM project approvals.
7. The under secretary for health in coordination with the executive director of the Office of Asset Enterprise Management should create a standardized set of performance measures and reporting standards for offices involved in developing, approving, and executing long-range action plans to ensure NRM projects that align with strategic goals are executed.

## **Management Comments**

The director of the VA Sierra Pacific Network (VISN 21) concurred with recommendations 1 and 2. The acting under secretary for health concurred with recommendations 3, 4, 5, and 7. The

executive director of the Office of Asset Enterprise Management concurred with recommendation 6.

To address recommendation 1, the VISN director reported that in July 2021, the VISN 21 Capital Management Office reviewed and evaluated SCIP out-of-cycle project applications against the NRM policy urgent-need criteria prior to approval. For recommendation 2, the VISN director reported that “all VISN 21 health care systems will have a construction and project management consultant contract ... Contract services include assisting VA staff with collecting project requirements, identifying constraints, developing procurement packages, and providing technical review of design/construction progress. Two VISN 21 health care systems are already using non-engineering staff to serve as project managers for less technically complex projects.”

To address recommendation 3, the acting under secretary for health reported “the VHA Office of Healthcare Environment and Facilities Programs and VHA Office of Productivity, Efficiency, and Staffing have collaborated to develop a plan of action addressing the recommendations presented by the National Academies.” Additionally, VHA continues using its capital resources survey as a performance management tool to “validate data and benchmark VHA engineering operations at field facilities.” For recommendation 4, the acting under secretary for health reported that the capital resources survey “is updated annually with actual facility-level execution, staffing, and resource data,” which allows medical centers and VISNs to assess staffing and resources against SCIP and funding levels. For recommendation 5, the acting under secretary for health responded, “The VHA Office of Healthcare Environment and Facilities Programs has been providing VA Office of Management forecasted [NRM] program budget levels for inclusion in the department’s SCIP guidance since the SCIP 2019 cycle (occurred in calendar year 2017). This guidance provides each VISN with an anticipated funding level for the given SCIP cycle and budget year based upon anticipated funding in the NRM program.” VHA requested closure for all three recommendations as completed.

To address recommendation 6, the executive director of the Office of Asset Enterprise Management will amend its out-of-cycle guidance to require the Office of Asset Enterprise Management to confirm urgent-need criteria are met before approving above-threshold NRM out-of-cycle requests. The executive director of the Office of Asset Enterprise Management also provided additional context on the NRM program and the development of the long-range plan within the SCIP process and concurred with the principle for recommendation 5 that the long-range action plan first year projects should be based on funding availability.

To address recommendation 7, the acting under secretary for health reported the VHA Office of Healthcare Environment and Facilities Programs will continue to work with VA’s Office of Asset Enterprise Management “in developing performance measures for capital program goals and objectives that can be measured against anticipated and actual funding.”

## OIG Response

The action plans provided by the director of the VA Sierra Pacific Network (VISN 21) for recommendations 1 and 2 and the executive director of the Office of Asset Enterprise Management for recommendation 6 are responsive to the recommendations. The acting under secretary for health requested that recommendations 3, 4, and 5 be closed.

The acting under secretary for health is citing the use of VHA's capital resources survey as the basis for closing recommendations 3 and 4. However, he also reported VHA continues work toward developing a comprehensive staffing methodology to inform resource requirements in support of facility management and engineering aspects of a healthcare facility. The foundation of this effort is reported to be the Consensus Study Report published in December 2019 by the National Academies of Sciences, Engineering, and Medicine entitled *Facilities Staffing Requirements for the Veterans Health Administration-Resource Planning and Methodology for the Future*. The OIG will keep recommendations 3 and 4 open until VHA provides adequate evidence they have addressed the recommendations made in the National Academies publication.

For recommendation 5, the acting under secretary for health reported VHA made process changes that took effect after the period covered by this audit. The OIG will review the documentation provided by VA and will close the recommendation when the audit team determines process change has met the intent of the recommendation. Recommendation 7 implementation is marked in process.

The OIG will follow up on the implementation of the planned actions and actions the department asserts have been completed and will close the recommendations when sufficient documentation of corrective actions has been received.

## Appendix A: Scope and Methodology

### Scope

The OIG performed this audit from March 2019 through July 2021 to determine if VISN 21 effectively managed NRM by addressing the most significant maintenance needs of its medical facilities. The audit scope covered all NRM projects that VISN 21 facilities submitted in their long-range action plans for FY 2015 through FY 2018. The team identified all 190 NRM long-range action plan projects with estimated costs over \$1 million each that were approved by the VISN 21 capital asset office for this period using data extracted from the SCIP database.

### Methodology

To address the audit objectives, the team reviewed governing laws, regulations, and related NRM policies and procedures. The team conducted site visits to the VISN capital asset office and seven facilities in VISN 21 to discuss the program, facility condition assessments, and the facilities' long-range action plans for addressing their maintenance backlog. The team visited the following seven facilities:

- VA Central California Health Care System, Fresno, California
- VA Northern California Health Care System, Mather, California
- VA Pacific Islands Health Care System, Honolulu, Hawaii
- VA Palo Alto Health Care System, Palo Alto, California
- San Francisco VA Health Care System, San Francisco, California
- VA Sierra Nevada Health Care System, Reno, Nevada
- VA Southern Nevada Healthcare System, Las Vegas, Nevada

To gain an understanding of program requirements and organizational responsibilities, the audit team interviewed VA officials from VHA's Office of Capital Asset Management Engineering and Support, VA's Office of Asset Enterprise Management, VA's Office of Construction and Facilities Management, the VISN, and medical facility engineering staff involved in the NRM process. The team reviewed a total of 190 NRM long-range action plans for FY 2015 through FY 2018. For each project, the team reviewed available project management documentation to evaluate whether the planned project was executed and funded and whether it addressed facility condition assessment deficiencies or other SCIP-identified gaps.

## **Fraud Assessment**

The audit team assessed the risk that fraud and noncompliance with provisions of laws, regulations, contracts, and grant agreements, significant in the context of the audit objectives, could occur during this audit. The team exercised due diligence in staying alert to any fraud indicators by

- soliciting the OIG's Office of Investigations for indicators and
- reviewing 13 completed projects to ensure the final result matched the specifications in the contract.

The OIG did not identify any instances of fraud or potential fraud during this audit.

## **Data Reliability**

The audit team independently extracted data from the SCIP database on all NRM long-range action plan projects submitted for FY 2015 through FY 2018. To test the reliability and completeness of the data, the audit team verified each action plan project to the published VA annual budget submissions. For out-of-cycle projects, the team compared the projects identified in the SCIP database with the approval memos issued by the Office of Asset Enterprise Management. Furthermore, the team tested the reliability of obligated amounts for a select number of projects contained in the VHA NRM Project Tracking Report. The team also obtained facility condition assessment data extracted from the VA Capital Asset Management System-Business Intelligence and the Capital Asset Inventory systems. To verify the reliability of the data at a specific point in time, the team reconciled the extracted data with the most recent VISN 21's facility condition assessment that were completed in November 2017. As a result, the team concluded the data were sufficiently reliable to meet the audit's objective.

## **Government Standards**

The OIG conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that the audit team plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the audit's findings and conclusions based on the audit objectives. The OIG concluded that the evidence obtained provides a reasonable basis for the report's findings and conclusions based on the audit objectives.

## Appendix B: Management Comments, VISN Director

### Department of Veterans Affairs Memorandum

Date: July 30, 2021

From: Director, Sierra Pacific Network (10N21)

Subj: Healthcare Inspection—

To: Under Secretary for Health, Office of the Under Secretary for Health (10)

I have reviewed and concur with the findings and recommendations 1 and 2 in the draft report, *Veterans Integrated Service Network 21's Management of Medical Facilities' Nonrecurring Maintenance*. Additionally, I concur with the VISN responses and implementation of actions to resolve the two recommendations.

*The OIG removed point of contact information prior to publication.*

*(Original signed by)*

John Brandecker, MBA, MPH

Network Director, VISN 21

**Sierra Pacific Network (VISN 21) Action Plan**

**Recommendation 1. The director of the VA Sierra Pacific Network (VISN 21) should ensure out-of-cycle projects conform to NRM policy urgent-need criteria before approving projects.**

Comments: Concur

Status: Complete      Implementation Date: July 2021

VISN Comments: The VISN 21 Capital Management Office is reviewing and evaluating SCIP out-of-cycle project applications against the NRM policy urgent need criteria prior to approval

**Recommendation 2. The director of VISN 21 should study the feasibility of using non-engineering staff to oversee NRM contracts, contracting out for project requirements to free up VISN engineering resources, and sharing engineering resources between VISN 21 facilities.**

Comments: Concur

Status: In Progress      Target Completion Date: January 2022

VISN Comments: All VISN 21 health care systems will have a construction and project management consultant contract. The contract will cover a base and five option years of services. Contract services include assisting VA staff with collecting project requirements, identifying constraints, developing procurement packages, and providing technical review of design/construction progress.

Two VISN 21 health care systems are already utilizing non engineering staff to serve as project managers for less technically complex projects.

*For accessibility, the original format of this appendix has been modified to comply with Section 508 of the Rehabilitation Act of 1973, as amended.*

## Appendix C: Management Comments, Veterans Health Administration Under Secretary for Health

### Department of Veterans Affairs Memorandum

Date: September 10, 2021

From: Acting Under Secretary for Health (10)

Subj: OIG Draft Report, VISN 21's Management of Non-Recurring Maintenance (2019- 06004-R8-0002) (VIEWS 5513637)

To: Assistant Inspector General for the Audit and Evaluations (52)

Thank you for the opportunity to review and comment on the Office of Inspector General (OIG) draft report on VISN 21's Management of Non- Recurring Maintenance. The Veterans Health Administration (VHA) concurs with all recommendations and provides the attached action plan addressing recommendations 3, 4, 5, and 7 found in the report.

VHA has implemented several improvements to address the staffing, long- term planning, and measurement and reporting capabilities identified by OIG in this review. This OIG review has helped to reinforce the importance of these efforts and has provided a valued feedback loop for the continued implementation and execution of these improvements.

I concur with the OIG's recommendations to the Office of the Under Secretary for Health and provide the attached action plan. VHA has fully implemented the action plan for recommendations 3, 4, and 5 and continues its work on recommendation 7.

Comments and action plans for recommendations 1 and 2 are provided by the VISN 21 Director.

The response for recommendation 6 was provided by the VA Office of Asset Enterprise Management (OAEM), for which VHA has provided its input and concurrence.

*The OIG removed point of contact information prior to publication.*

(Original signed by)

Steven L. Lieberman, M.D.

Attachment

**Veterans Health Administration (VHA) Under Secretary for Health's Action Plan**

**Recommendation 3. The under secretary for health should implement an engineering staffing model for medical facilities that supports the achievement of VA strategic goals.**

**VHA Comments:** Concur

VHA Office of Healthcare Environment and Facilities Programs and VHA Office of Productivity, Efficiency, and Staffing have collaborated to develop a plan of action addressing the recommendations presented by the National Academies. VHA continues work toward development of a comprehensive staffing methodology to inform resource requirements in support of facility management and engineering aspects of a healthcare facility. The foundation of this effort is the Consensus Study Report published in December 2019 by the National Academies of Sciences, Engineering, and Medicine entitled *Facilities Staffing Requirements for the Veterans Health Administration-Resource Planning and Methodology for the Future*.

Additionally, VHA continues utilization of its Capital Resources Survey (CAPRES) as a performance management tool used to validate data and benchmark VHA engineering operations at field facilities. CAPRES data can currently be utilized to compare capital execution characteristics and assist Veterans Integrated Service Network (VISN) 21 and other networks or facilities in identifying the necessary staffing to support VA strategic goals and identifying adequate staffing levels based upon actual execution at similar facilities. VHA requests closure for this recommendation.

Status: Request closure

Target Completion Date: Complete

**Recommendation 4. The under secretary for health should perform annual reviews of the engineering staffing model to determine if adjustments are needed to achieve VA strategic goals.**

**VHA Comments:** Concur

CAPRES is updated annually with actual facility-level execution, staffing, and resource data. Veterans Health Administration (VHA) facilities use the data to validate operational resources and benchmark against like-size facilities. VHA's strategic goals were not specifically identified or reviewed as part of this review, however, VHA Office of Healthcare and Facilities Programs' ability to execute portions of the Strategic Capital Investment Plan (SCIP) was reviewed and utilizing CAPRES data allows individual VA Medical Centers as well as VISNs to assess current staffing and resources against SCIP and the funding levels of VHA capital program operating plans. VHA requests closure for this recommendation.

Status: Request closure

Target Completion Date: Complete

**Recommendation 5. The under secretary for health should ensure medical facilities design long-range action plans that are feasible based on expected NRM budget levels.**

**VHA Comments:** Concur

VHA Office of Healthcare Environment and Facilities Programs has been providing VA Office of Management forecasted Non-Recurring Maintenance (NRM) Program budget levels for inclusion in the Department's SCIP guidance since the SCIP 2019 cycle (occurred in calendar year 2017). This guidance provides each VISN with an anticipated funding level for the given SCIP cycle and Budget Year based upon anticipated funding in the NRM Program. This process change occurred in SCIP 2019, 2020, 2021,

2022, and 2023 cycles however was not reviewed as part of this audit. SCIP call memos and supporting documentation were provided by VA Office of Asset and Enterprise Management on July 19, 2021. VHA requests closure for this recommendation.

Status: Request closure

Target Completion Date: Complete

**Recommendation 6.** The executive director of the Office of Asset Enterprise Management, in coordination with the under secretary for health, should enforce NRM policy's urgent-need criteria on out-of-cycle NRM project approvals.

**VA Comments:** VA OAEM will provide the response.

**Recommendation 7.** The under secretary for health in coordination with the executive director of the Office of Asset Enterprise Management, should create a standardized set of performance measures and reporting standards for offices involved in developing, approving, and executing long-range action plans to ensure NRM projects that align with strategic goals are executed.

**VHA Comments:** Concur

VHA Office of Healthcare Environment and Facilities Programs (HEFP) will continue to work with VA's Office of Asset and Enterprise Management in developing performance measures for capital program goals and objectives that can be measured against anticipated and actual funding.

Status: In progress Target Completion Date: September 2022

*For accessibility, the original format of this appendix has been modified to comply with Section 508 of the Rehabilitation Act of 1973, as amended.*

## Appendix D: Management Comments, Office of Asset Enterprise Management

### Department of Veterans Affairs Memorandum

Date: August 9, 2021

From: Executive Director, Office of Asset Enterprise Management (OAEM)

Subj: Draft OIG Report, *Veterans Integrated Service Network 21's Management of Medical Facilities' Nonrecurring Maintenance*, Project No. 2019-06004-R8-0002

To: Director, Maintenance and Construction Audit Operations Division, Office of Inspector General (OIG)

1. I have reviewed the subject draft OIG report, and concur with the findings and recommendation provided for OAEM (Recommendation 6) and have included action plans to implement the recommendation, including a target completion date.
2. I have also included additional context on the Non-recurring Maintenance (NRM) program and the development of the long-range plan within the Strategic Capital Investment Planning (SCIP) process in response to the findings.
3. I appreciate the opportunity to review and respond to the draft report and look forward to the resulting improvements in the NRM program.

(Original signed by)

C. Brett Simms

Attachments

## **RECOMMENDATIONS AND OAEM IMPLEMENTATION PLANS**

### **Recommendation 6: OAEM Concur**

*The Executive Director of the Office of Asset Enterprise Management, in coordination with the Under Secretary for Health, should enforce NRM policy's urgent-need criteria on out-of-cycle NRM project approvals.*

#### OAEM Implementation Plan

Action 1: OAEM will amend current out of cycle (OOC) guidance to require OAEM to confirm urgent need criteria are met prior to approval of above threshold NRM OOC requests.

Target completion date: December 31, 2021

## **OAEM RESPONSE TO FINDING AND ADDITIONAL CONTEXT**

OAEM provides the below additional context and information in response to the findings:

The Department of Veterans Affairs (VA) Strategic Capital Investment Planning (SCIP) process is conducted annually to collect capital needs systematically, analytically, and holistically. The results from this process are designed to inform and support the annual capital budget request and estimate future requirements. The annual capital budget request includes new projects identified through the SCIP process, but also construction funding for prior year approved projects that are ready for construction funding. The SCIP process does not provide funding for capital programs but it does identify the overall need over a ten-year period, as well as priorities for new projects for which budget consideration is requested.

OAEM concurs in principle with the OIG conclusion that the long-range action plan first year (Budget Year (BY)) projects should be based on funding availability. The SCIP process, though, is intended to identify all capital needs, across a long-range planning horizon, in an unconstrained manner. Constraining the entire plan to reflect projected funding levels would not achieve the goal of reviewing all capital needs over the ten-year period nor address the continued facility material condition degradation noted in the report. The requirements-based (vice funding-constrained) SCIP Long Range Action Plan provides the ability to develop a detailed plan while also offering the flexibility to implement the plan based on available funding.

The SCIP process provides the VA Real Property Capital Plan required by OMB Memorandum M-20-03, "Implementation of Agency-wide Real Property Capital Planning". In April 2021, the Office of Management and Budget (OMB)-led Federal Real Property Council (FRPC) singled out VA's requirements-based SCIP capital planning process as "outstanding", and the FRPC is using VA's unconstrained, requirements-based plan as an example for other agencies.

OAEM has improved the process for NRM projects since the Fiscal Year (FY) 2019 SCIP cycle by supporting VHA determination of first year (BY) projects based on funding availability and project readiness. Networks were also provided allowance levels for NRM projects to ensure that only the most critical and priority projects were submitted in the first funding year. The allowance levels provided by OAEM through SCIP call memos were provided by VHA's Office of Capital Asset Management and Support. Furthermore, beginning with FY 2021, OAEM updated the out-of-cycle submission to include specific questions for the facilities to input the out of cycle justification. There is also now a check box certifying that those individuals who are approving the out of cycle ensure that the project meets the criteria of urgent need prior to being submitted to the next level of approval.

*For accessibility, the original format of this appendix has been modified to comply with Section 508 of the Rehabilitation Act of 1973, as amended.*

## OIG Contact and Staff Acknowledgments

---

<b>Contact</b>	For more information about this report, please contact the Office of Inspector General at (202) 461-4720.
----------------	---

---

<b>Audit Team</b>	Matthew Rutter, Director Maria Afamasaga Jamel Brown Todd Groothuis Zeia Lomax Solida Nhem Loi Pham Melinda Toom
-------------------	---

---

<b>Other Contributors</b>	Charles Hoskinson Charlma Quarles
---------------------------	--------------------------------------

## Report Distribution

### VA Distribution

Office of the Secretary  
Veterans Benefits Administration  
Veterans Health Administration  
National Cemetery Administration  
Assistant Secretaries  
Office of General Counsel  
Office of Acquisition, Logistics, and Construction  
Board of Veterans' Appeals  
VISN 21

### Non-VA Distribution

House Committee on Veterans' Affairs  
House Appropriations Subcommittee on Military Construction, Veterans Affairs,  
and Related Agencies  
House Committee on Oversight and Reform  
Senate Committee on Veterans' Affairs  
Senate Appropriations Subcommittee on Military Construction, Veterans Affairs,  
and Related Agencies  
Senate Committee on Homeland Security and Governmental Affairs  
National Veterans Service Organizations  
Government Accountability Office  
Office of Management and Budget  
U.S. Senate:  
California: Dianne Feinstein, Alex Padilla  
Hawaii: Mazie Hirono, Brian Schatz  
Nevada: Catherine Cortez Masto, Jacky Rosen  
U.S. House of Representatives:  
American Samoa: Aumua Amata Coleman Radewagen  
California: Ami Bera, Salud Carbajal, Jim Costa, Mark DeSaulnier, Anna Eshoo,  
John Garamendi, Josh Harder, Jared Huffman, Ro Khanna, Doug LaMalfa,  
Barbara Lee, Zoe Lofgren, Doris O. Matsui, Kevin McCarthy, Tom McClintock,  
Jerry McNerney, Devin Nunes, Jay Obernolte, Jimmy Panetta, Nancy Pelosi,  
Jackie Speier, Eric Swalwell, Mike Thompson, David Valadao  
Guam: Michael F. Q. San Nicolas  
Hawaii: Ed Case, Kaiiali'i Kahele  
Nevada: Mark Amodei, Steven Horsford, Susie Lee, Dina Titus  
Northern Mariana Islands: Gregorio Sablan

**OIG reports are available at [www.va.gov/oig](http://www.va.gov/oig).**