7510-13

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

National Environmental Policy Act: NASA Agency Master Plan Programmatic Environmental Assessment

AGENCY: National Aeronautics and Space Administration

ACTION: Finding of No Significant Impact

SUMMARY: Pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended, the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 CFR parts 1500-1508), and the National Aeronautics and Space Administration (NASA) procedures for implementing NEPA(14 CFR part 1216, subpart 1216.3), NASA has made a Finding of No Significant Impact (FONSI) with respect to the NASA Agency Master Plan Programmatic Environmental Assessment.

SUPPLEMENTARY INFORMATION: As early as 2011, NASA began integrating and optimizing operations across centers and mission support facilities (i.e., technical capability facilities) to reduce costs and revitalize the capabilities required to enable NASA's portfolio of missions (NASA 2011, 26). In 2015, the Executive Office of the President distributed Management Procedures Memorandum No. 2015-01, tasking federal agencies to "move aggressively to dispose of surplus properties held by the federal government, make more efficient use of the government's real property assets, and reduce the total square footage of their domestic office and warehouse inventory relative to an established baseline." This directive set agency planning goals that were disseminated to centers.

To better achieve its infrastructure reduction targets, NASA proposes to implement a centralized and standardized Agency Master Plan administrative process. This Proposed Action will help ensure program management and planning efforts are aligned across all mission areas and geographically separate centers and facilities, as well as implement a consistent and cost-effective set of processes, systems, and tools for enterprise-wide master planning. The Proposed Action is supported by NASA's 2018 Strategic Plan, which recommended NASA develop an Agency Master Plan that identifies agency facility priorities over a 20-year timeframe (NASA 2018a). The implementation of an Agency Master Plan provides a framework upon which each NASA center is to develop its own Center Master Plan tied to Agency-wide requirements, thereby allowing the agency to meet its overall infrastructure management targets and more efficiently (i.e., cost-effectively) achieve its mission as well as sustainment and infrastructure reduction goals.

The NASA 2022 Strategic Plan defines the agency's broad vision, mission, and values, building upon the goals and objectives presented in its 2011 and 2018 Strategic Plans (NASA 2022b). Within the 2022 Strategic Plan, NASA identified four strategic goals to strengthen its ability to accomplish the statutory mission and contribute to maintaining American leadership in space, aeronautics, climate research, and innovation while driving economic growth in the civil space sector (NASA 2022b, 6). These strategic goals are to:

1. **DISCOVER**

   NASA's enduring purpose of scientific discovery

2. **EXPLORE**

   NASA's push to expand the boundaries of human presence in space

3. **INNOVATE**

   NASA's broad mandate to promote the technologies of tomorrow

4. **ADVANCE**

   NASA's capabilities, workforce, and facilities that allow NASA to achieve its mission

NASA's pursuit of a centralized Agency Master Plan, from which future Center Master Plans will be based, aligns with the fourth strategic goal, to advance capabilities and facilities that allow NASA to achieve its mission. To address challenges associated with aging infrastructure, NASA is aggressively managing its facility portfolio to consolidate and modernize into fewer, more efficient, sustainable facilities. Through a systematic assessment of service areas, NASA is consolidating and improving operations to balance risks across services and activities and provide safe and reliable mission-aligned infrastructure.

NASA's Office of Strategic Infrastructure (OSI) has developed NASA's first mission-driven Agency Master Plan. The Agency Master Plan is tied to the development and execution of a new agency-wide Asset Inventory Assessment (AIA) with future, mission-aligned recommendations for all real property assets across NASA's centers and support facilities. The AIA results from each center were rolled into a single agency-prioritized database tied to a single Capital Investment Program Plan (CIPP). This prioritization process forms the framework of the Agency Master Plan.

NASA has also identified the need to ensure environmental stewardship is incorporated into the Agency Master Plan, including NEPA and regulatory compliance in energy and water management, air quality, water resources, hazardous materials, cultural resources, natural resources, sustainability, and climate adaptation. Providing clear environmental guidance in the

Agency Master Plan will assist in a consistent execution of the 2022 Strategic Plan across the agency. This Programmatic Environmental Assessment will provide center master planners with a framework for subsequent NEPA compliance, identifying the processes and decisions in this Programmatic Environmental Assessment as a Tier I, parent document, from which the centers can prepare subsequent Tier II NEPA compliance documentation.

Purpose and Need

A Center Master Plan serves as a center's "statement of its concept for the orderly management and future development of the center's real property assets, including land, buildings, physical resources, and infrastructure. It provides a narrative, statistical, and graphic record of current capabilities and conditions (natural features, buildings, structures, utilities, transportation systems, and other improvements), as well as necessary changes to support program and institutional activities and NASA's strategic and business planning" (NASA 2013a, 1). Centers previously based their individual master planning efforts in accordance with center-specific missions. The large property holdings of the agency, overall aging infrastructure, and a federal funding gap mean that many center planning objectives cannot be met when balanced against the priorities of the agency. Thus, a more integrated approach is needed.

Affordability challenges for the agency's current operations and maintenance (O&M) budget limits the amount the agency can allocate to centers. This leaves NASA with a funding gap of approximately $234 million less than what is needed to maintain aging infrastructure in support of mission requirements (NASA 2022j). The current method of balancing O&M, new construction, and demolition at the centers has proven to be inefficient and ineffective due to diminishing funding and competing priorities.

The purpose of the Agency Master Plan is to establish an agency-wide and mission-driven approach that ensures critical assets are mission-ready, reliable, and affordable. The Agency Master Plan is needed to align NASA's planning process with its 2022 Strategic Plan, providing a clear path for NASA's future mission success and financial stability over the next 20 years.

The Agency Master Plan includes all real property assets on NASA's federal property footprint and is based on a data-driven methodology for determining how to address assets in a manner that best supports current and future NASA missions. Mission relevance, including asset utilization or future need, and condition data including deferred maintenance and maintenance costs are evaluated through the AIA to identify a proposed future state for every real property asset (e.g., sustain, invest, divest, or outgrant/repurpose). Additionally, the data is assessed to identify and manage duplicate and obsolete capabilities and assets.

The Agency Master Plan serves as the foundation on which NASA's investment allocations support long-term asset health, sustainability, and physical footprint reductions. Because the Agency Master Plan focuses on a mission-driven approach using data-driven and risk-informed methodologies, it ensures NASA will have a clearly defined path to fulfill its agencywide priorities of:

- Sustainment and investment in mission-critical infrastructure by renewing and rebuilding modern and sustainable infrastructure to support future mission success.
- Divestment of unneeded infrastructure by demolishing and eliminating obsolete facilities, thereby reducing overall physical footprint, resource consumption, maintenance costs, and aging infrastructure risk; and

- Leasing of assets to commercial partners to enhance cooperation in space and stimulate commercial activities in low Earth orbit.

The Agency Master Plan enables NASA's mission by providing the facilities, tools, and services required to efficiently manage and sustain the infrastructure necessary to meet agencywide mission objectives.

Proposed Action and No Action Alternative

The Proposed Action analyzed in this Programmatic Environmental Assessment is NASA's adoption and implementation of the Agency Master Plan . The Agency Master Plan provides foundational guidance to NASA Headquarters, documenting an agency-wide, collaborative assessment of all real property and capability assets across NASA's federal property footprint. At its core, the Agency Master Plan provides standardized planning guidance for the treatment of foundational infrastructure and assets based on mission-critical needs, resource conditions and readiness, risk minimization, and budgetary constraints of NASA activities for a 20-year period. The Agency Master Plan will be updated every four years. With adoption of the Agency Master Plan, NASA will adopt a comprehensive list of prioritized assets from its AIA and will recommend actions for each asset across all centers and support facilities. Implementation of the Agency Master Plan aligns to NASA's statutory mission objectives with NASA's 2022 Strategic Plan and CIPP.

The Agency Master Plan is a culmination of multiple inputs, asset prioritization efforts, prioritization metrics for funding allocation and risk minimization, as well as final recommendations for the treatment of each asset. The key actions of the Agency Master Plan development process include, but are not limited to:

- Asset and mission information gathering from NASA centers, support facilities, and mission directorates.
- Considering NASA's planning and systems guidance.
- Understanding NASA's real property categories and assets.
- Developing metrics of prioritization and subsequent bucket actions; and
- Presenting NASA's final AIA and recommendations.

A summary of these actions is presented in this section.

Under the No Action Alternative, the Agency Master Plan would not be adopted and implemented, and centers would continue center-level master planning efforts largely siloed from an enterprise planning approach. Without a holistic review of assets across NASA, asset redundancies would likely remain across the agency. Funding for agency-wide, mission-critical resources would not be allocated based on a holistic view of critical capabilities, asset conditions, or financial risks and constraints. Under the No Action Alternative, centers would continue to integrate agency guidance to their particular circumstances, environments, resources, and requirements.

Currently, some centers do not have a Mission Support Council (MSC) Center Master Plan but perform functions under a higher-level Future Development Concept (FDC). This may be due to center size and staffing. For this reason, even though centers have historically considered Headquarters' guidance, inconsistent approaches and uneven planning efforts across centers have resulted in unnecessary expenditure of funds, lack of consideration to the mission criticality of an asset on an agency-wide scale, and inconsideration to the agency-wide economic and

environmental consequences. This method does not provide NASA the necessary trade-space to invest in future capabilities.

Center-level master planning efforts do not have the capability of achieving what the Agency Master Plan can provide at an agency-wide scale. Specifically, Center Master Plans developed independently by centers are ineffective and inefficient at an agency-wide level in:

- Managing the entirety of NASA's assets and capabilities.
- Providing a unified approach to institutional planning and decision making.
- Allocating resources and funding based on agencywide, prioritized needs.
- Proactively deploying sustainable practices; and
- Reducing current and future infrastructure-related risks and redundancies.

Under the No Action Alternative, center-level planning efforts would not approach planning from an agency-wide, mission-aligned portfolio nor would the efforts use integrated asset management. Centers would continue efforts with consideration to Headquarters direction, but ultimately without collaboratively managing assets from an agency-wide perspective. For these reasons, the No Action Alternative does not meet the project's purpose and need. However, the No Action Alternative is retained in this Programmatic Environmental Assessment to serve as a basis for comparison of potential beneficial and adverse effects.

Summary of Environmental Impacts

Potential effects by resource were analyzed to ensure the decision-maker understands the potential consequences of implementing the Proposed Action. Regulatory requirements, potential

mitigations, and best management practices (BMPs) are also identified for each resource area. Because potential effect determinations in this Programmatic Environmental Assessment are notional, discussions of effects are qualitative in nature. NASA has determined the environmental impacts associated with the proposed action would not individually or cumulatively have a significant impact on the quality of the human environment. Therefore, an environmental impact statement is not required.

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