

How We Strengthened Major Facility Oversight with NSF: Highlights of NSF Office of Inspector General Audit Work

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Introduction

We've completed a decade of work focused on improving NSF's and recipients' oversight of major facilities. Our work spans a facility's life cycle from construction to divestment. As a result, NSF has worked with us to improve oversight.

2012

We reported concerns with NSF's pre- and post-award monitoring of construction projects, including about the construction proposals' accuracy and recipient accounting systems' adequacy. Separately, we reported that proposed contingencies for the EarthScope project were not supported by cost data and were not compliant with OMB cost principles.

NSF's Key Corrective Actions:

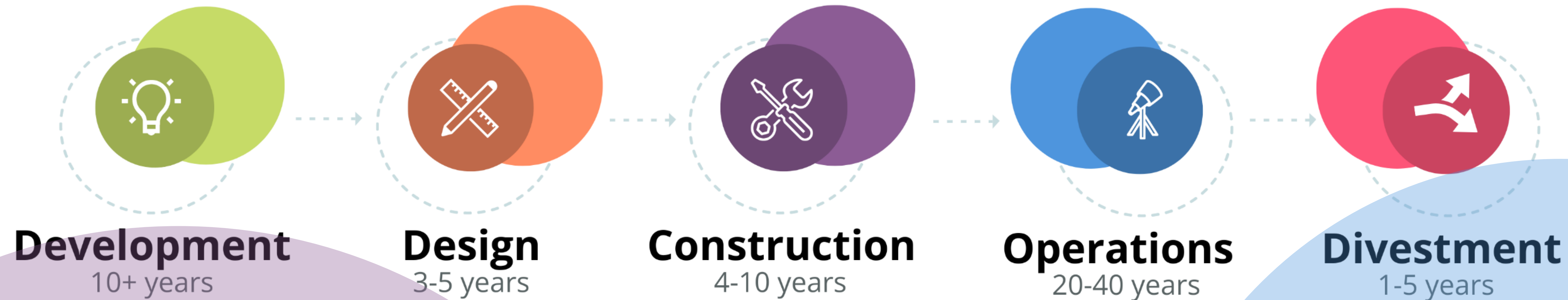
- Developed controls for obligating, budgeting, and tracking contingency.
- Conducted mandatory cost incurred audits, accounting system reviews, and independent costs estimates in accordance with GAO Cost Guide.
- Required awardees to use Standard Form 424C or an equivalent form when submitting proposals for construction projects.

2014

We found in our audit of the Research Vessel *Sikuliaq* Construction Project that the inclusion of the contingency for each project stage did not comply with requirements in OMB cost principles and the proposed contingency amounts were not supported by adequate cost data. Also, since contingency expenditures were not separately tracked in the recipient's accounting system, we could not verify how the contingency funds were ultimately spent.

NSF's Key Corrective Actions:

Enhanced requirements for supporting contingency estimates in budget proposals with adequate, verifiable, supporting data.



2015

We examined factors contributing to and management of a potential \$80 million cost overrun for the National Ecological Observatory Network. In addition, the Defense Contract Audit Agency's observations affirmed our findings of long-standing accountability weaknesses and risk of misuse related to NSF's contingency practices.

NSF's Key Corrective Actions:

Enacted large-scale changes in the way it required recipients to manage contingency funds and created its management reserve policy.

2016

We looked at NSF's oversight of the Daniel K. Inouye Solar Telescope Construction Project and found NSF did not verify the earned value management (EVM) data nor certified the project's EVM system. We also found NSF did not have policies and procedures on negotiating reasonable management fee rates at the time it awarded AURA's and NEON's cooperative agreements. NSF also did not review actual management fee expenditures but rather continued awarding it based on the initial proposed amounts.

NSF's Key Corrective Actions:

- Developed EVM standard operating guidance to review, assess, and verify design and implementation of a recipient's EVM system.
- Developed management fee standard operating guidance for negotiation, award, and payment of fee.

2017

NEON was the first NSF major facility NSF held management reserve for. NSF did not have policies and procedures for how it can use the management reserve or who at NSF can approve its use. NSF also did not have a mechanism to track how it uses the funds.

NSF's Key Corrective Action:

Developed its Management Reserve Policy.

As a result, NSF had policies/controls in place when it needed management reserve for multiple facilities because of the COVID 19 pandemic.

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2018-2019

NSF was not always able to identify subrecipients on major facility budget proposals because the systems and documents prime recipients used to request approval for subawards did not always distinguish requests for contract funding from requests for subaward funding.

We also reported NSF did not provide sufficient guidance to ensure recipients consistently allocated construction and operation expenses to the correct award or adequately documented allocation decisions. Its major facility acceptance process did not require NSF to assess and document the impact of moving uncompleted tasks from the construction award to the operations award.

NSF's Key Corrective Actions:

- Obtains/reviews prime recipients' analysis of each proposed subaward for major facility awards. If risk is identified, determine how the prime recipient mitigated/resolved the risk.
- Required recipients to complete Segregation of Funding Plans
- Issued guidance about conducting external panel reviews and Final Construction Review.

2020

NSF did not always account for government-owned equipment held by award recipients, ensure its award letters contained the correct terms and conditions regarding equipment, or ensure recipients properly handled federal property after award expiration.

Based on our audit of NSF's process for evaluating operations and maintenance proposal for the Ocean Observatories Initiative, we reported NSF did not provide sufficient guidance on how to conduct risk and uncertainty analyses for operations proposals and did not require it.

NSF's Key Corrective Actions:

- Created a system to track, review, and monitor property inventory reports and disposition requests for all NSF awards starting in FY21.
- Revised NSF award terms and conditions about equipment for subrecipients.
- Developed new solicitation language to increase quality of cost estimates for all future operations awards; developed additional guidance on the use of risk/uncertainty and sensitivity analyses for future operations proposals.

2022

NSF could improve its processes for planning and managing divestments to better comply with requirements and best practices.

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