Q4 FY 2022 RSI Text—Deferred Maintenance and Repairs (DM&R)

**NOAA Portion (to be updated as needed by NOAA): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Prepared by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date Prepared: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**NIST Portion (to be updated as needed by NIST): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Prepared by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date Prepared: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Deferred Maintenance and Repairs**

Deferred Maintenance and Repairs (DM&R) are maintenance and repairs that were not performed when they should have been, that were scheduled and not performed, or that were delayed for a future period. Maintenance and Repairs are activities directed toward keeping Property, Plant, and Equipment (PP&E) in acceptable operating condition. These activities include preventive maintenance, replacement of parts and structural components, and other activities needed to preserve the asset so that it can deliver acceptable performance and achieve its expected life. Maintenance and Repairs exclude activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater, than those originally intended. The significant portions of Departmental DM&R relate to PP&E of both the National Oceanic and Atmospheric Administration (NOAA) and the National Institute of Standards and Technology (NIST). NOAA and NIST represent 86 percent and 8 percent of the Department’s General PP&E, Net balance as of September 30, 2022, respectively.

**NOAA Portion (to be updated as needed by NOAA)**

***NOAA:***

NOAA measures DM&R using Condition Assessment Surveys, which are periodic visual (i.e., physical) inspections of applicable PP&E to determine their current condition and estimated cost to correct any deficiencies, and by collecting information from its line offices. NOAA schedules its surveys for real property on a cyclical basis, with each appropriate asset being surveyed every five years. NOAA completed a condition survey of the entire applicable real property inventory in FY 2011. In FY 2015, NOAA started completing a new round of facility condition assessments (FCA). NOAA had planned to complete assessments of the applicable inventory by the end of FY 2021, but FCA work has been delayed by the COVID-19 pandemic. Completion of FCAs is dependent on sufficient budget resources being available and the ability to contract for the FCAs. NOAA plans to target continuing a five-year assessment cycle so that the entire applicable inventory is assessed approximately every five years but budgetary, contracting, or other constraints (such as the COVID-19 pandemic) may extend that cycle time.

NOAA performs Condition Assessment Surveys for capitalized NOAA-owned buildings, structures with acquisition cost over $200 thousand, and heritage assets. For financial reporting purposes, NOAA does not report on DM&R for:

* Owned real property that has been permanently removed from service or which NOAA is planning to permanently remove from service within five years;
* Structures with acquisition cost under $200 thousand; and
* Land and Stewardship Land as land does not have DM&R.

NOAA prioritizes maintenance and repair projects to sustain its inventory in acceptable operating condition, including maintaining warranties. As work becomes deferred, NOAA will prioritize those projects that will remedy health and safety deficiencies and minimize risk of mission failure.

Acceptable condition standards are established for real property by using industry standards for benchmarking and cost estimating. These standards are used to evaluate site and building conditions, which include the review of building systems such as civil, structure, architectural, life safety, mechanical, plumbing, elevators, electric, and others.

In measuring DM&R, FCAs report physical deficiencies that cannot be remedied with normal operating maintenance, excluding de minimis conditions that generally do not present a material physical deficiency to the subject property. Actionable items are typically considered to be (1) existing or potential unsafe conditions; (2) building or fire code violations as revealed by municipal agencies; or (3) conditions that if left unremedied, have the potential to result in or contribute to critical element or system failure in the near term, or shall result most probably in a significant escalation of its remedial cost.

The fourth quarter FY 2022 balance estimated cost is composed of DM&R for the applicable inventory from the FY 2011 inventory assessment and FCAs completed in FY 2015 through FY 2022. In FY 2020, NOAA implemented a new FCA reporting methodology using the BUILDER system from the U.S. Army Corps of Engineers (USACE). BUILDER uses a visual direct rating methodology whereby the assessor provides a rating level of the condition of each system/component and BUILDER compares that condition index against a NOAA-set condition index threshold, which automatically generates a repair action when its condition drops below a minimum performance limit. Based on the type, material, and condition of the component, BUILDER generates an estimated cost for corrective action (repair or replace). To the extent possible, data from previous FCAs was entered into the BUILDER system. Some data from the earliest FCAs could not be entered into BUILDER. These FCAs will be redone in the next FCA cycle and will be entered into BUILDER at that time. For data not in BUILDER, the data has been escalated based on the date of their FCA estimate and changes since then to the “Engineering News-Record” construction cost index. If the asset has yet to be assessed, the DM&R estimate from the Integrated Facilities Inspection Program (IFIP) in FY 2011 was utilized and escalated. IFIP estimates were used for only 20 properties representing approximately $5.4 million in DM&R. BUILDER cost database is updated annually with new replacement cost data by the USACE. Furthermore, NOAA decided in FY 2021 to apply a factor of 100 percent additional to BUILDER estimates to represent a better estimated cost of DM&R.

There was an increase in DM&R for buildings and multi-use heritage assets of $\_\_\_\_\_million from September 30, 2021 to September 30, 2022. The increase is primarily due to changes in the BUILDER methodology used by NOAA and a BUILDER update of costs.

Specific to personal property, DM&R relates solely to capitalized personal property meeting the $200 thousand threshold criteria. DM&R on capitalized personal property is reported with an estimated project cost of $25 thousand or more.

With the exception of NOAA’s vessels, most of NOAA’s capitalized personal property, such as weather systems, is required to be maintained on a regular basis as the public relies on information from these systems for their safety and livelihood. It is imperative that NOAA ensures that the systems are functioning properly. Therefore, maintenance on these systems is rarely deferred. Capitalized personal property is normally maintained through maintenance contracts, when appropriate.

NOAA performs Condition Assessment Surveys to determine the status of ships according to the priorities shown below:

**Urgent and Immediate:** Program has stopped until maintenance is performed.

**Important:** Maintenance must be performed within six months or program will stop.

**Medium:** Maintenance must be performed within two years or program will stop.

**Low:** Maintenance must be performed within five years or program will stop.

 **Very Low:** Maintenance can be delayed indefinitely. No threat to program.

**The following table shows NOAA’s DM&R as of September 30, 2022 and September 30, 2021:**

***(In Thousands)***

|  |  |  |
| --- | --- | --- |
| **Asset Category** | **Deferred Maintenance and Repairs as of September 30, 2022** | **Deferred Maintenance and Repairs as of** **September 30, 2021** |
| Buildings | $ | xxx,xxx | $ |  193,934 |
| Heritage Assets:  |
| Multi-use Heritage | xx | 11,667 |
| Ships | xx,xxx | 6,402 |
| **Total** | **$** | **211,463** |

***NIST:***

NIST measures DM&R (related to real property General PP&E) using FCA surveys, which are periodic visual inspections of PP&E to determine their current condition, and estimates the costs to correct identified deficiencies. NIST accomplishes its FCAs by contract. NIST originally scheduled its surveys on a cyclical basis with each appropriate asset being surveyed once every three years. For DM&R reporting purposes, NIST completed a baseline condition survey of the entire applicable inventory for the Gaithersburg, MD campus in 2011 and for the Boulder, CO campus in 2013. A third of the Gaithersburg inventory was reassessed in the third quarter of FY 2013, in the third quarter of FY 2014, and in the first quarter of FY 2015. A third of the Boulder inventory was reassessed in the second quarter of FY 2015, in the fourth quarter of FY 2016, and in the first quarter of FY 2017.

Deficiencies can be added to the respective campus’ backlog in years when contractor inspections are not scheduled. During the scheduled on-site assessment, the contract inspector estimates the remaining useful life of various components that comprise a building’s mechanical, electrical, plumbing, or building envelope closure system (architectural, roof, façade, etc.) and records this information into the BUILDER assessment software program. When a building system nears the end of its useful life, the software program adds a new self-generated replacement facility deficiency to the backlog list. NIST does not make a distinction between active or inactive assets for reporting DM&R. NIST will perform facility condition assessments surveys for capitalized NIST-owned buildings (including those fully depreciated).

With the end of the Gaithersburg and Boulder FCAs contracts in 2016 and 2018, respectively, NIST’s current contract encompasses both campuses, unlike in the past where FCAs were conducted through separate, individual campus-focused contracts. The Federal Real Property Council’s latest guidance requires facility assessments for each facility every five years if using condition assessments for reporting DM&R needs. NIST, in coordination with the Department, migrated its facility condition assessments data over to the U.S. Army Corps of Engineer’s BUILDER Sustainment Management System (SMS). During FY 2018, NIST’s existing database of backlog deficiencies was migrated from VFA facility software to the Army Corps of Engineers’ BUILDER SMS. At the end of FY 2019, NIST awarded the replacement facility condition assessment and Capital Asset Management contract to a firm that is well versed in BUILDER SMS. The work that has been performed during FY 2020 includes the consulting firm reviewing and becoming familiar with the deficiency backlog that was migrated to BUILDER SMS and newly assessing the condition of NIST’s facilities and their sustainability at its two main campuses and two radio stations. In FY 2020, NIST modified the contract to include the following additional professional Architectural/Engineering (A/E) services: to assess code compliance facility related deficiencies as they pertain to the National Electric Code, Fire Protection and Fire Alarm Codes, Life Safety Code, and Americans with Disabilities Act, and to assess the condition of NIST’s on-site utilities infrastructure (domestic water, sanitary sewer, storm sewer, cooling distribution, heating distribution, electrical distribution, fuel distribution), and horizontal infrastructure outside buildings’ immediate exterior envelope (roadways, parking lots, sidewalks, fencing) at the two main campuses. These deficiencies that were entered into the BUILDER software program in third quarter of FY 2021 are reflected in this report.

In FY 2021, NIST modified the contract a second time to include the following additional professional A/E services: perform a much more detailed visual reassessment of the D40 (Fire Protection) and D50 (Electrical) UNIFORMAT Level II building systems for all affected buildings located on the Gaithersburg, MD and Boulder, CO campuses. As of the third quarter of FY 2022, these deficiencies have been entered into the BUILDER software program and are reflected in this report. In FY 2022, NIST is modifying the contract a third time to include the following additional professional A/E services: perform a much more detailed visual reassessment of the D10 (Conveyance), D20 (Plumbing), and D30 (Mechanical) UNIFORMAT Level II building systems for all affected buildings located on the Gaithersburg, MD and Boulder, CO campuses. These deficiencies are anticipated to be reflected in the BUILDER software program by the third quarter FY 2023.

DM&R estimates relate to capitalized, non-capitalized, and fully depreciated General PP&E. Effective with third quarter FY 2020 reporting, all DM&R for real property, including individual items with DM&R estimates costing less than $25 thousand, is reported under BUILDER SMS.

NIST prioritizes maintenance and repair projects to sustain its real property in good operating condition, including maintaining warranties. DM&R is impacted by funding shortfalls. Individual real property maintenance and repair projects are ranked using a Project Risk Table to determine the category of the risk (i.e., critical, high, medium, or low). Each project’s risk is rated in five different areas (mission; safety and regulatory compliance; energy, sustainability, and resilience; economics; and preservation of heritage assets) and its likelihood of executability. An overall rating score is then determined for ranking purposes. A ranking can be adjusted to consider current projects underway, prioritization of future candidate projects, and budgetary funding outlook.

Acceptable real property facility condition standards are established by using building codes and/or industry standards for benchmarking and cost estimating. These standards are used to evaluate site and interior conditions, life safety, mechanical and plumbing systems, elevator and conveying systems, electrical systems, structural systems, building envelope closure systems, etc.

Facility condition index (FCI) values are calculated for each NIST facility. The ratio of the cost of correcting all facility deficiencies in a building divided by the cost of replacing the building is expressed on a 100 percentage point scale. The FCI index is 100 minus this ratio of cost expressed. This is somewhat similar to a system described by the Building Research Board of the National Research Council. Generally, a facility with an index above 95 is considered excellent, between 95 and 90 is considered good, between 90 and 85 is considered fair, and below 85 is considered poor.

The increase in DM&R of $113.3 million is primarily due to an increase in facility deficiencies of $120.4 million offset by deficiency corrections of $7.2 million during FY 2022.

**The following table shows NIST’s DM&R as of September 30, 2022 and September 30, 2021:**

|  |  |  |
| --- | --- | --- |
| **Assets Category** | **Deferred Maintenance****and Repairs as of September 30, 2022** | **Deferred Maintenance****and Repairs as of** **September 30, 2021** |
| Buildings | **$** | xxx,xxx | $ | 542,386 |
| Site Utilities and Infrastructure | xx,xxx | 257,033 |
| **Total** | **$** | **xxx,xxx** | $ | **799,419** |

B **Combining Schedule of Budgetary Resources by Major Budget Account**

The table on the following page illustrates the Department’s FY 2022 budgetary resources by major budget account. For more information on the NTIA Digital Television Transition and Public Safety Fund, NTIA Network Construction Fund, NTIA Public Safety Trust Fund, and USPTO Salaries and Expenses Fund, see Note 22 to the financial statements, *Funds from Dedicated Collections*.

C **Land and Land Rights**

Per federal accounting standards, land is the solid part of the surface of the Earth. Excluded from the definition of land are the natural resources (that is, depletable resources such as mineral deposits and petroleum; renewable resources such as timber, and the outer-continental shelf resources) related to land.

Land rights are interests and privileges held by the entity in land owned by others, such as leaseholds, easements, water and water power rights, diversion rights, submersion rights, rights-of-way, mineral rights, and other like interests in land. Land rights such as easements or rights-of-way, that are for an unspecified period of time or unlimited duration are considered permanent land rights. Temporary land rights are those land rights that are for a specified period of time or limited duration.

To improve the comparability of reporting federal land and land rights and the uniformity of disclosures, three subcategories predicated on land use for both General PP&E land and stewardship land are utilized: (1) commercial use land; (2) operational land; and (3) conservation and preservation land. NIST and NOAA are the only entities within the Department that have land held and permanent land rights. NIST and NOAA report land held and permanent land rights in the General PP&E category, while NOAA additionally reports land held in the Stewardship category. The Department does not have any temporary land rights.

**General Property, Plant, and Equipment Land and Permanent Land Rights**

**NIST:**

NIST is the sole national institute and one of the premier international agencies dedicated to metrological research (measurement science). Having unique and discrete, special purpose research facilities interspersed amid sufficient acreage is critical to ensure the necessary environmental vibration isolation is present and available to conduct increasingly and ever-exacting scientific research that assures authority and traceability of all NIST published standards and data upon which academia, commerce, and industry depend. NIST’s ownership of land and facilities has proven essential so that long-term research experiments are not threatened with the need to be coordinated with typical real property lease cycles. The NIST Organic Act allows NIST to acquire land for facilities that are necessary to meet its mission.

NIST’s land held and permanent land rights are for the General PP&E category under the operational and conservation and preservation land subcategories. NIST’s operational subcategory includes land held for its campuses including the Gaithersburg campus in Gaithersburg, MD for its laboratories and support facilities; Fort Collins campus in Fort Collins, CO for the Fort Collins Active Radio Station and support facilities; Boulder campus in Boulder, CO for the laboratories and support facilities; Kehaka campus in Kehaka, HI for the Kehaka Active Radio Station and support facilities; and the Erie campus in Erie, CO transferred in from NOAA during FY 2022 for future use. NIST’s conservation and preservation subcategory includes land held for its Boulder campus for protected area.

**The following table summarizes NIST’s land and permanent land rights under the General PP&E category as of October 1, 2021 and September 30, 2022:**

**NIST General PP&E Land and Permanent Land Rights Estimated Number of Acres by Predominant Use**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Operational** | **Conservation****and Preservation** | **Total Estimated Number of Acres** |  |
| **Land Held**Beginning Balance, October 1, 2021 |  | 1,105 |  104 104 |  | 1,209 |  |
| Ending Balance, September 30, 2022 | x,xxx |   |  |  |
|  |  |  |  |  |
| **Land Held for Disposal or Exchange** |  |  |  |  |
| Beginning Balance, October 1, 2021 | 14 |  - |  14 |  |
| Ending Balance, September 30, 2022 |  |  |  |  |  |  |
| **Permanent Land Rights** |  |  |  |  |  |  |
| Beginning Balance, October 1, 2021 |  |  | 1 |  | 1 |  |
| Ending Balance, September 30, 2022 |  |  | 1 |  | 1 |  |

1 Water Rights—6.25 shares and water rights to Anderson Ditch which crosses through the Boulder camp

**NOAA:**

NOAA’s General PP&E land and permanent land rights support its mission by serving as sites on which it locates its facilities, including office, research, laboratory, and other facilities. NOAA’s General PP&E land also supports NOAA's mission by allowing for equipment and instruments to be located at those sites, including for observation of weather conditions and water levels, transmission of data and weather radio broadcasts, and surveying of fish and other aquatic wildlife. NOAA’s permanent land rights are easements and rights-of-way and are usually non-exclusive easements. Many of these permanent land rights provide access to NOAA land sites or allow for utilities for those sites.

NOAA’s General PP&E land held primarily consists of operational land for its facilities in Platteville, CO; Fairbanks, AK; St. George, AK; and Sterling, VA, and also includes operational land for facilities in many states in the United States.

The Platteville land is for the Oceanic and Atmospheric Research's (Earth System Research Laboratories), Chemical Sciences Laboratory. The Fairbanks land consists of multiple tracts and parcels for the National Environmental Satellite, Data, and Information Service’s operations. The St. George land is for the Zapadni Rookery site. The Sterling land is for the National Weather Service Sterling Field Support Center and Weather Forecast Office campus site.

NOAA utilizes 41 U.S.C., Public Contracts, Section 6301, Authorization Requirement, which states that the federal government may not acquire land unless the contract or purchase is authorized by law or is under an appropriation adequate to its fulfillment. NOAA also follows the requirements under 41 CFR, Public Contracts and Property Management, Subtitle C, Part 102-73, Real Estate Acquisition. NOAA acquires land only for specific mission needs that cannot be met by its existing inventory and only if properly authorized. NOAA follows applicable federal procedures for acquiring land via transfer in from other federal entities including from GSA.

NOAA maintains and uses its land in support of the mission that land serves. Its maintenance, such as landscaping, snow removal, and pest control are dependent on the use and location of the particular parcel of land.

NOAA disposes of land based on 41 CFR, Subtitle C, Part 102-75, Real Property Disposal. In special cases, specific legislation may also provide disposal authority for and direct the disposal of a particular location/site.

**The following table summarizes NOAA’s land and permanent land rights under the General PP&E category as of October 1, 2021 and September 30, 2022:**

**NOAA General PP&E Land and Permanent Land Rights Estimated Number of Acres by Predominant Us**

|  |  |  |
| --- | --- | --- |
|  | **Operational** | **Total Estimated Number of Acres** |
| **Land Held**Beginning Balance, October 1, 2021 |  | 2,489 |  104  |
| Ending Balance, September 30, 2022 | x,xxx |   |
|  |  |  |
| **Land Held for Disposal or Exchange** |  |  |
| Beginning Balance, October 1, 2021 | 13 |  13 |
| Ending Balance, September 30, 2022 |  |  |  |
| **Permanent Land Rights** |  |  |  |
| Beginning Balance, October 1, 2021 |  | 203 |  203 |
| Ending Balance, September 30, 2022 |  | 203 |  203 203 |

***Stewardship Land***

**NOAA:**

This Stewardship Land subsection is required by federal accounting standards to be presented based on amended federal accounting standards for stewardship land that become effective FY 2026, including an amended definition of stewardship land.

For the presentation of this subsection, the amended accounting standards for stewardship land that become effective FY 2026 provides a definition of stewardship land indicating that stewardship1 land includes both public domain2 and acquired land and land rights owned by the federal government and intended to be held indefinitely. Furthermore, related amended federal accounting standards for General PP&E that also become effective FY 2026 indicate that General PP&E land shall exclude (1) withdrawn public lands^3 or (2) land restricted for conservation, preservation, historical, or other like restrictions. Such land shall remain categorized as stewardship land.

The amended federal accounting standards for stewardship land that become effective FY 2026, used for the preparation of this subsection, are different than the current federal accounting standards for stewardship land that are effective through FY 2025 for the presentation of the Stewardship Property, Plant, and Equipment note to the financial statements. It is the Department’s understanding that FASAB's intention is that the presentation basis, requirements, and content of the Required Supplementary Information subsection for stewardship land will replace the current (through FY 2025) requirements and content of the Stewardship

1 Per FASAB's Handbook of Federal Accounting Standards and Other Pronouncements, as Amended, Appendix E, Consolidated Glossary, "The Federal Government’s responsibility for the general welfare of the nation in perpetuity."

2 Per FASAB’s Statement of Federal Financial Accounting Standards 59, Accounting and Reporting of Government Land, “Public domain land is land that was originally ceded to the United States by treaty, purchase, or conquest in contrast to acquired lands, which have been purchased by, given to, exchanged with, or transferred through condemnation proceedings to the federal government.”

3 Per FASAB’s Statement of Federal Financial Accounting Standards 59, Accounting and Reporting of Government Land, “To the extent consistent with statutory authorities, an entity may withdraw public lands from the public domain for specific uses. For example, an entity may withdraw public land from sale, settlement, or recreational use to expand buffer zones for security or training needs.”

PP&E note to the financial statements. As of September 30, 2022 and October 1, 2021, there are not any differences between the stewardship land reported in Required Supplementary Information (Unaudited) and the stewardship land reported in the Stewardship Property, Plant, and Equipment note to the financial statements.

NOAA’s stewardship land supports its mission by serving as sites for NOAA’s operations, including for facilities and offices, observatories, laboratories, and rookeries.

NOAA’s stewardship land held primarily consists of operational land in Fairbanks, AK and St. Paul, AK.

The stewardship land in Fairbanks is for the site for the National Environmental Satellite, Data, and Information Service’s (NESDIS) Office of Satellite and Product Operations Gilmore Creek. The Fairbanks Command and Data Acquisition Station (campus) is NOAA’s primary satellite ground station for downloading data from and sending commands to polar orbiting satellites.

The stewardship land in St. Paul includes five rookeries and National Weather Service offices.

See NOAA’s General Property, Plant, and Equipment Land and Land Rights subsection above for information on NOAA acquisitions of land, maintenance and use of land, and disposals of land.

See the Stewardship Property, Plant, and Equipment note to the financial statements for more information on the composition of NOAA’s stewardship land and for information on NOAA’s real property community policies and procedures for stewardship land.

**The following table summarizes NOAA’s land under the Stewardship category as of October 1, 2021 and September 30, 2022:**

**NOAA Stewardship Land Estimated Number of Acres by Predominant Use**

|  |  |  |
| --- | --- | --- |
|  | **Operational** | **Total Estimated Number of Acres** |
| **Land Held**Beginning Balance, October 1, 2021 |  | 9,684 |  9,684  |
| Ending Balance, September 30, 2022 | x,xxx |   |