Department of the Interior (DOI) Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

For all programs under the authority of the **Assistant Secretary of Indian Affairs (AS-IA)**, including The Bureau of Indian Affairs (BIA) and The Bureau of Indian Education (BIE), pursuant to the Indian Affairs Manual, Part 20, Chapter 5 https://www.bia.gov/sites/bia.gov/files/assets/public/raca/manual/pdf/idc-021344.pdf, the IA-PMS is the system of record for reporting and analyzing data collected on Indian Affairs (IA) programs. The system consists of performance measures as defined by the 1993 Government Performance and Results Act (GPRA); measure definition templates to facilitate consistent reporting; and performance targets for monitoring overall program success. IA uses the IA-PMS to record quarterly and annual data on bureau-specific and strategic plan (SP) performance measures. Central Office programs, regions, and agencies are required to report on performance measures in a timely and accurate manner and are responsible for the validation and verification (V&V) of all data reported in the IA-PMS. The collection of GPRA performance information is a collaborative effort. The collection of timely, accurate, and appropriate performance information is essential to successful performance management of federal Indian and Alaska Native programs. Tribal governments or tribal organizations operating IA programs under grants, contracts or compacts authorized by the Indian Self-Determination and Education Assistance Act, as amended (25 U.S.C. §450 et seq.) are required to comply with policies and procedures if required by statute or regulation.

The Bureau of Trust Funds Administration (BTFA) formerly known as the Office of the Special Trustee for American Indians, manages the financial assets of American Indians held in trust by the Department of the Interior. The BTFA disburses more than $1 billion annually and has more than $8 billion under active day-to-day management and investment on behalf of Tribes and individuals. The BTFA manages the financial assets in accordance with applicable financial laws and regulations. BTFA also follows financial accounting standards such as those issued by the Financial Accounting Standards Board (https://www.fasb.org/home) and auditing of financial statements occur in accordance with the Generally Accepted Government Auditing Standards issued by the U.S. Government Accountability Office (https://www.gao.gov/yellowbook).

The Bureau of Indian Affairs (BIA) In Fiscal Year (FY) 2024, the Bureau of Indian Affairs (BIA) published the Bureau Data Governance Policy, specifically in Part 78, Chapter 2 in the IAM (Indian Affairs Manual), which is accessible on the BIA Directives website: https://www.bia.gov/policy-forms/manual. In accordance with the Open Government Data Act, BIA is committed to managing Open Data that adheres to the Department of the Interior's metadata standards, specifically the US Standard Data Catalog (DCAT) version 1.1. All BIA Open Data products can be found at the following link: https://opendata-1-bia-geospatial.hub.arcgis.com/. Additionally, BIA Open Data is cataloged in the Federal Catalog at Data.gov and Geoplatform.gov, aligning with the Foundations for Evidence-Based Policymaking Act. Notably, BIA Open Data has achieved an impressive 96.3% score on the F.A.I.R. principles (Findable, Accessible, Interoperable, and Reusable).

The Bureau of Land Management (BLM) supports its multiple-use and sustained yield mission by utilizing a variety of Voluntary Consensus Standards (VCS) to manage public lands and maximize opportunities for commercial, recreational, and conservation activities. The BLM's policy on data standards is described in BLM Handbook 1283 – Data Administration and Management and practices follow the Department of Interior Information Resource Management policy (Series: 17-INFORMATION RESOURCES MANAGEMENT (Parts 375-387), OMB Circular A-16: Coordination and Surveying, Mapping, and Related Spatial Data Activities as amended by the Geospatial Data Act of 2018, OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and Conformity Assessment Activities, and OMB Circular A-130: Managing Information as a Strategic Resource).

BLM-specific data standards provide a uniform and documented system for collecting and maintaining geospatial datasets supporting our Geospatial Business Platform and BLM business workflows. Use of metadata standards established by the Federal Geographic Data Committee (FGDC) allow for wide-reaching public availability through https://data.gov/ utilizing the DOI's Enterprise Data Inventory.

BLM actively participated in several interagency projects that required VCS to accurately account for BLM actions and report results. The Federal Accounting Standards Advisory Board (FASAB) Statement of Federal Financial Accounting Standards (SFFAS) 59: Accounting and Reporting of Government Land required BLM to ensure consistent accounting treatment and reporting for federal land to increase transparency, comparability, consistency, and reliability of land information. BLM submitted an Agency Financial Report (AFR) to convey our commitment to sound financial management and stewardship of public funds. BLM had to standardize a process that reclassified General Property Plant and Equipment (G-PP&E) land and permanent land rights as a non-capitalized asset and define Stewardship Land (SL) using three sub-categories: Operational Land, Commercial-use Land, Conservation and Preservation Land. Objectives of this standard approach include determining predominant use by sub-category of federal lands, providing land information for inclusion in the BLM's financial reporting deliverables to the DOI, and striving for consistent reporting of BLM acreage in both the FASAB and Public Land Statistics data.

The Modernizing Access to Our Public Land Act (MAPLand Act) directed the Department of Interior, USDA Forest Service, and U.S. Army Core of Engineers to work together to develop, maintain, and consistently share with the public standardized and interoperable geospatial data relating to public access to Federal lands and water for outdoor recreation. BLM has taken a very hands-on approach to influencing the geospatial data standards that come out of sub-groups representing easements for access across private lands, roads, trails, and open recreational use areas, recreational shooting and hunting, general recreation opportunities.

BLM also contributes to VCS maintained by other agencies. Examples include:

- Bridge assessments are inspected and reported according to the US Department of Transportation Federal Highway Administration National Bridge Institute's Recording and Coding Guide;
- Heritage resource surveys and reports are submitted according to State Historical Preservation Office data standards (State of Idaho example);
- Timekeeping, financial, business, collections and billing (FBMS and CBS) data entry and management follows OPM data standards;

- Sensitive species (plants and wildlife) observations are collected, maintained and reported according to State Fish/Game/Wildlife maintained data standards (Idaho Fish and Game example);
- Water quality sampling data are collected, reported and maintained according to EPA standards.

The Bureau of Reclamation (BOR) leads and participates in standards activities across the enterprise. The following highlight standards involvement in various programs and geographic locations. Our Technical Service Center (TSC) showcases its National Codes & Design Standards page (https://www.usbr.gov/tsc/techreferences/industrystandards-non_rec/nationalcodes-ds_non-rec.html), illustrating how our design activities must be performed in accordance with established Reclamation design criteria and standards, and approved national design standards. National codes and design standards provide a consistency of standard practice across a wide variety of engineering disciplines. The adoption of national codes and standards reduces the effort to develop and maintain Reclamation standards. Reclamation designers use the most current edition of national codes and design standards consistent with Reclamation design standards. This list identifies primary national codes and design standards used by Reclamation designers but does not include all codes, standards, and guidelines that may be referenced by these documents. Reclamation design standards may include exceptions to requirements of national codes and design standards.

The North American Electric Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) enforce standards necessary to maintain the reliability of the interconnected electric power grid which includes BOR facilities. BOR participates in the NERC and WECC committees and standard drafting teams to provide subject matter expertise and guide the development of the technical aspects of the NERC or WECC standards. BOR is required to maintain compliance with the standards; however, there are times when compliance with the standards is not congruent with the mandates placed on BOR. Participation in the development of the standards allows BOR to provide direct influence at the crucial times in the development of the standards to align the drafted requirements with the mandates thereby ensuring BOR's ability to maintain compliance and the reliability of BOR facilities. Our Hydropower standards program is described here: https://www.usbr.gov/power/data/fist_pub.html.
Finally, Reclamation's Information Resources Office (IRO) programmatically adopts and uses voluntary consensus standards through its affiliation with various standards bodies. The energy standard for data centers (American National Standard 90.4) was initiated to promote energy efficient design of data centers, a rapidly expanding and energy-intensive category among buildings in the United States and worldwide. The IRO utilizes the Information Technology Infrastructure Library (ITIL) framework, which is a set of industry best practices and standards for IT service management and delivering IT services. In addition, IRO focuses on integration of several ISO standards through the Control Objectives for Information and Related Technologies (COBIT) framework for the management, organization, development, and implementation strategies for IT governance and includes ISO 9000 (Quality Management); ISO 15504 (Process assessment); ISO 20000 (Information Technology); ISO 27000 (Information Security); ISO 31000 (Risk Management); ISO 38500 (IT Governance).

The Bureau of Safety and Environmental Enforcement (BSEE) has a long history of using industry standards to supplement and enhance its regulatory program. As of December 2020, BSEE has incorporated by reference 125 industry standards in its regulations (see 30 CFR § 250.198). BSEE's Standards Development Section (SDS) is responsible for tracking, engaging in, and advising on, industry standards relevant to BSEE's mission. The SDS coordinates SMEs from the offshore industry and BSEE to

work together through the SDOs to develop standards as required by the NTTAA. The SDS is currently monitoring 10 different SDOs in the development of 125 standards presently Included by reference (IBR). There are different SDOs that develop industry standards such as the American Society of Mechanical Engineers (ASME) or the American Petroleum Institute (API). The SDS also engages in the development of other standards in addition to the 125 incorporated standards if it is deemed a priority by BSEE. The 10 SDOs whose standards are IBR are API, ASME, NACE, ASTM, AWS, AGA, IEC ISO, and the Center for Offshore Safety.

Standards that significantly advance safety and environmental stewardship are a priority. The work of the SDS has significantly advanced the BSEE mission. Examples of advancing the BSEE mission include an addendum on quality control for supply chains written for API Specification Q1, a new performance-based approach to developing SEMS using API RP 75, a high-pressure high-temperature equipment design document, API 17TR8, and a bolting material guidance document, API 21TR1, to mitigate future bolting failures identified in the BSEE QC FIT report.

The federal regulations governing the development of offshore wind facilities, 30 Code of Federal Regulations (CFR) § 585, were published in 2009. These regulations outline the development process for an offshore wind project in U.S. waters. However, because the U.S. offshore wind industry was less mature in 2009, adequate U.S. standards did not exist. For this reason, no specific standards were incorporated by reference into 30 CFR § 585. Rather, the regulations prescribe that "best practices" be used, with the expectation that these practices would evolve as the U.S. offshore wind industry gained experience. Such best practices are the foundation upon which offshore wind standards will be based.

In addition to the above approach to standards, BSEE refers to the Public Petroleum Data Model (PPDM) for standard design patterns in designing custom databases for regulatory functions related to offshore oil and gas and BSEE also follows FGDC standards where applicable for GIS functions and geospatial data applications.

The above information is from the Standards Development section of BSEE's website (Standards Development Section | Bureau of Safety and Environmental Enforcement (bsee.gov))as it directly addresses this data call.

The Office of Natural Resources Revenue (ONRR) collects, accounts for, and verifies natural resource and energy revenues due to States, American Indians, and the U.S. Treasury. ONRR manages financial assets in accordance w/ laws, regulations, and financial and accounting standards issued by The Federal Accounting Standards Advisory Board fasab.gov. ONRR conducts audits following Government Auditing Standards Yellow Book | U.S. GAO to determine company compliance with lease terms, laws, and regulations.

ONRR uses the Professional Petroleum Data Management Association Well Identification (ppdm.org) for US Well Number Standards and the Federal Information Processing Series (FIPS) for U.S. state and county codes: INCITS 31-2009 & INCITS 38-2009.

ONRR's public websites are managed according to the 21st IDEA Act and the U.S Website Design Standards. (USWDS)

The U.S. Fish and Wildlife Service (FWS) utilizes a variety of Voluntary Consensus Standards (VCS) in managing a wide array of management and resource data and information in support of its mission. The standards are embedded in multiple software, hardware, services, and systems. The FWS's policy on data standards is described in the FWS Manual Chapter 274 FW 2: Establishing Service Data Standards (https://www.fws.gov/data-standards). It follows the Department of Interior Information Resource Management policy (Series: 17-INFORMATION RESOURCES MANAGEMENT (Parts 375-387) on https://www.doi.gov/elips/browse), the OMB Circular A-130: Management of Federal Information Resources (https://www.federalregister.gov/documents/2016/07/28/2016-17872/revision-of-omb-circular-no-a-130-managinginformation-as-a-strategic-resource), and OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and Conformity Assessment Activities.

The FWS data standards are found here: https://www.fws.gov/data-standards. Of particular note, is the VCS for the Classification of Wetlands and Deep-water Habitats of the United States. The Service's definition and classification system provides standardization of concepts and terms used to describe the biological limit of wetland types found in the United States, and is used nationwide by many Federal, State, and local agencies as part of the management of their wetland resources.

The Data Science Committee has created a working group tasked with reviewing FWS data standards to bring them into compliance with Service policy 274 FW 2 listed above. All FWS standards will be assigned a data standard steward, assessed for relevancy, determine the frequency and process to keep theses updated to industry standards.

The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations. The NPS uses a variety of standards to support bureau operations including many governments unique standards (GUS) that do not have a similar voluntary consensus standard (VCS). NPS practices follow the Department of Interior Information Resource Management policy (Series: 17-INFORMATION RESOURCES MANAGEMENT (Parts 375-387) NPS Director's Order 11B Ensuring Quality of Information Disseminated by the NPS, OMB Circular A-16: Coordination and Surveying, Mapping, and Related Spatial Data Activities as amended by the Geospatial Data Act of 2018, OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and Conformity Assessment Activities, OMB Circular A-130: Managing Information as a Strategic Resource.

NPS uses NPS Spatial Data Standards, Federal Camping Data Standard, Integrated Taxonomic Information System, EPA Pesticide Product Information System (PPIS), and EPA Water Quality Exchange (WQX). Library related activities use the Machine Readable Cataloging (MARC) standard, Library of Congress Subject Headings controlled vocabulary, Faceted Application of Subject Terminology (FAST), Library of Congress Classification standards, and Dewey Decimal Classification. Data is also shared via Application Programming Interface (APIs) that follow the industry led OpenAPI specification. The Modernizing Access to Our Public Land Act (MAPLand Act) directed DOI, Forest Service, and U.S. Army Core of Engineers to work together to develop, maintain, and consistently share with the public standardized and interoperable geospatial data relating to public access to Federal lands and water for outdoor recreation. NPS has participated in developing the geospatial data transfer standards for five thematic layers including easements for access across private lands, roads, trails, and open recreational

use areas, and recreational shooting and hunting. The NPS also maintains metadata for spatial and geographic information according to the standards established by the Federal Geographic Data Committee (FGDC) as well as metadata that meets project open data requirements including the Department of Interior metadata US Standard Data Catalog (DCAT) v1.1. that enables wide-reaching public availability through https://data.gov/ utilizing the DOI's Enterprise Data Inventory aligning with the Foundations for Evidence-Based Policymaking Act. NPS public websites are managed according to the 21st IDEA Act and the U.S Website Design Standards (USWDS).

The U.S. Geological Survey (USGS) employs a variety of Voluntary Consensus Standards (VCS) to manage a wide range of scientific data and information that support the mission of the Bureau. The USGS Survey Manual Chapter 502.2 - Fundamental Science Practices: Planning and Conducting Data Collection and Research addresses data and metadata standards: "The data collected, and the techniques used by USGS scientists conform to or reference national and international standards and protocols if they exist and when they are relevant and appropriate. For datasets of a given type, and if national or international metadata standards exist, the data are indexed with metadata that facilitate access and integration."
Longstanding examples of VCS in use across USGS can be found on the USGS Data Management Website. For metadata describing digital and physical data, these include:

- the International Organization for Standardization (ISO) 19115 suite of standards for digital geospatial metadata
- the FGDC Content Standard for Digital Geospatial Metadata for digital geospatial metadata
- the Climate, and Forecast (CF) Metadata Conventions for describing and sharing NetCDF data files.
- the international DCAT catalog standard, and its Federal profile, DCAT-US, are the basis for the data model for the public-facing USGS Science Data Catalog and its harvest endpoint for the Federal data catalogs; USGS is now in the process of extending its implementation of DCAT 3 and its new profile, DCAT-US 3, to also serve as the foundation of the new data model for our largest USGS data repository, ScienceBase.
- Digital Object Identifiers (DOIs), the international standard for ensuring persistent, unique, and resolvable access to digital resources, are broadly used to safeguard continuous public access to USGS scientific publications (via CrossRef DOIs), data and software releases (via DataCite DOIs), and other research outputs.
- globally recognized International Generic Sample Numbers (IGSNs) are now being introduced for our many collections of physical samples (including rock cores and cuttings, sediments, bore hole wells, and biological specimens). These globally unique, persistent and citable identifiers allow physical samples used or consumed in the course of scientific research to be tied to provenance details including their original location, method by which they were collected, history of curation and ownership, scientific identification and classification, and other important details.

Dataset-level standards in wide use include:

- Darwin Core, an open-access biological standard for documenting and sharing species occurrence data across datasets

- the U.S. National Vegetation Classification Standard, a common classification vocabulary for identifying and mapping vegetation across the United States to support data interoperability

As a major federal research agency, USGS has also led or co-led development of many standards that have effectively evolved into voluntary consensus standards in wide use across federal and non-federal spheres. USGS continues to play a leadership role in their evolution and management, in close coordination with other federal, state, local, academic, non-profit, and private sector stakeholders. These standards include:

- Integrated Taxonomic Information System (ITIS): A standardized taxonomic nomenclature reference is a prerequisite for biological data sharing, integration, and comparison among different agencies and organizations. Since 1996, ITIS has worked to consolidate federal efforts to define and provide access to standardized, authoritative, and publicly accessible species in support of interoperable, high quality biological data. Ten Federal, North American, and non-governmental partners work collaboratively with USGS to oversee the quality and integrity of taxonomic data in ITIS, and to further its technical development.

- Watershed Boundary Dataset (WBD): Hydrologic unit boundaries in the WBD are determined on the basis of topographic, hydrologic, and other relevant landscape characteristics without regard for administrative, political, or jurisdictional boundaries. The WBD seamlessly represents hydrologic units at six required and two optional hierarchical levels mapped at a minimum of 1:24,000-scale in the United States, except for in Hawaii, the Caribbean, and the Pacific Islands, which are at 1:25,000-scale, and in Alaska, where the data range from the minimum required 1:24,000-scale to 1:63,360-scale. Hydrologic units in the WBD provide a standardized base for water-resources organizations to locate, store, retrieve, and exchange hydrologic data; to index and inventory hydrologic data and information; to catalog water-data acquisition activities; and to use in a variety of other applications. Leadership of the WBD is the responsibility of USGS and the USDA Natural Resources Conservation Service, with collaboration from a network of State stewards, partners, and users on requirements, use, review, and management.

- Geologic Map Schema (GeMS): GeMS is the standard schema for geologic map publications funded by the U.S. Geological Survey's National Cooperative Geologic Mapping Program (NCGMP). Its design specifies encoding the content analogous to that contained in a traditional geologic map published by the USGS and by State Geological Surveys. The design is focused on the publication, transfer, and archiving of map data and less on the creation of map data, the visual representation of map data, or the compilation of data from many different map sources; it is foundational to the development of multiple-map databases, including the National Geologic Map Database. GeMS was developed and is maintained collaboratively by the USGS and more than twenty State Geological Surveys.

- Geographic Names Information System (GNIS): was developed by the USGS in cooperation with the U.S. Board on Geographic Names (BGN), which maintains cooperative working relationships with State Names Authorities to standardize geographic names for Federal use. GNIS contains information about the official names for places, features, and areas in the 50 states, the District of Columbia, and the territories and outlying areas of the United States, including Antarctica.

GNIS is the geographic names component of The National Map. GNIS contains records for approximately one million geographic names in the United States, including populated places, lakes, streams, summits, valleys, and ridges. Federal, tribal, state, local, and non-governmental data partners continuously submit new features and edits to existing features in the Geographic Names Information System (GNIS). Additions and changes are validated by the staff and made available on the Search Domestic Names application.

Consensus standards for file formats in wide use include:

- Open geospatial formats such as Geospatial PDF
- Open Geospatial Consortium (OGC) standards including Web Map Service, Web Coverage Service, Web Feature Service, and OGC GeoPackage
- GeoJSON, GeoTIFF, and Cloud-optimized GeoTIFF
- GML Web Feature Service
- NetCDF

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Start by reviewing Table 1: Current Government Unique Standards FY2024.

To add a new GUS, please include:

1. **The name of the GUS;**
2. **The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate;**
3. **A brief rationale on why the VCS(s) was not chosen.**

Current total GUS =0

Table 1: Current Government Unique Standards FY2024

No new uses of GUS were initiated within DOI during FY 2024.