

# Reclamation Manual

## Directives and Standards

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<b>Subject:</b>	Data Asset Inventory
<b>Purpose:</b>	This Directive and Standard (D&S) sets forth requirements to develop an inventory of Reclamation's data assets and provides guidance on metadata standards for the data inventory. The benefits of implementing this D&S are to allow Reclamation to better identify its data assets and their disposition; make Reclamation data more findable, accessible, interoperable, and reusable; facilitate the use of data in key public decisions that can advance solutions to economic, environmental, and social questions; and allow Reclamation to report data assets to the Department of Interior's (DOI, Department) Enterprise Data Inventory (EDI) as required by the OPEN Government Data Act.
<b>Authority:</b>	Reclamation Act of 1902 as amended and supplemented; Foundations for Evidence-Based Policymaking Act of 2018, Title II -OPEN Government Data Act PL 115-435; Geospatial Data Act of 2018; Department of the Interior, Office of the Chief Information Officer Directives 2022-001 & 2022-002; Classified National Security Information - Executive Order 13526 of December 29, 2009
<b>Approving Official:</b>	Senior Advisor Research and Development, 86-69000
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1. **Introduction.** A critical first step in leveraging data for decision making is knowing what data exists within an organization and making that data available to others. Accordingly, the OPEN Government Data Act requires the Secretary of the Interior to establish a comprehensive data inventory that accounts for all data assets created by, collected by, under the direction or control of, or maintained by the agency (44 USC § 3511[a]). Office of the Chief Information Officer (OCIO) Directive 2022-002 (October 12, 2021) directs bureaus to identify their data assets and manage them within an overall portfolio of data assets, ensure data assets are registered in the DOI Enterprise Data Inventory using standard metadata and required documentation; and sets a path towards making data assets open and discoverable.

This D&S provides direction, process, and standards to develop an inventory of Reclamation's data assets. Building this inventory is foundational for Reclamation's interests in better data management, improved data stewardship and more effective decision-support. This inventory will represent existing Reclamation information management technology (IMT) systems using metadata for the data assets in those systems. The inventory for each system may include metadata for individual data assets, entire data catalogs for those systems (e.g., Reclamation Information Sharing Environment "RISE," Bureau of Reclamation Geographic Information System "BORGIS," and others already

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have catalogs) or a summary metadata record for the information system if asset-specific metadata are not available. This inventory will inform Reclamation's strategic data management framework, which may include activities to enhance data management for IMT systems and improve data management of priority data assets outside of these systems.

The Enterprise Data Inventory (EDI) of the Department's data assets is currently under development. The establishment of a Reclamation data asset inventory will allow future contribution of Reclamation's data assets to the EDI.

This D&S only addresses the development of a data inventory. This D&S does not alter responsibilities related to data management, including those pertaining to the collection, quality assurance, security, privacy and records management of data assets or the information systems in which they may be stored.

## 2. **Applicability.**

- A. This release applies to all Reclamation IMT systems tracked in the Capital Planning and Investment Control (CPIC) process, and the employees engaged in the management of these systems or data.
- B. This D&S applies to data that Reclamation owns. Ownership means that Reclamation performed the collection or generation of the data, or the collection or generation of the data was done on behalf of Reclamation (e.g., by a consultant, contractor, or collaborating organization) and Reclamation is responsible for managing, maintaining, and distributing the data.

## 3. **Requirements and Responsibilities.**

- A. **Reclamation Data Inventory Tool.** The Associate Chief Data Officer (ACDO) will provide a data inventory tool to IMT System Owners that will allow them or their designees to submit metadata for inclusion in Reclamation's data inventory. The ACDO, Reclamation Data Council members, or their designees will assist IMT System Owners in using the data inventory tool and developing their metadata.
- B. **Data Inventory Procedures.** IMT System Owners or their designees will prepare and submit metadata on data assets stored in those IMT systems within the scope of their responsibility to the ACDO or their designee for inclusion in Reclamation's data inventory. IMT System Owners or their designees should assess their systems and data and make determinations on what to include in the data inventory. Their determinations should adhere to the following principles.
  - (1) Include all data assets in the IMT system. Include metadata for all data assets regardless of security designation of the data asset. Provisions for exclusion of

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metadata that contains Controlled Unclassified Information (in the metadata itself), and metadata for data assets that are classified national security information are discussed in item (5).

- (2) If adequate metadata to comply with current version of the DCAT-US standard for an IMT system's individual data assets does not exist or cannot be reasonably obtained, then submit metadata for the aggregated data of that IMT system, or portions of that system where data asset-level metadata is not readily obtainable.
- (3) Existing data catalogs may be leveraged. Data assets may reside in one IMT system and be cataloged in another system. If it contains adequate metadata, respondents may use the data catalog for the other system to submit metadata information for the inventory.
- (4) Include only metadata in the data inventory. The underlying data associated with the inventoried data assets do not need to be provided.
- (5) Data assets may be identified for exclusion from the public inventory if the metadata for the data asset contains Controlled Unclassified Information or if the data asset itself is classified national security information ([Executive Order 13526](#)).

C. **Schema.** All metadata describing data assets for inclusion in the inventory must comply with the DCAT-US metadata standard, available at <https://resources.data.gov/resources/dcat-us/>

- (1) **Required fields.** The metadata should contain data for all required fields under DCAT-US.
- (2) **Identification of Assets to be Excluded from Public Inventory.** In addition to the DCAT-US required fields, each inventory entry should indicate whether an inventory entry should be excluded from the public inventory.
- (3) **Technical Guidance.** The ACDO will maintain technical guidance describing how to apply the DCAT-US standard to Reclamation's data assets. For example, this guidance will describe how to account for the temporal scope and publication frequency (described as accrual Periodicity in DCAT) for data assets that are published on a recurring basis and the parent/child relationships between different types of cataloged resources, such as the relationship between a parent asset and its child data service or application programming interface, "API." Metadata standards are currently being developed for the Department's Enterprise Data Inventory and are also based on DCAT-US standard plus some additional required and optional fields. As the EDI metadata standard is completed, any additional requirements for Reclamation's data assets will be included in the technical guidance.

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- D. **Providing metadata.** Information System Owners may either input metadata directly to the inventory tool or provide a metadata file that meets the inventory schema and format requirements to the ACDO. System owners may also attach a metadata file(s) exported from their system(s) to an inventory tool record.
  - E. **Update.** Information System Owners will review and update their metadata records in the inventory as needed, and at least once per fiscal year.
4. **Definitions.**
- A. **Application Programming Interface (API).** A set of defined rules that explain how computers or applications communicate with each other.
  - B. **Data.** Recorded information, regardless of the form or the media on which the data is recorded. 44 USC § 3502(16).
  - C. **Data set.** A collection of data, published or curated by a single agent, and available for access or download in one or more representations. DCAT 2 § 6.6.
  - D. **Data Asset.** A collection of data elements or data sets that may be grouped together. 44 USC § 3502(17).
  - E. **Data Catalog.** A centralized repository of standardized metadata that describe individual data assets and data sets that improves discovery and reuse of data.
  - F. **Data Service.** A standard means of providing data from one software application to another.
  - G. **Information Management Technology (IMT) System.** A discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information. 44 USC § 3502 (8). For this release, the term IMT System contains those systems tracked in =CPIC process.
  - H. **Information System Owner.** Official responsible for the overall procurement, development, integration, modification, or operation and maintenance of an information system as listed via the CPIC process.
  - I. **Metadata.** Information describing the characteristics of data; can include data structures (e.g., data format, syntax, and semantics) and descriptive metadata (e.g., type of data, location, accuracy, author/creator). National Institute of Standards and Technology, “NIST,” Metadata, available at: <https://csrc.nist.gov/glossary/term/metadata>.

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- J. Schema. A language, structured framework, or knowledge structure for describing and defining the structure, content, and semantics of structured data and how the data may relate to other data or data models.
5. **Review Period.** The originating office will review this release every four years.

## RECLAMATION MANUAL TRANSMITTAL SHEET

Effective Date: \_\_\_\_\_

Release No. \_\_\_\_\_

Ensure all employees needing this information are provided a copy of this release.

### Reclamation Manual Release Number and Subject

### Summary of Changes

NOTE: This Reclamation Manual release applies to all Reclamation employees. When an exclusive bargaining unit exists, changes to this release may be subject to the provisions of collective bargaining agreements.

### Filing instructions

Remove Sheets

Insert Sheets

All Reclamation Manual releases are available at <http://www.usbr.gov/recman/>

Filed by: \_\_\_\_\_

Date: \_\_\_\_\_