

Long-Term Data Management Governance Board

National Park Service
Department of the Interior

Inventory & Monitoring Division



In 2016, the Long-term Data Management (LTDM) Task Force was formed to identify the best approach for storing, archiving, and disseminating Inventory & Monitoring Division (IMD) data to support park management and broader conservation science. After a year of analysis, the group recommended a remodeled version of the NPS Data Store to the IMD Leadership Team (IMDLT) and the IMDLT accepted the recommendation.

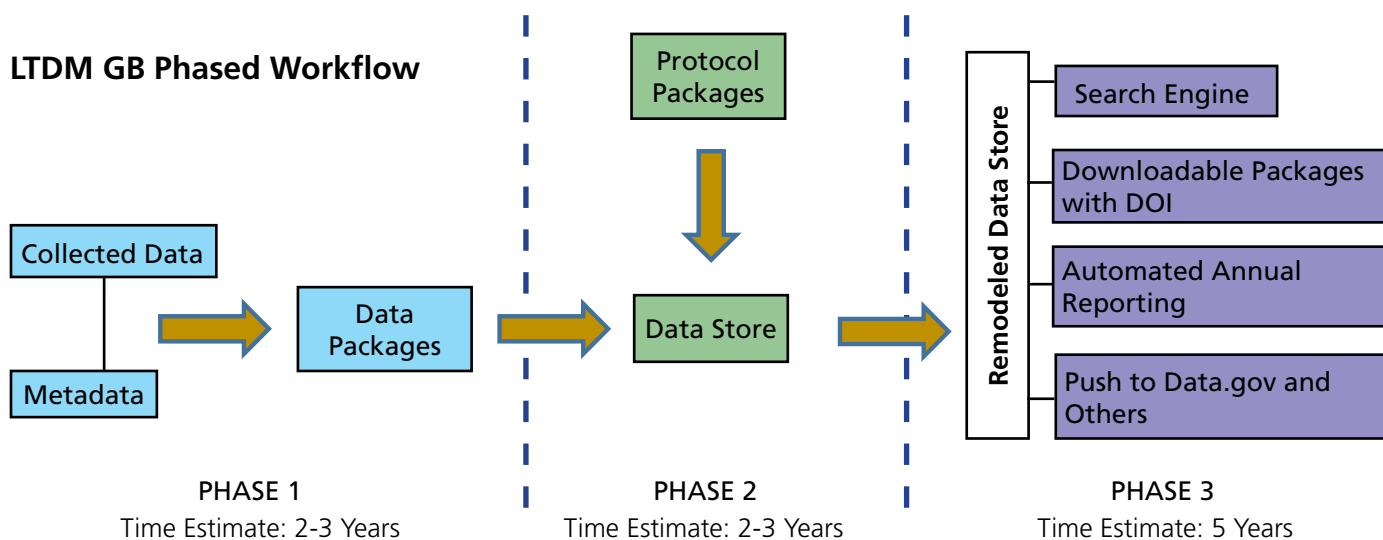
In 2018, the LTDM Governance Board was formed to define, prioritize, and implement the Task Force's recommendation of a remodeled Data Store. In its first year, the Governance Board developed a 10-year project plan with three phases. Phase 1 focuses on defining, posting, and tracking data packages (datasets, metadata, digital object identifiers). Phase 2 focuses on protocol packages (protocol, SOPs, QAP or DQS), how they are linked to associated data packages,

and how packages are displayed and shared in the Data Store. Phase 3 focuses on maximizing the accountability and utility of all the IMD science information, both within and external to the National Park Service.

The Governance Board's 3-phased project plan is being implemented by small, interdisciplinary work groups. As needed and at the direction of the Governance Board, short-term work groups are formed, perform 'sprints' to develop the policies, processes, and tools requested, and return their recommendations to the Governance Board for approval and integration into the plan.

The purpose of this resource brief is to provide a guide to completed, in-process, or planned activities of the LTDM Governance Board and its work groups. This document will be updated quarterly.

LTDM GB Phased Workflow



Phase 1: Preserve and Protect IMD Data

- Define metadata requirements
- Define supported, machine-readable formats for uploaded data
- Establish expectations for data quality flagging
- Institute DOIs to enable data package tracking

Phase 2: Make Data Broadly Available and Consumable

- Link data packages with associated protocol package (protocol, SOP, QAP)
- Accommodate tools and workflows defined by scientists
- Support ability to extract custom data sets based on science queries
- Maintain source data in the authoritative repository of remodeled Data Store

Phase 3: Provide Management Tools and Functions

- Build out remodeled Data Store with best features of other scientific repositories ([EDI](#), [NEON](#), and [NOAA](#))
- Make data packages searchable and defined data sets consumable (NPS and external)
- Automate annual reporting
- Push data to Data.gov and others

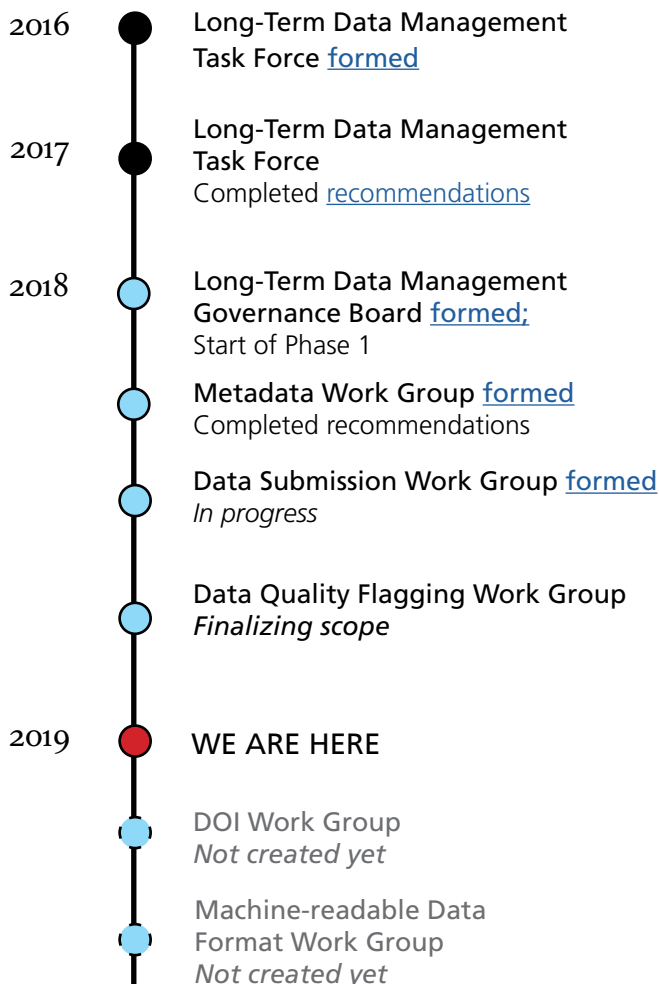
Acronyms

DOI = digital object identifier
DQS = data quality standard
EDI = Environmental Data Initiative

NEON = National Ecological Observatory Network
NOAA = National Oceanic and Atmospheric Administration

QAP = quality assurance plan
SOP = standard operating procedure

Timeline and Accomplishments



Work Group Descriptions

Metadata Work Group

Scope: Identify metadata standard(s) and define core fields for tabular and spatial data sets.

Why: To insure IMD data are properly documented to help consumers discover and understand basic information about the data and facilitate its usage.

Status: A draft report was presented to the Governance Board in November 2018 for review and comments. The final report is expected in January 2019.

Data Submission Work Group

Scope: Define initial policy and guidance for submission of tabular data into the Data Store.

Why: Standardize documentation and submission format of authoritative datasets so that practice becomes consistent and supports long-term use.

Status: In progress

Data Quality Flagging Work Group

Scope (draft): Identify a strategy for implementing data quality flagging throughout I&M data assets, focusing primarily on data stored in columns and rows format.

Why: Elevate row-by-row transparency of data quality so that the end-user can independently determine the data's suitability for use.

Status: In progress

DOI Work Group

Scope (draft): Provide guidance for initiating the use of Digital Object Identifiers (DOI) in IMD.

Why: To assist researchers in demonstrating the value and scientific impact of their work by providing both persistent access to digital objects (e.g., reports, data sets) as well as help define the relationships between them.

Status: To be created in early 2019

Machine-readable Data Format Work Group

Scope (draft): Define policy and develop practices and tools for IMD staff to use in converting their data into machine-readable formats (e.g., CSV, JSON, or XML).

Why: Open and machine readable data formats enhance the value, resiliency, and reach of IMD's long-term datasets by broadening the range of software, code, and data platforms that can consume them.

Status: To be created in early 2019

For more information, see our [InsideNPS page](#) and [SharePoint Site](#) with updates, documents, meeting notes, and presentations.

December 2018