

National Park Service

Public Access Plan

Increase Public Access to Scientific and Scholarly Publications and Research Data

Approved November 26, 2024

Contents

Abstract.....	3
Purpose.....	3
Background.....	3
Scope.....	4
Out of Scope	5
How the Plan Will Work.....	5
Requirements for Reports and other Publications Resulting from Scientific Studies	5
NPS Documents	5
Peer-reviewed Journal Articles	6
Timeline and Milestones.....	6
Data Requirements.....	7
Data Repository Designation and Long-term Preservation	8
Timeline and Milestones.....	8
External Engagement	9
Continuous Iteration and Improvement of the NPS Public Access Plan	10
Glossary	11
References.....	13

Abstract

This document is in response to the Office of Science and Technology Policy (OSTP) memoranda that require the National Park Service (NPS) to develop a Public Access Plan for the results of its scientific, technology, economic and engineering research, unless its release is restricted by policy such as CFR 30 - 550.197, “data and information to be made available to the public or for limited inspection”. The NPS is a bureau of the Department of the Interior with less than \$100 million in annual science, technology, and engineering research funding, hereafter referred to as scientific and scholarly activities. To meet its mission—to preserve unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of future generations—NPS engages in inventories, research, and monitoring studies. These activities require data collection, analysis, and reporting of scientific findings on all aspects of cultural and natural resources throughout the park system. This plan identifies how data and information from such scientific and scholarly activities will be made easily available to the public.

Purpose

This document describes the National Park Service (Service, NPS) plan to increase public access to scientific and scholarly publications produced with NPS funding and the underlying research data associated with those publications in accordance with the Department of the Interior’s (Department) 2023 Public Access Plan [1], 2022 White House Office of Science and Technology Policy (OSTP) requirements [2], and the 2018 Evidence Act [3].

Background

The mission of the National Park Service is to preserve unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations” [4]. Scientific and scholarly activity is essential to the NPS mission (Director’s order 79; [5]). As explained in General Management Concepts NPS Management Policies,

“...preserving park resources and values unimpaired is the core or primary responsibility of NPS managers. The Service cannot conduct or allow activities in parks that would impact park resources and values to a level that would constitute impairment. To comply with this mandate, park managers must determine in writing whether proposed activities in parks would impair natural resources... The Service will reduce such uncertainty by facilitating and building a science-based understanding of park resources and the nature and extent of the impacts involved.

In managing parks to preserve naturally evolving ecosystems, and in accordance with requirements of the National Parks Omnibus Management Act of 1998, the Service will use the findings of science and the analyses of scientifically trained resource specialists in decision-making.”

The results of scientific and scholarly activities are used to inform NPS policy and management decisions. NPS routinely conducts inventories, research, planning, and monitoring of natural and cultural resources as a part of routine business to inform park management, protection, and education about park resources and their uses. Additional NPS program and offices also engage in scientific and scholarly activity such as the social science program, office of public health, and wildlife health branch among others.

Public access to Federally funded research results has been required since February 2013, guided by the [Memorandum on Increasing Access to the Results of Federally Funded Research](#) [6]. In conjunction with the [Foundations for Evidence-based Policymaking Act of 2018](#) (Evidence Act) requirements, the way Federal agencies share their research and data with the public has changed in a fundamental and positive manner. On August 25, 2022, the OSTP issued a new memorandum titled [Ensuring Free, Immediate, and Equitable Access to Federally Funded Research](#). In accordance with this memo, the Department released a [Public Access Plan](#) and has asked the Bureaus to create their own public access plans.

Scope

The NPS Public Access Plan is focused on foundational steps necessary for NPS to improve the transparency and accessibility of its studies, publications, and related data. As such, the current plan documents what NPS is already doing today to share NPS study results with the public, and what incremental steps NPS intends to take in the future to improve public access to NPS’ scientific and scholarly work. The objectives laid out below are driven by requirements set forth in the DOI Public Access Plan [1]; this plan establishes timelines and milestones for achieving DOI-level requirements.

This plan applies to scientific and scholarly activities (e.g., data and publications) per DOI DM 305 [7] and DO79 produced in whole or in part with NPS funding. This includes scholarly publications and data created by all NPS programs and parks, contractors, financial assistance awardees, other grantees, and volunteers. This plan applies unless otherwise prohibited by law, regulation, or policy.

NPS defines scientific and scholarly activities as “activities involving inventorying, monitoring, experimentation, study, research, modeling, and scientific and scholarly assessments” [5].

Interpretive and educational programs, activities, and materials that are based upon scientific and scholarly work are not considered scientific and scholarly works and are outside the scope of this plan. Public access requirements for such work are addressed in both Chapter 7 of NPS Management Policies 2006 and Director’s Order #6: Interpretation and Education [8].

Out of Scope

Scientific and scholarly activities that are outside of the scope of this policy include, but are not limited to:

- Data from secondary sources (i.e., secondary outside data) over which NPS parties do not have control.
- Partner data used in scientific research, but not funded by NPS, and not proprietary.
- Data assets that include personally identifiable information, alone or in combination with other publicly available information that may identify an individual, per privacy laws.
- Proprietary data assets without permission for release by NPS.
- Data assets designated as [Controlled Unclassified Information](#) (CUI).
- Other data assets whose release is limited by law, regulation, contract, agreement, national security requirements, or policy (e.g., classified data or dual-use research data).
- Data covered by a [FOIA exemption](#), or data subject to legal proceedings (e.g. law, court actions such as legal holds, regulations, contracts, agreements).

How the Plan Will Work

The Associate Chief Data Officer and the Scientific Integrity Officer in collaboration with the NPS Data Governance Steering Committee will oversee the NPS Public Access Plan execution and policy drafting and be responsible for reporting to DOI and OSTP on behalf of all studies carried out within or required by NPS. Parks, regions, and programs must comply with the plan and policies as part of managing their federally funded research. After NPS has an approved Public Access Plan, the NPS will improve public access to scientific information by incorporating feedback from the community and leveraging successes and methods developed by other federal agencies.

Requirements for Reports and other Publications Resulting from Scientific Studies

NPS Documents

NPS DataStore is a digital repository within the NPS Integrated Resource Management Applications (IRMA) information portal designed to track and disseminate scientific and scholarly information products relevant to park resources. The NPS DataStore is the default designated repository and

authoritative source for scientific information products, which include final reports and technical summaries resulting from NPS studies.

By default, all NPS documents resulting from federally-funded research will be made publicly available under open licenses such as [U.S. Public Domain](#) or [Creative Commons Zero](#), without restrictions on reuse or redistribution and free of charge. NPS scientific and scholarly information will be made available such that access is provided without discrimination against persons, groups, or fields of endeavor.¹

All scientific work must comply with the standards established by the principles of scientific and scholarly integrity [9].

Peer-reviewed Journal Articles

Peer-reviewed studies/articles—whether authored by NPS staff or submitted as deliverables on contracts and agreements funded by the NPS—must be made publicly available by default and will be stored in DataStore to facilitate release to the public.

Researchers must ensure that publications are made freely available to the public upon publication without embargo². Peer-reviewed articles published by a journal will also be made available through the NPS.gov website. Links to publishers' websites will be provided using the article's Digital Object Identifier (DOI) [10].

Timeline and Milestones

Within approximately **one year** of the publication of this plan, the NPS will:

1. Develop guidance for researchers to ensure federally funded publications are made freely available upon publication, including planning for necessary costs associated with submission, curation, and management, and public access to publications.
2. Ensure that all new scientific and scholarly reports are available online in accessible formats per Section 508 of the Rehabilitation Act of 1973, as amended (1998) [11].

¹ Providing scientific reports to the public under open licenses, without reuse/redistribution restrictions, and free of charge is required as per 2022 OSTP Memorandum *Ensuring Free, Immediate, and Equitable Access to Federally Funded Research* [2].

² Required under the 2023 DOI OCIO Memo, which directs agencies to make scholarly publications and the supporting data resulting from Federally funded research publicly accessible without an embargo on their free and public release [1].

Within approximately **two years** of the publication of this plan the NPS will:

1. Develop and implement policies requiring that federally funded publications are made freely available upon publication with open licensing.
2. Develop a plan to provide online access to scientific reports published by NPS in machine-readable formats.

Within **three to five years** of the publication of this plan the NPS will:

1. Establish a consistent submission, review, and approval-for-release process for authors.
2. Develop a plan to ensure all scientific and scholarly reports published before implementation of this public access plan are available in accessible formats per Section 508 of the Rehabilitation Act of 1973, as amended 1998.
3. Ensure all new scientific and scholarly reports published by NPS are available in machine-readable formats.
4. Ensure repositories have consistent and complete metadata to improve discoverability.

Data Requirements

The NPS DataStore is the designated repository for scientific information products, which includes data resulting from NPS studies. This serves as the authoritative source for publication of NPS data. Other repositories may be approved if they align with [Desirable Characteristics of Data Repositories for Federally Funded Research](#) [12] and have incorporated policies and documentation on data retention aligned with the NPS Service Records Schedule and Departmental Records Schedule [13, 14]. All records, data, and information must follow the lifecycle and retention set forth by these schedules.

Data will be made publicly available:

- Concurrent with or prior to publication of an associated NPS document or peer-reviewed journal article³.

³ Note that the DOI-OCIO memo requires agencies to develop approaches and timelines for making data publicly available when *not* used as the basis for a scientific or scholarly publication [1]. NPS currently has no such guidance.

- Prior to or concurrent with final acceptance and procurement closeout for other data procured under contract or agreement, or otherwise pursuant to a NPS requirement (i.e., scientific collection permit).
- As part of the publicly disseminated case file for scientific data that were used in support of NPS policies, rules, or other decisions.

Data Repository Designation and Long-term Preservation

The following applies to research data to be archived at NPS:

- If NPS is the recipient of the data, the NPS study lead, NPS data manager, and study team will engage early and through the study lifecycle to document the data.
- Data from scientific studies to be archived at NPS will be listed in DataStore, DOI Enterprise Data Inventory (EDI), and Data.gov for the public to search and locate [15]. By submitting to DataStore, the process will be automated to publish to EDI and Data.gov.

The following applies to research data that will be archived in other designated federal repositories:

- In the instance NPS has a repository, cooperative, or an Interagency (or intra Agency) Agreement with an institution that has a suitable data repository for federally funded research, NPS will leverage the institution's repository in compliance with metadata standards and NPS data management policies. In this situation, NPS will work with that institution to ensure the NPS receives a copy of the data for records management actions.
- In cases where data are archived at a partner's institution, the hosting institution is responsible for providing public access to the study data, including listing the data in the DOI Enterprise Data inventory and Data.gov.

Timeline and Milestones

Within approximately **one year** the NPS will:

1. Review additional repositories currently in use to store NPS data and assess whether they align with [*Desirable Characteristics of Data Repositories for Federally Funded Research*](#), and identify any additional data repositories needed by NPS.
2. Develop policies requiring approval of additional repositories intended to house NPS scientific and scholarly information prior to their use.
3. Assign persistent identifiers to all scientific data. [16]

Within approximately **two** years the NPS will:

1. Develop policies governing the management and sharing of data.
2. Assign persistent identifiers to all authors of scientific data (e.g., ORCID ID).

3. Document all data with standardized metadata.
4. Ensure all corresponding metadata for data products are included in the DOI Enterprise Data Inventory.
5. Develop guidance to ensure that reasonable costs for data management and accessibility are included in project development.

Within **three to five years** (or more) of the publication of this plan the NPS will:

1. Develop guidance for researchers to ensure compliance with NPS information management practices.
2. Develop guidance for Data Management Plans to ensure that data from all new research will be made publicly accessible and communicate any categories of data expected to be exempt from public access requirements.
3. Develop policies requiring that all new scientific or scholarly studies funded by NPS include a Data Management Plan.
4. Deploy additional data repositories as needed.
5. Establish guidance and timelines for publishing data not associated with scientific and scholarly reports.
6. Assign persistent identifiers to all grants, protocols (methods included in proposal documentation/project), and awards.

External Engagement

NPS will inform external partners (contractors, recipients of financial assistance, other grantees, or volunteers) about these requirements.

NPS will follow the Department of the Interior's data governance practices and tools to optimize the Bureau's approach.

NPS will leverage the Department of the Interior data management literacy programs for NPS workforce development as it pertains to scientific data management, analysis, storage, preservation, and stewardship.

Engagement strategies will be developed leveraging the Department's Open Data Plan.

Continuous Iteration and Improvement of the NPS Public Access Plan

Many of the organizational and technological resources needed to implement public access to NPS scholarly publications exist within NPS. The mechanisms for ensuring public access and measuring progress are established through the NPS DataStore.

NPS will develop the following metrics for evaluating successful implementation of the public access plan:

- Number of studies that produce a NPS document that is publicly accessible.
- Number of studies that produce peer-reviewed journal articles and detailing whether they are open and freely available or freely available via the NPS.gov website.
- The number of research publications for which the data are publicly accessible.
- The number of datasets not associated with research publications that are publicly available.

Metrics will be developed using queries of NPS DataStore. NPS will review all its Public Access Plan metrics on an annual basis and update its policies and procedures as necessary.

Glossary

Data Management Plan: A plan that serves as a living document maintained throughout a research project by the Principal Investigator with concurrence from the NPS study team. It defines and documents how data will be managed, including details on accessibility, preservation, and stewardship [22].

Digital Object Identifier (DOI): A unique value assigned to an object in order to track it simply and efficiently. DOIs are designed to be used by humans as well as machines, DOIs identify objects persistently. They allow things to be uniquely identified and accessed reliably. They are used to establish and maintain the integrity of defined relationships within the database [10].

Enterprise Data Inventory (EDI): The Department of the Interior's inventory of data assets, which NPS data and metadata will be included in for discoverability and findability [15].

Machine-Readable: Product output that is in a structured format, typically XML, which can be consumed by another program using consistent processing logic. [17].

Metadata or Meta-data: “Data about data”; data that defines and describes the characteristics of other data used to improve both business and technical understanding of data and data related processes. DAMA specifically uses the term meta-data [21].

Open Access: The practice of providing free, unrestricted online access to scholarly publications and research data, often facilitated by open licenses that permit reuse and redistribution [2].

Open License: A license that grants permission to access, reuse, and redistribute a work without restrictions or with minimal restrictions, such as the U.S. Public Domain or Creative Commons Zero licenses [2].

Persistent Identifier: A unique, long-lasting reference to a digital object, used by researchers to ensure reliable and persistent access and citation for publications or datasets [16].

Principal Investigator (PI): The lead researcher responsible for the scientific or scholarly study, including the management and stewardship of the associated data [16].

Repository: A database used to store and manage definitions, relationships, and configurations of data-oriented or information-oriented resources [2].

Scientific and Scholarly Activities: Activities involving inventorying, monitoring, experimentation, study, research, modeling, and scientific and scholarly assessments as defined by the Department of the Interior [7].

Section 508: A section of the Rehabilitation Act of 1973, as amended in 1998, which requires federal agencies to make their electronic and information technology (including publications and data) accessible to individuals with disabilities [11].

References

- [1] Department of the Interior Office of the Chief Information Officer. 2023. Public Access Plan. Available at: <https://irma.nps.gov/DataStore/Reference/Profile/2308906>.
- [2] White House Office of Science and Technology Policy. 2022. Ensuring Free, Immediate, and Equitable Access to Federally Funded Research: Executive Office of the President Memorandum, 8p. Available at: <https://irma.nps.gov/DataStore/Reference/Profile/2308904>.
- [3] Public Law No: 115435. 2018. Foundations for Evidence-based Policymaking Act of 2018. Available at: <https://www.govinfo.gov/content/pkg/COMPS-15356/pdf/COMPS-15356.pdf>.
- [4] National Park Service. 2006. Management Policies 2006. U.S. Department of the Interior, National Park Service. Available at: <https://irma.nps.gov/DataStore/Reference/Profile/2219015>.
- [5] National Park Service. 2012. Integrity of Scientific and Scholarly Activities. Director's Order 79. Available at: https://www.nps.gov/subjects/policy/upload/DO_79_9-19-2012.pdf
- [6] White House Office of Science and Technology Policy. 2013. Increasing Access to the Results of Federally Funded Scientific Research. Available at: <https://irma.nps.gov/DataStore/Reference/Profile/2308907>.
- [7] Department of the Interior Department Manual. 2024. Part 305: Departmental Science Efforts, Chapter 3: Integrity of Scientific and Scholarly Activities. Available at: <https://www.doi.gov/document-library/departamental-manual/305-dm-3-integrity-scientific-and-scholarly-activities-0>.
- [8] National Park Service. 2005. Interpretation and Visitor Services Guideline. Director's Order 6. Available at: https://www.nps.gov/subjects/policy/upload/DO_6_1-19-2005.pdf
- [9] Department of the Interior. 2024. Revised Code of Conduct and Policy on the Integrity of Scientific and Scholarly Activities. Available at: <https://www.doi.gov/scientificintegrity>
- [10] DOI Foundation. 2022. What is a Digital Object Identifier (DOI). Available at: <https://www.doi.org/the-identifier/what-is-a-doi/>
- [11] Section 508 of the Rehabilitation Act (29 U.S.C. 794d), as amended. 1998. Available at: <https://www.doi.gov/ocio/section508#:~:text=In%201998%2C%20Congress%20amended%20the,accessible%20to%20people%20with%20disabilities>.
- [12] National Science and Technology Council (NSTC). 2022. Desirable characteristics of data repositories for federally funded research. Available at: <https://doi.org/10.5479/10088/113528>.
- [13] National Park Service. 2012. Records and Electronic Information Management. Director's Order 11D. Available at: https://www.nps.gov/subjects/policy/upload/DO_11D_1-6-2012.pdf

- [14] Department of the Interior. 2024. Records Management Policies and Guidance. Available at <https://www.doi.gov/ocio/policy-mgmt-support/information-and-records-management/records-management-policies-guidance>
- [15] OCDO DDAI. 2024. Enterprise Data Inventory (EDI) Project. Available at: <https://doimspp.sharepoint.com/:u:/r/sites/ocio-cdo-3p/projects/ocdo-edi-project/SitePages/home.aspx?csf=1&web=1&e=Zmdrh7>
- [16] National Park Service. 2024. Persistent Identifiers (DOIs & ORCIDs). Available at: <https://doimspp.sharepoint.com/:u:/r/sites/nps-nrss-imdiv/data-publication/SitePages/Reserve-a-DOI.aspx?csf=1&web=1&e=XD4Jsn> (sharepoint.com)
- [17] National Institute of Standards and Technology (NIST). 2016. Security Content Automation Protocol (SCAP) Version 1.2 Validation Program Test Requirements. Available at: <http://dx.doi.org/10.6028/NIST.IR.7511r4>
- [18] 36 CFR 1220.30 -- What are an agency's records management responsibilities? (n.d.). Available at: <https://www.ecfr.gov/current/title-36/chapter-XII/subchapter-B/part-1220/subpart-B/section-1220.30>
- [19] 44 U.S. Code § 3301 - Definition of records. (n.d.). LII / Legal Information Institute. Available at: <https://www.law.cornell.edu/uscode/text/44/3301>
- [20] National Park Service (NPS). 2002. Ensuring Quality of Information Disseminated by the National Park Service. Director's Order 11B. Available at: https://www.nps.gov/subjects/policy/upload/DO_11B_10-16-2002.pdf
- [21] DAMA International. (2011). The DAMA Dictionary of Data Management (DAMA-DMBOK Guide), 1st Edition. Technics Publications.
- [22] DAMA International. (2017). DAMA-DMBOK Data Management Body of Knowledge 2nd Edition. Technics Publications.