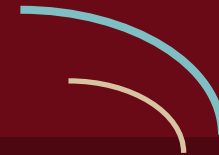




Creating NSF DMSPs that support your research

Understanding evolving federal requirements—and implications for filling out the new form

POLICY DRIVERS → NSF IMPLEMENTATION → DMSP FORM





AI disclosure

Generative AI assisted the development of this webinar; the presenter remains responsible for the content.

AI ASSISTED

ChatGPT (OpenAI) was used for

- Brainstorming the workshop structure and scenarios
- Drafting and tightening slide language
- Synthesizing source material into teaching examples
- Supporting visual design and slide production

HUMAN REVIEW

What was not delegated

- Final interpretation of NSF policy and guidance
- Selection and verification of cited sources
- Recommendations to researchers
- Responsibility for any errors or omissions

AI assisted the workflow. It did not interpret policy.



TODAY

From policy to practice

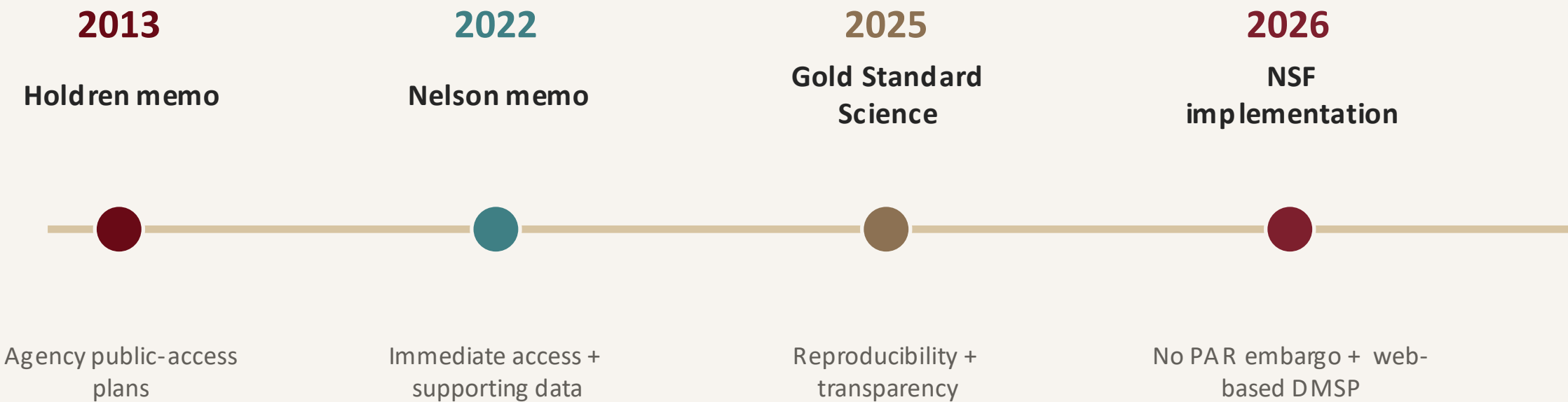


We will spend the first 15–20 minutes here.

Then we will explore the form and evaluate different approaches.



The long arc: from policy to public access



The trend is not simply “ more open.” It is toward sharing that is timely, discoverable, documented, and usable by someone other than the project team (FAIR).

Sources: OSTP public-access memos; NSF 26-202; EO 14303



2013: build a public-access system

≤ 12

months

The 2013 framework allowed agencies to use publication embargo periods—while requiring plans for public access to publications and digital data.



PUBLICATIONS

Agency plans for public access to peer-reviewed results



DIGITAL DATA

Access and preservation became explicit policy concerns



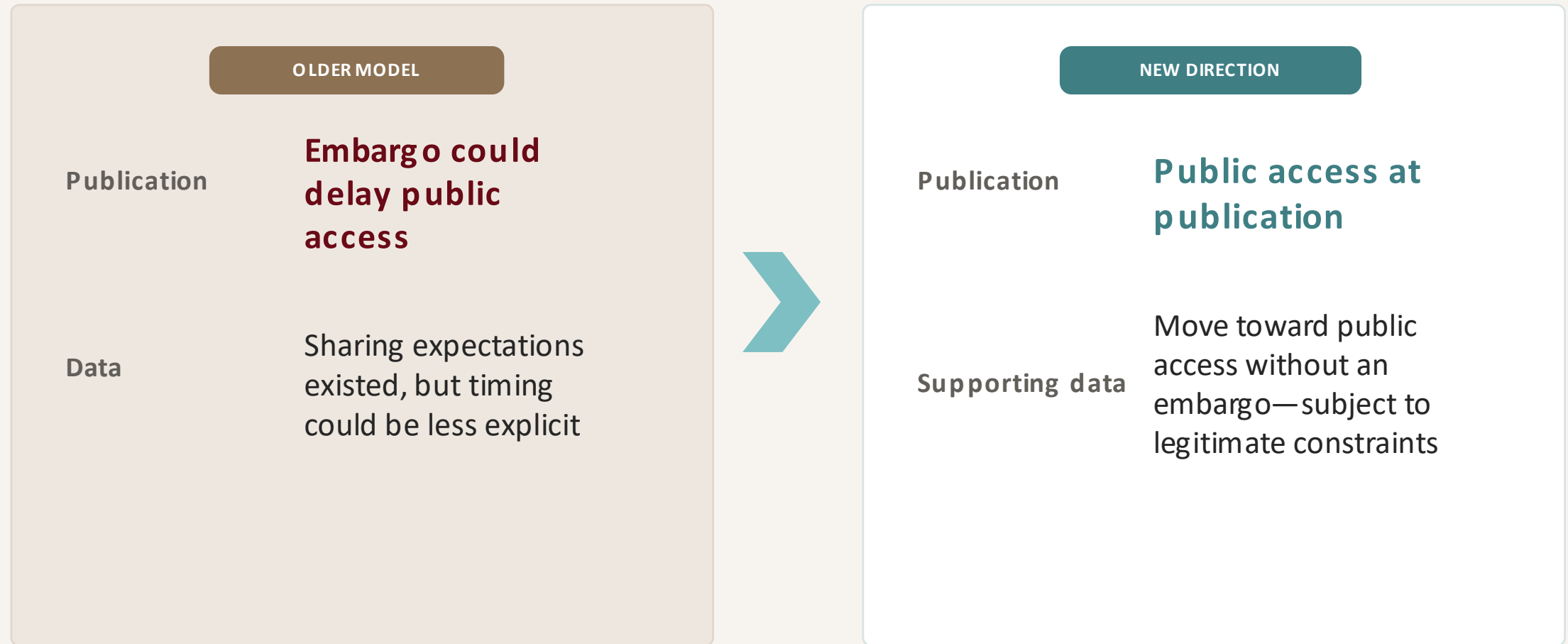
AGENCY PLANS

Implementation differed across federal funders

Key idea: data management has been an established part of the public-access ecosystem for many years.

Sources: 2013 OSTP framework; NSF Public Access Plan (2015)

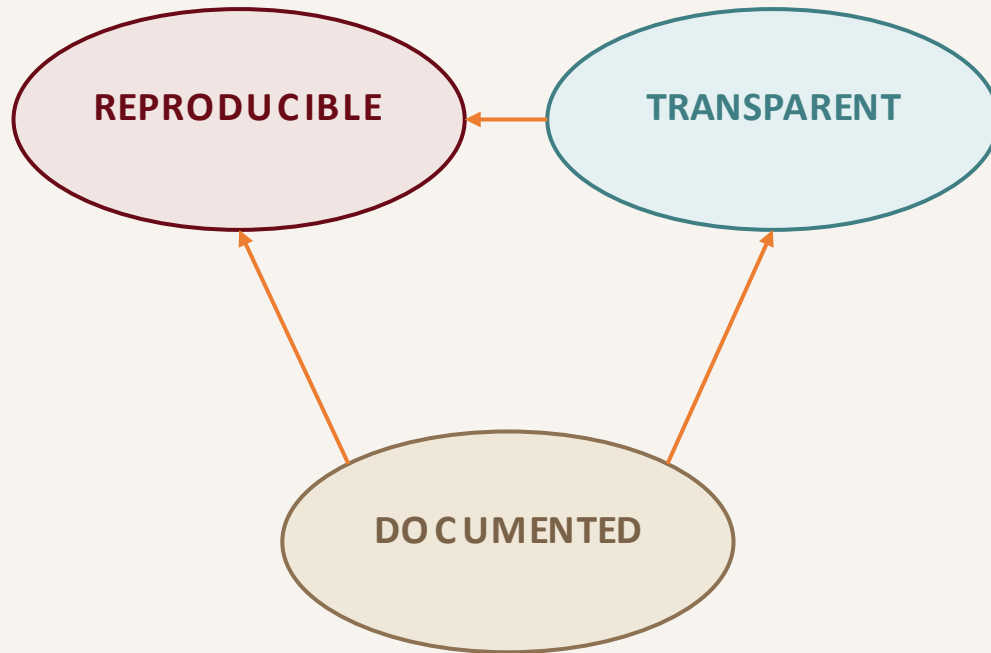
2022: shift from delayed access to immediate access



This is the policy direction NSF had to implement.

Source: OSTP "Nelson memo," Aug. 25, 2022

2025: reproducibility and transparency become explicit federal drivers



Why it matters for DMSPs

- Methods + data must support scrutiny
- Raw/supporting data become part of the transparency story
- Repositories and metadata are infrastructure for reproducibility

Sources: EO 14303; OSTP implementation guidance; NSF GSS plan



2026: NSF turns the policy direction into proposal+ award requirements

JAN 22

Policy notice NSF 26-202

- PAR PDF embargo removed, enabling input of AAM to PAR
- Supporting data shared at publication
- DMSP requirements revised

APR 27

Research.gov DMSP tool

- Web-based DMSP creation
- Required for NSF proposals
- Questions map to policy categories

ONGOING

Plan → reporting

- Annual/final reports document implementation
- Project-specific changes can be recorded
- Program guidance still matters

Source: NSF 26-202; NSF directorate guidance



When guidance seems inconsistent, read across the policy stack



**Rule of
thumb:**

derive decisions from policy + practice, then represent those decisions in the form.

Sources: NSF DMSP overview + directorate guidance



What this means for a PI: plan across the research lifecycle



The DMSP is a living , lifecycle document. It also commits institutional resources to your project – be sure to verify capacity!



One more moving piece: the cost of publishing

PROPOSED — NOT CURRENT RULE

CURRENT 2 CFR 200.461

Publication costs—including APCs and open-access fees—can be allowable when the current criteria are met.

As of Oct. 2026

OMB PROPOSED REVISION

Publication costs would generally be unallowable unless required by statute or approved by the agency in advance.

Planning implication: do not build an access strategy that assumes grant-funded APCs are the only path.

Sources: eCFR §200.461 (current); OMB proposed rule, May 29, 2026



Before turning to Research.gov, consider three questions

01

What are we producing?

Data • software • samples • documentation

02

Who should have access—and when?

Immediate • controlled • justified exception

03

Where will it live after the project?

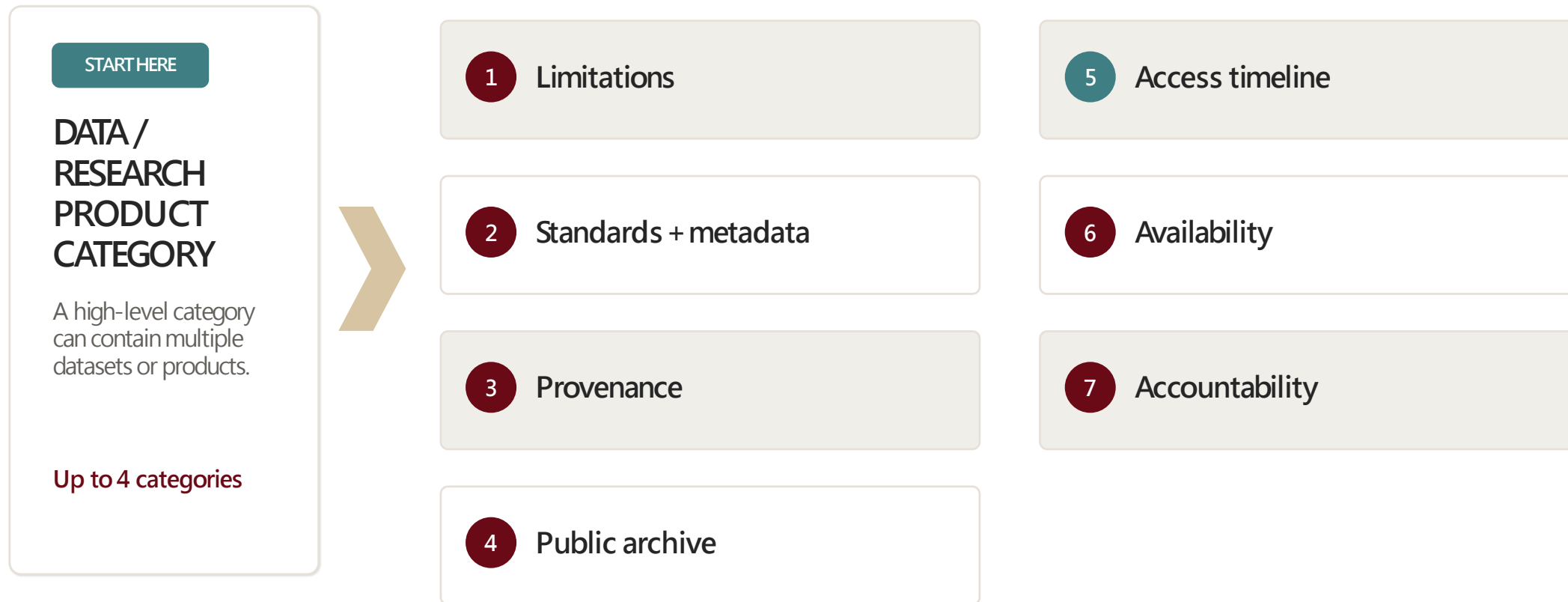
Repository • metadata • persistent access

A completed form ≠ an actionable DMSP



The form includes seven questions for each data category

NSF guidance is available for each high-level data or research product category.





Directorate customization: specialized form options are still limited

The form structure is NSF-wide; some directorates add predefined choices, while many others add guidance rather than different defaults.

SPECIALIZED MIRROR

SBE

Predefined options for selected data/product categories, standards, and repositories.

SPECIALIZED MIRROR

STEM Education (EDU)

Predefined options tailored to common education-research products, standards, and repositories.

GENERIC MIRROR + GUIDANCE

Most other NSF units

Use the generic field set, then layer in directorate, division, program, and solicitation-specific guidance.

What we found as of October 2026

DMP Tool currently lists three Research.gov mirror templates: Generic, SBE, and EDU. I did not find another current specialized mirror for BIO, ENG, GEO, MPS, or OPP - although those units may publish additional substantive guidance.



Right-size the plan before you fill the fields

A category is a meaningful class of outputs - not every file, but also not a catch-all bucket called “data.”

TOO BROAD

“Data”

“Research products”

Too vague to drive later decisions.

RIGHT-SIZED

Water-quality sensor data

Hydrologic model + code

Interview transcripts

Split when standards, restrictions, repository,
or retention differ.

TOO GRANULAR

Cabresto Lake daily water
temperatures

Instrument parameters

Python scripts for interpolating
missing data

Creates unnecessary repetition when the
same rules apply.

Rule of thumb: create a separate category when the management or sharing plan meaningfully changes.



Weak answer / strong answer

Illustrative language - adapt to the solicitation, directorate, discipline, repository, and any IRB or data-use requirements.

WEAK

Title: Environmental data

Description: Data collected from multiple sensors at the Sevilleta LTER site.

Problem: reviewers still do not know what the category contains.

STRONG

Title: High-frequency water-quality sensor data

Description: 15-minute temperature, conductivity, dissolved oxygen, and turbidity observations collected from 12 tributary sites; includes QA/QC flags and calibration records.

Why stronger: scope, content, and accompanying documentation are explicit.



Restrictions allowed but must be justified

The form is built around public sharing. Any limitation should be specific, justified, and no broader than necessary.

PUBLIC

No limitation applies. Share the product openly under the project’s normal timeline.

CONTROLLED

A legitimate concern requires restricted access, a data-use agreement, deidentification, or another safeguard.

NOT PUBLIC

Only when sharing would conflict with legal, ethical, security, sovereignty, IP, or comparable requirements.

Common form-listed grounds

- Human data protection
- Data sovereignty
- Legal / DUA
- Natural resource protection
- Dual use / security
- IP / resource limits

A selected exception is not the justification. Explain why it applies and what you will share instead.



Weak answer / strong answer

Illustrative language - adapt to the solicitation, directorate, discipline, repository, and any IRB or data-use requirements.

WEAK

Human data protection

Human participant data will not be shared because of privacy concerns.

Problem: blanket restriction, no basis, no alternative access path.

STRONG

Human data protection - justified and bounded

Deidentified survey responses and the codebook will be deposited at publication. Direct identifiers will not be shared under IRB/consent requirements. Records with residual re-identification risk will use controlled access under a data-use agreement.

Why stronger: states the constraint, its basis, and the maximum responsible sharing that remains possible. Allows for controlled access beyond the life of the project.



Make the research products understandable to other researchers in the discipline

These fields answer three different questions.

FORMAT

What is the product made of?

File format, encoding, units, structure, versioning.

METADATA

How will someone interpret it?

Schema or standard, variable definitions, controlled vocabularies, README/data dictionary.

PROVENANCE

Where did it come from?

Collection or source, instruments, calibration, transformations, software versions.

Generic-form gotcha

The generic Research.gov mirror currently has no predefined standards/metadata options: use Add New and name the standard or describe the approach.



Weak answer / strong answer

Illustrative language - adapt to the solicitation, directorate, discipline, repository, and any IRB or data-use requirements.

WEAK

Standards / provenance

CSV files with a README. New data collection.

Problem: technically fillable, but not enough to interpret or reproduce.

STRONG

Standards / provenance

Tabular data will be stored in UTF-8 encoded CSV files; timeseries data and logs will include ISO 8601 timestamps; collocated README file will be structured using the EML metadata schema, including variable definitions. Raw files are transformed with versioned R scripts, with calibration and QA/QC logs retained in PDF format.

Why stronger: format, semantics, source, and transformations are all identifiable.



Choose preservation infrastructure – “backup” is important but is not preservation

The repository decision should survive personnel changes, expired grants, redesigned websites, and forgotten passwords.

LOCATION ONLY

Project website / lab server / shared drive

Can make files reachable today, but may not provide durable identifiers, preservation commitments, stable governance, or discovery.

REPOSITORY INFRASTRUCTURE

- ✓ Persistent identifier?
- ✓ Preservation / retention policy?
- ✓ Metadata + discovery?
- ✓ Stable governance?
- ✓ Access + licensing?

Generic-form note: no repository choices are preloaded, so most users will use Add New.

The form can accept a website. That does not make the website a good preservation strategy.



Weak answer / strong answer

Illustrative language - adapt to the solicitation, directorate, discipline, repository, and any IRB or data-use requirements.

WEAK

Public archiving

Data will be archived on the project website and made available upon request.

Problem: access and preservation depend on the project team staying available.

STRONG

Public archiving

Final hydrologic datasets, metadata, and associated code will be deposited with the Environmental Data Initiative, a long-lived repository that issues persistent identifiers and supports public discovery. The project website will link to the repository record rather than serve as the sole archive.

Why stronger: separates project communication from durable preservation and discovery. Be sure to consult with your librarian!



Treat dropdown timelines as choices - not permissions

Start with the policy and the product, then select the form value that represents your decision.

THE DROPDOWN

- ☐ At time of collection
- ☐ At time of publication
- ☐ < 6 months after publication
- ☒ **< 1 year after publication**
- ☐ Within 2 years after collection
- ☐ By end of award



POLICY FIRST

For data supporting NSF-funded publications

Share at the time of publication.

Exceptions must be described and justified in the DMSP. Other product timelines may be governed by directorate, program, repository, or disciplinary expectations.

The presence of a delayed option does not mean it is appropriate for supporting data.

Derive the timeline from policy + disciplinary practice. Then represent it in the dropdown.



Weak answer / strong answer

Illustrative language - adapt to the solicitation, directorate, discipline, repository, and any IRB or data-use requirements.

WEAK

Timeline: < 1 year after publication

The data will be released after the research team has had time to complete follow-up analyses.

Problem: delayed access is asserted as a preference, not a justified exception.

STRONG

Timeline: at time of publication

Data supporting each publication will be released when that publication appears. Data not tied to a publication will be deposited in a suitable archival repository no later than the end of the award, unless a directorate or repository requires earlier release. Any restricted subset will be handled under the access limitation described above.

Why stronger: connects the dropdown choice to the governing rule and separates different product triggers.



Do not promise “indefinitely” unless the infrastructure can make that promise

The form asks how long the product will remain available and whether you will follow the repository’s standard retention policy.

PROJECT WORKING COPY

Local / institutional storage

Useful for active work, backups, and institutional retention obligations. Not automatically the authoritative public copy.



PUBLIC COPY

Repository retention policy

Where possible, let the repository’s documented preservation/retention commitment define public availability.



FORM CHECK

Will you adhere to the repository’s standard retention policy?

Yes / No + justification / N.A.

Form rule: availability under two years after project completion requires justification.

Preservation is stronger when the commitment belongs to durable infrastructure - not to Future You.



Weak answer / strong answer

Illustrative language - adapt to the solicitation, directorate, discipline, repository, and any IRB or data-use requirements.

WEAK

Availability: indefinitely

The PI will keep the dataset indefinitely on the lab server.

Problem: indefinite promise rests on a person and local infrastructure.

STRONG

Availability: repository standard policy

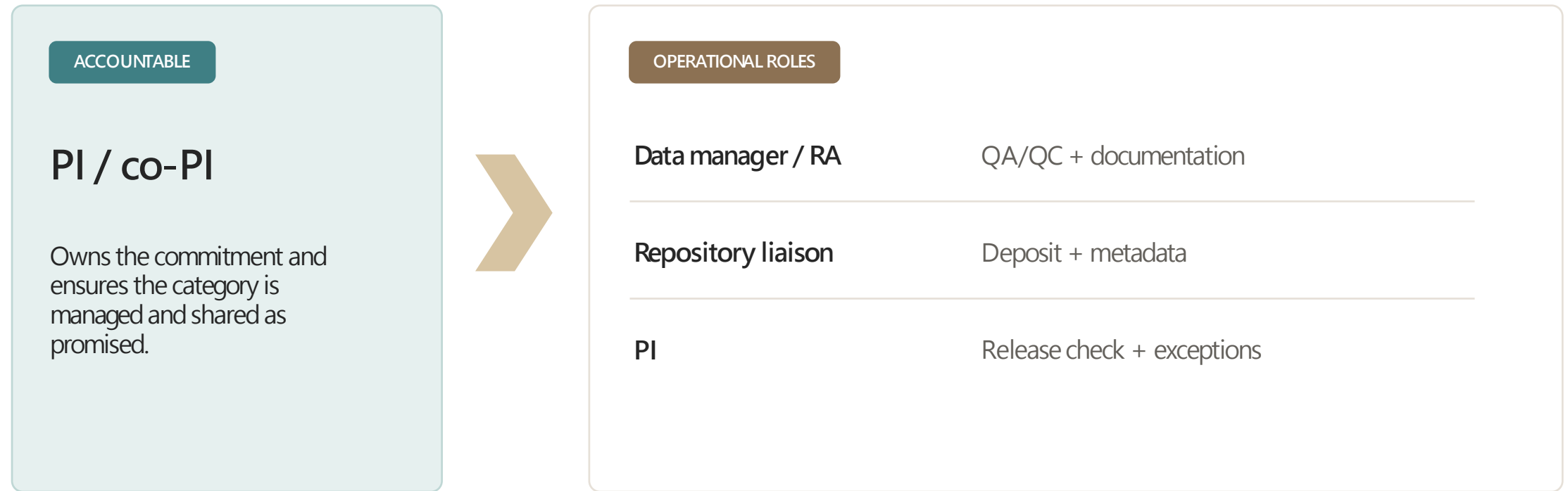
The repository copy will remain available according to the repository's documented preservation and retention policy, which the project will follow. The project will also retain working and administrative copies according to institutional requirements.

Why stronger: assigns the public-access commitment to infrastructure with an explicit policy.



Name one accountable senior person - then make the workflow executable

Research.gov asks you to select the PI or co-PI responsible for each category. That is accountability, not necessarily every operational task.



Collaborative proposals: make roles across institutions explicit in the plan, even though the form's accountability dropdown is populated from senior personnel.

“The PI will oversee the data” names a person. A strong plan also makes the handoffs visible.



Weak answer / strong answer

Illustrative language - adapt to the solicitation, directorate, discipline, repository, and any IRB or data-use requirements.

WEAK

Accountability: PI

The PI will oversee data management and sharing.

Problem: accountable person is named, but execution is still opaque.

STRONG

Accountability: Dr. Wheeler (PI)

Dr. Wheeler is accountable for this category. The project data manager will complete quarterly QA/QC and metadata updates; the repository liaison will prepare deposits; Dr. Wheeler will verify release at publication and approve any documented exception.

Why stronger: accountability is tied to a repeatable workflow and clear handoffs.



The final test: could someone else execute this plan?

An actionable DMSP should still work after personnel changes, publication, and the end of the award.

- 1 Products** Are the categories specific enough to drive different decisions?
- 2 Restrictions** Is every limitation justified and narrower than “do not share”?
- 3 Interpretability** Are formats, metadata, and provenance sufficient for reuse?
- 4 Preservation** Is there a durable repository and a policy-grounded timeline?
- 5 Responsibility** Does a named senior person own a workflow that can actually happen?

Draft in DMP Tool → get collaborator / institutional feedback → transfer the final decisions into Research.gov



Resources & support

Use these resources to draft, check requirements, choose repositories, and get help before submission.

DMP Tool

Draft the plan using NSF-aligned templates and request institutional feedback.

<https://dmptool.org/>

UNM Data Management

Planning guidance for organizing, documenting, storing, sharing, and preserving research data.

<https://libguides.unm.edu/data>

UNM Research Data Services

UNM Libraries support for data management, sharing, repositories, and related research workflows.

<https://libguides.unm.edu/rds>

NM EPSCoR

Program information, opportunities, and support for New Mexico EPSCoR researchers.

<https://www.nmepscor.org/>

Also bookmark NSF Data Management & Sharing Plan guidance: [nsf.gov/funding/data-management-plan](https://www.nsf.gov/funding/data-management-plan)