

Data Management and Sharing Plan Form

NOAA National Centers for Coastal Ocean Science

Section 1: Data Management Contact Information

Project Data Manager Contact Information:

Name/Organization/Email:
(repeat as necessary)

Section 2: Anticipated Datasets and Data Access

2.1 What data collection and/or generation methods will be used to develop the project data?

2.2 Table of anticipated datasets. (Add additional rows as necessary.)

Anticipated Dataset Type	Related Project Milestone Chart Task Numbers	File Formats*	Data Volume	Final Data Access and Long-term Archival Location(s)

*See [Appendix A](#) for a listing of frequently used archivable formats at NCEI

2.2.1 If any elements of the table above need further descriptions, provide it here:

Section 3: Data Availability to the Public and Restrictions

3.1 When and how frequently will the data be made available?

3.2 Will any personally identifiable information, restricted, or other sensitive data be collected?

- No
- Yes

If YES, please briefly describe the sensitive nature of the data and project protection measures throughout the development of the dataset:

3.3 Will there be any restrictions or stipulations on public access to the project data? (select all that apply)

- No limitation, data will be publicly available and open.
- Yes, all data is restricted, no access available.
- Other:

If Yes or Other, please briefly describe the restrictions or stipulations:

Section 4: Metadata and Documentation

4.1 Which metadata standard(s) will be used to document the data? (Check all that apply.)

- International Organization for Standardization (ISO)
- Federal Geographic Data Committee (FGDC)
- Other: _____

Section 5: Data Quality Assurance/Quality Control Procedures

5.1 What quality control and quality assurance procedures will be used within the project?

Section 6: Data Backup and Protection Measures

6.1 How will the project data be protected from unauthorized access and accidental or malicious modification or deletion?

6.2 What is the back-up, disaster recovery, or contingency planning used to protect the project data? (select all that apply and add system name/description) Data are backed up on:

- Local servers: _____
- Cloud: _____
- External hard drives
- Other: _____

Section 7: General Information

7.1 Briefly describe how data management is accounted for in your project budget. This can include project team member time for metadata/data preparations, data hardware such as hard drives or server space, and any fees associated with data archival.

7.2 Do all sub-awardees have as a condition of their subaward the acceptance of this data sharing plan? This includes open data licenses for the data and metadata generated and budgeted time for data management and archival preparations.

- Yes, this is a condition of sub-award contracts
- No, explanation _____

7.3 Describe any prior experience in making data publicly accessible:

7.4 Will any technical publications or journal articles be published as part of this project? If YES, describe which anticipated datasets will also have related publications.

7.5 Provide any additional information necessary for the management of this project's data:

Data Management and Sharing Plan Guidance

NOAA RESTORE Science Program

NOAA as well as NOAA grantees are required to comply with a number of data management requirements as outlined in [NOAA Administrative Order 212-15B](#) as well as the [NOAA Data Sharing Directive for NOAA Grants](#). The purpose of this data management and sharing plan is to satisfy the requirement for a data management plan, as well as have grantees provide their plan for how they will meet other requirements such as: public access to data, metadata creation, archiving of data, and citation for publications. Here we provide guidance and examples for populating the form above, which is encouraged for use for all applicants to NOAA RESTORE Science Program funding opportunities. Once the form is completed, delete this guidance and appendix, convert your Data Management Plan (likely in Word format) to a PDF, and upload it with your other documents when submitting your full proposal to grants.gov. Please contact nccos.data@noaa.gov with any questions.

Section 2: Anticipated Datasets and Data Access

2.1 What collection and/or generation methods will be used to develop the project data?

(Brief description of main data collection instruments including hardware and software if applicable)

Example: Georeferenced still images and videos of bird nesting sites will be collected by drones outfitted GPS units and Nikon cameras. OR Ship data; MOCNESS (10 m² Multiple Opening/Closing Net and Environmental Sensing System ["MOC10"]) data; Biological data (fish counts, lengths, weights, etc.); CTD data

2.2 Table of anticipated datasets. (Add additional rows as necessary.)

Anticipated Dataset Type	Related Project Milestone(s) Numbers	File Formats	Data Volume	Final data access and long-term archival location(s)
Genetic Diversity & eDNA (n= 2 datasets)	3.10, 3.11, 3.12	.csv, .xls	10 GB	NCBI and NCEI
Acoustics (n= 3 datasets)	1.3, 1.6, 1.9	.csv and raw data formats	1 TB	NCEI
Fish Taxonomy/ Community Ecology (n= 9 datasets)	3.3, 3.4, 3.5, 3.6	.xls,.mdb, misc.	30 GB	NCEI
Contaminant Studies (n= 3 datasets)	4.3	.xlsx	1 GB	NCEI

2.2.1 If any elements of the table above need further descriptions, please provide additional information below:

Example: Data collection will take place over three cruises over the course of 2025-2029

Section 3: Data Availability to the Public and Restrictions

3.1 When and how frequently will the data be made available?

(Briefly describe when the data will be initially available and if there is any frequency for future data updates or releases. Ensure each anticipated datatype is accounted for in this answer)

Example: Cruise based environmental data will be archived within 6 months post each cruise. Video files with annotated benthic habitats will be archived one year following each collection cruise. Summary GIS products will be archived within one year of project completion.

3.2 Will any personally identifiable information, restricted, or other sensitive data be collected?

(Describe any sensitive data that is being collected or generated that may be restricted by law or national security)

Example: Yes, surveys will collect social science data from respondents. Survey data will be summarized and anonymized before used in project analysis.

3.3 Will there be any restrictions or stipulations on public access to the project data? (select all that apply)

(Briefly explain why and under what circumstances or authority the data may be restricted for public use. Enter NO if no restrictions are present. Also describe any data access conditions and/or restrictions, non-disclosure statements requirements)

Example: Yes, data are being collected over military operational areas OR Bathymetry may contain unidentified shipwrecks that are culturally significant.

Section 4: Metadata and Documentation

(List known metadata standards used for the project, learn more about the importance of metadata at the NOAA NCEI Metadata webpage)

Example: Data will be archived at NCEI. Upon archival, XML metadata will be generated in ISO 19115-2 format which will meet metadata requirements. Additionally, a data dictionary and human readable ReadMe document will also be produced to document datasets.

Section 5: Data Quality Assurance/Quality Control Procedures

(Brief summary of which quality assurance/ quality control procedures or references will be employed)

Example: Data entered into the database will be validated against field collection sheets for accuracy.

Section 6: Data Backup and Protection Measures

6.1 How will the project data be protected from unauthorized access and accidental or malicious modification or deletion?

(Briefly describe how the data will be protected from accidental or malicious activities)

Example: Data are stored in password protected encryption services and requires dual verification.

6.2 What is the back-up, disaster recovery or contingency planning used to protect the project data? (Select all that apply and add system name/description) Data are backed up on:

Example: Data will be stored on the University server which is backed up on an offsite server.

Section 7: General

7.1 Briefly describe how data management is accounted for in your project budget. This can include project team member time for metadata/data preparations, data hardware such as hard drives or server space, and any fees associated with data archival.

Example: Select project team members have a set percentage of time dedicated to data management and archival preparations as indicated in the budget. Additionally, we have contacted NCEI and no archival fees will be required to archive this project's datasets.

7.2 All sub-awardees have as a condition of their contract the acceptance of this data sharing plan. This includes open data licenses for the data and metadata generated and budgeted time for data management and archival preparations.

(Describe any if limitations to sub-award contracts accepting this data management plan exist)

7.3 Describe any prior experience in making data accessible:

Example: The PIs for this project are committed to making the data publicly available as demonstrated in past awarded proposals. Please see citations to previous archived datasets listed in project team member's CVs.

7.4 Will any technical publications or journal articles be published as part of this project? If YES, please explain.

(list any technical publications or journal articles that will be published)

Example: Yes, journal articles are intended to be produced to summarize the ecosystem diversity data collected as part of this project.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information.

Send comments regarding this burden estimate or any other aspects of the collection of information, including suggestions for reducing this burden to the National Ocean Service, CRP/COP Office, 1305 East-West Highway, Silver Spring, MD 20910. Grant files are subject to the Freedom of Information Act (FOIA). Confidentiality will not be maintained-the information will be made available to the public. However, unpublished research results shall not be published without prior permission from the recipient.

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

Appendix A - NCEI Archivable File Formats

Listing of NCEI **frequently used file formats**. Note: This is not a listing of all file formats NCEI accepts. Please contact nccos.data@noaa.gov if your anticipated file format is not on this listing. For additional formats and more information on archiving data at NCEI, please see <https://www.ncei.noaa.gov/archive> 'Frequently Asked Questions' section.

Archivable file formats have the following characteristics:

- Not software specific (i.e., can only be used by a single, specific program or application),
- Based on well-documented national or international standards based format specifications
- Suitable for the type of data that are encoded in the format.

Generic Data Types	Preferred Format(s)	Accepted Format(s)	Comment(s)
Tabular Data	Comma Separated Values (.csv), Tab Separated Values (.tsv), netCDF (.nc), OpenOffice Calc (.ods)	csv. (.xls or .xlsx), JavaScript Object Notation (.json)	ASCII or UTF/UTF8/UNICODE encoding; See additional guidance for using NetCDF for many kinds of observation data (i.e, profiles, time series, trajectories, etc.).
Geospatial Information Systems (GIS)	GeoTIFF, OpenGIS GML, HDF5, NetCDF	ESRI shapefiles (.shp, .dbf, .shx, .cpg, .prj, .sbx), ESRI GridFloat Output	None
Text	Portable Document Format/Archival (.pdf), OpenOffice Document (.odt), ASCII (.txt)	Portable Document Format (.pdf), MicroSoft Word (.doc, .docx)	Text documents must meet NOAA accessibility guidelines for compliance with Section 508
Metadata	ISO 19139 (.xml) Geospatial Metadata	FGDC Content Standard for Digital Geospatial Metadata (CSDGM), NASA Directory Interchange Format (DIF)	The preferred representation of metadata in these standard formats is eXtensible Markup Language (xml)
Moving Images	To be determined	MPEG-2, MPEG-4, MPEG-2000	None
Still Images	TIFF	SVS, JPEG, BIL, HDF5, PNG	None
Others	GRIdded Binary or General Regularly-distributed Information in Binary (GRIB), Binary Universal Form for the Representation of meteorological data (BUFR)	Polygon File Format (.ply) for 3-D data representations	None

