

Minnesota Department of Natural Resources; Minnesota's Lake Superior Coastal Program

## Data Management Plans Guidance for Grant Projects

A data management plan (DMP) is a document that describes how you will gather, maintain, secure, and use project or program data. A DMP is an investment; by planning and documenting your data management strategy now, you will ensure that you do not waste time and resources with poorly managed or misused data later. The DMP may evolve over time; however, your proposed plan will be included in the grant agreement with the State of Minnesota. The current (as of March 5, 2019) agreement language is on page 2.

### Environmental Data Requirements

You must commit to make environmental data collected or created publicly visible and accessible in a timely manner (within two years), free of charge or at no more than the cost of reproduction, except where limited by law, regulation, policy, or security requirements. The data should be available in at least one machine-readable format, preferably a widely-used or open-standard format, and should also be accompanied by machine-readable documentation (metadata), preferably based on widely-used or international standards.

You must include funding acknowledgement in the metadata.

### Definition of Environmental Data

NOAA [defines](#) environmental data as recorded and derived observations and measurements of the physical, chemical, biological, geological, and geophysical properties and conditions of the oceans, atmosphere, space environment, sun, and solid earth, as well as correlative data such as socio-economic data, related documentation, and metadata. Digital audio or video recordings of environmental phenomena are included in this definition. Numerical model outputs are included in this definition, particularly if used to support the conclusion of a peer-reviewed publication. Data collected in a laboratory or other controlled environment, such as measurements of animals and chemical processes, are included.

### Geospatial Data

If your results/products include new geospatial data, you must include compliant metadata, for example [Minnesota Geographic Metadata Guidelines](#), [Federal Geographic Data Committee](#) (FGDC), or International Organization for Standardization (ISO).

### Resources

- [Data Sharing Directive](#) NOAA
- [Data Management Planning Procedural Directives](#) NOAA
- [Data Management Plans](#) USGS
- [Creating a Data Management Plan](#) University of Minnesota

### Instructions

Please answer the questions in the Data Management Plan for Grantees to the best of your ability.

### Questions

If you have any questions, please contact [Clinton Little](#), 218-834-1446.

## Grant Agreement Language: Environmental Data

- a) *Data Sharing.* Environmental data collected or created under this Grant Agreement must be made publicly visible and accessible in a timely manner, free of charge or at minimal cost that is no more than the cost of distribution to the user, except where limited by law, regulation, policy, or security requirements. Data are to be made available in a form that would permit further analysis or reuse: data must be encoded in a machine-readable format, preferably using existing open format standards; data must be sufficiently documented, preferably using open metadata standards, to enable users to independently read and understand the data. The location (internet address) of the data should be included in the final report. Pursuant to [NOAA Information Quality Guidelines](#), data should undergo quality control (QC) and a description of the QC process and results should be referenced in the metadata. Failure to perform quality control does not constitute an excuse not to share data. Data without QC are considered "experimental products" and their dissemination must be accompanied by explicit limitations on their quality or by an indicated degree of uncertainty.
- b) *Timelines.* Data accessibility must occur no later than publication of a peer-reviewed article based on the data, or two years after the data are collected and verified, or two years after the original end date of the grant (not including any extensions or follow-on funding), whichever is soonest, unless a delay has been authorized by the NOAA funding program.
- c) *Disclaimer.* Data produced under this award and made available to the public must be accompanied by the following statement: "These data and related items of information have not been formally disseminated by NOAA, and do not represent any agency determination, view, or policy."
- d) *Failure to Share.* Failing or delaying to make environmental data accessible in accordance with the Data Management Plan (Attachment #, attached and incorporated in this grant agreement), unless authorized, may lead to enforcement actions, and will be considered when making future award decisions. Grantees are responsible for ensuring these conditions are also met by sub-recipients and subcontractors.
- e) *Acknowledgement.* Federal funding sources shall be identified in all scholarly publications. An Acknowledgements section shall be included in the body of the publication stating the relevant Grant Programs and Award Numbers. In addition, funding sources shall be reported during the publication submission process using the [FundRef](#) mechanism if supported by the Publisher.
- f) *Submission.* The final pre-publication manuscripts of scholarly publications produced shall be submitted to the [NOAA Institutional Repository](#) after acceptance, and no later than upon publication, of the paper by a journal. NOAA will produce a publicly-visible catalog entry directing users to the published version of the article. After an embargo period of one year after publication, NOAA shall make the manuscript itself publicly visible, free of charge, while continuing to direct users to the published version of record.
- g) *Citation.* Publications based on data, and new products derived from source data, must cite the data used according to the conventions of the Publisher, using unambiguous labels such as Digital Object Identifiers (DOIs). All data and derived products that are used to support the conclusions of a peer-reviewed publication must be made available in a form that permits verification and reproducibility of the results.