

Guidelines for Data Management Plans (max 2 pages) Templates and Examples for North Carolina Sea Grant

Background:

NOAA programs that issue grants, cooperative agreements, or contracts are required to consider how to ensure public accessibility and long-term preservation of externally-funded data, to provide guidance for proposers to use in developing a plan for data access, and to track and enforce conditions imposed on awardees. North Carolina Sea Grant (NCSG) is a NOAA program and as such applicants to NCSG are required to develop a Data Management Plan as part of their proposal submissions. The data management plans and the past data management performance of the applicant will be used as part of the review process.

NOAA's current Data Sharing Policy dictates that environmental data and information collected and/or created under NOAA grants, Cooperative Agreements, and contracts must be made visible, accessible, and independently understandable to general users, free of charge or at minimal cost, in a timely manner (typically no later than two (2) years after the data are collected or created), except where limited by law, regulation, policy or security requirements. The Data/Information Sharing Plan (and any subsequent revisions or updates) must be made publicly available at the time of award and, thereafter, be posted with the published data. Failing to share environmental data and information in accordance with the submitted Data Management Plan may lead to disallowed costs and will be considered when making future award decisions. Additional information regarding NOAA's current Data Sharing Policy is available on NOAA's Environmental Data Management Committee website at: www.nosc.noaa.gov/EDMC/PD.DSP.php.

NCSG funding recipients are responsible for implementing their data management plans to comply with NOAA's Data Sharing Policy. Data should be stored in common widely-used formats and be accompanied by appropriate metadata. NCSG strongly encourages funding recipients to publicly distribute their data as wide as possible (peer-reviewed manuscripts, websites, conferences, open-source databases, etc.) to maximize the value of the federal investment. Proposals submitted to NCSG may include reasonable cost associated with compliance with this NOAA directive.

A typical data management plan may include:

- The types of environmental data and information to be created during the course of the project;
- The tentative date by which data will be shared (typically no later than two (2) years after the data are collected or created);
- The standards to be used for data/metadata format and content;
- Policies addressing data stewardship and preservation; procedures for providing access, data, and security;
- prior experience in publishing such data.

Template of data management plan:

The _____ project name _____, implemented by _____ applicant name _____ will generate environmental data and information, including _____ type(s) of data that will be collected _____. Datasets will provide _____ specifics on information collected and collection dates _____. Data will be collected by _____ person/group collecting data _____ according to the procedures described _____ in _____ application/manual/published article _____, and stored _____ location/method of data storage _____. The data will be available to _____ whom? _____ upon request starting on _____ date no later than two years after data collected/created _____, through _____ future date, if applicable _____. Contact _____ name _____ at _____ phone/email _____ for more information or to make a data request. In the past, we have shared similar data by _____ past data sharing methods, if any _____. All future sub-awardees not identified in this plan will have as a condition of their contract acceptance of this data sharing plan. Any additional data sharing stipulations for future sub-awardees may be outlined at that time and described in their contract.

Example Data Management Plan:

The Fisheries Telemetry Project, implemented by Best Fisherman Group (P.I. James Best), will generate environmental information, including the length/weight of juvenile Red Drum, as well as the habitat preference of tagged juvenile Red Drum. Ambient water quality data including temperature, salinity and dissolved oxygen will also be collected. Length data will be determined by measuring fish from their snout to the end of their caudal fin using certified metal meter sticks. Weight will be determined according to the standard method for estimating fish weights in the field as described in *the Standard Methods for Fish Research version 12*, Pendant Publishing, New York, 2015. Acoustic tracking data will be obtained using surgically implanted acoustic tags operating at 50KHz. Detections will be obtained using a wired array of acoustic receivers (model ST-205). Water quality data will be obtained using a handheld multiparameter probe (probe model LM4). All field data will be recorded in field notebooks, and then transferred into excel spreadsheets for storage and analysis. Acoustic tracking data will be saved as x,y,z coordinates associated with their respective time and fish ID stamps. It is expected that maps of specific fish tracks will be produced and saved as KML files. Data collection is expected to start on May 1, 2017 and be completed on May 1, 2018. Deviations from this schedule may occur due to weather and/or equipment constraints. All files will be saved on our Institutions server which is backed up daily.

Our collected data and details about our methods will only be available to our PIs, Co-PIs, and sub-contractors until we get our results published in peer-review journals, or May 1, 2020 whichever comes first. Please contact James Best at bestj@bfg.com for more information or to make a data request. We have worked with both NOAA and NSF on previous projects that generated similar environmental data. The data from these projects was successful shared via peer-reviewed manuscripts, our Institution's website, and through NOAA's National Centers for Environmental Information (NCEI).

Projects not expected to generate environmental data:

If your project is not expected to develop any environmental data, then your data management plan may simply include the declaration: "This proposal is not expected to generate environmental data. Therefore, a Data Management Plan is not required."