Data Management Guidelines and Plans Templates for NOAA Marine Debris Program Grants and Contracts

NOAA Programs that issue grants, cooperative agreements, or contracts are required to consider how to ensure public accessibility and long-term preservation of NOAA-funded environmental data. As part of the application process to the NOAA Marine Debris Program (MDP), applicants are required to develop (and submit with their application) a Data Management Plan that describes how the public can access data generated by NOAA-funded activities.

Funding recipients are responsible for ensuring that data is discoverable and accessible to the general public in the required timeframes. This can be accomplished by one of the following methods (1) data hosting by the NOAA Marine Debris Program; (2) the recipient establishing their own procedures and hosting capabilities for collected environmental data; or (3) hosting by another authorized organization (such as NOAA National Centers for Environmental Information). Regardless of hosting method, the recipient is responsible for collecting, managing, and appropriately structuring data and metadata. The NOAA MDP does not require any specific data format, access method, or other technical guidance beyond what is described in the federal funding announcement, however the use of open-standard formats and methods is encouraged. Environmental data and information collected or created under NOAA grants or cooperative agreements must be made discoverable by and accessible to the general public, in a timely fashion (typically within two years), free of charge or at no more than the cost of reproduction, unless an exemption is granted by the NOAA Marine Debris Program. Data should be available in at least one machine-readable format¹, preferably a widely-used or open-standard format (i.e. one that does not require proprietary software to be read), and should also be accompanied by machine-readable documentation (metadata), based on widely used or international standards. The proposal budget may include reasonable costs associated with compliance with this data management guidance. The NOAA Marine Debris Program encourages grantees to coordinate with NOAA staff on the best approach to meet this public access requirement. In some cases, as appropriate, NOAA may request project data and share / post project data on NOAA systems, potentially in addition to the agreed data sharing/access approach.

The contents of the Data Management Plan (or absence thereof), and past performance regarding such plans, will be considered as part of proposal review. A typical plan should include:

- descriptions of the types of environmental data and information expected to be created during the course of the project
- the tentative date by which data will be shared
- the standards to be used for data/metadata format and content
- methods for providing data access
- approximate total volume of data to be collected
- and prior experience in make such data available.

Further description of this policy can be found in Section VI.B. of the NOAA MDP federal funding opportunity announcement.

Information on NOAA's Environmental Data Management Policy is available under: https://nosc.noaa.gov/EDMC/documents/Data_Sharing_Directive_v3.0.pdf

¹ "Machine-readable" means data stored on a computer in a digital format whose content and structure can be read without the aid of a human (i.e. screenshots and scanned data sheets should be avoided where possible).

Data Management Plan Template:

The [Project Name] (Award #), implemented by [Applicant Name] will generate environmental data and information, including [Type(s) of data that will be collected]. Datasets will provide specifics on [Describe the information collected, and collection dates]. Data will be collected by [Person/Group Collecting Data] according to the procedures described in [Name the application, manual, or published article that describes data collection protocols], and stored [Location or Method of Data Storage]. Data will be made available to the NOAA Marine Debris Program by [Method and Timeframe of data transmission to NOAA]. The data will be available to the public starting on [Date No Later than Two Years After Data Collection]. Contact [Name] at [Phone/Email] for more information regarding this plan or data accessibility. In the past, we have shared similar data by [Describe 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:

The Ocean Bay Marine Debris Removal Project (Award # 123456789), implemented by Bayside Debris Busters, will generate environmental information, including the weight and type of debris removed, as well as pre-removal assessments of site-specific debris distribution, and habitat and species coverage within the project area. Weight of debris (in lbs) will be collected and recorded at the point of disposal. Debris-species interaction data will include location, type and condition of debris; count of animals per species found in or entangled with each debris item along with the animals' sex, condition and size (if harvestable species); area and type of habitat recovered; use of debris items by species; and interactions with protected species and essential fish habitat. Datasets will provide specific GPS coordinates (latitude, longitude), date surveyed, date collected, how it was found and removed, descriptions of the debris item and will assign unique identification numbers (Gear ID) for each large debris item. Assessments of species and habitat recovery will be collected after 12 months postremoval. Marine debris data will be collected via standard marine debris monitoring techniques described in the NOAA Marine Debris Shoreline Survey Field Guide, and recorded electronically and in field notebooks. Data recorded in the field will then be transferred to a database program where it can be exported in a variety of formats. Original, paper data-collection sheets will be scanned and saved as PDF files and stored on Bayside Debris Busters' servers, and as with all data collected under this effort, available to the public upon request.

The collected data and details about our methods will be available to state, federal, local, and tribal entities, as well as to the general public, and will be shared with NOAA for posting through appropriate channels. Data is available starting on September 1, 2018. Contact Mr. D. F. Gear at d.gear@baysidedebris.org for more information. We do not plan to submit our results to a peer-reviewed scientific journal. In the past, we have shared similar data through presentations to our town Environmental Commission, and have summarized collected data via grant progress reports.