

## **TOPIC 5. Universal data access and transparency (new # IV)**

### **The purpose of this topic is to**

- Identify the major problems of data sharing and transparency for RSA-funded projects,
- Define or redefine the data sharing policy and data management process for all the projects funded by RSA, and
- Create transparent policies and processes.

The topic suggests seeking a policy for RSA that “all data from funded research projects should be made freely available without restriction or prior permission on a public data repository”.

### **The issue**

The previous RSA program was a federal financial grant assistance program. Since 2013, a data sharing and management plan is required for all the federal funded projects (OSTP 2013; OMB 2013; NOAA 2013, 2016; EPA 2016). Historically, data access was not a requirement of RSA-funded projects, and data stewardship plans were not weighed in the peer review and evaluation process. Some of the historically funded projects had constraints on data sharing for research and management purposes.

Data sharing and transparency are important for reaching the goals of RSA. The RSA program historically favored projects based heavily on those that would “acquire data for management that fills a data need”, and the transparency of the data and repeatability of the research results are important for regaining public trust in the science and management of fisheries. Also, without a good data sharing and management policy, waste of resources can be a problem for the value of the investment.

### **Past RSA Experience with the Issue**

Historically, the RSA program did not have a mandatory data sharing and management policy for all the RSA-funded projects. The RSA projects fell into the following categories of data sharing: fully shared, partially shared, shared with restriction, not shared. Currently, there is no unique data management system (such as sharing with a council or in a public data repository) and the data requests require contacting Principal Investigators (PIs) individually. Such data requisition can be a long and frustrating process when it involves contacting different PIs, for example with the project done many years ago or lack of responses to data inquiries, etc.

### **Pros and Cons of Options the Council Could Consider**

It would be beneficial to 1) identify reasons and types of projects of restricted sharing and not sharing; 2) discuss rationale and potential adaptations for such projects; 3) discuss the potential to have a mandatory data sharing and management policy for all projects; 4) include data sharing policy in the peer-review and evaluation process.

Data sharing is clearly important for ensuring replicability of results, transparency and trust. It is value-added to the economic investment made also, as the data may be useful in research being conducted by other researchers for both Council and non-Council purposes. According to

Whitehouse “*Publicly accessible weather and climate data from the National Oceanic and Atmospheric Administration (NOAA) underlie forecasts that are valued at more than \$32 billion per year.*”.

The SSC recognizes that not all projects will be able to provide full data access due to potential confidentiality concerns or other issues. For example, information on commercial fishery effort or social-economic data that reveal proprietary business information may be bounded by some other “sharing” limits by “confidentiality” policies governed by statute or regulation. The progress of data sharing has been impeded because of multiple reasons such as: 1) Confidentiality or privacy about business operations, 2) Likelihood of misusing the data (e.g., not considering the survey design), and 3) Professional advancement or publication/dissertation concerns by PIs. It might be worth comparing with the federal requirements for data acquired by agencies such as NOAA to create a data sharing and management policy for RSA project (See Appendix B of Text to be included in NOAA Announcements and Awards).

These issues of data sharing require coordination with the Grants office, Regional attorneys and NOAA staff and most importantly collaborative partnerships with industry participants, the hallmark of the RSA program, to protect their interests while allowing research to proceed that will support more effective stewardship of the living marine resources under the Mid-Atlantic Council's stewardship.

Nevertheless, these caveats should be presented as part of the evaluation of the benefits of research under topic I, and should be assessed through the peer review process. Further, quota sale prices are key to understanding the benefits and costs of any research undertaken, and have proven important in the management of the Northeast Large Mesh Multispecies Fishery Management Plan (see, e.g. FW58 Section 7.4.1.2 of NEFMC 2019). At the same time, the deficiencies in economic data and capacities are widespread and have been identified by SSC many times, the latest in its report to the council meeting in 2019. Therefore, it is important to look into strategies to deal with more effective data sharing of RSA-funded projects for the value of these investments.

At a minimum, a clear council coordination process, ideally linked to a publicly available data server or public data repository requirement would be much more efficient for public access and create added value to the research undertaken. Some of these options may involve the cost of staff time, but should benefit for the long run and the best use of the RSA funding expended to collect the data.

## **References:**

- EPA. 2016. Plan to increase access to results of EPA-funded scientific research.
- NEFMC. 2019. Framework Adjustment 58 To the Northeast Multispecies Fishery Management Plan.
- NOAA. 2013. NOAA Plan for Increasing Public Access to Research Results.
- NOAA. 2016. Data and Publication Sharing Directive for NOAA Grants, Cooperative Agreements, and Contracts.
- Office of Management and Budget (OMB). 2013. Open Data Policy-Managing Information as an Asset.
- Office of Science and Technology Policy (OSTP). 2013. Increasing Access to the Results of Federally Funded Scientific Research.

***Appendix B: Text to be included in Announcements and Awards (cited from NOAA 2016)***

The following text is for inclusion in FFO Announcements and Contract Solicitations (Appendix B.1, B.2) and Notices of Award and Contracts (Appendix B.3).

**B.1. Text to be included in FFO Announcements and Contract Solicitations for projects that may generate environmental data (including Broad Agency Announcements)**

1. 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 Program. 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.
2. Proposals submitted in response to this Announcement must include a Data Management Plan of up to two pages describing how these requirements will be satisfied. The Data Management Plan should be aligned with the Data Management Guidance provided by NOAA in the Announcement. 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 making such data accessible. The costs of data preparation, accessibility, or archiving may be included in the proposal budget unless otherwise stated in the Guidance. Accepted submission of data to the NOAA National Centers for Environmental Information (NCEI) is one way to satisfy data sharing requirements; however, NCEI is not obligated to accept all submissions and may charge a fee, particularly for large or unusual datasets.
3. NOAA may, at its own discretion, make publicly visible the Data Management Plan from funded proposals, or use information from the Data Management Plan to produce a formal metadata record and include that metadata in a Catalog to indicate the pending availability of new data.
4. Proposal submitters are hereby advised that the final pre-publication manuscripts of scholarly articles produced entirely or primarily with NOAA funding will be required to be submitted to NOAA Institutional Repository after acceptance, and no later than upon publication. Such manuscripts shall be made publicly available by NOAA one year after publication by the journal.