LTER Information Management Guidelines for Mid-term reviews

Oversight of an LTER project’s information management (IM) is a critical part of the mid-term review. At least one member of each review team is chosen for his or her expertise in information management, and NSF expects that adequate time will be scheduled for this individual to evaluate details of IM that may be outside the scope of interest or expertise of other members of the team, or of the project’s participants.

The Information Management review is often scheduled to take place virtually if both the IM reviewer and the site’s information manager are available. The purpose of this extensive, interactive evaluation is to gain an understanding of the institutional and managerial context in which the site’s Information Manager operates. Additionally, the IM reviewer may also wish to begin their evaluation remotely by visiting the website, and perhaps requesting read-only access to the site’s IT systems. This preliminary evaluation could be used to understand how information management systems are constructed, organized, and secured.

There are two essential objectives of Information Management at an LTER site. The first is to ensure that the site is able to collect, access, and analyze data relevant to the successful completion of its proposed research activities. This involves support for the complete data cycle within the site’s research and education mission (e.g. <https://www.dataone.org/data-life-cycle>). This covers activities related to the collection, processing, validation, documentation, curation, access, analysis, publication, and so on. The second is to ensure that the site’s obligation to make data (and other relevant digital products) available to science, education, and general public users as per the NSF PAPPG (<https://www.nsf.gov/pubs/policydocs/pappguide/nsf16001/nsf16_1.pdf>), the BIO Directorates Guidance on Data Management Plans (<https://www.nsf.gov/bio/pubs/BIODMP_Guidance.pdf>), and the LTER Network’s Data Management Policy (<https://lternet.edu/policies/data-access>). NSF does not currently prescribe where data must be published to satisfy this objective other than it must be in a national, public data repository beyond any local data web page the site may maintain. Currently, most public LTER data are curated by the Environmental Data Initiative (<https://portal.lternet.edu/nis/home.jsp>). Other repositories that may be used include the Biological and Chemical Oceanography Data Management Office (<http://www.bco-dmo.org/>), The Arctic Data Center (<https://arcticdata.io/>), and the Knowledge Network for Biocomplexity (<https://knb.ecoinformatics.org/>). All of these repositories are federated by DataONE (<https://www.dataone.org/>) and any published LTER data should discoverable via this portal.

Your review of LTER data management must address both of these objectives. Specific issues you may wish to consider include:

* Assessment of policies and procedures for the complete data cycle within the site’s research and education mission
* Completeness, timeliness and usability of data and metadata released via public archives.
* Adequate technical and staff resources, expertise, and institutional/leadership support for data management activities.
* Compliance with policies, procedures, standards and performance objectives that have been agreed upon through network governance actions.