



NATIONAL SCIENCE FOUNDATION
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NSF 17-137

Frequently Asked Questions (FAQs) for the Long-Term Ecological Research (LTER) Renewal Solicitation (NSF 17-593)

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1. What is the evaluation process for LTER renewal proposals?

All renewal proposals are subjected to rigorous peer review and will be evaluated by a panel

of experts. *Ad hoc* reviews may also be requested. Reviewers and panelists will be asked to evaluate the renewal proposals using both the NSB approved merit review criteria (intellectual merit and broader impacts) and also solicitation specific review criteria as described in [NSF 17-593](#). Based on the reviews, renewal panel evaluation, annual progress reports, and the mid-term site visit report, the LTER program will determine whether to recommend the site for a renewal award. If the program does not consider the site competitive for a 6-year renewal award, the program may recommend up to 2 years of bridge funding, i.e., a probationary award, to allow the site to continue operations while preparing a revised renewal proposal (see below). The PI will receive a Program Officer Comment along with the other standard review materials released through FastLane, to explain the reasons for the probationary award.

2. What happens if the LTER site receives a probationary award?

If a renewal proposal is determined by the LTER program to be not competitive for a 6-year renewal award, the site may be given a probationary award for up to two years. Near the end of the two-year period, the site is allowed to submit a second renewal proposal, with a four-year duration. The evaluation process will be the same as the prior renewal submission. After the review, if the NSF LTER Program recommends a renewal award, the probationary period will end and the site will be renewed for four years. If the program does not recommend a renewal award, the proposal will be declined (see additional information below, [Question 4](#)).

3. Can a site request formal reconsideration of the decision to recommend a probationary award?

The PI can discuss the basis for this recommendation with the cognizant PO, but there is no option for a formal reconsideration of what is effectively an award decision.

4. What happens if the second renewal proposal is not recommended for an award?

If this second renewal proposal is determined by the LTER program to be not competitive for funding, the proposal will be declined and the site will be terminated. Upon termination and at NSF's discretion, the site may be invited to submit a proposal to support phase-out activities for up to three years of funding. This proposal will be subject to external review to assure planned activities are appropriate. The purpose of phase-out funds depends on the specific needs of the site, but may include funding to ensure the proper management of data, complete experiments in progress, and provide support for personnel and activities required to shut down a site.

5. Will the review criteria for renewals change from solicitation to solicitation?

The NSF LTER Program does not anticipate major changes in the solicitation-specific review criteria in subsequent renewal solicitations, although minor rewording for clarification has occurred and should be expected. Proposals will be required to adhere to the guidelines for the current [NSF Proposal and Award Policies and Procedures Guide](#) (PAPPG) at the time of submission except where the LTER renewal solicitation provides different guidance. The

PAPPG typically issues annual revisions.

6. Will newer sites be judged differently from those with a long funding history?

The same merit review criteria are used for evaluating proposals from both newer and more mature LTER sites. Each proposal is evaluated independently, and sites do not compete against each other for support.

7. Do LTERs have to address prior concerns of panels and site visit teams in the renewal proposal?

Renewal proposals are expected to be responsive to concerns raised by the mid-term site visit review or, in the case of probation, to the prior renewal proposal review. The Project Description should include a *Response to Previous Reviews* section describing concerns raised during prior review and plans for addressing them. If PIs have questions about which aspects of a mid-cycle or prior review are most critical to consider, please contact the cognizant Program Officer.

8. If the LTER PI does not agree with the concerns raised by the mid-term site review team and provided a response to the mid-term site report to NSF, do the concerns still need to be addressed in the proposal?

For mid-term site reviews, there is a provision allowing LTER sites to send NSF a written response to site visit reports. This response is not made available to the renewal proposal reviewers or panel. Therefore, the renewal proposal should address how they have incorporated input from the site visit review in their plans for ongoing and new site activities.

9. Do all five core research areas need to be addressed equally? Can some be emphasized but not others?

The LTER program requires that data in all five core areas be collected at some well-justified frequency and with spatial coverage adequate to characterize the domain of the LTER site. The five core areas are described in the renewal solicitation and are intended to cover fundamental properties common across all ecosystems. They provide a basis for the types of syntheses that tie LTER sites together as a network. Data from these core areas should be part of long term data collections and embedded in a site's overall conceptual framework. Some core areas may be more developed than others in a proposal, depending on the ecological questions that the LTER site is addressing.

10. Is there a specific modeling approach that should be included in the LTER renewal proposal?

Modeling is an explicit requirement for LTER proposals. The stated goals of the LTER Program include the development of models to improve our understanding of ecological processes and ability to forecast ecological responses to environmental change. NSF does not prescribe any particular approach, but the choice of model or models should be well-justified in the context of the site's conceptual framework and research questions.

11. What will reviewers and panelists be looking for to evaluate the suitability of modeling at LTERs?

Panelists and reviewers will look for plans to achieve modeling goals, for clear integration of modeling approaches with the overall conceptual framework of the research, and for incorporating long-term data collected by the LTER. It is understood that the maturity of modeling may reflect that of the site, as well as the state of modeling best suited to achieve overall research goals. LTER proposals are responsible for convincing peer reviewers that their modeling efforts are well matched to research objectives. Common criticisms of modeling approaches of LTER proposals include insufficient connections between the long-term data and the models, as well as lack of clarity in how model results will address hypotheses, answer research questions, and inform future research plans.

12. What do I need to do for Data Management?

There are two essential objectives for Data 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 life cycle (e.g. <https://www.dataone.org/data-life-cycle>). This covers activities related to collection, processing, validation, documentation, curation, access, analysis, and publication of the data. The second is to meet 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/pappg17_1/index.jsp), the BIO Directorate Guidance on Data Management Plans (<https://www.nsf.gov/bio/biodmp.jsp>), 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 in addition to any local data web page that the site may maintain. Currently, public LTER data are curated by information managers at each site, and the Environmental Data Initiative (<https://portal.lternet.edu/nis/home.jsp>) is supported by NSF to make data repository services available to all LTER sites. Other repositories that are also 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 must be discoverable via this portal.

13. How important is long-term data collection in evaluating renewal proposals?

Collection and sharing of long-term data, including observations in the five required areas, is critical for a successful renewal. NSF is now placing more emphasis on timely sharing of data through the LTER Data Management System, and PIs are asked to document progress as an element of the renewal proposal. Reviewers and panelists will be asked to evaluate how PIs' research questions have evolved from long-term data and the importance of long-term data collection for achieving future research objectives. The accumulation of long-term data is viewed as a compelling reason to sustain funding at a site; however, we emphasize that this

is a necessary but not sufficient reason to renew a proposal. The LTER network is intended to be much more than a time-series observation program.

14. Does social science or human dimensions-related work need to be included?

The inclusion of humans as drivers of ecological dynamics is not required of LTER sites except for the two urban sites. The urban LTERs have as an additional research goal, developing an understanding of urban systems in terms of human-environment interactions. NSF recognizes that human decisions, behavior, and actions may contribute to LTER goals of understanding other ecosystems besides urban areas. LTER projects may elect to include the human dimension in their research if it helps to answer key, conceptually motivated, ecological questions.

15. The renewal solicitation states that "The Project Description cannot exceed 32 pages. The 32 pages can include 25 pages of text and 7 pages of figures - no substitution of text for figures will be accepted." Do the text and figures have to be separate sections?

Text and figures can be intermixed as long as neither limit is exceeded.

16. What do I need to do for Education & Outreach?

All proposals must include plans for broader impacts, which often include education and outreach. Each existing LTER site is provided funds each year to support Schoolyard LTER activities that focuses on K-12 education. In addition, sites are provided funds to support two Research Experience for Undergraduate (REU) students to carry out independent research. These activities should be part of the proposed education and outreach plan. LTER sites may vary in their ability to support and involve graduate students and postdoctoral researchers, but such activities are often viewed as strong elements in LTER broader impact plans.

17. How much emphasis should be placed on LTER cross-site activities?

The focus of the LTER program is on compelling, site-specific research. However, there may be common features of sites that strengthen a site's ability to address their key research questions and allow synthesis across sites and ecosystems. Thus, research collaborations and cross-site synthetic activities can be compelling aspects of a renewal proposal, and may become increasingly important as the site matures.

18. Does the conceptual framework need to change with each renewal proposal?

A clear, well-integrated conceptual framework for LTER projects is essential. The conceptual framework should evolve in response to results of long-term research as a site matures and may need to be modified or completely redeveloped to guide and integrate the development of new research questions. A conceptual framework should provide a testable representation of key ecosystem components and processes (including the five core areas), motivate questions to better understand how these components interact, and lead to strong modeling efforts.

19. What if my question is not addressed by these FAQs?

Please ask us! Sites should contact their cognizant Program Directors with further questions.