NATIONAL SCIENCE FOUNDATION
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NSF 19-084

Frequently Asked Questions (FAQs) for the Long-Term Ecological Research (LTER): New Urban Site Solicitation (NSF 19-594)

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13. Must a new LTER site be located within the US or its territories?

14. Are LTER projects expected to pursue funds to leverage activities at a LTER site?

15. What do I need to do for Education & Outreach and for Information Management?

16. How important is research collaboration across LTER sites? Should this be emphasized?

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1. **What is the review process that will be followed to select the new LTER site?**

   A two-stage review process will be used. All proposers must submit a preliminary proposal that outlines the major goals of the project. Preliminary proposals will be reviewed by a panel of outside experts. The Program Directors will communicate the decision to Invite vs. Do Not Invite full proposals via FastLane. The decisions will be based on the panel recommendations and additional portfolio considerations. Invite and Do Not Invite decisions are binding. Invited full proposals will receive panel and *ad hoc* review. Full proposals that were not invited will be returned without review.

2. **What feedback will I receive on my preliminary proposal?**

   Preliminary proposals will be reviewed by a panel of scientists with appropriate expertise, and you will receive a summary of their discussion (a panel summary) as well as individual reviews from the panelists. We strongly advise that you take this feedback into account if you are invited to submit a full proposal.

3. **What criteria will panelists use to evaluate preliminary proposals?**

   Panelists will be instructed to evaluate the Intellectual Merit and the Broader Impacts of each proposal during each proposal evaluation stage. Preliminary proposals are brief

and lack much of the detail included in a full proposal, so the reviews will necessarily be more general than those for full proposals. In addition to Intellectual Merit and Broader Impacts, we expect reviewers to focus on the following critical aspects of the research: A) presence of a cohesive conceptual framework that integrates both the questions and the approaches proposed, B) testing core ecological principles, and C) promoting integrated understanding of interacting processes, including at least one human dimension. Additional consideration will be given to justification for the proposed research site and feasibility of the plans for carrying out the proposed research. While covered above, we again highlight that reviewers will be asked to evaluate whether a substantive plan is presented to implement Broader Impacts of the research.

4. **What criteria will be used to make a decision to Invite or Do Not Invite a full proposal following the preliminary phase?**

   Program Directors will make decisions to Invite or Do Not Invite based on the intellectual merits and broader impacts of the research, the panel's recommendation, and balance of proposals among sub-disciplines, geographic distribution, types of organizations,and a project's potential to broaden participation by groups underrepresented in science.

5. **How soon will I learn whether a full proposal is invited?**

   Invitations to submit full proposals will be issued as quickly as possible to allow ample time for the preparation of full proposals.

6. **What is the expected invitation rate for preliminary proposals?**

   We anticipate inviting 8-12 full proposals.

7. **How does the Project Description of the preliminary proposal differ from that of a full proposal?**

   The two proposals differ in length; a preliminary proposal is restricted to a maximum of 8 pages and a full proposal to a maximum of 32 pages. They also differ in content. Please read the Proposal Preparation Instructions in the solicitation carefully.

8. **Do results from prior NSF support have to be included in preliminary proposals?**

   These are not required but may be included at the discretion of the investigator; they are part of the 8 pages available for the project description.

9. **Are organizational approvals for regulated activities (e.g. recombinant DNA work, human subjects, vertebrate animals) needed for preliminary proposals?**

   These approvals are not needed at the time of submission of preliminary or full proposals. However, if you have checked the Vertebrate Animals or Human Subjects

boxes on the NSF Cover Sheet,these approvals must be secured before an award can be made.

10. **Will reviewers for a full proposal see the reviews I received for the preliminary proposal?**

    The panelists who review your full proposal will have access to an unattributed copy of the panel summary written for your preliminary proposal but will not see the individual reviews.

11. **May I add a co-PI or other senior personnel who was not listed in the preliminary proposal to the invited full proposal?**

    You may add senior personnel (including co-PIs) to a full proposal,particularly based on advice provided in the preliminary proposal panel summary and following discussion with the cognizant NSF Program Director. Please carefully consider the expertise needed to achieve your research goals before submitting your preliminary proposal for review.

12. **Do we need to address all the core research areas? Can we emphasize some but not others?**

    It is a requirement of the LTER program that data be collected, at some well justified frequency, in all five core areas and, for urban sites, in a human dimension. These core areas are described in the solicitation.

13. **Must a new LTER site be located within the US or its territories?**

    Yes, the new Urban LTER must be within the United States, including its territories and protectorates.

14. **Are LTER projects expected to pursue funds to leverage activities at a LTER site?**

    This is not a requirement. The long-term data collected at an LTER site often makes the site attractive to other researchers, and many of the longest-running sites have leveraged significant support for diverse research activities. That said, it is also true that new LTER sites build on existing data and local partnerships.

15. **What do I need to do for Education & Outreach and for Information Management?**

    All proposals to NSF must include plans for broader impacts, which often include education and outreach. Each existing LTER site is provided funds each year to support a Schoolyard LTER program that focuses on K-12 education and supports two undergraduate students to carry out independent research (Research Experiences for Undergraduates (REUs)). These activities could be part of the education and outreach

plan you prepare. All proposals also must include a data management plan. LTER data should be publicly available as soon as possible and within 2 years of collection. The data management plan should include description of how data management will be implemented in the design of research projects, the responsibilities of a data manager, data harvesting,documenting, archiving, and planning for accessibility. The Ecological Data Initiative (EDI) provides support for LTER data submission and can be contacted for additional detail.

16. **How important is research collaboration across LTER sites? Should this be emphasized?**

    The current LTER program comprises a collaborative network of over 1,000 researchers and students, many of whom investigate common ecological processes. This collaboration expands opportunities to promote synthesis and comparative research across sites. New sites may include comparative research with other LTER or non-LTER projects, but this is not a requirement. These broader-scale activities, if included, should extend the conceptual framework proposed for innovative site-based research. NSF expects all LTER researchers to participate in network-wide activities (meetings, working groups, etc.). We acknowledge that cross-site activities may require additional funding and that they may increase as a site matures.

17. **Can oceanographic research be proposed as part of a coastal urban LTER?**

    This solicitation does not support oceanographic work. Coastal urban settings should focus on the terrestrial environment, including freshwater systems and coastlines. Research in coastal sites should not focus on adjacent marine or Great Lakes systems.

18. **I've heard that a guiding conceptual model for the site research is important. Is there a good example or model of what it should be like?**

    A convincing conceptual framework for your project is essential. There are no generic examples, as each LTER site poses site-specific questions that are key to developing an integrated and cohesive understanding of how a particular ecosystem is structured and functions. The conceptual framework should identify key components of the ecosystem, pose questions to understand how these components interact, and lead to a predictive understanding. See the solicitation for further guidance.

19. **What is the optimum balance between observations vs. experiments?**

    This balance should reflect the conceptual theme or framework presented, based on key ecological theories; this framework should integrate both the questions and the approaches (observation, experiment, models) proposed. Please keep in mind that all LTER projects must collect long-term data in the core areas. Urban LTER projects must

also collect long-term data in a human dimension, as described in the solicitation.

20. **Our proposed site doesn't have a strong pre-existing legacy of long-term observations. Is that a problem?**

    A proposal may be submitted for a site for which long-term data exist or for a site that requires an entirely new effort. Preliminary data collected previously at a particular site may contribute positively to a proposal.

21. **Can we have 2 Co-Lead PIs? Do they need to be at the same home organization?**

    Up to five individuals can be listed as principal investigators on the Cover Sheet of a proposal. NSF considers all of these individuals as having responsibility for carrying out the research proposed; designation of the first as the lead PI is primarily as a point of contact. The individuals can come from different organizations,but only a single organization can be the awardee organization. Other organizations can be involved via the subaward mechanism.

22. **Some existing LTER projects include a large number of investigators from multiple organizations. Is there an expectation that the research team be of a certain size or disciplinary breadth?**

    NSF has no a priori expectations about the size or breadth of the initial research team. This team should have the expertise required to address core components of the conceptual framework and to carry out the proposed research. NSF expects that each of the main investigators has a record of research that supports their ability to contribute productively to the project.

23. **Would NSF consider a project that is regional in nature — that is, that carries out research at several locations that represent the urban environment?**

    This kind of project is likely to be competitive only if the full complement of research needed to address the conceptual framework presented can be accomplished at all locations. Depending on the number of locations involved, a regional study might not be feasible given the amount of support provided by LTER awards.

24. **What sort of guidance or advice could be provided by ongoing LTER sites?**

    Prospective investigators may wish to contact current LTER principal investigators to learn more about the structure and management of an LTER site. Current sites range in age from 2 to over 35 years, and NSF's expectations about the sophistication of the guiding conceptual framework, research integration, and overall productivity vary considerably depending upon the maturity of the site. At the very least it would be advisable to visit the network website https://lternet.edu/ to learn more about the sites.

Further, while active LTER researchers may provide valuable advice, NSF does not expect a new site to have developed as sophisticated an understanding of how components of an ecosystem are integrated.

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

    Please ask us! Contact information for Program Directors can be found in the solicitation.