NATIONAL SCIENCE FOUNDATION

Long-term Ecological Research (LTER) Program

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7 August 2001

Dr. Mark E. Harmon
Department of Forest Science
Oregon State University
Corvallis, Oregon 97331-7501   re: Guidelines for LTER 2002 Renewal Proposals

Dear Dr. Harmon:

This letter contains the formal instructions for the LTER renewal proposals that are due at NSF on 1 February 2002. Fastlane submission is required. These instructions are generally the same as those used for the renewal competition in 2000 and the mid-term site reviews. Use a font size of 12 throughout.

Please pay particular attention to the page restrictions for each section. Since the use of backs of printed pages for graphics is not possible in Fastlane, some revisions to the maximum allowable numbers of pages for some sections have been required. Specifically, we have doubled the allowable page lengths for Section 2 to account for this, but note that there must be no substitution of extra text pages for graphics pages (i.e., the 20 page limit will be strictly enforced for both the text and the graphics portions separately). The previous page limits have been expanded slightly in some other sections to also recognize that graphic material may be important to include (again, though, no text substitutions are allowed).

NSF utilizes two main criteria in the review process. **Criterion 1** addresses the intellectual merit of the proposed research and **Criterion 2** addresses the broader impacts of the research. You are encouraged to read the guidelines for review on the NSF Fastlane web site. These two overall review criteria have been rearticulated into five for the LTER program as follows.

The primary review criterion will be **scientific merit** (NSF's Criterion 1). **Information management** and technology, **site management** (including personnel, fiscal, administrative, and logistical issues), **network participation** (including cross-site, non-LTER, international research, and other activities) and **outreach/education** (training of

undergraduate and graduate students, K-12 Schoolyard, application of results to policy and management, etc.) are also important aspects of all LTER programs that will be addressed in the reviews. Each of these five criteria are evaluated with respect to <u>quality</u>, <u>productivity</u>, and <u>impact</u>.

Section 1. ($\leq$ 5 pages of narrative; total of 5 pages maximum*). Describe results of prior LTER support. In addition to the five maximum text pages, provide a table that lists all publications from LTER research since the last renewal, sorted into the following categories: (1) journal articles, (2) books, (3) book chapters, (4) dissertations and theses, and (5) other publications. Include a second table that lists data sets from your site that are currently available electronically and documents the use of on-line data sets by investigators not directly associated with your LTER program.

* The lists of publications and datasets for this section may be put into the Supplementary Documentation part of Fastlane (be sure to follow the format requirements).

Section 2. ($\leq$ 20 pages of narrative *plus* $\leq$ 15 pages of illustrations, tables and figures; 35<u> pages total maximum, but no substitution is allowed of narrative pages for graphics pages</u>). Develop and explain the conceptual framework that provides the unifying ecological theme for your site. Next, describe in some detail the long-term experiments, sampling protocols and monitoring that you are doing, and explain how these relate to your conceptual framework. Describe methods and data analyses so that the quality of long-term efforts can be evaluated critically by reviewers. In addition, describe short-term mechanistic experiments, empirical studies, sampling programs and other approaches, such as modeling, that will be conducted. Again, describe the methods and planned analyses in detail and explain how these short-term studies relate to your conceptual framework. Also, conceptually integrate these efforts to your long-term studies. Because budgets normally increase at the time of renewal, there will be an expectation that some new activities be proposed. Clearly, modeling efforts are important, and they should be discussed in detail as appropriate. Outline any regionalization, cross-site, or other collaborative efforts involving the LTER network that are planned if they are not part of your core program (network activities). Finally, close this section with a synthesis that shows how your major activities will be integrated.

There is no need to include detailed methodologies in the proposal text for projects that are on-going at the site. The best approach is to provide a general description of the methods in the proposal, and to give a web site address where the detailed methods manual is located. For new research efforts, more detail on methods should appear in the proposal.

Section 3. ($\leq$ 2 pages of narrative *plus* $\leq$ 1 page for figures/tables; 3 pages maximum). Describe how you manage your site. How are funding and research decisions made and actions implemented? What efforts are made to encourage non-LTER scientists from your institution or other institutions to use your site as a research platform? How are you involving a diversity of scientists at the site? Include any plans for enhancing

diversity of scientists at your site. Detail any major changes anticipated during the next grant phase.

Section 4. (≤ 3 pages narrative *plus* ≤ 1 pages of tables/figures; 4 pages maximum). One of the recognized strengths and pioneering aspects of the LTER network relates to information management and technology. Describe your data and information management system. How is the data manager involved in the design of research projects? What mechanisms do you employ to get researchers to contribute their data to the LTER database? How quickly are data sets made available to other researchers? What criteria are used to limit or provide access of LTER data sets to other researchers? How often are data sets updated on the WWW? Detail anticipated major changes.

Section 5. (≤ 2 pages text *plus* ≤ 1 page of tables/figures; 3 pages maximum). Describe your outreach program, including educational activities at all levels, public activities, media interactions, implications/applications of your research to policy and management, etc. Include a plan for the development of your outreach program over the next grant phase.

Section 6. (pages as allowed). Literature Cited.

Section 7. Budget pages and detailed budget descriptions. The budget for your next six years will total $700,000 per year. Provide sufficient Budget Justification as required. Also describe cost sharing, other sources of funding, how LTER funds are leveraged at your site, and what other in-kind services are provided and by whom.

Section 8. Provide one-page CVs for each PI and other senior scientist listed on your proposal. List only FIVE publications per investigator on each CV. Separate from the individual CVs, provide a cumulative, alphabetized list of all collaborators and of potential conflicts of interest for the PIs and all other senior scientists whose CVs appear in the proposal. Do not list conflicts separately on each CV.

Section 9. Current and Pending support of each investigator.

Please contact me if you have further questions.

Sincerely,

Henry L. Gholz, Program Director
Long-Term Ecological Research (LTER)