

## **Supplement Request to conduct Assessment of LTER Education and Training Activities**

The Long Term Ecological Research program (LTER) recognizes the value of sustained interactions between students, teachers, and scientists, and has launched an effort to integrate LTER science with education. Most LTER sites conduct individual programs at the local level, and the Network supports limited centralized approaches to educational initiatives.

The “LTER 2000-2010: A Decade of Synthesis White Paper” lists among its goals “to advance the theory and practice of ecological and environmental education at all levels and in all areas of LTER expertise.” LTER education uses outdoor, inquiry-based teaching and learning to build ecological literacy; it creates effective strategies for interdisciplinary and collaborative learning about ecology; and it teaches about local ecosystems while fostering an understanding of distant ones as well.

Since 1998, LTER sites have received supplements to develop education activities. Each site has designed its program in relation to the ecological research conducted at the site and the particular needs of its local community. Supplements have been used in a diverse number of ways, mainly to support K-12 students and teachers under the Schoolyard program (SLTER). Currently all 24 sites receive Schoolyard supplements. Many sites have developed new partnerships with teachers, school districts, organizations, and business/industry. In addition, many sites have used NSF supplements to leverage additional funding from other organizations or state and federal programs to expand education activities associated with LTER. LTER sites have also supported undergraduate and graduate students from a variety of sources such as NSF Research Experience for Undergraduate (REU), Graduate Teaching Fellowships (GK-12), or from other agencies and programs (e.g. NASA, EPA and NOAA).

The report of the Twenty-Year Review of the Long Term Ecological Research program published in June 2002 includes several recommendations on education and training. One of the main recommendations is to evaluate the LTER Schoolyard (SLTER) program. A review of the LTER Network office in October 2002 also recommended that current education efforts at LTER be evaluated. Both of these recommendations were made by an outside group of experts. NSF has agreed with the recommendations and has asked that a formal independent assessment of the SLTER and other education programs be conducted.

We are requesting funding for an independent contractor (evaluator/assessor) to assess the opportunities and constraints of LTER education and training activities. The assessment is to be formative in its design. To insure quality and usefulness of information derived from this work, the contractor shall consult with appropriate officials at the LTER Network Office and LTER governance structures (e.g. Education Committee, Executive and Coordinating Committee).

The assessment shall answer baseline questions related to the different education activities conducted at LTER sites (e.g. what kinds of education activities, how are they funded, who is involved, etc.) as well as more specific questions related to the mission of each site, needs and capabilities, and the integration of research with education. It is expected that possible models and recommendations will derive from the assessment.

The contractor will perform the following work:

**Task 1.** The Contractor shall become familiar with all the funded projects, including any individual project evaluations/assessments that have already been conducted, and perform a literature review of relevant education and research literature, including any necessary theory that has already been developed.

**Task 2.** The Contractor, in consultation with the Network Office, shall send at least one representative to attend four meetings of the LTER program: the Executive Committee meeting (February 24-26, 2003 at the NSF in Washington, DC), the Coordinating Committee (May 6-8, 2003 at the Kellogg Biological Field Station, MI), and to the All Scientists Meeting (September 18-21, 2003, Seattle WA). At least one synthetic oral presentation should be made at the ASM summarizing the preliminary findings of the assessment; poster presentations, workshops, and other oral presentations are also encouraged and may be appropriate. A draft final report will then be prepared and circulated for critique and review by LTER affiliated personnel. A final presentation and briefing meeting will be held at NSF in December 2003.

**Task 3.** The Contractor, in consultation with the LTER Network Office will revise the assessment design as appropriate.

**Task 4.** The Contractor, in consultation with the LTER Network Office, will develop an instrument or approaches that each site can use in the future to assess their own education programs/projects.

**Task 5.** The Contractor will prepare a site visit protocol and survey questionnaire instrument.

**Task 6.** The Contractor will administer the survey to all 24 sites, and will conduct visits of 12 projects and the network office, and perform case studies, interviews, or any other data collection procedures as are necessary and appropriate to complete the assessment.

**Task 7.** The Contractor will prepare brief (2-4 page) site visit reports, a draft final report, and a final report on the program assessment.

**Task 8.** The Contractor will prepare information about this assessment and its findings and recommendations for dissemination. In consultation with the Network Office, the Contractor may make use of this information for professional publication and dissemination.

The University of New Mexico (UNM) will develop the contract and solicit proposals from potential evaluators/assessors. Proposals are due at UNM no later than 5 p.m. on February 1, 2003. The Program Director for Education at the LTER Network Office in collaboration with the LTER Education Committee will coordinate the selection of the contractor. The contractor shall work and produce deliverables under the following schedule:

1. **Revised Assessment Design (if needed):** Due no later than March 2003.
2. **Site Visit Protocols and Instruments:** Due no later than March 2003.
3. **Literature Review:** Due within six months from the start of this project.
4. **Site Visit Reports:** Due thirty (30) days after each visit.
5. **Interim Briefing to Appropriate Officials:** Due by the sixth (6<sup>th</sup>) month of the contract.
6. **Draft Final Report:** Due 2 weeks before the September 2003, ASM meeting and presentation.
7. **Presentation of Draft Final Report:** September 2003, ASM meeting, Seattle Washington.
8. **Final Report and Briefing:** December 2003 at NSF in Arlington VA.

**Budget Justification:**

We are requesting funding for one year requiring one (1) FTE person year, allocated to one but no more than two individuals. Funding will also cover 12 site visits, attendance to four meetings and trips to the LTER Network Office as necessary.