

LONG-TERM ECOLOGICAL RESEARCH (LTER) IN LAND/OCEAN MARGIN ECOSYSTEMS

Program Announcement

NSF 99-89

DIRECTORATE FOR GEOSCIENCES; Division of Ocean Sciences

DIRECTORATE FOR BIOLOGICAL SCIENCES; Division of Environmental Biology

DEADLINE DATE: July 1, 1999



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SUMMARY OF PROGRAM REQUIREMENTS

GENERAL INFORMATION

Program Name: Long-Term Ecological Research (LTER) in Land/Ocean Margin Ecosystems

Short Description/Synopsis of Program:

To enhance the scope and disciplinary breadth of the Long-Term Ecological Research (LTER) Network, the National Science Foundation (NSF) announces a competition for up to three (3) new LTER sites that focus on ecological systems at the interfaces of land masses and coastal oceans (including the Laurentian Great Lakes), hereafter referred to as land/ocean-margin ecosystems. Estuaries, coastal wetlands, and coastal reefs and their associated terrestrial and freshwater environments are examples of land/ocean-margin ecosystems.

Cognizant Program Officer(s): Phillip Taylor, Division of Ocean Sciences; (703) 306-1587; prtaylor@nsf.gov and Scott Collins, Division of Environmental Biology; (703) 306-1479; scollins@nsf.gov

Applicable Catalog of Federal Domestic Assistance (CFDA) No.: 47.050 — Geosciences
47.074 — Biological Sciences

ELIGIBILITY

- Limitation on the categories of organizations that are eligible to submit proposals:

Proposals may be submitted by universities in support of individual investigators or small groups. Collaborative proposals will not be accepted. Each project must be managed by a single institution with other institutions involved via subcontracts. Proposals that subcontract with other researchers and facilities of other countries or international groups are welcome, provided support is requested only for the U.S. portion of the cooperative effort.

- PI eligibility limitations: **None**
- Limitation on the number of proposals that may be submitted by an organization: **None**

AWARD INFORMATION

- Type of award anticipated: **Continuing Grant**
- Number of awards anticipated in FY 99: **up to three awards**
- Amount of funds available: **\$700,000 per year, per award (up to six years)**

- Anticipated date of award: **January 1, 2000**

PROPOSAL PREPARATION & SUBMISSION INSTRUCTIONS

Proposal Preparation Instructions

- Letter of Intent requirements: **None**
- Preproposal requirements: **None**
- Proposal preparation instructions: **Standard NSF Grant Proposal Guide instructions plus supplementary guidance (see Proposal Preparation Instructions)**
- Supplemental proposal preparation instructions: **None**
- Deviations from standard (GPG) proposal preparation instructions: **See Proposal Preparation Instructions**

Budgetary Information

- Cost sharing/matching requirements: **Any proposed cost sharing must be shown on line M on the proposal budget (NSF Form 1030.)**
- Indirect cost (F&A) limitations: **None**
- Other budgetary limitations: **None**

FastLane Requirements

- FastLane proposal preparation requirements: **FastLane submission is strongly encouraged**
- FastLane point of contact:
Dr. Phillip Taylor, Division of Ocean Sciences; (703) 306-1587 (prtaylor@nsf.gov); or Dr. Scott Collins, Division of Environmental Biology; (703) 306-1479 (scollins@nsf.gov)

Deadline/Target Dates

- Full Proposal Deadline
5:00 PM, ET, July 1, 1999 (paper)
5:00 PM local time, July 1, 1999 (FastLane)

PROPOSAL REVIEW INFORMATION

- Merit Review Criteria: **Standard National Science Board approved criteria plus supplementary criteria**

AWARD ADMINISTRATION INFORMATION

- Grant Award Conditions: **GC-1 or FDP III**
 - Special grant conditions anticipated: **None anticipated**
 - Special reporting requirements anticipated: **None**
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INTRODUCTION

To enhance the scope and disciplinary breadth of the Long-Term Ecological Research (LTER) Network, the National Science Foundation (NSF) announces a competition for up to three (3) new LTER sites that focus on **ecological systems at the interfaces of land masses and coastal oceans** (including the Laurentian Great Lakes), hereafter referred to as **land/ocean-margin ecosystems**. Estuaries, coastal wetlands, and coastal reefs and their associated terrestrial and freshwater environments are examples of land/ocean-margin ecosystems.

With an initial set of six sites selected in 1980, the National Science Foundation established the Long-Term Ecological Research Program to conduct research on long-term ecological phenomena. The present total of 21 sites represents a broad array of ecosystems and research emphases.

Very few of the existing sites explicitly focus on land/ocean-margin ecosystems. Coastal areas are sites of intense human activity and rapid population growth. Many research questions in land/ocean-margin ecosystems require highly integrative analyses conducted over long time frames and broad spatial scales.

This competition for land/ocean-margin LTER sites is a collaborative effort between the Division of Ocean Sciences (OCE) in the Directorate for Geosciences (GEO) and the Division of Environmental Biology (DEB) in the Directorate for Biological Sciences (BIO).

The research proposed in response to this announcement should emphasize major ecological questions on the linkages between terrestrial and coastal ecosystems. The work should seek to understand the causes of major ecological and environmental changes that influence land/ocean-margin environments, and how the populations, communities, and ecosystems of the land/ocean-margin environment respond to these changes. In order to achieve major advances in understanding these land/ocean-margin systems, the following elements are encouraged:

- interdisciplinary research coordinated among investigators,
- experimental studies across a range of appropriate spatial and temporal scales,
- development of conceptual, analytical and numerical models to guide the research and data management activities to facilitate comparisons with research in other systems, and
- comparative approaches comprising parallel studies in different ecosystems.

Proposals submitted to this competition must explicitly investigate the linkages between terrestrial and coastal ecosystems, and must support the general mission of the LTER Network as outlined below. Because this is a collaboration between two NSF Divisions, it is expected that the research proposed will significantly serve the purviews of both Divisions.

PROGRAM DESCRIPTION

The LTER Network is a collaborative effort among over 900 scientists and students which extends the opportunities and capabilities of the individual sites to promote synthesis and comparative research across sites. The Network is managed by an Executive Committee and a larger Coordinating Committee comprised of representatives of the LTER sites. The LTER Network Office supports, facilitates, and enhances the research and creative activities developed by the LTER Network. In addition, the LTER Network Office plays a leadership role in developing and implementing data and information management standards and protocols for the LTER Network, as well as for the broader community of environmental scientists. Additional information about the LTER Network and the LTER Network Office can be obtained from the LTER homepage on the world wide web at <http://lternet.edu>.

Prospective investigators are strongly urged to contact current LTER Principal Investigators to learn more about the structure, management and expectations of an LTER site. Additional information and advice regarding LTER proposals and the integration of new sites into the LTER Network can be found at <http://lternet.edu/propinfo>.

An International LTER (ILTER) Network has been developed recently, with the help of the LTER Network Office. The purpose of the ILTER is to encourage the development of a world-wide network of long-term research sites. Proposals for land/ocean-margin LTER sites may also consider the potential for developing international collaboration in conjunction with ILTER. Information on ILTER can be found at <http://www.ilternet.edu/>.

In developing proposals and planning the research for LTERs in land/ocean-margin ecosystems, potential LTER project groups are expected to demonstrate that they can provide the scientific and organizational coordination of their projects with ongoing research at the 21 existing sites, and, where appropriate, with international sites, as well. Research questions, analytical methods, information management, and data accessibility protocols are all important areas for planned coordination. An LTER proposal may be submitted for a site with ongoing research or for a site which would require an entirely new effort. It should be noted, however, that in previous competitions the existence of major, relevant long-term data bases for a site was viewed positively by peer reviewers. In addition, the Principal Investigator(s) will be expected to make a long-term time commitment to the proposed project, and to participate in relevant LTER Coordinating and Executive Committee activities. In general, LTER investigators are expected to contribute to network-level, cross-site and synthesis activities, and to adhere to LTER Network data management policies (see the LTER homepage on the world wide web at <http://lternet.edu>).

Use of existing federal and state facilities, and collaboration with other long-term research sites or programs, both national and international, is encouraged. Applicants are encouraged, but not required, to consider research sites within existing national research reserve systems. The National Oceanic and Atmospheric Administration (NOAA) supports 21 field laboratory sites throughout the coastal U.S. (including the Great Lakes) as part of the National Estuarine Research Reserve System (NERRS), and 13 National Marine Sanctuary (NMS) sites that are located in a number of diverse marine habitats. Many of these sites have extensive long-term data sets and support facilities. For specific information concerning NOAA's NERRS and NMS sites, please contact Dr. Donald Scavia at (301) 713-3060.

ELIGIBILITY

Proposals may be submitted by universities in support of individual investigators or small groups. Synergistic collaboration among researchers and collaboration or partnerships with industry or government laboratories is encouraged when appropriate. Only one proposal may be submitted by a Principal Investigator and he/she may collaborate in one other proposal as a co-Investigator. Group and collaborative proposals involving more than one institution must be submitted as a single administrative package from one of the institutions involved. Due to the limited availability of funds, prospective applicants are strongly urged to contact one of the program officers listed at the end of this document for guidance.

AWARD INFORMATION

NSF expects to fund up to 3 continuing grant awards depending on the quality of submissions and the availability of funds. Approximately \$2,100,000 will be available for this initiative in FY 2000. Anticipated date of awards: January 2000.

PROPOSAL CONTENT

To date, the general mission of the LTER Network has been to (1) understand ecological phenomena which occur over long temporal and broad spatial scales, (2) create a legacy of well-designed and documented ecological experiments, (3) conduct major syntheses and theoretical efforts, and (4) provide information necessary for the identification and solution of environmental problems. LTER research should be developed around a site-specific conceptual framework that generates questions requiring experiments and observations over long time frames and broad spatial scales. The conceptual frameworks of the existing LTER sites are broadly focused around five core areas:

- pattern and control of primary production,
- spatial and temporal distribution of populations selected to represent trophic structure,
- pattern and control of organic matter accumulation in surface soils and sediments,
- patterns of inorganic inputs and movements of nutrients through soils, and waters, and
- patterns, frequency, and effects of disturbance to the research site.

The five core areas help to focus and integrate LTER research within and across sites. These core areas are broadly defined and must be incorporated into the research to be conducted in land/ocean-margin ecosystems. In addition to the traditional LTER core areas, research at land/ocean-margin LTER sites will:

- increase the understanding of the organization and function of land/ocean-margin ecosystems,
- investigate the linkages between these systems and adjacent terrestrial and marine systems, and
- increase the understanding of major natural and anthropogenic environmental perturbations in these regions.

PROPOSAL PREPARATION & SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions.

Proposals submitted in response to this program announcement should be prepared and submitted in accordance with the general guidelines contained in the *Grant Proposal Guide* (GPG), NSF 99-2. The complete text of the GPG (including electronic forms) is available electronically on the NSF Web site at: <https://www.nsf.gov/>. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone 301.947.2722 or by e-mail from pubs@nsf.gov. Please note that the page limits contained in this announcement take precedence over those given in the GPG.

Proposers are reminded to identify the program announcement number (NSF 99-89) in the program announcement/solicitation block on the NSF Form 1207, "*Cover Sheet for Proposal to the National Science Foundation*." Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

Proposals should be clearly identified by a title starting with the acronym, "LTER:," and the following should be placed on the cover sheet (NSF Form 1207) in the box for the NSF Organizational Unit, "**LTER, NSF 99-89.**" Proposals must be limited strictly to 25 single spaced pages for the body of the research narrative, including results from prior NSF support, figures and tables (i.e., introduction, literature review, hypotheses, methods, data analysis, and logistics). The proposal text should be single-spaced with a 12-point font (or larger) and one inch (2.4cm) margins on all sides. Proposal originals should be printed on one side of the page only, bound only in the upper left corner, and numbered at the bottom of each page. Number each page of each section in the following format: 1-1, 1-2, ..., 1-5; 2-1, 2-2, ..., 2-25; 3-1, etc. Copies may be double-sided.

Proposals should include explicit plans for the documentation, archiving, and dissemination of research data. All funded participants must adhere to the data management policies applying to recipients of federal funding from OCE and DEB, as well as the LTER Network policies (see the LTER homepage on the world wide web at <http://lternet.edu>). Proposals should be prepared in the following format:

Section 1. Results from prior NSF support (as per *Grant Proposal Guide* (GPG, NSF 99-2) A maximum of 5 pages of text may be used for this section.

Section 2. Develop and explain the conceptual framework that provides the unifying theme for the proposed land/ocean-margin LTER research. Describe in some detail the long-term experiments, sampling protocols, and monitoring to be done, and explain how they fit into your conceptual framework. Describe the methods and data analyses so that the quality of these long-term efforts can be critically evaluated by reviewers. In addition, describe any short-term, mechanistic experiments, empirical studies, sampling programs, modeling efforts, etc., that will be conducted. Again, describe the methods and planned analyses in detail and explain how these short-term studies fit into the conceptual framework. Also, relate these efforts to the proposed long-term studies. Close this section with a synthesis that ties together the proposed research activities.

Overall, an LTER site should be conducting hypothesis-driven, long-term research coupled with short-term mechanistic studies to derive understanding of long-term dynamics. Modeling efforts are important, and should be discussed in detail where appropriate. A maximum of 20 pages may be used for this section, including text, figures and tables.

Section 3. Literature Cited in Sections 1 & 2.

Section 4. Describe the research management plan for the proposed site. Specifically, describe how funding, research, and participation decisions will be made and implemented. This section may have up to two pages of text.

Section 5. One of the real strengths of the LTER network is the quality of and emphasis on, information management and metadata standards. It is expected that data derived from LTER funding will be made freely and widely available as soon as possible (not to exceed 2 years after collection), although exceptions are made for some types of data. Describe the proposed information management system and metadata standards to be used at your site. How will the data management activity be implemented in the design of research projects? What mechanisms will you employ to assure that researchers contribute their data to the LTER databases? What criteria, if any, will be used to limit or provide other researchers access to data sets? How often will data sets be updated on the World Wide Web? Use up to two pages of text for this section.

Section 6. Budget pages (NSF Form 1030) and detailed budget description.

Section 7. Provide a one page curriculum vitae (CV) for each core scientist, and for key international participants, if relevant. List only FIVE publications per investigator on their CV. Also, provide an alphabetical list of all scientific collaborators and a list of conflicts of interest for the PIs and other LTER participants whose CVs' appear in the proposal rather than listing these separately on each CV.

Section 8. Current and Pending support of each investigator (NSF Form 1239).

Other than instructions stipulated above, proposals should be prepared and submitted in accordance with the *NSF Grant Proposal Guide (GPG) NSF 99-2* and the *Proposal Forms Kit NSF 99-3* These documents can be accessed through the NSF Home Page (<https://www.nsf.gov/>) or you may request hard copies at no cost from:

NSF Clearinghouse
P.O. Box 218
Jessup, MD 20794-0218
TEL: 301-947-2722
e-mail: pubs@nsf.gov

Proposers requiring the use of a UNOLS ship or submersible must submit a ship request form to NSF's Division of Ocean Sciences as well as the UNOLS office and the operator of any requested ship or ships. Electronic ship request forms are available on the UNOLS Home Page (<http://www.gso.uri.edu/unols/experiments.htm>). Printed copies of the form may be obtained from NSF Division of Ocean Sciences or the UNOLS Office (tel: 401-874-6825; email: unols@gso.uri.edu).

B. Budgetary Information

Cost Sharing Requirements.

It is expected from the outset that all projects will seek and document significant extramural funding from sources other than NSF and the home institutions of the investigators. Any proposed cost sharing must be shown on line M on the proposal budget (NSF Form 1030.)

The amount of cost sharing must be shown in the proposal in enough detail to allow NSF to determine its impact on the proposed project. Documentation of availability of cost sharing must be included in the proposal.

Only items which would be allowable under the applicable cost principles, if charged to the project, may be included as the grantee's contribution to cost sharing. Contributions may be made from any non-Federal source, including non-Federal grants or contracts, and may be cash or in-kind (see OMB Circular A-110, Section 23). It should be noted that contributions counted as cost-sharing toward projects of another Federal agency may not be counted towards meeting the specific cost-sharing requirements of the NSF grant.

All cost-sharing amounts are subject to audit. Failure to provide the level of cost-sharing reflected in the approved grant budget may result in termination of the NSF grant, disallowance of grant costs and/or refund of grant funds to NSF.

C. Proposal Due Dates.

Proposals will be subjected to initial screening for the requirements in the *GPG* and will be returned without review or advance notification if deficiencies are found. Proposals will **NOT** be forwarded to other programs if found to be inappropriate for this competition. Proposals submitted in response to this announcement must be received at NSF no later than close of business on 1 July 1999. Proposal submission by FastLane is **strongly** encouraged.

LTER should be referenced in the upper left corner of the proposal cover sheet as the NSF organizational unit. The solicitation number is NSF **99-89**. An original and 20 copies of the proposals should be sent to:

Dr. Phillip R. Taylor
Division of Ocean Sciences
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230

Mark the package "Do not open in Mail Room."

For paper submission of proposals, the paper copies of the proposal **MUST** be received by 5:00 PM, ET, July 1, 1999. Copies of the proposal must be made and submitted to NSF according to the normal procedures for paper proposals identified in the *GPG*.

For electronic submission of proposals, the proposal **MUST** be submitted by 5:00 PM, local time, July 1, 1999. Copies of the signed proposal cover sheet must be submitted in accordance with the instructions identified below.

Submission of Signed Cover Sheets. For proposals submitted electronically via FastLane, the signed proposal Cover Sheet (NSF Form 1207) should be forwarded to the following address and received by NSF within five (5) working days of submission. Cover sheets should be sent directly to:

Dr. Phillip R. Taylor
Division of Ocean Sciences
National Science Foundation
4201 Wilson Blvd.
Arlington, VA 22230

A proposal may not be processed until the complete proposal (including signed Cover Sheet) has been received by NSF.

D. FastLane Requirements.

The NSF FastLane system is available for electronic preparation and submission of a proposal through the Web at the FastLane Web site at <http://www.fastlane.nsf.gov>. The Sponsored Research Office (SRO or equivalent) must provide a FastLane Personal Identification Number (PIN) to each Principal Investigator (PI) to gain access to the FastLane "Proposal Preparation" application. PIs that have not submitted a proposal to NSF in the past must contact their SRO to be added to the NSF PI database. This should be done as soon as the decision to prepare a proposal is made.

In order to use NSF FastLane to prepare and submit a proposal, the following are required:

Browser (must support multiple buttons and file upload)

- Netscape 3.0 or greater
- Microsoft Internet Explorer 4.0 or greater

PDF Reader (needed to view/print forms)

- Adobe Reader 3.0 or greater

PDF Generator (needed to create project description)

- Adobe Acrobat 3.01 or greater
- Aladdin Ghostscript 5.10 or greater

A list of registered institutions and the FastLane registration form are located on the FastLane Web page.

For paper submission of proposals, the delivery address **must clearly identify the NSF announcement or solicitation number** under which the proposal is being submitted.

PROPOSAL REVIEW INFORMATION

A. Merit Review Criteria.

Reviews of proposals submitted to NSF are solicited from peers with expertise in the substantive area of the proposed research or education project. These reviewers are selected by Program Officers charged with the oversight of the review process. NSF invites the proposer to suggest, at the time of submission, the names of appropriate or inappropriate reviewers. Care is taken to ensure that reviewers have no conflicts with the proposer. Special efforts are made to recruit reviewers from non-academic institutions, minority serving institutions, adjacent disciplines to that principally addressed in the proposal, etc.

Proposals will be reviewed against the following general merit review criteria established by the National Science Board. Following each criterion are potential considerations that the reviewer may employ in the evaluation. These are suggestions and not all will apply to any given proposal. Each reviewer will be asked to address only those that are relevant to the proposal and for which he/she is qualified to make judgments.

What is the intellectual merit of the proposed activity?

How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of prior work.) To what extent does the proposed activity suggest and explore creative and original concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

What are the broader impacts of the proposed activity?

How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learner perspectives. PIs should address this issue in their proposal to provide reviewers with the information necessary to respond fully to both NSF merit review criteria. NSF staff will give it careful consideration in making funding decisions.

Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- are essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports. PIs should address this issue in their proposal to provide reviewers with the information necessary to respond fully to both NSF merit review criteria. NSF staff will give it careful consideration in making funding decisions.

In addition to these generic review criteria, an additional criterion in the evaluation process for this competition will be the potential interdisciplinary synergism among the various research components. For this reason, the ways in which the various projects proposed will be divided and coordinated among the different researchers needs to be carefully thought out and described.

B. Merit Review Process.

Most of the proposals submitted to NSF are reviewed by mail review, panel review, or some combination of mail and panel review.

All proposals are carefully reviewed by at least three other persons outside NSF who are experts in the particular field represented by the proposal. Reviewers will be asked to formulate a recommendation to either support or decline each proposal. A program officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation. In most cases, proposers will be contacted by

the program officer after his or her recommendation to award or decline funding has been approved by his or her supervisor, the division director. This informal notification is not a guarantee of an eventual award. NSF will be able to tell applicants whether their proposals have been declined or recommended for funding within six months for 95 percent of proposals in this category. The time interval begins on the proposal deadline or target date or from the date of receipt, if deadlines or target dates are not used by the program. The interval ends when the division director accepts the program officer's recommendation.

In all cases, after final programmatic approval has been obtained, award recommendations are then forwarded to the Division of Grants and Agreements for review of business, financial and policy implications and the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with an NSF program officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants Officer does so at its own risk.

AWARD ADMINISTRATION INFORMATION

A. Notification of the Award.

Notification of the award is made to the submitting organization by a Grants Officer in the Division of Grants and Agreements (DGA). Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program Division administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator.

B. Grant Award Conditions.

An NSF grant consists of: (1) the award letter, which includes any special provisions applicable to the grant and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; (4) the applicable grant conditions, such as Grant General Conditions (NSF GC-1)* or Federal Demonstration Partnership Phase III (FDP) Terms and Conditions* and (5) any NSF brochure, program guide, announcement or other NSF issuance that may be incorporated by reference in the award letter. Electronic mail notification is the preferred way to transmit NSF grants to organizations that have electronic mail capabilities and have requested such notification from the Division of Grants and Agreements.

These documents may be accessed electronically on NSF's Web site at: <https://www.nsf.gov/>. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone 301.947.2722 or by e-mail from pubs@nsf.gov.

More comprehensive information on NSF Award Conditions is contained in the *NSF Grant Policy Manual* (GPM) Chapter II, (NSF 95-26) available electronically on the NSF Web site. The GPM also is available in paper copy by subscription from the Superintendent of Documents, Government Printing Office, Washington, DC 20402. The GPM may be ordered through the GPO Web site at: <http://www.gpo.gov>.

C. Reporting Requirements.

For all multi-year grants (including both standard and continuing grants), the PI must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period.

Within 90 days after expiration of a grant, the PI also is required to submit a final project report. Approximately 30 days before expiration, NSF will send a notice to remind the PI of the requirement to file the final project report. Failure to provide final technical reports delays NSF review and processing of pending proposals for that PI. PIs should examine the formats of the required reports in advance to assure availability of required data.

NSF has implemented a new electronic project reporting system, available through FastLane, which permits electronic submission and updating of project reports, including information on: project participants (individual and organizational); activities and findings; publications; and, other specific products and contributions. Reports will continue to be required annually and after the expiration of the grant, but PIs will not need to re-enter information previously provided, either with the proposal or in earlier updates using the electronic system.

Effective October 1, 1998, PIs are required to use the new reporting format for annual and final project reports. PIs are strongly encouraged to submit reports electronically via FastLane. For those PIs who cannot access FastLane, paper copies of the new report formats may be obtained from the NSF Clearinghouse as specified above. NSF expects to require electronic submission of all annual and final project reports via FastLane beginning in October, 1999.

D. New Awardee Information.

If the submitting organization has never received an NSF award, it is recommended that the organization's appropriate administrative officials become familiar with the policies and procedures in the NSF *Grant Policy Manual* which are applicable to most NSF awards. The "Prospective New Awardee Guide" (NSF 97-100) includes information on: Administration and Management Information; Accounting System Requirements and Auditing Information; and Payments to Organizations with Awards. This information will assist an organization in preparing documents that NSF requires to conduct administrative and financial reviews of an organization. The guide also serves as a means of highlighting the accountability requirements associated with Federal awards. This document is available electronically on NSF's Web site at: <https://www.nsf.gov/cgi-bin/getpub?nsf97100>.

CONTACTS FOR ADDITIONAL INFORMATION

General inquiries regarding the Long-Term Ecological Research (LTER) in Land/Ocean Margin Ecosystems Competition should be made to: Dr. Phillip Taylor, Program Director, Division of Ocean Sciences, National Science Foundation, Arlington, VA 22230, (703) 306-1580, prtaylor@nsf.gov; or Dr. Scott Collins, Program Director, Division of Environmental Biology, National Science Foundation, Arlington, VA 22230, (703) 306-1479, scollins@nsf.gov.

OTHER PROGRAMS OF INTEREST

The NSF Guide to Programs is a compilation of funding opportunities for research and education in science, mathematics, and engineering. General descriptions of NSF programs, research areas, and eligibility information for proposal submission are provided in each chapter. Beginning in fiscal year 1999, the NSF Guide to Programs will only be available electronically, at <https://www.nsf.gov/cgi-bin/getpub?gp>. Many NSF programs offer announcements concerning specific proposal requirements. To obtain additional information about these requirements, contact the appropriate NSF program offices listed in Appendix A of the GPG.

Any changes in NSF's fiscal year programs occurring after press time for the Guide to Programs will be announced in the NSF E-Bulletin, available electronically on the NSF Web site at: <https://www.nsf.gov/home/ebulletin/>. The direct URL for recent issues of the Bulletin is <https://www.nsf.gov/home/ebulletin/>. Subscribers can also sign up for NSF's Custom News Service to find out what funding opportunities are available.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) funds research and education in most fields of science and engineering. Grantees are wholly responsible for conducting their project activities and preparing the results for publication. Thus, the Foundation does not assume responsibility for such findings or their interpretation.

NSF welcomes proposals from all qualified scientists, engineers and educators. The Foundation strongly encourages women, minorities, and persons with disabilities to compete fully in its programs. In accordance with federal statutes, regulations, and NSF policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NSF (unless otherwise specified in the eligibility requirements for a particular program).

Facilitation Awards for Scientists and Engineers with Disabilities (FASSED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF-supported projects. See the program announcement or contact the program coordinator at (703) 306-1636.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation regarding NSF programs, employment, or general information. TDD may be accessed at (703) 306-0090 or through FIRS on 1-800-877-8339.

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the review process; to applicant

institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies needing information as part of the review process or in order to coordinate programs; and to another Federal agency, court or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 63 Federal Register 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 Federal Register 268 (January 5, 1998). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to: Reports Clearance Officer; Information Dissemination Branch, DAS; National Science Foundation; Arlington, VA 22230.

YEAR 2000 REMINDER

In accordance with Important Notice No. 120 dated June 27, 1997, Subject: Year 2000 Computer Problem, NSF awardees are reminded of their responsibility to take appropriate actions to ensure that the NSF activity being supported is not adversely affected by the Year 2000 problem. Potentially affected items include: computer systems, databases, and equipment. The National Science Foundation should be notified if an awardee concludes that the Year 2000 will have a significant impact on its ability to carry out an NSF funded activity. Information concerning Year 2000 activities can be found on the NSF web site at <https://www.nsf.gov/oirm/y2k/start.htm>.

Catalogue of Federal Domestic Assistance (CFDA) No.:

47.050 – Geosciences;

47.074 – Biological Sciences.

OMB No.: 3145-0058

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