Centers for Ocean Sciences Education Excellence (COSEE)

Program Solicitation

NSF 08-509

Replaces Document(s):

NSF 07-527



National Science Foundation

Directorate for Geosciences Division of Ocean Sciences

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

March 03, 2008

Proposals for Central Coordinating Office

March 03, 2008

Proposals for National Network Evaluator

March 03, 2008

Proposals for New Collaborations with Existing Centers

REVISION NOTES

In furtherance of the President's Management Agenda, NSF has identified programs that will offer proposers the option to utilize Grants.gov to prepare and submit proposals, or will require that proposers utilize Grants.gov to prepare and submit proposals. Grants.gov provides a single Government-wide portal for finding and applying for Federal grants online.

In response to this program solicitation, proposers may opt to submit proposals via Grants.gov or via the NSF FastLane system. In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via the NSF FastLane system. Chapter II, Section D.3 of the Grant Proposal Guide provides additional information on collaborative proposals.

This solicitation is a revision of NSF 07-527. It has been updated with results from earlier COSEE competitions, and the request for proposals to operate a Central Coordinating Office has been modified. The request for proposals for up to five new collaborations with existing COSEE Centers has also been modified. A request for proposals to conduct an evaluation of the COSEE National Network has been added.

Program Title:

Centers for Ocean Sciences Education Excellence (COSEE)

Synopsis of Program:

The COSEE Network, which consists of eleven coordinated COSEE Centers, fosters the integration of ocean research into high-quality educational materials, enables ocean researchers to gain a better understanding of educational organizations and pedagogy, provides educators with an enhanced capacity to understand and deliver high-quality educational programs in the ocean sciences, and provides material to the public that promotes a deeper understanding of the ocean and its influence on each person's quality of life and our national prosperity.

The Division of Ocean Sciences solicits proposals to operate a Central Coordinating Office for the COSEE Network. The Central Coordinating Office organizes national oversight of the COSEE effort, enhances communication and collaboration among the Centers, and documents COSEE activities and outcomes.

The Division of Ocean Sciences also solicits proposals for conducting a comprehensive evaluation of the impact of the COSEE National Network.

The Division of Ocean Sciences also solicits proposals for innovative new collaborations with existing COSEE centers.

Cognizant Program Officer(s):

- Donald Elthon, Program Director, 725, telephone: (703) 292-8475, fax: (703) 292-9085, email: delthon@nsf.gov
- Elizabeth Rom, Program Director, 725, telephone: (703) 292-7709, fax: (703) 292-9085, email: elrom@nsf.gov

Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

· 47.050 --- Geosciences

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant or Cooperative Agreement

Estimated Number of Awards: 7 awards in total: one Central Coordinating Office at an average estimated amount of \$350,000/year for up to five years; one National Network Evaluator at an average estimated amount of \$75,000/year for up to five years; and five new collaborations with existing COSEE Centers at a maximum of \$50,000/year for up to three years. It is expected that the new collaborations with existing COSEE Centers will be funded by standard or continuing grants, but that the Central Coordinating Office and the National Network Evaluator will be funded by cooperative agreements.

Anticipated Funding Amount: \$675,000 is the approximate total for the first year of all awards, pending availability of funds and quality of proposals.

Eligibility Information

Organization Limit:

• COSEE Central Coordinating Office: The categories of proposers eligible to submit proposals are identified in the Grant Proposal Guide, Chapter I, Section E.

COSEE National Network Evaluator: The categories of proposers eligible to submit proposals are identified in the Grant Proposal Guide, Chapter I, Section E.

New Collaborations with Existing COSEE Centers: Eligible organizations include academic institutions of higher learning, located and accredited in the U.S., that award degrees in geoscience

or environmental science, and U.S. oceanographic research institutions, professional societies, non-profit or not-for-profit consortia, informal science centers, museums, aquaria, and state and local education agencies.

Potential partners must represent either an ocean research institution, a formal education institution, or an informal education institution.

PI Limit:

None Specified

Limit on Number of Proposals per Organization:

COSEE Central Coordinating Office: No limit

COSEE National Network Evaluator: No limit.

New Collaborations with Existing Centers: No more than two proposals for new partners may be submitted for collaborations with an existing Center.

Limit on Number of Proposals per PI:

None Specified

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

. Letters of Intent: Not Applicable

. Full Proposals:

- Full Proposals submitted via FastLane: NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) Guidelines apply. The complete text of the GPG is available electronically on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg.
- Full Proposals submitted via Grants.gov: NSF Grants.gov Application Guide: A Guide for the Preparation
 and Submission of NSF Applications via Grants.gov Guidelines apply (Note: The NSF Grants.gov
 Application Guide is available on the Grants.gov website and on the NSF website at: http://www.nsf.gov/bfa/
 dias/policy/docs/grantsgovquide.pdf/)

B. Budgetary Information

- Cost Sharing Requirements: Cost Sharing is not required under this solicitation.
- Indirect Cost (F&A) Limitations: Not Applicable
- Other Budgetary Limitations: Not Applicable

C. Due Dates

• Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

March 03, 2008

Proposals for Central Coordinating Office

March 03, 2008

March 03, 2008

Proposals for New Collaborations with Existing Centers

Proposal Review Information Criteria

Merit Review Criteria: National Science Board approved criteria apply.

Award Administration Information

Award Conditions: Standard NSF award conditions apply

Reporting Requirements: Additional reporting requirements apply. Please see the full text of this solicitation for further information.

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I. INTRODUCTION

For many years, the need for scientists to work with educators to enhance the general public's understanding of science has been recognized as an important priority in reports such as *Science for All Americans* (AAAS, 1990), *NSF in a Changing World* (NSF, 1995), and *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future* (National Academy of Sciences, 2006). The needs for increased education and public understanding of the oceans are particularly evident. The 2004 report of the *U.S. Commission on Ocean Policy, Chapter 8*, the 2003 Pew Ocean Commission's report *America's Living Oceans: Charting a Course for Sea Change, Part II, Chapter VIII*, and the 1999 report from the Cabinet to the President of the United States, *Turning to the Sea: America's Ocean Future* (NOAA, 1999) all stress

the need for ocean scientists and educators to improve the general public's understanding of the ocean and its role in their lives. The integration of education and research is a priority recommended in *NSF Geosciences Beyond 2000* (NSF, 2000) and in the report of the Geoscience Education Working Group entitled, "*Geoscience Education: A Recommended Strategy*" (NSF, 1997).

In order to explore the possible benefits of a nationally-coordinated effort in ocean science education, NSF's Division of Ocean Sciences (OCE) and the Division of Undergraduate Education (DUE) co-sponsored a workshop in May 2000. The report of this workshop is available on the internet at www.cosee.net. Workshop participants identified a wealth of opportunities for national coordination of ocean science education efforts and numerous strategies by which these opportunities could be realized. The workshop consensus was that NSF should establish Centers for Ocean Sciences Education Excellence (COSEE) as a nationally-coordinated program for ocean sciences education in both formal and informal educational sectors.

Subsequently, a panel of ocean research and ocean education experts met to advise OCE on priorities for the implementation of COSEE. A report from that meeting also is available at www.cosee.net. Proponents are strongly urged to review these reports to develop a better understanding of the background concepts for COSEE.

The first COSEE program solicitation (NSF 01-173) was issued in 2001 and requested proposals for both Centers and a Central Coordinating Office. Initial awards were made in the Fall of 2002 for seven Centers and one Central Coordinating Office. A subsequent program solicitation (NSF 05-503) was issued in 2004 and requested proposals for additional COSEE Centers; three new Centers were funded as a result of this solicitation. A third program solicitation (NSF 07-527) was issued in 2006, and approximately six COSEE Centers are expected to be funded as a result of this solicitation. Information on the currently-funded COSEE Centers is available at http://www.cosee.net.

This competition is for a COSEE Central Coordinating Office, a COSEE National Network Evaluator, and up to five new collaborations with existing COSEE Centers. Awards for the Central Coordinating Office and the National Network Evaluator are anticipated to be funded by cooperative agreements, in which the scope of effort and funding level will be negotiated annually between NSF and the awardee. For budgeting purposes, NSF expects that the Central Coordinating Office funding will average \$350,000/year and the National Network Evaluator funding will average \$75,000 per year. Proposals for these activities may be submitted for up to five years. Proposals for new collaborations with existing COSEE Centers may request up to \$50,000/year for a total of three years. Funding for the COSEE Central Coordinating Office will begin in approximately August, 2008. Funding for collaborations with existing Centers and the National Network Evaluation will begin in August to November of 2008.

II. PROGRAM DESCRIPTION

As noted in the introduction above, NSF currently funds eleven COSEE Centers distributed nationally. Each COSEE Center consists of at least three partnering institutions, and often many more. Each COSEE Center is required to have an ocean science research institution, an informal education institution, and a formal educational institution amongst its partners. Each Center is expected to be a multi-faceted collaborative activity with the primary goal of improving the integration of ocean research and education. As new concepts and knowledge from the ocean sciences research community are developed, COSEE Centers play an important role in creating the collaborations among the research, education, and public outreach communities that disseminate knowledge, create broader public awareness of the role of scientific discovery in society, and enhance educational opportunities and content. Examples of the types of catalytic activities that COSEE Centers promote can be found on the COSEE homepage at www.COSEE.net.

The COSEE Centers and the COSEE Central Coordinating Office (CCO) form the COSEE Network, in which all of the Centers participate in various collaborative, cross-center activities that are expected to produce a national impact. COSEE's important role in the Ocean Literacy effort is one such example (http://www.coexploration.org/oceanliteracy/documents/OceanLitChart.pdf), as is the COSEE effort in "Engaging Scientists in Education and Public Outreach" (http://www.tos.org/epo_guide/). The intention of this Program Solicitation is to request proposals for activities to strengthen the coordination, evaluation, and breadth of COSEE Network activities. There are three aspects of these Network activities for which proposals are requested: [1] the operation of the COSEE Central Coordinating Office; [2] the development of a systematic, cost-effective plan for evaluating the activities and impact of the National COSEE Network; and [3] new collaborations with existing COSEE Centers.

The COSEE Network is governed by a management group called the COSEE Council, in which each COSEE Center provides one representative to the group. The Council meets formally approximately three times per year and communicates frequently between these meetings. The COSEE Council addresses issues related to long-term planning for the Network, the coordination of COSEE activities, and collaborations.

a. Operation of the COSEE Central Coordinating Office: The Central Coordinating Office (CCO) organizes national

oversight of the COSEE effort and enhances communication and collaboration among the Centers. NSF is soliciting proposals to operate the CCO for a time period of up to five years. It is anticipated that a single award will be made and that funding will be by a cooperative agreement negotiated between the awardee and NSF.

The CCO is intended to play a strong supporting role in furthering the development of the COSEE Network. Each Center is required to allocate 7% of their funding towards Network-level activities, and the primary focus of the CCO is to foster these Network-level activities in ways that enable maximum impact of the Network as a whole. This effort requires effective communications, setting priorities, and savvy development of partnerships.

The governing body for the COSEE Network is the National COSEE Council, and the CCO needs to be responsive to Council decisions. The CCO is actively involved in shaping the decision-making process, and has the responsibility for enacting these Council decisions or assisting those designated by the Council for this purpose. This process works most effectively when the CCO is knowledgeable about the strengths of the individual Centers and the challenges that they face, and finds catalytic ways of bringing together the optimal mix of talents and resources to solve the issues at hand.

The Principal Investigator of the CCO should be the person who will fulfill the duties of National Network Coordinator and lead the CCO operations. This position requires considerable organizational ability, leadership skills, and a national perspective on education and public outreach issues in the ocean sciences. The National Network Coordinator and the CCO need to work with several currently existing COSEE Network activities and lead the development of a more effective operation. In particular, this includes:

- Collaborating with the Network Evaluator, the COSEE Council, and NSF to develop and implement an effective evaluation protocol for network-level activities;
- Collaborating with the COSEE Council, current members of the COSEE National Advisory
 Committee, and NSF on updating practices for informing the Advisory Committee on COSEE
 activities and effectively obtaining advice and guidance from the Advisory Committee; and
- Collaborating with the website developer, the COSEE Council, and NSF on developing an
 informative and engaging national COSEE website, building on current accomplishments and a
 prototype currently under development. The CCO will, in consultation with the COSEE Council and
 NSF, be responsible for selecting a website designer and for ensuring that the national website
 remains informative and current.

In addition, the CCO is responsible for several administrative and logistical activities that are required in order to support the range of COSEE Network efforts. These responsibilities include:

- Provide administrative, logistical, and resource support for the COSEE National Advisory Committee and their meetings. It is likely that two single-day meetings will occur each year;
- Provide administrative, logistical, and resource support for the COSEE Council and their meetings.
 It is likely that three such meetings of two days duration at various COSEE locations will occur each year and that monthly telephone conferences will occur;
- Provide administrative, logistical and resource support for special focus meetings (one per year);
- Provide leadership, coordination, and administrative support for COSEE planning processes at the national scale;
- Coordinate national advocacy for COSEE priorities in education, public outreach, and linkages to the ocean sciences research community;
- Provide information and advice to prospective COSEE Centers on COSEE procedures, practices, and planning processes; and
- Coordinate, facilitate, and enhance collaboration among the Centers and other organizations with similar or complementary interests.

Proponents need to develop internal management plans and an organizational structure that will integrate with the existing activities of the COSEE Council, National Advisory Committee, and the COSEE Network in a supportive manner. Proponents should consider the roles of a National Network Coordinator, support staff for meetings and travel, and communications/internet expertise in developing their internal management

plans and structure.

Proposals may be submitted for durations of up to five years. NSF expects to fund the CCO operations through a cooperative agreement. Under the cooperative agreement, NSF and the awardee will negotiate on an annual basis the tasks to be undertaken and the budget allocated to performing these tasks. The scope of responsibilities for the CCO will vary over time, depending on the needs and opportunities for the COSEE Network. For budget planning purposes and budget preparation, NSF anticipates providing an average of \$350,000 per year.

b. National Network Evaluator (NNE): NSF is soliciting proposals to lead the national evaluation effort of the COSEE Network for a time period of up to five years. It is anticipated that a single award will be made and that funding will be by a cooperative agreement negotiated between the awardee and NSF. Proponents are expected to use their professional knowledge of evaluation approaches and protocols to develop their most cost-effective plan for evaluating the activities and impact of the National COSEE Network. Information on the COSEE Network is available at www.COSEE.net.

Each COSEE Center conducts an evaluation of the effectiveness and impact of its own activities using internal and/or external evaluators. The evaluations conducted at each COSEE Center include topics specific to the individual Center as well as topics that all of the Centers have agreed to collect in an effort to assist the national Network evaluation effort. This evaluation information is reported to the incumbent National Network Evaluator, who is responsible for the synthesis, analysis, and interpretation of these data. Annual evaluation reports on the effectiveness and impact of the COSEE Network are prepared for the COSEE Council and NSF. Additional background information on COSEE planning activities is available at http://www.vims.edu/adv/cosee/COSEEBlueprintJan2007.pdf

NSF intends to upgrade the scope of this Network-level evaluation and is soliciting proposals to lead this evaluation for a time period of up to five years. It is NSF's intent that the evaluation of the activities of the individual COSEE Centers will remain under the direction of the Principal Investigator of the Center, but the Centers are expected to report the results of their evaluation to the National Network Evaluator in a timely manner, with the details to be decided among the National Network Evaluator, NSF, and the COSEE Council.

The National Network Evaluator is expected to play a leadership role in:

- Formulating a strategic plan for evaluating the effectiveness and impact of the COSEE Network at a
 national scale. This effort will involve consultations with the COSEE Council, NSF, the CCO,
 evaluators from the individual COSEE Centers, and the broader community;
- Implementing an effective evaluation protocol for the COSEE Network that is aligned with the strategic plan and key issues/topics derived from discussions with the COSEE Council and NSF;
- Working with the evaluators from the COSEE Centers so that the combined evaluation plans for the individual Centers and the COSEE Network are effective at assessing the activities and impacts of COSEE as a whole; and
- Developing a rigorous evaluation protocol that will be responsive to the American Competitiveness Initiative requirements and expectations (e.g., http://www.ed.gov/about/inits/ed/competitiveness/index.html?src=pb).

Proposals may be submitted for durations of up to five years. NSF expects to fund the National Network Evaluator through a cooperative agreement. Under the cooperative agreement, NSF and the awardee will negotiate on an annual basis the tasks to be undertaken and the budget allocated to performing these tasks. The scope of responsibilities for the National Network Evaluator will vary over time, depending on the needs and opportunities for the Network Evaluation. For budget planning purposes and budget preparation, NSF anticipates providing an average of \$75,000 per year.

c. New Collaborations with Existing Centers: An organization that wishes to partner with an existing COSEE Center may submit a proposal to add a new activity to the Center's portfolio or to expand an existing activity to a new audience. These proposals may be submitted by the new partner or by the existing Center. Funding may be requested for no more than \$50,000/year for up to three years. Potential partners must represent either an ocean research institution, a formal education institution, or an informal education institution. The new partners must not have been involved with COSEE previously, in either funded or non-funded efforts. The proposals should describe the activities of the new partner in relationship to the existing Center programs. Potential activities are described in the section "Potential COSEE Activities". The new partner(s) must be fully integrated into the COSEE management structure and participate in national-level COSEE activities. No more than two proposals for new partners may be

d. Required Information

All proposals must include a description of results from prior NSF support. Proposals from organizations with prior support from the COSEE program should document their results. No funds for capital equipment may be requested, except as directly involved in operation of the COSEE national-level website.

Proposals for the Central Coordinating Office should fully describe their proposed management and administrative structure. The proposal should also discuss the strengths and background of the organization and key individuals for this project in acting as a facilitator, catalyst for change, and intermediary between the research, education, and public outreach communities. It is also important that the proposal address the proponent's ability to conduct the Central Coordinating Office activities noted above with respect to the national website, communications, advocacy, and the various planning activities of the National Advisory Committee, the COSEE Council, and the COSEE Network.

Proposals for the Central Coordinating Office should include salaries (up to 12 months per year) and related costs for personnel. Proponents should anticipate planning and managing approximately six meetings per year, attending approximately three national scientific/educational society meetings (ASLO, AGU, NMEA, etc.) meetings per year to host a COSEE display booth and/or a community outreach event, and visiting approximately four COSEE Centers per year. The National Network Coordinator should anticipate extensive travel. The costs for facilities to host meetings should also be included in the budget, although travel expenses for only CCO and National Advisory Committee personnel should be included.

Proposals for the National Network Evaluator should discuss the strengths and background of the organization and key individuals for this project. Proposals should describe the goals of the national evaluation effort and the process by which these goals are achieved. Proposals should include salaries and related costs for personnel. Proponents should anticipate attending one or two COSEE Council meetings each year (or similar meetings with COSEE Center evaluators). Proposals should include all costs required to coordinate the national Network-level evaluation and prepare annual reports to the COSEE Council and NSF.

Proposals for Collaborations with Existing Centers should include a description of the new organization(s), their strengths in either education or ocean research, and how the new partnership will benefit COSEE. The proposed activities/collaborations should be fully described. Funding for up to \$50,000/year for three years may be requested and should be distributed between the new organization(s) and the existing COSEE in a manner that reflects the contributions of both (all) partners. Funding may be requested for development of new programs, or dissemination of existing programs, but not for continuing programmatic support.

For all proposals, the Project Description should address the criteria used by reviewers to judge the merit of the proposal. NSF's two general criteria (Intellectual Merit and Broader Impacts, see Section VI) often lead to questions, including the examples that follow, during the review process. A proposal need not explicitly answer each of the questions below, however these examples are meant to help proposal writers understand the types of issues that may be considered during the review process.

- Does the project have the potential to increase understanding of the oceans by students, the public, and members of under-represented groups?
- Does the project have the potential to reach a large number of ocean scientists who desire assistance developing educational components of future research proposals?
- Does the project provide a unique and useful addition to the current COSEE network?
- Do the management structure and leadership plans foster an environment that is likely to lead to a very successful operation?
- Is the budget appropriate for the size and scope of the proposed effort and does it fairly reflect the contributions of each organization?
- Is the project supported by adequate facilities, resources, and institutional commitment?

REFERENCES

American Association for the Advancement of Science, 1990. Science for All Americans. Oxford University Press, New York, NY

National Academy of Sciences, 2006. Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future. The National Academies Press, Washington, DC.

National Oceanic and Atmospheric Administration, 1999. *Turning to the Sea: America's Ocean Future*. National Oceanic and Atmospheric Administration, Washington, DC

National Science Foundation, 1995. NSF In a Changing World: The National Science Foundation's Strategic Plan. National Science Foundation, Arlington, VA.

National Science Foundation, 1997. Geoscience Education: A Recommended Strategy. National Science Foundation, Arlington, VA.

National Science Foundation, 2000. NSF Geosciences Beyond 2000, Arlington, VA.

Pew Ocean Commission, 2003. America's Living Oceans: Charting a Course for Sea Change, Arlington, VA 2003.

U.S. Commission on Ocean Policy, 2004. An Ocean Blueprint for the 21st Century, Washington, DC.

III. AWARD INFORMATION

Estimated program budget, number of awards and average award size/duration are subject to the availability of funds. Approximate number of awards: one Central Coordinating Office at an average estimated amount of \$350,000/year for up to five years; one National Network Evaluator at an average amount of \$75,000/year for up to five years; and five new collaborations with existing COSEE Centers at a maximum of \$50,000/year for up to three years.

IV. ELIGIBILITY INFORMATION

Organization Limit:

• COSEE Central Coordinating Office: The categories of proposers eligible to submit proposals are identified in the Grant Proposal Guide, Chapter I, Section E.

COSEE National Network Evaluator: The categories of proposers eligible to submit proposals are identified in the Grant Proposal Guide, Chapter I, Section E.

New Collaborations with Existing COSEE Centers: Eligible organizations include academic institutions of higher learning, located and accredited in the U.S., that award degrees in geoscience or environmental science, and U.S. oceanographic research institutions, professional societies, non-profit or not-for-profit consortia, informal science centers, museums, aquaria, and state and local education agencies.

Potential partners must represent either an ocean research institution, a formal education institution, or an informal education institution.

PI Limit:

None Specified

Limit on Number of Proposals per Organization:

COSEE Central Coordinating Office: No limit

COSEE National Network Evaluator: No limit.

New Collaborations with Existing Centers: No more than two proposals for new partners may be submitted for collaborations with an existing Center.

Limit on Number of Proposals per PI:

None Specified

Additional Eligibility Info:

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via Grants.gov or via the NSF FastLane system.

- Full proposals submitted via FastLane: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF Grant Proposal Guide (GPG). The complete text of the GPG is available electronically on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov. Proposers are reminded to identify this program solicitation number in the program solicitation block on the NSF 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.
- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov. The complete text of the NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: (http://www.nsf.gov/bfa/dias/policy/docs/grantsgovguide.pdf). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via the NSF FastLane system. Chapter II, Section D.3 of the Grant Proposal Guide provides additional information on collaborative proposals.

In order to convey the primary purpose of the proposal, the project title should begin with one of the following: "COSEE - Central Coordinating Office:", "COSEE - National Network Evaluator:", or "COSEE - New Collaborations:".

Refer to Section II, Program Description, for additional specific proposal preparation information and instructions. Although the Project Description is limited to the standard 15 pages, detailed information on the management plan, timeline and composition of external advisory committees may be included as additional material within the Supplementary Documents section of FastLane. For Grants.gov users, supplementary documents should be attached in Field 11 of the R&R Other Project Information Form. Supplementary Documents are limited to 10 single-spaced pages in addition to letters of collaboration. All budgets (including subawards) must be accompanied by a detailed budget justification.

B. Budgetary Information

Cost Sharing: Cost sharing is not required under this solicitation.

C. Due Dates

• Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

March 03, 2008

Proposals for Central Coordinating Office

March 03, 2008

Proposals for National Network Evaluator

March 03, 2008

Proposals for New Collaborations with Existing Centers

D. FastLane/Grants.gov Requirements

For Proposals Submitted Via FastLane:

Detailed technical instructions regarding the technical aspects of preparation and submission via FastLane are available at: https://www.fastlane.nsf.gov/a1/newstan.htm. For FastLane user support, call the FastLane Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov. The FastLane Help Desk answers general technical questions related to the use of the FastLane system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

Submission of Electronically Signed Cover Sheets. The Authorized Organizational Representative (AOR) must electronically sign the proposal Cover Sheet to submit the required proposal certifications (see Chapter II, Section C of the Grant Proposal Guide for a listing of the certifications). The AOR must provide the required electronic certifications within five working days following the electronic submission of the proposal. Further instructions regarding this process are available on the FastLane Website at: https://www.fastlane.nsf.gov/fastlane.jsp.

. For Proposals Submitted Via Grants.gov:

Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. The Grants. gov's Grant Community User Guide is a comprehensive reference document that provides technical information about Grants.gov. Proposers can download the User Guide as a Microsoft Word document or as a PDF document. The Grants.gov User Guide is available at: http://www.grants.gov/CustomerSupport. In addition, the NSF Grants.gov Application Guide provides additional technical guidance regarding preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

Submitting the Proposal: Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to the NSF FastLane system for further processing.

VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program and, if they meet NSF proposal preparation requirements, for review. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with the oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts with the proposer.

All NSF proposals are evaluated through use of the two National Science Board (NSB)-approved merit review criteria: intellectual merit and the broader impacts of the proposed effort. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two NSB-approved merit review criteria are listed below. The criteria include considerations that help define them. These considerations are suggestions and not all will apply to any given proposal. While proposers must address both merit review criteria, reviewers will be asked to address only those considerations that are relevant to the proposal being considered and for which the reviewer is qualified to make judgements.

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 the prior work.) To what extent does the proposed activity suggest and explore creative, original, or potentially transformative 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?

Examples illustrating activities likely to demonstrate broader impacts are available electronically on the NSF website at: http://www.nsf.gov/pubs/gpg/broaderimpacts.pdf.

NSF staff will give careful consideration to the following in making funding decisions:

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 learning perspectives.

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 -- is 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.

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review and/or Panel Review.

Reviewers will be asked to formulate a recommendation to either support or decline each proposal. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF is striving to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. The time interval begins on the date of receipt. The interval ends when the Division Director accepts the Program Officer's recommendation.

A summary rating and accompanying narrative will be completed and submitted by each reviewer. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

In all cases, after programmatic approval has been obtained, the proposals recommended for funding will be 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 and Agreements 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 a 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 and Agreements Officer does so at their own risk.

VII. 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. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process.)

B. Award Conditions

An NSF award consists of: (1) the award letter, which includes any special provisions applicable to the award 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 award conditions, such as Grant General Conditions (GC-1); * or Federal Demonstration Partnership (FDP) Terms and Conditions * and (5) any announcement or other NSF issuance that may be incorporated by reference in the award letter. Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

*These documents may be accessed electronically on NSF's Website at http://www.nsf.gov/awards/managing/general_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF Award & Administration Guide (AAG) Chapter II, available electronically on the NSF Website at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period. (Some programs or awards require more frequent project reports). Within 90 days after expiration of a grant, the PI also is required to submit a final project report.

Failure to provide the required annual or final project reports will delay NSF review and processing of any future funding increments as well as any pending proposals for that PI. PIs should examine the formats of the required reports in advance to assure availability of required data.

Pls are required to use NSF's electronic project-reporting system, available through FastLane, for preparation and submission of annual and final project reports. Such reports provide information on activities and findings, project participants (individual and organizational) publications; and, other specific products and contributions. Pls will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system. Submission of the report via FastLane constitutes certification by the PI that the contents of the report are accurate and complete.

Additional Reporting Requirements: As part of the annual assessment of performance, the CCO awardee will be expected to provide written and oral annual reports to the COSEE Council, the COSEE Advisory Committee, and NSF on activities and progress made during the year, as well as planned activities for the upcoming year. The NNE awardee will be expected to provide written and oral annual reports to the COSEE Council and NSF on activities and progress made during the year, as well as planned activities for the upcoming year.

VIII. AGENCY CONTACTS

General inquiries regarding this program should be made to:

- Donald Elthon, Program Director, 725, telephone: (703) 292-8475, fax: (703) 292-9085, email: delthon@nsf.gov
- Elizabeth Rom, Program Director, 725, telephone: (703) 292-7709, fax: (703) 292-9085, email: elrom@nsf.gov

For questions related to the use of FastLane, contact:

- FastLane Help Desk, telephone: 1-800-673-6188; e-mail: fastlane@nsf.gov.
- Brian Midson, Assistant Program Director, 725, telephone: (703) 292-8145, fax: (703) 292-9085, email: bmidson@nsf.gov

For questions relating to Grants.gov contact:

 Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

IX. OTHER INFORMATION

The NSF Website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this Website by potential proposers is strongly encouraged. In addition, MyNSF (formerly the Custom News Service) is an information-delivery system designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Regional Grants Conferences. Subscribers are informed through e-mail or the user's Web browser each time new publications are issued that match their identified interests. MyNSF also is available on NSF's Website at http://www.nsf.gov/mynsf/.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this new mechanism. Further information on Grants.gov may be obtained at http://www.grants.gov.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 40,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities provide funding for special assistance or equipment to

enable persons with disabilities to work on NSF-supported projects. See Grant Proposal Guide Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

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 about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at http://www.nsf.gov

Location: 4201 Wilson Blvd. Arlington, VA 22230

• For General Information (703) 292-5111

(NSF Information Center):

• TDD (for the hearing-impaired): (703) 292-5090

. To Order Publications or Forms:

Send an e-mail to: pubs@nsf.gov

or telephone: (703) 292-7827

• To Locate NSF Employees: (703) 292-5111

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; and 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 proposal review process; to proposer 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 or other entities needing information regarding applicants or nominees as part of a joint application review process, or in order to coordinate programs or policy; 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," 69 Federal Register 26410 (May 12, 2004), and NSF-51, "Reviewer/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0058. 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 the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton Reports Clearance Officer Division of Administrative Services National Science Foundation Arlington, VA 22230



The National Science Foundation, 4201 Wilson Boulevard, Arlington, Virginia 22230, USA Tel: (703) 292-5111, FIRS: (800) 877-8339 | TDD: (800) 281-8749

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