Climate Change Education Partnership Alliance Office (CCEPA Office)

PROGRAM SOLICITATION
NSF 13-513

REPLACES DOCUMENT(S):
NSF 12-523

National Science Foundation

Directorate for Education & Human Resources
Division of Undergraduate Education

Letter of Intent Due Date(s) *(required)* (due by 5 p.m. proposer's local time)*:*

December 06, 2012

Letter of Intent (Required) Due

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

February 05, 2013

Full Proposal Due

IMPORTANT INFORMATION AND REVISION NOTES

A revised version of the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG), **NSF 13-1**, was issued on **October 4, 2012 and is effective for proposals submitted, or due, on or after January 14, 2013. Please be advised that the guidelines contained in NSF 13-1 apply to proposals submitted in response to this funding opportunity. Proposers who opt to submit prior to January 14, 2013, must also follow the guidelines contained in NSF 13-1.**

Please be aware that significant changes have been made to the PAPPG to implement revised merit review criteria based on the National Science Board (NSB) report, National Science Foundation's Merit Review Criteria: Review and Revisions. While the two merit review criteria remain unchanged (Intellectual Merit and Broader Impacts), guidance has been provided to clarify and improve the function of the criteria. Changes will affect the project summary and project description sections of proposals. Annual and final reports also will be affected.

A by-chapter summary of this and other significant changes is provided at the beginning of both the *Grant Proposal Guide* and the *Award & Administration Guide*.

Please note that this program solicitation may contain supplemental proposal preparation guidance and/or guidance that deviates from the guidelines established in the *Grant Proposal Guide*.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Climate Change Education Partnership Alliance Office (CCEPA Office)

Synopsis of Program:

In FY 2012, NSF funded six Phase II Climate Change Education Partnership (CCEP-II) projects. The PI's, Co-PI's and significant partners of the six CCEP-II projects constitute the CCEP "network". The lead PI's for the six projects comprise the CCEP Alliance (CCEPA), which will convene on a regular basis in order to identify common needs and opportunities for collaboration across the CCEP network. Key to the success of this networked approach is the creation of a CCEP Alliance Office (CCEPA Office), which will: facilitate communication among the projects participating within the CCEP-II network; enable and nurture cross-project coordination and collaboration, such as assisting with data collection for a program-wide evaluation undertaken by NSF; and, support dissemination of resources developed by the CCEP-II network to the larger scientific community and the public. The CCEPA Office is also expected to foster coordination of CCEP-II activities with the larger climate change education community.

Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

- Peter Lea, telephone: (703) 292-8670, email: plea@nsf.gov

- David B. Campbell, telephone: (703) 292-5093, email: dcampbel@nsf.gov

- Jill L. Karsten, telephone: (703) 292-7718, email: jkarsten@nsf.gov

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

- 47.076 --- Education and Human Resources

Award Information

Anticipated Type of Award: Cooperative Agreement

Estimated Number of Awards: 1

Anticipated Funding Amount: $1,000,000 Up to $1 million total for 5 years, pending annual performance and availability of funds.

Eligibility Information

Organization Limit:

> The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the Grant Proposal Guide, Chapter I, Section E.

PI Limit:

> Organizations and individuals involved in CCEP Phase II awards will not be eligible to serve as the CCEP Alliance Office awardee.

Limit on Number of Proposals per Organization: 1

> Collaborative Proposals submitted as separate submissions from multiple organizations are NOT allowed for this competition.

Limit on Number of Proposals per PI: 1

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Letters of Intent:** Submission of Letters of Intent is required. Please see the full text of this solicitation for further information.

- **Preliminary Proposal Submission:** 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/publications/pub_summ.jsp?ods_key=grantsgovguide)

B. Budgetary Information

- **Cost Sharing Requirements:** Inclusion of voluntary committed cost sharing is prohibited.

- **Indirect Cost (F&A) Limitations:** Not Applicable

- **Other Budgetary Limitations:** Not Applicable

C. Due Dates

- **Letter of Intent Due Date(s)** *(required)* (due by 5 p.m. proposer's local time)*:*

    December 06, 2012

        Letter of Intent (Required) Due

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

    February 05, 2013

        Full Proposal Due

Proposal Review Information Criteria

Merit Review Criteria: National Science Board approved criteria. Additional merit review considerations apply. Please see the full text of this solicitation for further information.

Award Administration Information

Award Conditions: Standard NSF award conditions apply.

Reporting Requirements: Standard NSF reporting requirements apply.

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I. INTRODUCTION

The Climate Change Education Partnership (CCEP) program is a major interdisciplinary research and development effort designed to promote deeper understanding of and engagement with climate science and the impacts of climate change on natural and human systems. The vision of this program is a scientifically literate society that can effectively weigh the evidence regarding global climate change as it confronts the challenges ahead, while developing the innovative science and technology workforce to advance our knowledge of human-climate interactions and develop solutions for a sustainable, prosperous future. Achieving this vision requires profound and sustained transformations in formal (K-16) and informal educational systems across the nation, both to improve the quality and effectiveness of learning materials, pedagogies, and educator preparation for climate education and to increase access and exposure to effective resources, through dissemination and scale-up of proven models and changes in education policies.

Making progress in addressing these needs requires innovative collaborations among professionals with diverse expertise, including climate scientists, learning scientists, and education practitioners, as well as engagement of relevant government and private-sector stakeholders. New educational models and strategies for successfully communicating with a variety of learners about complex, interdisciplinary, and societally relevant topics like climate science, that are grounded in research on how people learn and tested in authentic settings, need to be developed and disseminated. Educators in formal and informal settings require better pedagogical approaches for teaching about climate systems and professional development and training that enhances their climate science content knowledge and instructional impact. Greater integration and alignment of climate education content and activities offered through formal and informal learning environments are also needed, to reinforce knowledge gains and capitalize on the growing importance of virtual and out-of-classroom learning. With the rapid pace of progress in climate-relevant research, effective strategies to engage climate scientists in the educational enterprise are essential for keeping the content current; but to be effective in this role, they need to be better prepared in the theory and practice of how people learn.

In FY 2012, NSF invited proposals to establish Phase II Climate Change Education Partnership (CCEP-II) projects, through program solicitation NSF 12-523. Six CCEP-II awards were made via Cooperative Agreements. The PI's, Co-PI's and significant partners of the six CCEP-II projects constitute the CCEP "network". The lead PI's for the six projects comprise the CCEP Alliance (CCEPA), which will convene on a regular basis in order to identify common needs and opportunities for collaboration across the CCEP network. Key to the success of this networked approach is the creation of a CCEP Alliance Office (CCEPA Office), which will facilitate communication among the projects participating within the CCEP-II network, enable and nurture cross-project coordination and collaboration, and support dissemination of resources developed by the CCEP-II network to the larger scientific community and the public.

II. PROGRAM DESCRIPTION

This solicitation requests proposals for the creation of the Climate Change Partnership Alliance Office (CCEPA Office). The Principal Investigator (PI) will serve as Director of the CCEPA Office and will work closely alongside all CCEP-II PIs and co-PIs to achieve the following goals: (1) Facilitate ongoing communication among CCEP-II projects through both virtual and face-to-face mechanisms; (2) Foster development of a common identity that serves the collective concerns and needs of the CCEP-II network; (3) Identify internal and external opportunities to leverage resources or develop synergistic activities; (4) Promote dissemination of information and resources both among the CCEP-II projects and to additional stakeholder communities beyond the reach of individual CCEP-II projects; and, (5) Inform and coordinate implementation of data-gathering activities associated with the program-wide evaluation that will be led by a third party contracted by NSF.

Specific responsibilities for the CCEPA Office will include, but are not limited to:

(1) Facilitating Communication:

- Organizing and participating in regular, monthly teleconferences for the CCEPA members (i.e., the lead PIs for each CCEP-II project, or their designees);
- Supporting the activities of any committees or working groups established by the CCEPA;
- Coordinating the planning and logistics of an annual CCEP-II PI meeting, which will include PI's and Co-PI's for the CCEP-II projects (in some years, this meeting may be held in conjunction with a larger multi-agency Climate Change Education PI meeting, requiring additional coordination with NSF);
- Coordinating the planning and logistics of two face-to-face meetings of the CCEPA members each year (one meeting will take place during the annual CCEP-II PI meeting and the second will be in conjunction with a CCEP-II site visit).

(2) Fostering a Common Identity

- Creating, maintaining and updating content of the CCEP Program Website, with links to individual CCEP-II project websites;
- Creating a private, online collaboration workspace for the CCEPA members to conduct business;
- Developing and promoting a high-profile public identity for the CCEP Program that emphasizes its interdisciplinary nature;
- Being a singular point of communication on behalf of the larger CCEP-II network.

(3) Identifying Synergistic and Leveraging Opportunities

- Serving as a liaison of the larger CCEP-II network to other climate change education-related groups or organizations.
- Organizing quarterly webinars regarding new resources, tools, or activities that may be of relevance to the CCEP-II network.
- Maintaining a common calendar of events and programs being implemented by the individual CCEP-II projects.

(4) Promoting Dissemination

- Developing a quarterly CCEP-II newsletter and an annual integrated CCEP-II report with project highlights and news, and maintaining an archive of these items;
- Developing and distributing CCEP-II outreach materials through the use of traditional and new media;
- Assisting in the organization of workshops, short courses, and sessions at national and international meetings;
- Organizing and managing a CCEP-II booth at professional meetings and conferences;
- Representing the CCEP-II network at research and educational conferences and public outreach events.

(5) Coordinating Program-Wide Evaluation Activities

- Assisting with the coordination and data collection needed for program-wide evaluation by a third party contracted by NSF.

Opportunities to engage in additional activities may emerge during the five-year lifetime of the CCEP-II projects, but additional funding to support those additional activities would need to be secured through Supplemental Funding requests or contributions through other grants.

CCEP Alliance Office Structure

NSF anticipates that successful operation and management of the CCEP Alliance Office will require a total of 2.0 - 2.5 FTEs, including a senior-level director on a part-time appointment who will serve as the PI and oversee the activities of the office and Cooperative Agreement; a full-time office manager or coordinator at the postdoctoral level or equivalent who will assist the PI with implementation; and additional technical support staff (either one full-time or two to three part-time) who will perform the other functions of the office, including maintaining Web content, providing logistical and other support for workshops and meetings, supporting the CCEP Alliance advisory structure, and administrative functions. It is expected that the PI will have demonstrated expertise in one of the three areas encompassed by the CCEP-II program (i.e., climate scientist, learning scientist, formal or informal education practitioner). The CCEPA Office may hire other appropriate staff, students, and postdoctoral associates to assist in scientific, education, and outreach activities, if resources are available. Proposals that are able to leverage existing infrastructure and staff resources rather than build an entirely new organization are strongly preferred. Proposals that demonstrate prior expertise in collaborative management of diverse teams and institutions are likely to be most competitive.

Links and related documents

Additional information about the expectations for the CCEP Phase II program can be found in the NSF 12-523 program solicitation, available at: http://www.nsf.gov/pubs/2012/nsf12523/nsf12523.pdf.

Information about the six CCEP Phase II projects can be found through the following links:

1239797	CCEP II- Making Global Climate Science Local: Implementing an Effective Model to Educate Key Influentials and Community Leaders
1239758	CCEP-II: MADE-CLEAR - Maryland-Delaware Climate Change Education, Assessment, and Research
1239733	CCEP - II: Pacific Islands Climate Change Education Partnership
1239775	CCEP-II: National Network for Ocean and Climate Change Interpretation
1239782	CCEP-II: Climate and Urban Systems Partnership (CUSP)
1239783	CCEP-II: Polar Learning and Responding: PoLAR Climate Change Education Partnership

III. AWARD INFORMATION

NSF expects to make 1 award through a Cooperative Agreement. Up to $1 million total funding over a period of 5 years is anticipated, pending annual performance and availability of funds.

IV. ELIGIBILITY INFORMATION

Organization Limit:

> The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the Grant Proposal Guide, Chapter I, Section E.

PI Limit:

> Organizations and individuals involved in CCEP Phase II awards will not be eligible to serve as the CCEP Alliance Office awardee.

Limit on Number of Proposals per Organization: 1

> Collaborative Proposals submitted as separate submissions from multiple organizations are NOT allowed for this competition.

Limit on Number of Proposals per PI: 1

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Letters of Intent *(required):* A 1-paragraph Letter of Intent identifying the submitting organization, Principal Investigator, and prior program management experiences is required. Letters of Intent must be submitted through FastLane by the deadline indicated.

Letter of Intent Preparation Instructions:

When submitting a Letter of Intent through FastLane in response to this Program Solicitation please note the conditions outlined below:

- Sponsored Projects Office (SPO) Submission is required when submitting Letters of Intent
- A Minimum of 0 and Maximum of 4 Other Senior Project Personnel are allowed
- Submission of multiple Letters of Intent is not allowed

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 nsfpubs@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/publications/pub_summ.jsp?ods_key=grantsgovguide). 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 nsfpubs@nsf.gov.

The Project Description should address the following information:

- As per the PAPPG (NSF 13-1), a separate section in the project description discussing the broader impact activities of the proposed work.
- A description of the philosophical approach or management strategies that the CCEPA Office Director expects to employ when working with the six CCEP-II projects, and the rationale for using those approaches.
- Discussion of the PI's previous experiences in managing complex scientific research and/or science education projects, and examples of signficant outcomes from those experiences.
- A detailed description of specific activities to be undertaken and a timeline for deliverables.
- A management plan that provides a clear description of the roles and responsibilities of personnel who would be supported

through the program.
- A list of available resources and capabilities that would be leveraged or used in support of the CCEPA Office and a discussion of how they relate to the activities being proposed.
- A report on results of prior NSF sponsored work.

B. Budgetary Information

Cost Sharing: Inclusion of voluntary committed cost sharing is prohibited

Budget Preparation Instructions: The proposed budget should include appropriate resources to support the specific activities of the CCEP Alliance Office identified in the Program Description, including development and maintenance of a website, communication and coordination activities, and outreach and dissemination. The CCEPA Office is expected to convene monthly conference calls among the lead PIs for the six CCEP-II projects and organize semi-annual face-to-face meetings of the CCEPA. The CCEP-II projects already have travel funding to support their participation in the semi-annual CCEPA meetings, so only those travel expenses necessary for the participation of the CCEPA Office staff and occasional guests should be included. Proposers may include up to 7 days per person for attendance at the CCEPA meetings in their annual travel budget requests. Additional expenses associated with outreach at national conferences and society meetings should also be included.

C. Due Dates

- **Letter of Intent Due Date(s)** *(required)* (due by 5 p.m. proposer's local time)*:*

    December 06, 2012

    Letter of Intent (Required) Due

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

    February 05, 2013

    Full Proposal Due

This is a one-time competition. The CCEP Alliance Office solicitation will be competed in FY 2013 only.

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. Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: http://www07.grants.gov/applicants/app_help_reso.jsp. 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 for acknowledgement and, if they meet NSF 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 either as *ad hoc* reviewers, panelists, or both, who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with 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 of interest with the proposal. In addition, Program Officers may obtain comments from site visits before recommending final action on proposals. Senior NSF staff further review recommendations for awards. A flowchart that depicts the entire NSF proposal and award process (and associated timeline) is included in the GPG as Exhibit III-1.

A comprehensive description of the Foundation's merit review process is available on the NSF website at: http://www.nsf.gov/bfa/dias/policy/meritreview/.

Proposers should also be aware of core strategies that are essential to the fulfillment of NSF's mission, as articulated in *Empowering the Nation Through Discovery and Innovation: NSF Strategic Plan for Fiscal Years (FY) 2011-2016*. These strategies are integrated in the program planning and implementation process, of which proposal review is one part. NSF's mission is particularly well-implemented through the integration of research and education and broadening participation in NSF programs, projects, and activities.

One of the core strategies in support of NSF's mission 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 variety of learning perspectives.

Another core strategy in support of NSF's mission is broadening opportunities and expanding participation of groups, institutions, and geographic regions that are underrepresented in STEM disciplines, which 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.

A. Merit Review Principles and Criteria

The National Science Foundation strives to invest in a robust and diverse portfolio of projects that creates new knowledge and enables breakthroughs in understanding across all areas of science and engineering research and education. To identify which projects to support, NSF relies on a merit review process that incorporates consideration of both the technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF's mission "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes." NSF makes every effort to conduct a fair, competitive, transparent merit review process for the selection of projects.

1. Merit Review Principles

These principles are to be given due diligence by PIs and organizations when preparing proposals and managing projects, by reviewers when reading and evaluating proposals, and by NSF program staff when determining whether or not to recommend proposals for funding and while overseeing awards. Given that NSF is the primary federal agency charged with nurturing and supporting excellence in basic research and education, the following three principles apply:

- All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.
- NSF projects, in the aggregate, should contribute more broadly to achieving societal goals. These "Broader Impacts" may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
- Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping in mind the likely correlation between the effect of broader impacts and the resources provided to implement projects. If the size of the activity is limited, evaluation of that activity in isolation is not likely to be meaningful. Thus, assessing the effectiveness of these activities may best be done at a higher, more aggregated, level than the individual project.

With respect to the third principle, even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated level, PIs are expected to be accountable for carrying out the activities described in the funded project. Thus, individual projects should include clearly stated goals, specific descriptions of the activities that the PI intends to do, and a plan in place to document the outputs of those activities.

These three merit review principles provide the basis for the merit review criteria, as well as a context within which the users of the criteria can better understand their intent.

2. Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board approved merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two merit review criteria are listed below. **Both** criteria are to be given **full consideration** during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. (GPG Chapter II.C.2.d.i. contains additional information for use by proposers in development of the Project Description section of the proposal.) Reviewers are strongly encouraged to review the criteria, including GPG Chapter II.C.2.d.i., prior to the review of a proposal.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- **Intellectual Merit:** The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to
   a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
   b. Benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?

4. How well qualified is the individual, team, or organization to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education.

Proposers are reminded that reviewers will also be asked to review the Data Management Plan and the Postdoctoral Researcher Mentoring Plan, as appropriate.

Additional Solicitation Specific Review Criteria

- Do the proposing organization, Principal Investigator, and associated personnel have demonstrated expertise in management of large, diverse projects and networks of scientists and educators?
- Does the PI demonstrate sufficient knowledge of and familiarity with the CCEP program?
- Does the PI demonstrate leadership experience in relevant scientific or STEM education activities?
- What is the quality of work done by the submitting organization and PI with previous NSF funding?
- How effectively would the proposed plan create and foster synergy among the various CCEP-II projects and activities?
- Do the PI and project team demonstrate experience with communicating about science to broad audiences?
- How well would the proposed plan foster innovative uses of traditional and new media?
- Is there sufficient institutional support and capacity for the proposed effort?
- Is there a clear management plan for the proposed effort?

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by 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 deadline or target date, or receipt date, whichever is later. 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 Research 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/award_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from nsfpubs@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, and a project outcomes report for the general public.

Failure to provide the required annual or final project reports, or the project outcomes report 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.

PIs 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. PIs 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. The project outcomes report must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.

More comprehensive information on NSF Reporting Requirements 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.

VIII. AGENCY CONTACTS

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- Peter Lea, telephone: (703) 292-8670, email: plea@nsf.gov

- David B. Campbell, telephone: (703) 292-5093, email: dcampbel@nsf.gov

- Jill L. Karsten, telephone: (703) 292-7718, email: jkarsten@nsf.gov

For questions related to the use of FastLane, contact:

- FastLane Help Desk, telephone: 1-800-673-6188; e-mail: fastlane@nsf.gov.

- Wlliam Neufeld, telephone: (703) 292-5148, email: wneufeld@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, National Science Foundation Update is a free e-mail subscription service 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 when new publications are issued that match their identified interests. Users can subscribe to this service by clicking the "Get NSF Updates by Email" link on the NSF web site.

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 55,000 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 Arctic 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.

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> - **For General Information**   (703) 292-5111
>   (NSF Information Center)**:**
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> - **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