



**General Programmatic Terms and Conditions for the National Center for Ecological Analysis and Synthesis (NCEAS) Cooperative Agreements - Issued Pursuant to the NSF Grant Proposal Guide (GPG), (NSF 04-23), Effective September 1, 2004**

- 1. Key Personnel:** Except for the Principal Investigator(s) (PIs) or Co-PIs identified in this award, requests to make any changes to personnel, organizations, and/or partnerships specifically named in the proposal, that have been approved as part of this award, shall be submitted in writing to the cognizant NSF Program Official for approval prior to any changes taking effect. Requests for prior approval of changes to the PI(s) must be submitted through FastLane for review by the cognizant NSF Program Official and approval by an NSF Grants Official.
- 2. Program/Project description:** The National Center for Ecological Analysis and Synthesis (NCEAS) was established at the University of California in 1995 to promote interactions between scientists and facilitate the use of existing information to address important ecological questions. Its main goal is to develop opportunities that accelerate and initiate paradigm shifts in ecology through synthesis. NCEAS provides a facility for this purpose in Santa Barbara, CA. Its goals are met primarily through support of many simultaneous thematic working groups of various sizes and durations. Individual postdoctoral associates and sabbatical visitors are also supported for longer periods. Results of NCEAS activities include landmark papers addressing global patterns of biodiversity, analyses of marine fish populations over time, and the valuation of the world's ecological services in economic terms. Although graduate students often participate in working groups, most are involved through distributed (virtual) graduate seminars.

NCEAS is a national center for ecological informatics, providing premier computational support to its users and offering training in the use of emerging informatics tools. Through leveraged resources it has developed technologies to massively increase data discovery, access, integration, analysis, synthesis and preservation that will advance general community-wide capabilities over the longer-term.

As part of its outreach program, NCEAS maintains the bilingual educational website, "Kids Do Ecology."

The goal for NCEAS over the next five years is to continue its three central activities:

- Working Groups
- Sabbatical Fellows
- Postdoctoral Associates

NCEAS will also extend some other activities (ecoinformatics research and the deployment of cyberinfrastructure tools) and add to others (Distributed Graduate Seminars).

### 3. **Project Governance - Governing Responsibilities:**

A. **Mission:** The mission of NCEAS is to provide a flexible, high quality, unique facility and approach to ecological research. However, even within a flexible framework it is essential to maintain an effective infrastructure, a core set of guiding principles, and a strategy for making decisions about resource allocation. The Center's Senior Management Team and Science Advisory Board (SAB) work closely together to ensure that the vision is clearly focused on managing resources in a manner that does not jeopardize the quality of the NCEAS research experience.

#### B. **Organization and Structure:**

##### **Senior Management Team**

Director – The Director is responsible for the overall direction of the Center, in consultation with other senior staff members and the Science Advisory Board. The Director supervises the other senior staff members, oversees the budget, is the formal liaison with NSF, the University, and other supporting entities, and represents the interests of the Center to the user and external communities.

Deputy Director – The Deputy Director represents the Center in the absence of the Director and is responsible for coordinating scientific activities, including managing the proposal review process, overseeing resident scientists, and assisting with the needs of visiting scientists. The Deputy Director also works with the Outreach Coordinator to inform scientists and others about the Center's opportunities, manages the flow of information at the Center, and organizes the Distributed Graduate Seminars.

Director of Computing is responsible for developing and implementing the short- and long-term plans and policies for information technology and cyberinfrastructure at the Center. This person also supervises the computing staff to ensure they provide services and capabilities required by resident and visiting scientists, and represents the Center nationally and internationally in the area of the access and management of data.

Data and Information Specialist is responsible for overseeing the development and deployment of ecoinformatics tools designed to promote discovery, access, integration, analysis, and curation of NCEAS data. Because the breadth of research involves many disciplines and issues associated with ecological information, the specialist also represents this area nationally and internationally.

Outreach Coordinator is responsible for designing, implementing, and updating the Center's outreach program, focusing on participants at the center, underrepresented groups and the general public. This is accomplished by preparing material, organizing information provided by NCEAS participants in a manner that best represents the Center, and collaborating with other institutions.

Management Services Officer supervises staff who conduct all of the activities of the Center related to projects and participants. The officer schedules meetings, manages logistics associated with resident and visiting scientists, handles all matters pertaining to visas, and manages the Center's budget.

- C. **Center Management and Resource Allocation:** NCEAS manages its resources in four basic categories: research, staffing, equipment and software, and space. It employs adaptive management to balance its various activities and the support services required to maintain them, e.g., by strategically assigning spending to either NSF or State budgets.

The basic research activities are the Center's highest priorities. The programmed ramp-down of support in Years 4 and 5 of this agreement will require reductions over previous years in support for Postdoctoral Associates, Sabbatical Fellows, and Working Groups.

- D. **The Science Advisory Board: Research Funding Decisions at NCEAS**

**The functions of the Science Advisory Board include:**

- (1) Reviewing proposals: NCEAS solicits proposals twice a year across all activity categories; under unusual circumstances, proposals can be received and reviewed between target dates. The Board carries out the review process and makes recommendations to the Director.
- (2) Providing general advice: The Board provides feedback on information and ideas presented at their meetings by NCEAS senior staff.
- (3) Reviewing the Director: The Director is reviewed every five years under the auspices of the Board (most recently in March 2005).

(4) Evaluating Postdoctoral extensions: If Postdoctoral Associates request a third year of support, they must make a presentation to the Board illustrating what they have accomplished and what they would do during the extension.

(5) Nominating new Board members: The Board manages its own nomination and recommendation process, with a Chair elected by the current Board. Members serve three year staggered terms, such that 6-7 new members are chosen each year, with no repeat members. The Board identifies, discusses and selects replacements for departing members, with primary and backup candidates provided for each vacant position. The Board attempts to maintain diversity by considering balances of scientific expertise, gender, ethnicity, type of institution (academic/non-academic, research tier), geographic location, etc. No more than one member from a single institution can serve at one time. The Board has up to three international members at a time.

#### **4. Reporting Requirements:**

- A. The Awardee will submit all *ad hoc* and regular reports as designated by the cognizant NSF Program Official with content, format, and submission time line established by the cognizant NSF Program Official. The Awardee will submit all required reports and certifications to NSF via FastLane using the appropriate reporting category; for any type of report not specifically mentioned in FastLane, the Awardee will use the “Interim Reporting” function to submit reports.
- B. A list of Science Advisory Board members as approved for each reporting year will be included in the NCEAS annual reports.
- C. Regular reporting of the continued impacts of NCEAS’s data access policies and efforts will occur as a required section of its annual reports. At a minimum, annual reports will be required to include the number of data packets from NCEAS Working Groups, Post-docs and Sabbatical Fellows that were added to its public databases during the reporting period. In addition, a narrative description of NCEAS’s efforts over the reporting period to increase the number of data sets available must be provided, which will be subject to periodic expert review. Since so much of NCEAS’s efforts are aimed at generic data access issues, the progress on the development and implementation of these products will also be tracked and evaluated (see also Data Accessibility section below).

#### **5. Award Support of Ongoing Management and Oversight:**

- A. The Awardee will ensure full commitment and cooperation among the governing structure components, and all project staff during all ongoing NSF project management and oversight activities. The Awardee will ensure availability of all key institutional partners during any desk or on-site review as well as timely access to all project documentation.
- B. The list of Science Advisory Board (SAB) nominees, primary and alternates, are to be sent to NSF each year for approval by the NSF Program Director.
- C. NSF will conduct one comprehensive on-site review during the third year of the five year duration of the award to determine the effectiveness of the center according to NSF's two merit criteria. The review will consider the scientific and educational activities and impacts of the center; its information management activities and quality of its cyber-infrastructure, and the effectiveness of its education and outreach efforts with special focus on diversity issues. The center's administration and management, partnerships and leveraged support will also be reviewed. Finally, the review team will also be charged in assessing the continued need for targeted support of ecological analysis and synthesis by NSF/BIO, although it is recognized that this review by itself will not be sufficient to establish this.

**6. Data Accessibility:**

- A. Reference is made to the general data access policies in NSF Cooperative Agreement FATC, Sharing of Findings, Data and Other Research Products.
- B. NCEAS recently instituted a revised data access policy. In addition, it has produced an agreement letter that must be signed by all new NCEAS' PIs that is a requirement for support. The policy and the agreement letter are available on the NCEAS website and provide a context for monitoring progress.

**7. Recompensation:** The Foundation has determined that after the current agreement is completed, funding shall not be continued and the University of California – Santa Barbara will not receive any additional support from NSF for NCEAS under this agreement. Any future centralized synthesis center, or alternative forms for the facilitation of synthesis in the ecological sciences to be supported by the Foundation, will be determined through an open competition to which NCEAS may apply.