U. S. Environmental Protection Agency
Office of Research and Development
National Center for Environmental Research
Science to Achieve Results (STAR) Program

National Oceanic and Atmospheric Administration (NOAA)
Department of Commerce
Center for Sponsored Coastal Ocean Research (CSCOR)/Coastal Ocean Program (COP)
Office of Protected Resources

National Aeronautics Space Administration (NASA)
Science Mission Directorate

Office of Naval Research (ONR)
Department of Defense

CLOSED - FOR REFERENCES PURPOSES ONLY

Ecology and Oceanography of Harmful Algal Blooms

This is the initial announcement of this funding opportunity.

Funding Opportunity Number: EPA-G2006-STAR-B1
Catalog of Federal Domestic Assistance (CFDA) Number: 66.509 for the Environmental Protection Agency, 11.478 for the Coastal Ocean Program, 11.472 for NOAA/Office of Protected Resources, and 12.300 for the Office of Naval Research. There is no CFDA number for the National Aeronautics and Space Administration.

Solicitation Opening Date: September 29, 2005
Solicitation Closing Date: January 10, 2006, 4:00 pm Eastern Standard Time

Electronic Submissions Contact:

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Access Standard STAR Forms http://www.epa.gov/ncer/rfa/forms/
View research awarded under previous solicitations (http://es.epa.gov/ncer/rfa/archive/grants/)

and http://www.whoi.edu/science/B/redtide/nationplan/ecohabprojectsummaries.html

SUMMARY OF PROGRAM REQUIREMENTS

Synopsis of Program

The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, and its interagency partners, the National Oceanographic and Atmospheric Administration (NOAA), the National Aeronautic and Space Administration (NASA), and the Office of Naval Research (ONR), are seeking applications proposing targeted research projects of up to 3 years duration and, depending on appropriations, multi-disciplinary regional studies for 3 to 5 years duration for the Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) program. This program provides support for research on algal species whose populations may cause or result in deleterious effects on ecosystems and human health. Studies of the causes of such blooms, their detection, effects, mitigation, and control in U.S. coastal waters (including estuaries and Great Lakes) are solicited. This document details the requirements for applications for research support that will be considered by this Federal research partnership.

Award Information

Anticipated Type of Award: Grant
Estimated Number of Awards: Approximately 15-20 awards, including 2 regional projects
Anticipated Funding Amount: Approximately $7-10 million total for all awards
Potential Funding per Grant: Awards of federal funds are typically on the order of $150,000 per year, total costs, for up to three years for targeted studies. Multi-disciplinary regional studies for 3 to 5 years duration at correspondingly appropriate budgets will also be considered, depending upon available appropriations. Cost-sharing is not required.

Eligibility Information

Institutions of higher education and not-for-profit institutions located in the U.S., federally recognized tribal governments, and state and local governments are eligible to apply. Some of the partner Agencies may also be able to provide funding to international institutions, commercial organizations, and federal agencies and laboratories. See full solicitation (Section III. Eligible Applicants) for more details.

Application Materials

You may submit either a paper application or an electronic application (but not both) for this solicitation. The necessary forms for submitting a paper application will be found on the National Center for Environmental Research website, http://es.epa.gov/ncer/rfa/forms/. To apply electronically you must use the application package available at

https://apply.grants.gov/forms_apps_idx.html (see "Submission Instructions for Electronic Applications") plus some additional forms from http://es.epa.gov/ncer/rfa/forms/. If your organization is not currently registered with grants.gov, you need to allow approximately one week to complete the registration process to apply electronically. The registration and electronic submission of your application must be performed by an appropriate representative from your organization. See section IV for more information on application submission.

Contact Person(s):

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I. FUNDING OPPORTUNITY DESCRIPTION

Introduction

Harmful Algal Blooms (HABs) are caused by a diverse group of organisms, including toxic and noxious phytoplankton, some protists, cyanobacteria, benthic algae, and macroalgae. While some HABs occur naturally, others may be stimulated by human activities. Blooms can extend over large geographic areas, be composed of more than one harmful or toxic species, and cause

significant impacts on fisheries, recreation, human health, and the ecology of both marine and fresh water bodies. HABs are now a recurrent and serious problem in many areas of the US and evidence suggests that the frequency and distribution of HABs is also increasing globally, impacting many countries that have commercial and recreational activities in the coastal ocean.

HAB impacts on public health and local/regional economies are also dramatic and increasing. In a recent study, average annual economic losses in the U.S. from HABs were approximated at $49 million with costs attributable to maintenance of toxin monitoring programs; closures of shellfish beds; marine mammal stranding networks; collapse of some fisheries; mortality of fish, shellfish, turtles, birds, and mammals; disruptions in tourism; threats to public and coastal resource health; publication of watershed, health, and seafood advisories; and medical treatments (Anderson et al.

2000, available at http://www.whoi.edu/redtide/pertinentinfo/Economics_report.pdf).
Despite greater public awareness and advisories of bloom events, human illnesses and even fatalities continue to be reported. Additionally, some toxins may cause only a few documented illnesses but result in serious public reaction and temporary aversion to local seafood products and activities (e.g., $46 million in lost revenue from the 1997 Maryland fish health/*Pfiesteria* events, Anderson et al. 2000). These deleterious impacts have increased public awareness and demand for intervention to reduce or eliminate bloom impacts on coastal resources, local economies, and threats to public health.

Background

Over the course of the last decade, numerous national and Agency reports have described the magnitude of the HAB problem and outlined research plans to systematically address the issue (See References section). The ECOHAB Program was initiated a decade ago as an interagency, scientific program designed to increase the understanding of the fundamental processes underlying the impacts and population dynamics of HABs (ECOHAB 1995). Three major research themes encompassing the priorities of issues of national importance on the HAB phenomenon were identified: 1) Organisms - with a goal towards determining the physiological, biochemical, and behavioral features that influence bloom dynamics; 2) Environmental regulation - with a goal toward determining and parameterizing the factors that govern the initiation, growth, and maintenance of these blooms; and 3) Food-web and community interactions - with a goal toward determining the extent to which food webs and trophic structure affect and are affected by the dynamics of HABs. Information in these areas, in turn, supported a critical goal of the ECOHAB program, the development of reliable models to forecast bloom development, persistence, and toxicity. Since 1997, the ECOHAB Program has sponsored nearly 100 projects with topics ranging from molecular aspects of HAB detection to large-scale, multi-disciplinary regional studies of bloom formation, maintenance, and dissipation. Projects cover a wide spatial spectrum along the U.S. coastline and its territories. ECOHAB sponsored projects also address the detection, prevention, control, and mitigation of HABs and their impacts, as well as economic assessments of these recurring events. Project summaries may be viewed at

http://www.whoi.edu/science/B/redtide/nationplan/ecohabprojectsummaries.html

Although several research efforts have been completed or are underway, the understanding of the biological, physical, and chemical processes that regulate HABs remains limited. Toxic blooms

can impact virtually all compartments of marine foodwebs, resulting in adverse effects on metabolism, viability, growth, fecundity, and recruitment of marine organisms. HAB-produced toxins can have immediate, acute impacts on marine populations, including marine mammals, birds, and several protected species. Little is known about the effects of chronic, low-level exposure. Dramatic shifts in ecosystem structure can result from plankton blooms and macroalgal overgrowth in benthic systems. In this context, present knowledge is inadequate to define the scale and complexity of many HAB phenomena.

As a result, an additional focus on the early detection of bloom species, the environmental conditions supporting blooms, and the toxins associated with some HAB species is needed. Further, while there is increasing emphasis on manipulating coastal waters to prevent or control HABs in other nations, it is practically absent from U.S coastal management strategies. Finally, there needs to be greater emphasis on ensuring that coastal managers and the public are provided the most current information available in a manner that will maximize its usefulness in mitigating HAB impacts. This would include use of observing systems and models in the development of HAB forecasts.

Authority and Regulations

The authorities for this RFA and the resultant awards are contained in the following documents:

NOAA/NOS/NCCOS/CSCOR/COP: 16 U.S.C. 1456C; 33 U.S.C. 883d; 33 U.S.C. 1442; 15 U.S.C. 1540; and/or Pub.L.105-383.

EPA: Clean Water Act, Section 104, 33 U.S.C.

NASA: 42 U.S.C. 2473(c)(5), the National Aeronautics and Space Act. Part 1260 - Grants and Cooperative Agreements, Subpart A - General, Sec. A, 1260.1 Authority: This part 1260 is issued under the authority of 42 U.S.C. 2473(c)(1), Pub. L. 97-258, 96 Stat. 1003 (31 U.S.C. 6301 et seq.), and OMB Circular A-110.

ONR: Armed Forces-Research and Development Projects Act, 10 U.S.C 2358, as amended.

Specific Research Areas of Interest/Expected Outputs and Outcomes

Overall Program Goals and Topic Areas

The primary goal of ECOHAB is to provide support for research on algal species whose populations may cause or result in deleterious effects on human and ecosystem health and coastal economies. Proposed approaches, including tools, data, and models, should contribute to the development of better methods for the detection, monitoring, prediction, control, and mitigation of harmful algae and their impacts.

This solicitation provides an opportunity for investigators to propose activities that address the national problem of HABs, as described in the reports and plans referenced in the Background sections of this document. The major areas of interest, as they are discussed in these documents,

can generally be broken down as follows: Bloom Ecology and Dynamics; Toxins and their Effects; Food Webs and Fisheries; and Public Health and Socioeconomic Impacts. ECOHAB proposals can address any of these areas, except those that are directly concerned with human health impacts or involve a substantial amount of routine monitoring.

The ECOHAB program will consider support of studies ranging from relatively small, targeted laboratory or field studies by individual investigators or small teams, to regional studies involving larger teams of investigators conducting coordinated, well-integrated, multi-disciplinary field programs. Details for each type of project are provided below:

1) Targeted studies are individual studies or small interdisciplinary efforts investigating fundamental ecological and oceanographic questions related to HAB events will be considered. Support for targeted studies may be requested for up to 3 years duration.

2) Regional studies are large, multi-disciplinary, multi-institutional projects that take an ecosystem approach to determining the linkages between HAB species and their environment, including the ecology, physiology, behavior, and toxin production of the HAB species and the chemistry, physics, bathymetry, and meteorology of the surrounding ecosystem. They may also include cross-regional comparison of a particular HAB problem. These studies may be 3 to 5 years in duration with a team of collaborating investigators. Research proposals must address plans for sharing data and research products with the community in a timely manner and should lead to development of models for management purposes. Participation of potential users of the results in the research is encouraged. Investigators **must** obtain permission to submit a regional or cross-regional study from the NOAA ECOHAB Program Managers identified in this solicitation.

Agency Interests

In order to address HAB research needs, NOAA, EPA, ONR, and NASA have combined each Agency's unique interests and missions into this coordinated research program. The specific interests of each Agency are defined in the following paragraphs.

NOAA: HABs and related biotoxin risk must be managed if we are to ensure public health, build viable and valuable sustainable fisheries, protect living marine resources including threatened and endangered species, and effectively manage coastal activities and resources. NOAA's interest is in developing a general understanding of HABs and their toxins in relationship to the surrounding environment with the intent of developing new tools, models, and forecasts to aid managers in all coastal environments, including the Great Lakes and low salinity estuaries. Development of new methods for measuring HAB cells and toxins, especially those that can be used in observing systems or provide enhanced monitoring capability, are especially encouraged. NOAA’s interests also include trophic transfer of toxins; impacts on higher trophic levels; effective techniques for prevention, control, and mitigation to assist in reducing the impacts of HABs and their toxins; and the socioeconomic impacts of HABs on coastal communities. Although NOAA has a strong interest in the public health impacts of HABs, funding for research in this area is provided by the Oceans and Human Health Initiative (OHHI). Multi-disciplinary regional ecosystem investigations leading to development of ecological forecasting capability in

areas with recurrent blooms along the U.S. coast will continue to be a major focus. These can be either in new areas, areas that have been studied previously but where new or unanswered questions remain, or involve comparisons between ecosystems.

EPA: In order to protect the integrity of ecosystems affected by HABs, EPA seeks to fund research that will ultimately provide decision makers, the scientific community, and the general public with the information needed to prevent, control and mitigate blooms themselves. Of specific interest to EPA are studies examining relationships between nutrient loading, HABs, and food web dynamics. In particular, integrative approaches to analyzing food webs and key trophic components or pathways altered by HABs, and determining nutrient loading thresholds affecting these alterations, are encouraged. Research funded in response to this solicitation will support Goal 2 (Clean and Safe Water), Objective 2.3 (Enhance Science and Research), Sub-objective 2.3.2 (Conduct Leading-Edge Research) of EPA's Strategic Plan. EPA's Strategic Plan can be found on the following webpage: http://www.epa.gov/ocfo/plan/2003sp.pdf (PDF, 239pp., 4.7 MB, about PDF). The desired outputs of the proposed projects are research results that will further the scientific understanding of the relationships between nutrient inputs, coastal eutrophication, and the occurrence and consequences of harmful algal blooms (HABs). The desired outcomes of the research funded under this solicitation are that it will 1) provide information that will enhance HAB forecasting efforts; 2) provide decision makers with the information needed to control and mitigate blooms; and 3) help facilitate bloom prevention through an advanced understanding of the conditions and processes that promote their formation, maintenance, and decline.

ONR: Plankton blooms resulting from complex coupled physical/biological processes strongly affect the physical, optical, and acoustical properties of the coastal ocean. ONR's interests are in characterizing and forecasting these properties of blooms to improve the capability of the fleet to operate effectively within coastal environments worldwide.

NASA: Algal pigments affect optical properties of the water in well-characterized ways. In the open ocean, it is possible to quantify pigment concentration using remote sensing techniques because phytoplankton are mostly responsible for variations in water color. In nearshore, estuarine, and inland waters, suspended sediments and dissolved organic compounds make the optical properties much more complex. The goal of detecting algal blooms in the presence of other colored materials is the subject of ongoing research. NASA is interested in developing remote sensing techniques that could be applied to the detection or tracking of HABs, as well as the physiological status or taxonomic classification of bloom organisms, in nearshore coastal environments, as well as in the open ocean. NASA is also interested in physical processes that affect harmful algal bloom dynamics.

Special Requirements

The application must include a plan (see "Data Plan" in section IV.E.) to make available to the public all data generated from observations, analyses, or model development (primary data) and any secondary (or existing) data used under a grant awarded from this solicitation. The data must be available in a format and with documentation such that they may be used by others in the scientific community. Since each Agency has a different data policy, an investigator may be

asked to adjust their data plan in accordance with that of the Agency providing the funding (for links see Section IV.E).

Because EcoHAB is a multi-agency program, some requirements, regulations, and policies may differ from Agency to Agency. When these differences are significant, the specific Agency and the issue in question will be so noted in this announcement.

EPA policy prevents EPA scientists and engineers from providing individual applicants with information that would provide them with an unfair competitive advantage. Consequently, EPA scientists and engineers will not review, comment, advise, or provide technical assistance to applicants preparing applications in response to EPA solicitations, or discuss in any manner how the EPA will apply the published evaluation criteria for this competition.

References

1. *ECOHAB, the Ecology and Oceanography of Harmful Algal Blooms* (Anderson, D.M. 1995. WHOI, Woods Hole, MA, 66 pp.)

http://www.redtide.whoi.edu/hab/nationplan/ECOHAB/ECOHABhtml.html

2. *Harmful Algal Blooms in Coastal Waters: Options for Prevention, Control, and Mitigation* (Boesch, D.F. et al 1997. NOAA COP Decision Analysis Series No.10, NOAA Coastal Ocean

Office, Silver Spring, MD 46 pp.) http://www.cop.noaa.gov/pubs/das/das10.pdf

3. *Prevention, Control, and Mitigation of Harmful Algal Blooms: A Research Plan* (NOAA National Sea Grant College Program. 2001. 28pp.)

http://www.whoi.edu/science/B/redtide/pertinentinfo/PCM_HAB_Research_Plan

4. *National Assessment of Harmful Algal Blooms in U.S. Waters* (National Science and Technology Council Committee on Environmental and Natural Resources. October 2000. 47 pp.)

http://www.cop.noaa.gov/pubs/habhrca/Nat_Assess_HABs.pdf

5. Harmful Algal Research and Response: A National Environmental Science Strategy (HARRNESS) 2005-2015. (Ecological Society of America, Washington, D.C., 2005) http://www.cop.noaa.gov/stressors/extremeevents/hab/current/harrness.html(it is anticipated that

this document will be available on or before January 1, 2006)

II. AWARD INFORMATION

Funding is contingent upon receipt of fiscal years 2006-2010 Federal appropriations. It is anticipated that a total of approximately $7-10 million will be awarded, depending on the availability of funds. The Agency partners anticipate awarding approximately 15-20 funding agreements under this solicitation, including 2 regional projects. Awards for targeted studies are

typically on the order of $150,000 per year, total costs, for up to three years. Multi-investigator and multi-institutional applications may include correspondingly higher budgets and longer project periods, but may not exceed a 5-year project period.

The ECOHAB Agency partners reserve the right to reject all applications and make no awards under this solicitation. They also reserve the right to offer partial funding of an award, to delay start dates for awards, or to make additional awards under this solicitation if additional funding becomes available. The length of time that an Agency has to make additional awards varies according to the policies of that Agency. For EPA, any additional selections for awards will be made no later than 4 months after the original selection decisions.

The Agencies reserve the right to partially fund proposals/applications by funding discrete activities, portions, or phases of the proposed project. Any Agency that decides to partially fund a proposal/application, will do so in a manner that does not prejudice any applicants or affect the basis upon which the proposal/application, or portion thereof, was evaluated and selected for award, and that maintains the integrity of the competition and the evaluation/selection process. Funding in subsequent years, increases in funding, or extension of the period of the award is based on satisfactory progress and is at the discretion of the funding agencies.

EPA intends to fund grants rather than cooperative agreements under this solicitation. Agency scientists and engineers will not be substantially involved in grants receiving EPA funding. However, EPA encourages interaction between its own laboratory scientists and grant Principal Investigators after the award of an EPA grant for the sole purpose of exchanging information in research areas of common interest that may add value to their respective research activities. This interaction must be incidental to achieving the goals of the research under a grant. Interaction that is "incidental" does not involve resource commitments.

III. ELIGIBILITY INFORMATION

Eligible Applicants

Institutions of higher education and not-for-profit institutions located in the U.S., federally recognized tribal governments, and state and local governments are eligible to apply. Universities and educational institutions are subject to OMB Circular A-2l. Eligible nonprofit organizations include any organizations that meet the definition of nonprofit in OMB Circular A-122. However, nonprofit organizations described in Section 501(c)(4) of the Internal Revenue Code that lobby are not eligible to apply.

Some of the agencies participating in the ECOHAB program are authorized to make awards to international institutions, commercial organizations located in the U.S., and federal agencies and laboratories, either directly or through subcontracts. Applicants from these types of institutions *must* consult with NOAA ECOHAB Program Managers before submitting applications to discuss eligibility and application procedures. Federal agencies and laboratories may be considered eligible if they can produce certifications or documentation which clearly show that they have specific legal authority to receive funds from another Federal Agency in excess of their appropriations. Note that this solicitation is not proposing to procure goods and services

from Federal applicants; therefore, the Economy Act (31 U.S.C. 1535) is not an appropriate legal basis. Funding for salaries of full-time Federal employees will not be allowed.

NOAA NCCOS/CSCOR will not fund any FTE salaries for Federal employees, but will fund travel, equipment, supplies, and contractual personnel costs associated with the proposed work. Furthermore, no expenses of any kind will be provided for NOAA NOS researchers.

EPA, however, will not fund profit-making firms, Federal Agencies or National laboratories funded by Federal Agencies (Federally-Funded Research and Development Centers, "FFRDCs") under this program. FFRDC employees may cooperate or collaborate with eligible applicants within the limits imposed by applicable legislation and regulations. They may participate in planning, conducting, and analyzing the research directed by the applicant, but may not direct projects on behalf of the applicant organization. The institution, organization, or governance receiving the award may provide funds through a grant from the EPA to an FFRDC for research personnel, supplies, equipment, and other expenses directly related to the research. However, salaries for permanent FFRDC employees may not be provided through this mechanism. Similarly, although Federal employees are not eligible to serve in a principal leadership role on an EPA grant, or to receive salaries or travel money through grants made by this program, the applicant institution may enter into an agreement with a Federal Agency to purchase or utilize unique supplies or services unavailable in the private sector. If this is the case, a written justification for federal involvement will be requested prior to funding, along with an appropriate form of assurance that documents the commitment, such as a letter of intent from the Federal Agency involved.

Potential applicants who are uncertain of their eligibility should consult one of the Eligibility and Technical Contacts listed at the end of this announcement.

Cost Sharing

Institutional cost-sharing is not required.

Other

Applications that do not substantially comply with the application submission instructions and requirements set forth in Section IV of this solicitation will be rejected. In addition, where a page limit is expressed in Section IV with respect to parts of the application, pages in excess of the page limitation will not be reviewed. Applications must be received by the EPA on or before the closing date published in Section IV of this solicitation. Applications received after the published closing date will be returned to the sender without further consideration.

Proposals previously submitted to ECOHAB and not recommended for funding must be revised and reviewer or panel concerns addressed before resubmission.

ECOHAB will not fund proposals that are directly concerned with human health impacts or that focus primarily on monitoring. However, projects that seek to develop and test the methodology, especially as part of an integrated research program, are appropriate.

IV. APPLICATION AND SUBMISSION INFORMATION

You may submit either a paper application or an electronic application (but not both) for this solicitation. Instructions for both forms of submission follow.

Internet Address to Request a Application Package

For paper applications, forms can be found on the NCER web site:
http://es.epa.gov/ncer/rfa/forms/.
Use forms found here to complete the application package, but be sure to follow the instructions contained within this solicitation.

For electronic applications, use the application package available at
https://apply.grants.gov/forms_apps_idx.html (see "Submission Instructions for Electronic

Applications") . Additional forms and format guidance are located on the NCER website:
http://es.epa.gov/ncer/rfa/forms/.

Content and Form of Application Submission

The application is made by submitting the materials described below. **It is essential that the application contain all information requested and be submitted in the formats described.**

A. Standard Form 424

The applicant must complete form SF424. This form will be the *first page* of the application. Instructions for completion of the SF424 are included with the form. The form must contain the original (or electronic) signature of an authorized representative of the applying institution. Please note that both the Principal Investigator and an Administrative Contact must be identified in Item 5 of the SF424.

Applicants are required to provide a "Dun and Bradstreet Data Universal Numbering System" (DUNS) number in Item 5 when applying for Federal grants or cooperative agreements. Organizations may receive a DUNS number by calling 1-866-705-5711 or by visiting the web

site at http://www.dnb.com/.

Executive Order 12372, "Intergovernmental Review of Federal Programs," applies to most EPA programs and assistance agreements, unless the program or assistance agreement supports tribal, training/fellowships (other than Wastewater and Small Water Systems Operator training programs), and research and development (with some exceptions). Item 16 of the SF424 refers to this requirement. Selection of research proposals is limited to those administered by EPA's Office of Research and Development which: (a) require an Environmental Impact Statement (EIS); or (b) do not require an EIS but will be newly initiated at a particular site and require unusual measures to limit the possibility of adverse exposure or hazard to the general public; or (c) have a unique geographic focus and are directly relevant to the governmental responsibilities

of a State or local government within that geographic area. Otherwise, national research programs are exempt from review. Applicants should consult

http://www.whitehouse.gov/omb/grants/spoc.html to determine whether their state participates in this process and how to comply.

If the applicant intends to cost-share, dollar amounts must be included in the appropriate area on the SF424.

B. Key Contacts

The applicant must complete the "Key Contacts" Form as the second page of the application. The Key Contacts Form and a continuation page are available at http://es.epa.gov/ncer/rfa/forms. A separate Key Contacts form should also be completed for major sub-agreements (i.e., contacts at the institutions of primary co-investigators). Please make certain that all contact information is accurate. For both paper and electronic applications, NOAA CSCOR will notify the Principal Investigator and the Administrative Contact to acknowledge receipt of the application and transmit other important information. If you do not receive acknowledgment within 30 days of the submission closing date, then immediately alert one of the NOAA Program Managers. Failure to do so may result in your application not being reviewed. **Please note:** Due to often lengthy delays in delivery, it is especially important that you monitor NOAA CSCOR's confirmation of receipt of your application when using regular mail. See "Submission Instructions for Electronic Applications" for additional information regarding acknowledgment of receipt of electronically submitted applications.

C. Table of Contents

Provide a list of the major subdivisions of the application indicating the page number on which each section begins. (A Table of Contents is not required for electronic submissions.)

D. Abstract (1 page)

The abstract is a very important document in the review process. Therefore, it is critical that the abstract accurately describes the research being proposed and conveys all the essential elements of the research. Also, the abstracts of applications that receive funding will be posted on individual Agency and program-related web sites, such as:

http://www.redtide.whoi.edu/hab/nationplan/ecohabprojectsummaries.html.

The abstract should include the information indicated in the example format (http://es.epa.gov/ncer/rfa/forms) and described below (1-8). Examples of abstracts for current grants may be found on the NCER web site. The font size and margins should be the same as the Research Plan.

1. Research Category (ECOHAB: Ecology and Oceanography of Harmful Algal Blooms) and Funding Opportunity Number: EPA-G2006-STAR- B1

2. Title: Use the exact title of your project as it appears in the application. The title must be brief, yet represent the major thrust of the project. Because the title will be used by those not familiar with the project, strike a balance between highly technical words and phrases and more commonly understood terminology. Do not use general phrases such as "research on."

3. Investigators: List the Principal Investigator, then the names and affiliations of each co-investigator who will significantly contribute to the project. Provide a web site URL or an e-mail contact address for additional information.

4. Institution: In the same order as the list of investigators, list the name, city and state of each participating university or other applicant institution. The institution applying for assistance must be clearly identified.

5. Project Period: Show the proposed project beginning and ending dates.

6. Project Cost: Show the total dollars requested, including direct and indirect costs for all grant years (the entire project period).

7. Project Summary: Begin with a paragraph that provides an overall description of the project, including any relevant background. Next, provide three subsections as follows: a) Objectives - state the objectives of the study and include any hypotheses that will be tested, b) Approach - describe the experimental approach to be used and any pertinent methodology, and c) Expected Results - describe the expected results of the project and how it addresses the research needs identified in this solicitation, including the estimated improvement in ecosystem assessment or ecosystem management that will result from successful completion of the proposed work.

8. Supplemental Keywords: Without duplicating terms already used in the text of the abstract, supply keywords to assist database searchers in finding your research. A list of suggested keywords can be found at: http://es.epa.gov/ncer/rfa/forms.

E. Research Plan and Quality Assurance Statement

Research Plan

The proposed project must be completely described, including identification of the problem, scientific objectives, proposed methodology, and relevance to the ECOHAB program goals and scientific priorities. Explicitly state the main hypotheses that you will investigate, the data you will create or use, the analytical tools you will use to investigate these hypotheses or analyze these data, and the results you expect to achieve. Research methods must be clearly stated so that the reviewers can evaluate the appropriateness of your approach and the tools you intend to use. The statement: "we will evaluate the data using the usual statistical methods" is not specific enough for peer reviewers.

This description must not exceed fifteen (15) consecutively numbered (bottom center), 8.5x11-inch pages of single-spaced, standard 12-point type with 1-inch margins. In the case of proposals describing multi-disciplinary, multi-institutional regional studies, up to 20 pages are allowed, but

only with the prior permission of the NOAA ECOHAB Program Managers . Page limits are inclusive of figures and other visual materials.

The description must provide the following information:

1. Objectives: List the objectives of the proposed research and the hypotheses being tested during the project, and briefly state why the intended research is important. This section should also include any background or introductory information that would help explain the objectives of the study. For applicants with prior HAB funding, a section outlining the results of the prior work and its connection, if any, with the proposed work must be included **within the page limits described above** (one to two pages recommended).

2. Approach/Activities: Outline the research design, methods, and techniques that you intend to use in meeting the objectives stated above (five to ten pages recommended).

3. Expected Results, Benefits, Outputs and Outcomes: Describe the results you expect to achieve during the project (outputs) and the benefits of the results (outcomes). Discuss the utility of the research proposed for addressing the objectives described in this solicitation. A clear, concise description will help agencies understand the merits of the research (one to two pages recommended). Proposed projects may contribute directly or indirectly to training, education, and outreach. Where appropriate, investigators are encouraged to summarize or highlight such activities as a short section in this part of the project description.

4. General Project Information: Discuss other information relevant to the potential success of the project. This should include facilities, personnel expertise/experience, project schedules, proposed management, interactions with other institutions, etc. Applications for multi-investigator projects must identify project management and the functions of each investigator within a team and describe plans to communicate and share data (one to two pages recommended).

5. Important Attachments:

a. Reference information is required. References cited are in addition to the Research Plan page limits described above. Each reference must include the name(s) of all authors in the same sequence in which they appear in the publication, the article title, volume number, page numbers, and year of publication. This section is for bibliographic citations only and is not to be used to provide parenthetical information outside of the Project Description.

b. Letters verifying the participation of unfunded collaborators must be attached, but limited to one brief paragraph stating availability of a resource (e.g., use of a person's time or equipment) as described in the Research Plan, and are exclusive of the Project Description page limits. Other letters of support are considered part of the Research Plan and included in the Research Plan page limits described above.

c. Appendices may be included but must remain within the stated page limits.

Quality Assurance Statement

For any project involving data collection or processing, conducting surveys, environmental measurements, modeling, or the development of environmental technology (whether hardware-based or via new techniques), EPA will require a statement on the processes that will be used to assure that results of the research satisfy the intended project objectives. This is not required for application submission, but will be required for any proposals that EPA chooses to recommend for funding. More detailed information on requirements can be found at http://es.epa.gov/ncer/guidance/qa.html.

Data Plan (2 pages in addition to the Research Plan page limits)

The application must include a plan to make available all data (including primary and secondary/existing data) from observations, analyses, or model development collected or used under an agreement awarded as a result of this solicitation in a format and with documentation/metadata such that they may be used by others in the scientific community. Applicants who plan to develop or enhance databases containing proprietary or restricted information must provide a strategy, within the two pages, to make the data widely available, while protecting privacy or property rights.

Since each Agency has a different data policy, an investigator may be asked to adjust their data plan in accordance with that of the Agency providing the funding.

Some of the partner Agencies maintain websites describing their individual data policies:

NOAA: http://www.cop.noaa.gov/opportunities/grants/pdf/datapolicy.pdf

ONR: http://www.onr.navy.mil/02/terms.asp, then scroll down to Special Terms and Conditions; Policy for In Situ Ocean Data Article (October 1999)

F. Budget and Budget Justification

Budget

Prepare a budget table using the guidance and format found at http://es.epa.gov/ncer/rfa/forms/, and select "All required forms." If a sub-agreement, such as a subcontract, is included in the application, provide a separate budget for the subcontract in the same format. Include the total amount for the sub-agreement under "Contracts" in the master budget. Any project containing sub-agreements that constitute more than 40% of the total direct cost of the grant will be subject to special review. Additional justification for use of such a subcontract must be provided, discussing the need for this agreement to accomplish the objectives of the research project. All sub-agreement budgets must be approved by the cognizant authority at each institution, as indicated by a signed letter or cover sheet. Investigators on proposals that include Federal and non-Federal investigators or multi-institutional Federal investigators must contact the NOAA

ECOHAB Program Managers identified in this solicitation for instructions on formulating the budgets.

Support of ships required for field studies are a significant cost and need to be adequately justified within the project description. The funding mechanism for ship time is Agency specific. All ship costs, including UNOLS ships, must be included on the budget form. If the ship requested is a UNOLS vessel, a NSF-UNOLS Ship Time Request Form must be submitted to the UNOLS office and a copy appended to the proposal (see I. below).

Please note that institutional cost-sharing is not required. However, if voluntary cost-sharing is proposed, a brief explanatory statement concerning cost-sharing should be added to the budget justification, and estimated dollar amounts must be included in the appropriate categories in the budget table and on the SF424.

Budget Justification (2 pages in addition to the Section E. page limitations)

Describe the basis for calculating the personnel, fringe benefits, travel, equipment, supplies, contractual support, and other costs identified in the itemized budget. The budget justification for each institution should not exceed two consecutively numbered (bottom center), 8.5x11-inch pages of single-spaced, standard 12-point type with 1-inch margins.

Budget information should be supported at the level of detail described below:

1. Personnel: List all staff positions by title. Give annual salary, percentage of time assigned to the project, and total cost for the budget period.

2. Fringe Benefits: Identify the percentage used and the basis for its computation.

3. Travel: Specify the estimated number of trips and locations, and other costs for each type of travel. Explain the need for any travel outside the United States. Include travel funds for one program progress review and/or a final workshop to report on results.

4. Equipment: Identify all tangible, non-expendable personal property to be purchased that has an estimated cost of $5,000 or more per unit and a useful life of more than one year. (Personal property items with a unit cost of less than $5,000 are considered supplies.)

5. Supplies: "Supplies" include all tangible property other than "equipment." Identify categories of supplies to be procured (e.g., laboratory supplies or office supplies).

6. Contractual: Identify each proposed sub-agreement (grant or contract) and specify its purpose and estimated cost. Sub-agreements should have a separate itemized budget and accompanying justification included as part of the application. They must also include a letter or cover page signed by a cognizant authority at that institution/organization.

7. Other: List each item in sufficient detail for the agencies to determine the reasonableness of its cost relative to the research to be undertaken.

8. Indirect Costs: If indirect costs are included in the budget, indicate the approved rate and base with an explanation of how indirect costs were calculated.

G. Resumes and Current and Pending Support

Resumes : Provide the resumes of all important investigators and co-workers. The resume for each individual must not exceed two consecutively numbered (bottom center), 8.5x11-inch pages of single-spaced, standard 12-point type with 1-inch margins. Each resume should include the following information:

1. A listing of professional and academic essentials, including courtesy appointments, and mailing address, telephone number, fax number, and e-mail address;
2. A list of up to five publications most closely related to the proposed project and five other significant publications, within the last five years. Additional lists of publications, lectures, etc., should not be included.

Current and Pending Support : Identify any current and pending financial resources that are intended to support research related to the proposal or that would consume the principal investigator's time. Provide information on current and pending support in the format provided at http://es.epa.gov/ncer/rfa/forms for each investigator and other important co-workers.

H. Collaborator List

Provide one list that includes all collaborators, advisors, and advisees for each investigator (principal and co-principal investigators, post-docs, and subawardees), complete with corresponding institutions. Submit only one, combined and alphabetized list per proposal. Collaborators are individuals who have participated in a project or publication within the last 48 months with any investigator, including co-authors on publications in the resumes. Collaborators also include those persons with which the investigators may have ongoing collaboration negotiations. Advisees are persons with whom the individual investigator has had an association as thesis advisor or postdoctoral sponsor. Advisors include an individual's own graduate and postgraduate advisors. Unfunded participants in the proposed study should also be listed (but not their collaborators). This information is critical for identifying potential conflicts of interests and avoiding bias in the selection of reviewers.

I. Ship Use Form

NOAA requests information on ship requirements in order to schedule time on University-National Oceanographic Laboratory System (UNOLS). If UNOLS ship time is required, the investigator is responsible for sending copies to the UNOLS office and ship operators and appending a copy to the proposal. A UNOLS Ship Time Request Form and instructions are

available at http://www.gso.uri.edu/unols/ship/shiptime.html.

Confidentiality

By submitting an application in response to this solicitation, the applicant grants the sponsoring agencies permission to make limited disclosures of the application to technical reviewers both within and outside the agencies for the express purpose of assisting the agencies with evaluating the application. Information from a pending or unsuccessful application will be kept confidential to the fullest extent allowed under law; information from a successful application may be publicly disclosed to the extent permitted by law.

In accordance with 40 CFR 2.203, applicants may claim all or a portion of the application/proposal as confidential business information (for example, hypotheses or methodologies contained in the research narrative that the applicant wishes to protect from possible public disclosure). EPA will evaluate confidentiality claims in accordance with 40 CFR Part 2. Applicants must clearly mark applications/proposals or portions of applications/proposals they claim as confidential. If no claim of confidentiality is made, the EPA is not required to make an inquiry to the applicant otherwise required by 40 CFR 2.204(c)(2) prior to disclosure.

Funding Opportunity Number

At various places in the application, applicants are asked to identify the funding opportunity number. The funding opportunity number must be placed at the top of the abstract (location is shown in the abstract format, http://es.epa.gov/ncer/rfa/forms) and in Box 10 of Standard Form 424 for all applications. For paper submissions, the funding opportunity number must also be placed in the address on the package that is sent to the EPA (see below).

The funding opportunity number for this solicitation is EPA-G2006-STAR-B1.

Letters of Intent/Letters of Support

Letters of intent to provide resources for the proposed research are limited to one brief paragraph committing the availability of a resource (e.g., use of a person's time or equipment) as described in the Research Plan. Letters of intent are to be included as an addition to the budget justification documents.

Principal investigators may believe that letters of support from local constituencies contribute to the relevance of their proposal. All letters that do not commit a resource vital to success of the proposal are considered letters of support. Letters of intent that exceed one brief paragraph and letters of support are considered part of the Research Plan and included in the Research Plan page limits.

Submission Dates and Times

For paper copy submissions, the original and two (2) copies of the complete application (3 in all), and one (1) additional copy of the abstract, **must be received by NCER no later than 4:00 pm Eastern Time** on the solicitation closing date. Electronic applications **must be transferred to grants.gov no later than 4:00 pm Eastern Time** on the solicitation closing date. It should be noted that this schedule may be changed without prior notification because of factors that were not anticipated at the time of announcement. In the case of a change in the required application

closing date, a new date will be posted on the NCER web site (http://es.epa.gov/ncer/) and a

modification posted on http://www.grants.gov/ . Applications received after the closing date will be returned to the sender without further consideration.

Solicitation Closing Date Date: January 10, 2006, 4:00 pm Eastern Time

Earliest Anticipated Start Date: September 2006

Funding Restrictions

The funding mechanism for all awards issued under this solicitation to non-Federal applicants will consist of assistance agreements from the funding Agency. All award decisions are subject to the availability of funds. In accordance with the Federal Grant and Cooperative Agreement Act, 31 U.S.C. 6301 et seq., the primary purpose of a grant is to accomplish a public purpose of support or stimulation authorized by federal statute, rather than acquisition for the direct benefit or use of the Agency. In issuing a funding agreement, the funding Agency anticipates that there will be no substantial involvement by said funding Agency in the design, implementation, or conduct of the research. However, the funding Agency will monitor research progress through annual reports provided by awardees and other contacts, including site visits, with the Principal Investigator.

If you wish to submit applications for HAB research to more than one Agency, you must ensure that the research proposed in each application is significantly different from any other that has been submitted or from any other grant you are currently receiving from other federal government agencies.

Collaborative applications involving more than one institution must be submitted as a single administrative package from one of the institutions involved.

Any contracts for services or products funded with EPA financial assistance must be awarded under the competitive procurement procedures of 40 CFR Parts 30 or 31, as applicable. Moreover, naming a specific contractor or collaborator in the application does not relieve the applicant of its obligations to comply with competitive procurement requirements. Also, the regulations contain limitations on consultant compensation.

Other Submission Requirements

You may submit either a paper application or an electronic application (but not both) for this solicitation.

Submission Instructions for Paper Applications

The application and abstract must be prepared in accordance with these instructions. The original, signed copy of the application must not be permanently bound or stapled in any way.

The other two (2) required copies of the application should be secured with paper or binder clips or secure staples.

Because of security concerns, applications cannot be personally delivered. They must be sent through regular mail, express mail, or a major courier.

The following address must be used for regular mail:

U.S. Environmental Protection Agency
Peer Review Division (8725F)
Funding Opportunity Number: EPA-G2006-STAR-B1
1200 Pennsylvania Avenue, NW
Washington, DC 20460

The following address must be used for express mail and couriers:

U.S. Environmental Protection Agency
Peer Review Division (8725F)
Funding Opportunity Number: EPA-G2006-STAR-B1
F Street, NW (Room 3500)
Washington, DC 20004
Phone: (202) 233-0686

Submission Instructions for Electronic Applications

The electronic application package available through the http://www.grants.gov/ web site must be used for electronic submissions. In order to view the application package, download the PureEdge viewer (hyperlink available under "Apply for Grants" then "Apply Step 1"). The application package may be quickly accessed from https://apply.grants.gov/forms_apps_idx.html

using either one of the CFDA numbers or one of the Funding Opportunity Numbers. Be sure to download the electronic application package for the appropriate Funding Opportunity Number (research area). It is recommended that you "Register to Receive Notification" of announcement updates. Please note: the electronic application package is available under multiple CFDA numbers because more than one agency is participating in this solicitation. However, any application submitted under a particular Funding Opportunity Number, regardless of the CFDA selected, will be considered admissible for that research area by all participating agencies.

The actual submission of an electronic application must be made by an Authorized Organizational Representative (AOR) of the submitting institution who is registered with grants.gov (most individual investigators will not be eligible to submit the application). See

http://www.grants.gov/, "Get Started" for further information. ***The registration process may take a week or longer.*** Check with your Sponsored Programs or equivalent office to locate your

AOR and see if your institution is registered. If your institution is not currently registered, encourage your AOR to begin the process immediately.

The complete application ***must be transferred to grants.gov no later than 4:00 pm Eastern Time*** on the solicitation closing date (see "Submission Dates and Times"). NOAA CSCOR will notify the Principal Investigator and the Administrative Contact to acknowledge receipt of the application and to transmit other important information. If acknowledgment from CSCOR (not support@grants.gov) has not been received within 30 days of the submission closing date, immediately contact one of the NOAA Program Managers listed in this solicitation. Failure to do so may result in your application not being reviewed.

Documents must be submitted in Adobe Acrobat PDF format to maintain format integrity. Prior to preparing the electronic application package, view files for any PDF conversion errors. Submit the required documents as described below.

On the electronic Grant Application Package page, enter the Principal Investigator's name, starting with the last name, in the "Application Filing Name" field.

A. Application for Federal Assistance (SF-424)
    1. Complete the form. There are no attachments.
B. EPA Key Contacts Form 5700-54
    1. Complete the form.
    2. If additional pages are needed, see "E. Other Attachments Form" below.
C. Project Narrative Attachment Form
    1. Compile the Research Plan followed into one document labeled *ResearchPlan* and submit it as the "Add Mandatory Project Narrative File."
    2. Prepare a document with your abstract, label it *Abstract*, and submit it as an "Add Optional Project Narrative File."
    3. Prepare one document containing: a) all Resumes and b) all Current and Pending Support (see format example located at http://es.epa.gov/ncer/rfa/forms/), label it Resumes, and submit it as an "Add Optional Project Narrative File."
    4. Prepare a document containing the Data Plan, label it *DataPlan*, and submit it as an "Add Optional Narrative File."
D. Budget Narrative Attachment Form
    1. Where possible, prepare one document for your Budget and Budget Justification (see format example located at http://es.epa.gov/ncer/rfa/forms/), label this document *BudgetAndJustification*, and submit it as the "Add Mandatory Budget Narrative." This file should also include subcontracts as described in #3 below.
    2. If you cannot compile your Budget and Budget Justification into one document, prepare one document for each.
        a. Label your Budget document *Budget* and submit it as the "Add Mandatory Budget Narrative."
        b. Label the Budget Justification document *BudgetJustification* and submit it as an "Add Optional Budget Narrative" document.
    3. When submitting budgets for sub-contracts or agreements to other institutions, provide a Budget and Budget Justification, as well as a signed page from the

cognizant authority at that institution for each subcontract. Where possible, subcontract documentation should be amended to the *BudgetAndJustification* file (see #1 above). If these documents cannot be combined, label the subcontract document *BudgetSubcontracts* and submit it as an "Add Optional Budget Narrative" document.

4. When submitting letters of intent, first refer to the "Letters of Intent/Letters of Support" paragraph under Section IV. J. (Guidelines, Limitations and Additional Requirements) for additional information. Letters of intent appropriate for inclusion in the budget justification are to be compiled into one document named *LettersofIntent* and submitted as an "Add Optional Budget Narrative" document.

E. Other Attachments Form

1. If Key Contacts Continuation pages are needed for the Key Contacts Form 5700-54, compile them into one document labeled *ContactsContinuation* and submit the document.
2. If UNOLS ship time is requested, the Ship Use form must first be submitted to UNOLS, according to instructions at

   http://www.gso.uri.edu/unols/ship/shiptime.html. A PDF copy of this form should then be labeled *ShipUseForm* and submitted here.
3. Prepare the combined, alphabetized collaborator list as described in Section IV. H. Label this document *CollaboratorList* and submit here.
4. Other appropriate documents may also be submitted here.

Once the application package has been completed, the "Submit" button will become active. Save your completed application package with two different file names before providing it to your AOR to avoid having to re-create the package should submission problems be experienced. Submission of the application package must be completed by your AOR.

Authorized Organization Representative (AOR) Submission Instructions: Close all other software before attempting to submit the application package. If you experience submission problems, reboot your computer (turning the power off may be necessary) and re-attempt the submission. If submission problems continue, contact grants.gov for assistance (Phone: 1-800-518-4726, Email: support@grants.gov). If submission problems are not quickly resolved, contact the NCER electronic submission support person, Bronda Harrison (Phone: 202-343-9777, Email: harrison.bronda@epa.gov).

V. APPLICATION REVIEW INFORMATION

Criteria

External peer reviewers consider an application's merit based on the criteria below. Criteria 1-4 are listed in descending order of importance. Criteria 5 and 6, though not reflective of an application's scientific merit, are taken into consideration by some of the partner agencies when making funding decisions.

1. Research Proposal (criteria "1a" through "1f" are essentially equal):

a. The originality and creativity of the proposed research and the appropriateness and adequacy of the proposed research methods.
b. Is the research approach practical and technically defensible? Can the project be performed within the proposed time period?
c. Will the research contribute to scientific knowledge in the topic area?
d. What are the projected benefits of the proposed activity to society, such as improving the environment or promoting ecosystem health?
e. Will the results be disseminated broadly to enhance scientific and technological understanding?
f. Is the proposal well prepared with supportive information that is self-explanatory or understandable?

2. Investigators: The qualifications of the Principal Investigator(s) and other key personnel, including research training, demonstrated knowledge of pertinent literature, experience, past performance, and publication records. Will all key personnel make a significant time commitment to the project?
3. Responsiveness: The responsiveness of the proposal to the ECOHAB program goals. Does the proposal adequately address the issues specified in the solicitation?
4. Facilities and equipment: The availability and/or adequacy of the facilities and equipment proposed for the project. Are there any deficiencies that may interfere with the successful completion of the research?
5. Broader Impacts: Reviewers are asked to comment on other issues that are not related to the application's scientific merit. Does the activity promote teaching, training, and learning and outreach; or broaden the participation of socio-economically disadvantaged groups?
6. Budget: Although budget information does not reflect on the application's scientific merit, the reviewers are asked to provide their view on the appropriateness and/or adequacy of the proposed budget and its implications for the potential success of the proposed research. Input on requested equipment is of particular interest.

Review and Selection Process

All applications are reviewed by an appropriate external technical peer review panel and ad hoc reviewers by mail, using the criteria above. In general, each peer review group is composed of scientists, engineers, social scientists, and economists, as well as state resource and public health managers, who are experts in their respective disciplines and proficient in the technical subjects they are reviewing. Reviewers are asked to assign a summary score of excellent, very good, good, fair, or poor to each application. This review is designed to evaluate each proposal according to its scientific merit.

Generally, only applications that receive scores of excellent and very good from the peer reviewers are subjected to a programmatic review by the sponsoring agencies' program officials. In some cases, however, a partner Agency may choose to include proposals rated good if the proposal addresses major data gaps or emerging HAB species with significant potential impacts. In general, Agency program officials will evaluate proposals on the basis of peer review ratings, relevancy to the stated Agency Interests, program balance, budget, and available funds. In evaluating an applicant's technical capability to successfully conduct the proposed project,

agencies will consider information provided by the applicant and may consider information from other sources including Agency files. Applicants who are recommended for funding may be required to provide additional information. Applications are then recommended for funding by the appropriate program managers to the sponsoring agencies for final award in accordance with the procedures of that Agency.

Applications from non-Federal and Federal applicants will be evaluated under the same review/selection process. Proposals from non-Federal applicants that are selected for funding will be funded through assistance agreements under the terms of this solicitation. Proposals from Federal agencies or laboratories deemed acceptable and selected for funding will be funded through a medium other than an assistance agreement such as inter- or intra-agency transfers, where legal authority exists for such funding. Applications are welcome from all qualified applicants, including in particular, those from educational institutions that have significant minority enrollment, women, and members of minority groups.

For NOAA awards, the selection factors for applications are published in the NOAA Fiscal Year 2006 Omnibus Federal Register Notice (FR Vol. 70, No. 125, June 30, 2005, pp. 37766-37788) and will be used in conjunction with the program and policy factors in Sections I and IV of this announcement.

For purposes of EPA awards, EPA will only perform a programmatic review on those applications receiving scores of excellent or very good from the peer review panel. The EPA programmatic review will be conducted by technical experts from the EPA, including individuals from the Office of Research and Development (ORD) and program and regional offices involved with the science or proposed research, and will consider the following factors:

- the relevance of the proposed science to EPA research priorities,
    - program balance,
    - the applicant's past performance and reporting,
    - organizational experience, and
- available program funds from STAR and the congressionally mandated Experimental Program to Stimulate Competitive Research (EPSCOR): http://es.epa.gov/ncer/other/.

The purpose of the programmatic review is to assure a balanced research portfolio for the Agency and determine which applications to recommend for award. In conducting the programmatic review, the EPA will consider information provided by the applicant and may consider information from other sources including agency files.

Final funding decisions are made by the NCER Director based on the results of the peer review and internal programmatic review. Applicants selected for funding will be required to provide additional information listed below under “Award Notices.” The application will then be forwarded to EPA’s grants administration office for award in accordance with the EPA’s procedures.

VI. AWARD ADMINISTRATION INFORMATION

Award Notices

At the conclusion of the peer review process, program managers from participating agencies will make their funding recommendations based on the stated review and selection criteria, Agency program interests, and funds available. This process varies among the ECOHAB agencies. The ECOHAB Coordinator will serve as the contact point for investigators wishing to determine application status. Applications still under consideration by one of the agencies will be considered pending until the completion of the selection process. For applications where an award recommendation is anticipated, investigators will be notified by an Agency program manager directly, who, if necessary, will negotiate revisions in the proposed work and budget. The ECOHAB Coordinator will notify all other applicants of the decision not to recommend support. Final awards will be issued by the Agency responsible for a specific project after receipt and processing of any specific materials required by the Agency.

Customarily, applicants are notified about award decisions within six months of the application deadline. An anonymous copy of the summary statement of the scientific review by the peer panel and anonymous copies of mail reviews will be provided to each applicant with the award or declination letter. The appropriate Agency grant officer is responsible for providing recipients with notification of their grant awards.

After selection for award, applicants recommended for funding will be required to submit additional certifications and an electronic version of the revised project abstract, and may be requested to provide responses to comments or suggestions offered by the peer reviewers, a revised budget, and/or to resubmit their proposal. The sponsoring Agency will contact Principal Investigators to obtain these materials. Grant administration procedures will be in accordance with the policies of the awarding Agency.

Nonprofit applicants recommended for funding by EPA under this announcement will be subject to a preaward administrative capability review consistent with sections 8.b, 8.c, and 9.d of EPA Order 5700.8, EPA Policy on Assessing Capabilities of Non-Profit Applicants for Managing Assistance Awards (http://www.epa.gov/ogd/grants/regulations.htm).

Disputes

Disputes related to any decisions made by EPA under this assistance agreement competition will be resolved in accordance with the dispute resolution procedures set forth in 70 FR 3629, 3630 (January 26, 2005) which can be found at http://www.epa.gov/ogd/competition/resolution.htm. Questions regarding EPA disputes may be referred to the EPA Eligibility and Technical Contact identified below.

Decisions made by other partner agencies will be subject to the dispute policies and procedures of that Agency.

Administrative and National Policy Requirements

Expectations and responsibilities of ECOHAB awardees are summarized in this section. Additional instructions will be provided in the terms and conditions for each Agency upon award, including which activities require prior approval from the awarding Agency.

A. Meetings: Each applicant must include in the budget funds for meetings with sponsoring Agency personnel and other awardees to discuss research progress. For projects of up to 3 years in duration, budget for one meeting during the project period. For regional studies of 3 to 5 years in duration, budget for two meetings during the project period. For planning purposes, assume that each meeting will be held in Washington, DC, and will require the attendance of principal investigator(s) and co-principal investigator(s). Each meeting will be up to three days in length, as appropriate to the project size, exclusive of travel time.

B. Approval of Changes after Award: Prior written approval is required from the granting Agency if there will be significant change from work described in the application. Examples of such changes as recognized by EPA are contained in 40 C.F.R. 30.25. Note: prior written approval is also required from the EPA for incurring costs more than 90 calendar days prior to award.

C. Human Subjects: A grant recipient funded by the EPA must agree to meet all EPA requirements for studies using human subjects prior to implementing any work with these subjects. These requirements are given in 40 C.F.R. 26, referred to as the "Common Rule." No work involving human subjects, including recruiting, may be initiated before the EPA has received a copy of the applicant's Institutional Review Board's (IRB) approval of the project and the EPA has also provided approval. Where human subjects are involved in the research, the recipient must provide evidence of subsequent IRB reviews, including amendments or minor changes of protocol, as part of annual reports.

D. Animal Welfare: An award recipient must agree to comply with the Animal Welfare Act of 1966 (P.L. 89-544), as amended, 7 U.S.C. 2131-2156. The recipient must also agree to abide by the "U.S. Government Principles for the Utilization and Care of Vertebrate Animals used in Testing, Research, and Training" (50 Federal Register 20864-20865. May 20,1985).

E. Data Access and Information Release: After award, all data (including primary and secondary/existing data) must be made available to the funding agencies without restriction and be accompanied by comprehensive metadata documentation adequate for specialists and non-specialists alike to be able to understand how and where the data were obtained and to evaluate the quality of the data. Data products and their metadata must be provided in a standard exchange format no later than the due date of the grant's final report or the publication of the data product's associated results, whichever comes first.

Congress, through OMB, has instructed each Federal Agency to implement Information Quality Guidelines designed to "provide policy and procedural guidance...for ensuring and maximizing the quality, objectivity, utility, and integrity of information, including statistical information, disseminated by Federal agencies." The EPA's implementation may be found at http://www.epa.gov/quality/informationguidelines/. These procedures may apply to data generated by grant recipients if those data are disseminated as described in the Guidelines.

The Office of Management and Budget (OMB) Circular A-110 has been revised to provide public access to research data through the Freedom of Information Act (FOIA) under some circumstances. Data that are (1) first produced in a project that is supported in whole or in part with federal funds and (2) cited publicly and officially by a Federal Agency in support of an action that has the force and effect of law (i.e., a regulation) may be accessed through FOIA. If such data are requested by the public, the funding Agency must ask for it, and the grantee must submit it, in accordance with A-110.

F. Reporting:

As a result of the award, the recipient will agree to provide to the program manager Agency-specific annual progress reports with associated summaries and a final report with an executive summary. The recipient will be required to provide copies of any peer reviewed journal article(s) resulting from the research during the project period and continue to notify the Project Officer of any papers based on the research supported that are published after termination of the assistance agreement. Investigators are requested to obtain ECOHAB publication number from the ECOHAB Coordinator. The funding Agency's full or partial support should be acknowledged in journal articles, oral or poster presentations, news releases, interviews with reporters and other communications, per the specifications of the individual funding Agency.

VII. AGENCY CONTACTS

Further information, if needed, may be obtained from the Agency officials indicated below. Information regarding this solicitation obtained from sources other than these Agency Contacts may not be accurate. Email inquiries are preferred.

Electronic Submissions Contact:

Bronda Harrison
EPA/ORD/NCER
(202) 343-9777
Email: harrison.bronda@epa.gov

Eligibility and Technical Contacts:

Gina Perovich, Program Manager
EPA/ORD/NCER
(202) 343-9843
Email: perovich.gina@epa.gov

Susan Banahan, Program Manager
NOAA/CSCOR/COP
301-713-3338 ext 148
Email: susan.banahan@noaa.gov

Quay Dortch, ECOHAB Coordinator
NOAA/CSCOR/COP
301-713-3338 ext 157
Email: quay.dortch@noaa.gov