

AGENCY: ENVIRONMENTAL PROTECTION AGENCY (EPA)

TITLE: “ECOLOGICAL INDICATORS OF AIR QUALITY”

ACTION: Request for Applications (RFA) – Initial Announcement

RFIP NO: OAR-CAMD-04-12

CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NO: 66.034

DATES: The closing date and time for receipt of applications is October 18, 2004, 4:00 p.m. EDT. Applications submitted via U.S. mail must be received in the Program Office by the closing date and time.

SUMMARY: This notice announces the availability of funds and solicits proposals that enhance scientific assessment capabilities to better understand how changes in air quality and atmospheric deposition impact entire ecosystems. The successfully funded proposal will present a methodology for developing: (1) ecological indicators of air quality (that measure air quality in relation to aquatic and terrestrial ecosystem conditions) and (2) a measurement system for using these indicators to evaluate progress in improving ecosystem condition.

FUNDING/AWARDS: The total estimated funding for this competitive opportunity is \$250,000. In FY 2005, total funding shall not exceed \$100,000. EPA anticipates award of one cooperative agreement, whose annual value shall not exceed \$100,000, resulting from this competitive opportunity; subject to availability of funds. The cooperative agreement will be funded incrementally. Additional funds may be added in each subsequent year of the agreement.

CONTENTS BY SECTION

- I. Funding Opportunity Description
- II. Award Information
- III. Eligibility Information
- IV. Application and Submission Information
- V. Application Review Information
- VI. Award Administration Information
- VII. Agency Contact
- VIII. Other Information

I. Funding Opportunity Description

A. Background.

A major goal of EPA's Acid Rain Program and other national and regional emissions control programs is to achieve significant reductions in emissions of pollutants such as sulfur dioxide (SO₂) and nitrogen oxides (NO_x), the primary contributors to many ecological problems (e.g. acid rain, coastal eutrophication, acidification of lakes and streams, etc). EPA's Clean Air Markets Division (CAMD) has extensive experience and expertise in long-term monitoring and assessment to determine the efficacy of emissions control programs in reducing environmental stressors such as atmospheric deposition and surface water acidity. Long-term atmospheric monitoring programs such as CASTNET <http://www.epa.gov/castnet/> and National Acid Deposition Monitoring Network (NADP) <http://nadp.sws.uiuc.edu/> help EPA assess the progress of national emissions control programs in reducing ambient concentrations of SO_x and NO_x and in reducing wet and dry atmospheric deposition. In addition, the Temporarily Integrated Monitoring of Ecosystems/Long Term Monitoring (TIME/LTM) network, has made it possible to determine how surface water chemistry in the northeastern US responds to changes in acid deposition (Stoddard et al. 2003 <http://www.epa.gov/ord/htm/CAA-2002-report-2col-rev-4.pdf>).

While the data, data products, and assessments these networks support help to effectively determine how changes in emissions (resulting from national emissions control programs) affect changes in air quality and atmospheric deposition, these stressors alone are not good surrogates for the condition of entire ecosystems. Indicators of ecological condition are additional critical measures of the effectiveness of air pollution control programs. Monitoring air pollutant stressors without monitoring the living things that are stressed or monitoring ecosystem attributes in isolation does not convey a full and accurate picture of ecological condition (EPA, 2003 Draft Report on the Environment) <http://www.epa.gov/indicators/roe/>.. A more robust set of indicators are needed to fully understand and assess the efficacy of emissions reduction programs in relation to ecosystem conditions. Developing such indicators is a key step in increasing scientific assessment capability to measure and report progress in improving ecosystems.

B. Scope of Work.

EPA seeks to fund proposals that enhance scientific assessment capabilities to better understand how changes in air quality and atmospheric deposition impact entire ecosystems. This will involve identifying ecological indicators of air quality (that measure air quality in relation to aquatic and terrestrial ecosystem conditions) to provide a means to assess the effects of air stressors on ecological condition. In addition, this project will involve developing a systematic approach or framework for using these indicators to measure improvements and progress in ecosystem condition over time.

A funded proposal will develop a methodology to:

- Develop ecological indicators of air quality that assess the relationship between air quality, particularly atmospheric deposition, and the impacts to aquatic and terrestrial ecosystems.
- Develop a measurement system for using these indicators to evaluate progress in improving ecosystem condition. This includes the rationale and supporting documentation for why it is a good indicator of air quality. Selected indicators should be well documented in the scientific assessment literature.
- Assess the availability of existing data sources for each selected measurement from a variety of institutions including government, universities and other research organizations, and non-profits. Provide information on each data set including measures of data quality, relevance to indicators, data limitations, assessment capabilities, etc.
- Compile information on selected indicators, including all supporting documentation for selected indicators and information on available data sources, into a database or other vehicle for making this information available, easily accessible, and useful to the scientific community, state and federal environmental agencies, and the public.

Proposals should demonstrate an understanding of air quality issues and the impacts on ecosystem conditions, familiarity with national emissions control and other air quality programs, and knowledge of existing air quality and ecosystem monitoring programs and data collection efforts.

C. Supplementary Information.

The statutory authority for this action is Clean Air Act, Section 103(b)(3) which authorizes the award of grants for research, investigations, experiments, demonstrations, surveys, and studies related to the causes, effect, extent, prevention and control of air pollution.

II. Award Information

A. What is the amount of funding available?

The total estimated funding for this competitive opportunity is \$250,000. In FY 2005, total funding shall not exceed \$100,000. Cooperative agreements resulting from this announcement will be funded incrementally. Additional funds may be added in each subsequent year of the agreement.

B. How many agreements will EPA award in this competition?

EPA anticipates award of one cooperative agreement whose estimated annual value shall not exceed \$100,000 resulting from this competitive opportunity; subject to availability of funds.

Cooperative agreements permit substantial involvement between the EPA Project Officer and the selected applicants in the performance of the work supported. Although EPA will negotiate precise terms and conditions relating to substantial involvement as part of the award process, the anticipated substantial Federal involvement for this project will be:

1. close monitoring of the successful applicant's performance;
2. collaboration during the performance of the scope of work;
3. approving substantive terms of proposed contracts;
4. approving qualifications of key personnel (EPA will not select employees or contractors employed by the recipient);
5. review and comment on reports prepared under the cooperative agreement (the final decision on the content of reports rests with the recipient);
6. approving quality assurance plans for collecting and assessing data, if warranted.

C. What is the project period for awards resulting from this solicitation?

The estimated project period for awards resulting from this solicitation is January, 2005 through January, 2010. All projects must be completed within the negotiated project performance period of one to five years.

D. Can funding be used to acquire services or fund partnerships?

Funding may be used to acquire services or fund partnerships, provided the recipient follows procurement and subaward or subgrant procedures contained in 40 [CFR](#) Parts 30 or 31, as applicable. Successful applicants must compete contracts for services and products and conduct cost and price analyses to the extent required by these regulations. The regulations also contain limitations on consultant compensation. Applicants are not required to identify contractors or consultants in their proposal. Moreover, the fact that a successful applicant has named a specific contractor or consultant in the proposal EPA approves does not relieve it of its obligations to comply with competitive procurement requirements.

Subgrants or subawards may be used to fund partnerships with non profit organizations and governmental entities. Successful applicants cannot use subgrants or subawards to avoid requirements in EPA grant regulations for competitive procurement by using these instruments to acquire commercial services or products to carry out its cooperative agreement. The nature of the transaction between the recipient and the subgrantee must be consistent with the standards for distinguishing between vendor transactions and subrecipient assistance under Subpart B Section .210 of [OMB Circular A-133](#), and the definitions of “subaward” at 40 CFR 30.2(ff) or “subgrant” at 40 CFR 31.3, as applicable. EPA will not be a party to these transactions.

III. Eligibility Information

A. Eligible Entities.

Proposals will be accepted from state, local, multi-state, and tribal governmental agencies, universities, and non-profit organizations, as defined by [OMB Circular A-122](#).

Non-profit organization, as defined by OMB Circular A-122, means any corporation, trust, association, cooperative, or other organization which: (1) is operated primarily for scientific, educational, service, charitable, or similar purposes in the public interest; (2) is not organized primarily for profit; and (3) uses its net proceeds to maintain, improve, and/or expand its operations. For this purpose, the term "non-profit organization" excludes (i) colleges and universities; (ii) hospitals; (iii) state, local, and federally-recognized Indian tribal governments; and (iv) those non-profit organizations which are excluded from coverage of this Circular in accordance with paragraph 5 of the Circular.

B. Cost-Sharing or Matching.

Cost sharing or Matching is not required as a condition of eligibility, or otherwise, for proposals selected for award.

IV. Application and Submission Information

A. How to Obtain Application Package.

Applicants may download individual grant application forms, or electronically request a paper application package and an accompanying computer CD of information related to applicants/grant recipients roles and responsibilities from EPA's Grants and Debarment website by visiting: http://www.epa.gov/ogd/grants/how_to_apply.htm.

B. Content and Form of Application Submission.

Applications must contain a narrative work plan, and one completed and signed federal grant application package. The narrative work plan, a maximum of 17 pages in length, must explicitly describe the applicant's proposed project and specifically address how it meets each of the evaluation criteria disclosed in *Section V(A), Evaluation Criteria*.

1. A complete application must contain the following, in the sequential order shown:
 - a. SF-424 Application for Federal Assistance, with original signature.
 - b. Narrative Statement, in the format detailed below.
 - c. Other supporting documentation.
 - d. SF-424 A, Budget by categories and indirect cost rate.
 - e. SF-424 B, Assurances for non-construction programs.
 - f. Certification Regarding Lobbying and SF LLL, if applicable.

- g. EPA Form 4700-4 Preaward Compliance review report.
 - h. Quality Assurance Narrative Statement, if applicable.
 - i. Copy of Negotiated Indirect Cost Rate Agreement, if applicable.
 - j. Biographical Sketch.
 - k. E-mail address or self-addressed envelope (to receive notification of receipt of application).
2. The narrative work plan, a maximum of 17 pages in length, must conform to the following outline:
- a. Project Title.
 - b. Applicant Information. Include applicant (organization) name, address, contact person, phone number, fax and e-mail address.
 - c. Funding Requested. Specify the amount you are requesting from EPA.
 - d. Project Period. Provide beginning and ending dates (for planning purposes, applicants should assume funds will be available in January, 2005).
 - e. Narrative Work Plan. The narrative work plan must summarize the project and explicitly describe how the proposed project meets the guidelines established in *Section I(B), Scope of Work* and, specifically, address each of the evaluation criteria disclosed in *Section V(A), Evaluation Criteria*.
 - f. Qualifications. Summarize your technical experience and knowledge and project management experience. Demonstrate how your qualifications meet the criteria. Resume or CV may be attached at the end of the narrative (not to be included in 17 page limit).
 - g. Total Project Cost. Specify total cost of the project. Identify funding from other sources including any in-kind resources.
 - h. Detailed Itemized Budget. Provide a budget for the following categories, specifying unit costs:
 - Personnel
 - Fringe Benefits
 - Contractual Costs
 - Travel
 - Equipment
 - Supplies
 - Other
 - Total Direct Costs
 - Total Indirect Costs: must include documentation of accepted indirect rate
 - Total Cost
 - i. Reporting Requirements. Discuss quarterly progress updates (schedule to be established by EPA). Quarterly progress reports should include: a summary of performance progress-to-date, problems encountered, successes achieved, and development milestones.

Applicants are strongly advised to avoid submission of extemporaneous materials. Pages exceeding the maximum length will not be considered. The maximum page length shall include

any pieces that may be submitted by a third party (e.g., references or letters confirming commitments). All application materials must be completed in English. The minimum acceptable font size for application materials, excluding the SF-424a, shall be 10 point.

C. Submission Date and Times.

1. The closing date and time for submission of applications is October 18, 2004, 4:00 p.m. EDT. All proposal packages must be received in the program office listed below by the closing date and time. Proposals received after the closing date and time will not be considered for funding. Electronic or facsimile transmission of applications will not be accepted.
2. Because of the unique situation involving U.S. mail screening in Washington, DC, EPA highly recommends that applicants use express mail to submit their proposals. Initial Proposals and Final Applications should be addressed to:

Express Delivery Address (FedEx, UPS, DHL, etc)

U.S. EPA
Attn: Suzie Young
OAR/OAP/Clean Air Markets Division
1310 L Street, NW, 7th Floor
Washington, DC 20005
(202) 343-9234

Regular Mail Delivery Address (U.S. Postal Service)

U.S. EPA
Attn: Suzie Young (Mail Code 6204J)
OAR/OAP/CAMD
1200 Pennsylvania Avenue, NW
Washington, DC 20460

V. Application Review Information

A. Evaluation Criteria.

Each eligible proposal will be evaluated according to the criteria set forth below. Proposals that are best able to directly and explicitly address the primary criteria will have a greater likelihood of being selected for award. Each proposal will be rated under a points system, with a total of 100 points possible.

Criterion	Maximum Points Per Criterion
<p>Scientific Approaches: Indicate how your project will identify a comprehensive suite of ecological indicators of air quality that will provide a means to examine the effects of air stressors, particularly atmospheric deposition, on ecological condition. The proposal should describe how you will develop a measurement system for using these indicators to evaluate progress in improving ecosystem condition. Discuss how selection of these indicators will enhance assessment capabilities to better understand air quality impacts on ecosystems. In addition, proposals should demonstrate knowledge of the literature and the ability to document and support selections.</p>	40
<p>Implementation Plan: Describe in detail the plan for implementing the project with a time line for each phase. Indicate what information you will gather and how you will compile this information into a format that is readily available, easily accessible, and useful to the scientific community and public.</p>	20
<p>Benefit to the Public: Explain how the information contained in the database will enhance scientific assessment capabilities to better understand how changes in air quality and atmospheric deposition impact entire ecosystems. Please describe how you will make this information available and in a format that is easily accessible and useful to the scientific community and the public.</p>	20
<p>Experience of Key Personnel: Describe your organization’s relevant experience and expertise in this area. Indicate how your organization’s experience and expertise will help you to identify ecological indicators and develop a measurement system for using these indicators. Discuss any relevant experience and/or existing projects related to ecosystem and air quality issues.</p>	20

B. Other Factors.

EPA reserves the right to make decisions on applications based on factors that help ensure geographic equity and the demonstration of a variety of different technical approaches.

C. Review and Selection Process.

Each proposal will be evaluated by a team chosen to address a full range of ecological and air quality issues. The Evaluation Team will base its evaluation solely on the selection criteria disclosed in this notice (*Refer to Section V(A), Evaluation Criteria*).

Completed evaluations will be referred to a Selection Committee that is responsible for further consideration and final selection. The highest numerically-ranked proposal (subject to the availability of funds, and consideration of *Section V(B), Other Factors*) will be selected for award.

VI. Award Administration Information

A. Award Notices.

Following final selections, all applicants will be notified regarding their application's status.

1. EPA anticipates notification to *successful* applicant(s) will be made via telephone, electronic or postal mail by November 19, 2004. This notification, which advises that the applicant's proposal has been selected and is being recommended for award, is not an authorization to begin performance. The award notice signed by the EPA grants officer is the authorizing document and will be provided through postal mail. At a minimum, this process can take up to 90 days from the date of selection.
2. EPA anticipates notification to *unsuccessful* applicant(s) will be made via electronic or postal mail by November 19, 2004. In either event, the notification will be sent to the original signer of the application.

B. Administrative and National Policy Requirements.

1. A listing and description of general EPA Regulations applicable to the award of assistance agreements may be viewed at:
http://www.epa.gov/ogd/AppKit/applicable_epa_regulations_and_description.htm.
2. Executive Order 12372, Intergovernmental Review of Federal Programs may be applicable to awards, resulting from this announcement. Applicants *selected* for funding may be required to provide a copy of their proposal to their [State Point of Contact](#) (SPOC) for review, pursuant to Executive Order 12372, Intergovernmental Review of Federal Programs. This review is not required with the Initial Proposal and not all states require such a review.
3. All applicants are required to provide a Dun and Bradstreet (D&B) Data Universal Numbering System (DUNS) number when applying for a Federal grant or cooperative agreement. Applicants can receive a DUNS number, at no cost, by calling the dedicated toll-free DUNS Number request line at 1-866-705-5711, or visiting the D&B website at:
<http://www.dnb.com>.

C. Reporting Requirement.

Quarterly progress reports will be required. The quarterly progress report should include: a summary of performance progress-to-date, detailed expenditures-to-date, problems encountered, successes achieved, and lessons learned. The schedule for submission of quarterly progress reports will be established, by EPA, after award.

VII. Agency Contact

FOR FURTHER INFORMATION CONTACT: Suzie Young, U.S. EPA, Office of Atmospheric Programs, 1200 Pennsylvania Ave., NW (MC 6204J), Washington, DC 20460. Phone: (202)343-9544; or email young.suzanne@epa.gov.

All questions or comments must be communicated in writing via postal mail, facsimile, or electronic mail to the contact person listed above. Answers will be posted, bi-weekly, until the closing date of this announcement at the OAR Grants/Funding webpage (http://www.epa.gov/air/grants_funding.html).

VIII. Other Information

Applicants should clearly mark information in their application that they consider confidential. EPA will make final confidentiality decisions in accordance with Agency regulations at 40 CFR Part 2, Subpart B.

EPA reserves the right to reject all proposals or applications and make no award as a result of this announcement. The EPA Grant Award Officer is the only official that can bind the Agency to the expenditure of funds for selected projects resulting from this announcement.

Formal disputes challenging the Agency award decision will be resolved using the Dispute Procedures at 40 CFR 30.63 and 40 CFR 31.70.