GEOGRAPHIC, STATISTICAL, AND INDICATOR RESEARCH TO SUPPORT THE NATIONAL CONDITION SURVEYS AND THE ENVIRONMENTAL RESEARCH PROGRAM

General Information

Announcement Type: Initial Announcement

Funding Instrument Type: CA

Funding Opportunity Number: EPA-ORD-09-WED29788

Posted Date: 1/06/2009

Due Date for Applications: To be considered timely, application packages must be

received by 2:00 p.m. local time in Corvallis, OR on

2/20/2009 from the U.S. Postal Service or other commercial delivery service. Applications submitted electronically through grants.gov must be received by grants.gov by 5:00

p.m. EDT on 2/20/2009.

Archive Date: (To be completed by OGD)

Category of Funding Activity: Environment

Anticipated Number of Awards: 1

Anticipated Total Program Funding: \$1,500,000 Award Ceiling: \$1,500,000

Award Floor: \$190,000

.

CFDA Number: 66.511 ORD Consolidated Research

Cost Sharing or Matching Requirement: None

Geospatial Information It is anticipated that the agreement that is awarded will not

involve or relate to geospatial information.

Eligible Applicants

The statutory authority for the contemplated award is the Clean Water Act, Section 104(r) and under this authority public and private universities and colleges are eligible for awards. Universities and colleges must be subject to OMB Circular A-21.

Federal Agency Name

U.S. Environmental Protection Agency, Office of Research and Development, National Health and Environmental Effects Research Laboratory, Western Ecology Division, 200 S.W. 35th Street, Corvallis, OR 97333.

Description: The U.S Environmental Protection Agency (EPA) is seeking applications proposing innovative approaches to determining how to employ the growing experience in conducting surveys of the ecological

condition of freshwater systems (e.g., flowing waters, wetlands, and lakes) to the emerging need to include the value of ecosystem services in environmental decision-making. Services provided by ecosystems to humans include *provisioning* [e.g., providing water food, fuel, fiber]; *support* [soil fertility, nutrient cycling, pollination]; *regulation* [climate moderation, flood control]; *cultural* [economic, spiritual, and recreational benefits]; and *preservation* [biodiversity, renewable resources].) Methods for using indicators of and data on wetland condition to quantify the services provided by freshwater systems are vital if land managers, especially the states and tribes, are to ensure continued benefit from those services.

The goal of this research is to develop relationships between measures of ecological condition to the delivery of ecosystem services by freshwater systems (e.g., flowing waters, wetlands, and lakes) that can be used in conjunction with surveys of ecological condition.

Application Materials

You may submit either a printed application package or an electronic application package (but not both) for this announcement. The printed package must be received by Kathy Martin, 200 S.W. 35th Street, Corvallis, OR 97333, by the closing date and time. To apply electronically, the electronic application package available through the http://www.grants.gov/ web site must be used. If your organization is not currently registered with Grants.gov, you need to allow approximately one week to complete the registration process. This registration, and electronic submission of your application, must be performed by an appropriate representative of your organization.

Agency Contact Person for Electronic Access Problem

Larry Hodgson, phone: (740) 261-5036 email: hodgson.larry@epa.gov

Link to Full Announcement

END OF COVER PAGE

FULL TEXT OF ANNOUNCEMENT

I. Funding Opportunity Description

Title of Assistance Opportunity: "Geographic, Statistical, and Indicator Research to Support the National Condition Surveys and the Environmental Research Program"

Background

The mission of the U.S. Environmental Protection Agency (EPA) is to preserve and protect human health and the environment. The Office of Research and Development (ORD), in partnership with the Office of Water, continues to seek more effective ways to document the effectiveness of the Agency's actions in support of this mission, especially in regards to the Agency's responsibilities under the Clean Water Act.

The Water Quality and Environmental Research Programs

The Millennium Ecosystem Assessment produced a compelling synthesis of the global value of ecosystem services to human well-being (MEA, 2005). Freshwaters and wetlands in particular deliver a wide range of ecosystem services (e.g., fish and fiber production, water supply support, water purification, climate regulation, flood regulation, coastal protection, recreational opportunities, and tourism) that contribute to human well-being. Although the most recent National Wetlands Inventory Status and Trends report (Dahl, 2005) described a net gain in total wetland acreage between 1998 and 2004, significant losses still occurred in specific wetland types (e.g., 61% of freshwater wetland losses were due to urban and rural development). Costanza et al. (1997) estimated the average global value of wetland ecosystem services in US 1994 dollars to be almost \$15K ha⁻¹ yr⁻¹. This is the highest value reported for any biome, and strongly suggests that future environmental decision-making processes weigh the value of ecosystem services as an important contribution to human well-being. As human population continues to increase freshwater systems worldwide are projected to suffer continued loss and degradation, thus reducing the capacity of wetlands to provide valued ecosystem services that contribute to human well-being. These effects are only intensified when scenarios for impacts associated with climate change are taken into consideration. The concurrent demand for ecosystem services will only increase.

Freshwater systems are valued because many of their ecological functions have proven useful to humans. Mitsch and Gosselink (1993) state that "The reasons that wetlands are often legally protected have to do with their value to society, not with the abstruse ecological processes that occur in wetlands ... Perceived values arise out of the functional ecological processes ... but are also determined by human perceptions, the location of a particular wetland, the human population pressures on it, and the extent of the resource." This is reflected in the fact that wetlands were identified as a priority for protection, restoration, and improvement by the President on Earth Day 2004 (CEQ 2006). This new national initiative went beyond the "no net loss" policy with a goal to restore or create, protect, and improve at least 3 million acres of wetlands by 2009 (CEQ 2006). Recognizing the array of benefits provided by wetlands to the economic, ecological, and cultural heritage of all Americans, EPA is implementing a major research effort to (1) document the range and quantity of wetlands services provided by wetlands and (2) determine how the relative abundance of

functional types of wetlands, their distribution and position in the landscape, and their ecological condition alters the provisioning of services.

Major policy decisions in the next decade must address trade-offs among current and future uses of freshwater resources. Particularly important trade-offs for wetlands involve those between:

- land use and human safety during floods;
- agricultural production and safe water supplies;
- land use and biologically diverse terrestrial ecosystems;
- water use and biologically diverse and productive aquatic ecosystems;
- current water use for irrigation and future agricultural production (MEA, 2005).

Such decisions must also consider the full range of benefits and values to human well-being provided by different freshwater systems. Carpenter et al. (2006) identified many uncertainties and research needs evoked by the Millennium Ecosystem Assessment. These include characterizing ecosystem services, linking ecosystem condition and function to services and human well-being, predicting the effects of changes in ecosystem services on human well-being, and improving the identification, quantification, and communication of uncertainty.

Ecological monitoring, modeling, and mapping have been mainstays of ecological science, both within the EPA and for the discipline as a whole. In addition, Section 305(b) of the Clean Water Act requires the states and tribes report biennially on the quality of our Nation's water resources. This report, known as the National Water Quality Inventory, provides an assessment of condition and an analysis of the relative magnitude of impact that can be attributed to different stressors and their sources. The Environmental Monitoring and Assessment Program (EMAP) was created to support and enhance this reporting by developing tools for detecting both spatial and temporal trends. The program emphasized the development and testing of indicators of ecological condition and of new monitoring designs for major classes of natural resources, including wetlands. The research has been conducted through series of studies in the form of assessments of ecological condition.

The requirement that all waters of the U.S. be assessed has been historically ignored for freshwater systems. This is especially true for wetlands, even though they are included in the definition of "waters of the U.S." However, prospects for comprehensive monitoring of freshwaters are high as evidenced by plans for a national assessment of wetland condition in 2011 (Scozzafava et al. 2007). Technically, the development of wetland monitoring and assessment has made significant progress over the last five years. Wardrop et al. (2007) credit the development of (1) hydrogeomorphic classification and assessment (Brinson 1993), (2) biological assessment methods (e.g., Karr and Chu 1999, Lopez and Fennessy 2002), (3) the definition of reference condition (Brinson and Rheinhardt 1996, Rheinhardt et al. 1997, 1999); and (4) design protocols for obtaining a representative sample of aquatic resources (e.g., Larsen et al. 1994, Stevens and Olsen 1999, 2000). Recent publications demonstrate the capacity for conducting surveys of wetlands condition at the watershed scale (see, for instance, Kentula (2007) and materials available on the EPA Biological Assessment of Wetlands Workgroup web page at http://www.epa.gov/owow/wetlands/bawwg).

The challenge moving forward is to provide the technical support needed to determine how to employ the growing experience in conducting surveys of the ecological condition of freshwater systems to the emerging need to include the value of ecosystem services in the process of environmental decision-making.

Funding Priorities/Focus: To solicit applications for a cooperative agreement that will improve the understanding of the relationship between the ecological condition of freshwater ecosystems and the delivery of ecosystem services. The applicant should demonstrate knowledge and experience in the (1) design, implementation, analysis and reporting required for large scale (i.e., watershed or larger) surveys of the ecological condition of freshwater systems (i.e., flowing waters, wetlands, and lakes/reservoirs), (2) development and testing of indicators of the ecological condition of freshwater systems, and (3) determination of the delivery of ecosystem services by freshwater systems The proposed research will support EPA's strategic goals for protecting, sustaining, and restoring the health of people, communities, and ecosystems. Examples of specific activities that applications may focus on are listed below. Investigators responding to this RFA, however, should not limit themselves to these activities. While not absolutely required (unless identified as Other Threshold Eligibility Criteria in Section III), investigators responding to this RFA are encouraged to include all of the activities listed, as well as other activities they deem necessary to meeting the goals of this assistance opportunity. The activities listed below are considered of equal priority for meeting these goals. This funding opportunity is to collaborate with WED scientists and personnel from the Office of Water to:

- Design and develop geographic frameworks to address specific scientific questions and issues, as well as those of a broader nature such as ecosystem management and risk assessment;
- Clarify the strengths and weaknesses of existing geographic frameworks and analytical tools commonly used to quantify, report, and extrapolate information on environmental resources and ecosystems, especially the delivery of ecosystem services;
- Develop ways to illustrate and increase the understanding of the nature of the provision of ecosystem services, and of factors that influence their delivery as they relate to management, assessment, and reporting uses.
- Refine indicators for assessing condition and contribute to the development of indicators of the delivery of ecosystem services by aquatic systems and wetlands, in particular.
- Develop ways to improve the definition of reference condition for aquatic systems, and wetlands, in particular.
- Develop approaches and methods for assessing the delivery of ecological services at multiple scales and for effectively reporting the results to resource managers and the public.
- The initial focus will be on wetlands with a long-term goal of conducting similar research and evaluations on other types of aquatic systems (i.e., wetlands, rivers/streams, lakes/reservoirs).

Environmental Results: This RFA seeks applications that will advance the following goals/objectives as identified in EPA's 2006 Strategic Plan (http://www.epa.gov/cfo/plan/2006/entire_report.pdf):

Goal 4: Healthy Communities and Ecosystems.

Objective 4.4: Enhance Science and Research - Provide a sound scientific foundation for EPA's goal for protecting, sustaining, and restoring the health of people, communities, and ecosystems by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 4.

Sub-objective 4.4.1: Apply the Best Available Science – Identify and synthesize the best available scientific information, models, methods, and analyses to support Agency guidance and policy decisions related to the health of people, communities, and ecosystems.

Sub-objective 4.4.2: Conduct Relevant Research – Conduct research that contributes to the overall health of people, communities, and ecosystems.

EPA's research to provide a scientific foundation for protecting, sustaining, and restoring the health of people, communities, and ecosystems focuses on identifying, assessing and reducing risk. Many of EPA's programs to achieve and sustain healthy communities and ecosystems are designed to bring tools, resources, and approaches to bear at the local level, thereby, building community capacity by providing information to understand risk and to evaluate the effects of development and other decisions on health and the environment.

Outputs expected from the research funded under this agreement include:

- Innovative approaches to improve the provision of ecosystem services through effective management of the factors influencing the delivery of services by aquatic systems (i.e., wetlands, rivers/streams, lakes/reservoirs),
- Identification of indicators for assessing ecological condition and delivery of services,
- Identification of appropriate geographic frameworks and analytical tools, including the definition of reference, for use in quantifying, reporting, and extrapolating information on aquatic resources, especially the delivery of ecosystem services,
- Innovative approaches for effectively reporting the results to resource managers and the public,
- Publications in peer-reviewed journals, conference proceedings, and, books, and
- Attendance and presentation of data at national and international scientific meetings.

The anticipated outcomes from this research include:

Applying relevant scientific information to enhance the decision-making process of states and tribal nations for the management of aquatic resources to maintain and enhance the delivery of ecosystem services and for environmental protection.

Note to applicant: The term "output" means an environmental activity or effort, and associated work projects, related to a specific environmental goal(s), (e.g., testing a new methodology), that will be produced or developed over a period of time under the agreement. The term "outcome" means the result, effect, or consequence that will occur from the above activities that is related to an environmental, behavioral, or health-related objective.

Statutory Authority for Award of Assistance: This research is authorized under the Clean Water Act, Section 104(r). The Clean Water Act authorizes the use of grants by EPA for basic research into the structure and function of fresh water aquatic ecosystems, and to improve understanding of the ecological characteristics necessary to the maintenance of the chemical, physical, and biological integrity of freshwater aquatic ecosystems.

Geospatial Information: It is anticipated that the agreement that is awarded will not involve or relate to geospatial information.

References

Brinson, M. M. 1993. A Hydrogeomorphic Classification for Wetlands. Technical Report WRP-DE-4, U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS.

Brinson, M. M., and R. Reinhardt. 1996. The role of reference wetlands in functional assessment and mitigation. Ecological Applications **6**:69-76.

Carpenter, S.R., R. DeFries, T. Dietz, H.A. Mooney, S. Polasky, W.V. Reid, and R.J. Scholes. 2006. Millennium Ecosystem Assessment: Research Needs. *Science* 314:257-258.

Council on Environmental Quality (CEQ). 2006. Conserving America's Wetlands 2006:

Two Years of Progress Implementing the President's Goal. Executive Office of the President, Council on Environmental Quality, Washington, DC. 57 p.

Costanza, R., R. D'Arge, R. de Groot, S. Farber, M. Grasso, B. Hannon, K. Limburg, S. Naeem, R. V. O'Neill, J. Paruelo, R. G. Raskin, P. Sutton, and M. van den Belt. 1997. The value of the world's ecosystem services and natural capital. Nature **387**:253-260.

Dahl, T. E. 2005. Status and Trends of Wetlands in the Conterminous United States 1998 to 2004. U.S. Fish and Wildlife Service, Washington, DC.:116.

Karr, J. R., and E. W. Chu. 1999. Restoring Life in Running Waters: Better Biological Monitoring. Island Press, Washington, D.C.

Kentula, M. E. 2007. Foreword: Monitoring wetlands at the watershed scale. Wetlands **27**:412-415. Larsen, D. P., K. W. Thornton, N. S. Urquhart, and S. G. Paulsen. 1994. The role of sample surveys for monitoring the condition of the Nation's lakes. Environmental Monitoring and Assessment **32**:101-134.

Lopez, R. D., and M. S. Fennessy. 2002. Testing the floristic quality assessment index as an indicator of wetland condition. Ecological Applications **12**:487-497.

Millenium Ecosystem Assessment. 2000. Ecosystems and Human Well-Being: Wetlands and Water Synthesis.

World Resources Institute, Washington, DC.:68.

Mitsch, W. J., and J. G. Gosselink. 1993. Wetlands. 2nd edition. John Wiley, New York, NY. Rheinhardt, R. D., M. M. Brinson, and P. M. Farley. 1997. Applying wetland reference data to functional assessment, mitigation, and restoration. Wetlands 17:195-215.

Rheinhardt, R. D., M. C. Rheinhardt, M. M. Brinson, and K. E. Faser Jr. 1999. Application of reference data for assessing and restoring headwater ecosystems. Restoration Ecology 7:241-251.

Scozzafava, M. E., T. E. Dahl, C. Faulkner, and M. Price. 2007. Assessing status, trends, and condition of wetlands in the United States. National Wetlands Newsletter **29**:24-28.

Stevens, D. L., Jr., and A. R. Olsen. 1999. Spatially restricted surveys over time for aquatic resources. Journal of Agricultural, Biological, and Environmental Statistics **4**:415-428.

Stevens, D. L., Jr., and A. R. Olsen. 2000. Spatially restricted random sampling designs for design-based and model-based estimation. Pages 609-616 *in* Accuracy 2000: Proceedings of the 4th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences. Delft University Press, The Netherlands.

Wardrop, D. H., M. E. Kentula, D. L. Stevens, Jr., S. F. Jensen, and R. P. Brooks. 2007. Assessment of wetland condition: an example from the Upper Juniata Watershed in Pennsylvania, USA. Wetlands 27:416-430.

II. Award Information

Anticipated Amount of Individual Award: \$1,500,000

Anticipated Number of Awards: One

EPA anticipates funding one cooperative agreement to an eligible entity.

EPA reserves the right to make additional awards under this announcement, consistent with Agency policy and guidance, if additional funding becomes available after the original selections are made. Any additional selections for awards will be made no later than 6 months after the original selection decisions.

EPA reserves the right to reject all proposals or applications and make no awards under this RFA.

Anticipated Funding: The EPA anticipates an initial funding of \$190,000 for this project upon award of the agreement.

Anticipated Project Period: May 1, 2009 – April 30, 2013

Supplemental Applications: Applications for supplemental awards of existing EPA assistance agreements will not be eligible to compete for this assistance opportunity.

Type of Award: The Agency anticipates the award of a cooperative agreement.

Anticipated Federal Involvement: EPA and the Project Officer for this assistance agreement anticipate substantial involvement in the implementation of the research as follows:

- 1. Discuss the specific approach for the study with the members of the project team.
- 2. Share data with the project team for use in finalizing the approach for the study design of the observational exposure measurement study.
- 3. Provide technical input to the details of the study design.
- 4. Provide information on and data from surveys of ecological condition of freshwater systems.
- 5. Coordinate extramural research with in-house research activities.
- 6. Provide technical input on a regular basis through scheduled meetings and monthly conference calls.
- 7. Collaborate with the project team to identify milestones and discuss progress.
- 8. Participate in outreach to, and interactions with appropriate offices within states and tribes and other organizations or agencies likely to use approaches developed under this agreement.
- 9. Participate in field data collection activities during the study.
- 10. Provide in-kind support in the form of access to EPA facilities, e.g., access to databases.
- 11. Participate in the data analysis and reporting.
- 12. Participate in the preparation and review (to include co-authors) of journal articles and reports.

III. Eligibility Information

Eligible Applicants: The statutory authority for the contemplated award is the Clean Water Act, Section 104(r) and under this authority public and private universities and colleges are eligible for awards.

National laboratories funded by Federal Agencies (Federally-Funded Research and Development Centers, "FFRDCs") may not apply. 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 its assistance agreement 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.

Federal Agencies may not apply. Federal employees are not eligible to serve in a principal leadership role on an assistance agreement, and may not receive salaries or augment their Agency's appropriations in other ways through awards made under 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. Examples are purchase of satellite data, census data tapes, chemical reference standards, analyses, or use of instrumentation or other facilities not available elsewhere. A written justification for federal involvement must be included in the application. In addition, an appropriate form of assurance that documents the commitment, such as a letter of intent from the Federal Agency involved, should be included.

Cost Sharing Requirements: Institutional cost-sharing is not required. However, if the applicant intends to propose a voluntary cost-share, a brief 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. The amount of cost sharing proposed (if any) will not result in additional points for any applicant, but will be considered in the evaluation of the reasonableness and realism of the overall budget. If EPA accepts an offer for a voluntary cost share/match/participation, applicants must meet their matching/sharing/participation commitment as a condition of receiving EPA funding. Applicants may use their own funds or other resources for voluntary match/cost share/participation if the standards at 40 CFR 30.23 or 40 CFR 31.24, as applicable, are met. Only eligible and allowable costs may be used for voluntary matches/cost shares/participation. Other Federal grants may not be used as voluntary matches or cost shares without specific statutory authority (e.g. HUD's Community Development Block Grants).

Other Threshold Eligibility Criteria: Applications will be reviewed for threshold eligibility purposes based on the criteria below prior to initiation of the technical and programmatic reviews under Section V. Applicants deemed ineligible for funding consideration as a result of the threshold eligibility review will be notified within 15 calendar days of the ineligibility determination.

Administrative Eligibility Criteria:

- **a. Application packages** must substantially comply with the application submission instructions and requirements set forth in Section IV of this announcement or else they will be rejected. However; where a page limit is expressed in Section IV with respect to the project narrative, pages in excess of the page limitation will not be reviewed.
- b. In addition, application packages must be received by the EPA or received through www.grants.gov, as specified in Section IV of this announcement, on or before the submission deadline published in Section IV of this announcement. Applicants are responsible for ensuring that their application package reaches the designated person/office specified in Section IV of the announcement by the submission deadline.

c. Application packages received after the submission deadline will be considered late and returned to the sender without further consideration unless the applicant can clearly demonstrate that it was late due to EPA mishandling or because of technical problems solely attributable to the grants.gov website and not the applicant. For hard copy submissions, where Section IV requires application package receipt by a specific person/office by the submission deadline, receipt by an agency mailroom is not sufficient. Applicants should confirm receipt of their application packages with Ms. Kathy Martin as soon as possible after the submission deadline—failure to do so may result in your package not being reviewed.

<u>Relevance Eligibility Criteria:</u> Application packages that are found administratively acceptable will be subjected to a review for relevancy to EPA's mission to support advancement of environmental science. Packages will be rejected if they are found to lack relevance. Examples of application packages that lack relevance include:

- 1. Project is deficient technically with no chance for consideration.
- 2. Project fails to advance the objectives stated in the solicitation even if successfully performed.
- 3. Project essentially duplicates research already completed or underway.
- 4. Project fails to demonstrate a public purpose of support and stimulation; (e.g., it implies the primary purpose is to provide direct support to the Federal government).

IV. Application and Submission Information

Applicants must submit a complete, detailed application package including all of the documents described in Section A below regardless of the mode of transmission. Additional guidance on completing the documents is available at EPA's Office of Grants and Debarment (http://www.epa.gov/ogd/). Applicants may submit either a hard-copy printed application package or an electronic application package through grants.gov (but not both) for this announcement. Applications may <a href="mailto:notoriogness-notoriogness

A. Application Materials

The application is made through submission of the materials described below. *It is essential that the application contain all information requested and be submitted in the formats described.* The application must contain the following items:

1. Application or Federal Assistance (SF-424). Complete the form. There are no attachments. Please be sure to include the organization fax number and email address in Block 5 of the SF-424.

This form will be the *first page* of the application. Instructions for completion of the SF-424 are included with the form. (However, note that EPA requires that the entire requested dollar amount appear on the 424, not simply the proposed first year expenses.) The form must contain the original (or electronic) signature of an <u>authorized representative</u> of the applying institution. Please note that both the Principal Investigator and an administrative contact are to be identified in Section 5 of the SF-424. The applicant's DUNS number must be included. (See Section VIII for instructions on obtaining a DUNS number.)

- **2. Budget Information for Non-Construction Programs (SF-424A).** Complete the form. There are no attachments. At a minimum, complete Section B- Budget Information and Section F-Other Budget Information. The total amount of federal funding requested for the project period should be shown on line 5(e) and on line 6(k) of SF-424A. If indirect costs are included, the amount of indirect costs should be entered on line 6(j). The indirect cost rate (i.e., a percentage), the base (e.g., personnel costs and fringe benefits), and the amount should also be indicated on line 22.
- **3. Key Contact List.** EPA Key Contacts Form 5700-54 should include the Principal, Co-Investigators, and administrative contacts. A copy of this form should also be completed for major sub-agreements (contacts at the institutions of primary co-investigators).

4. Project Narrative and Supporting Documentation

The Project Narrative and Supporting Documentation should be readable in PDF, MS Word or Word Perfect WP6/7/8 for Windows and consolidated into a single file.

a. The project narrative is the technical proposal that discusses the technical approach and organizational capabilities for accomplishing the goals stated under the Funding Priorities/Focus in Section I. It must also address all of the technical and programmatic review criteria in Section V of the announcement. The applicant should demonstrate knowledge and experience in the (1) design, implementation, analysis and reporting required for large scale (i.e., watershed or larger) surveys of the ecological condition of freshwater systems (i.e., flowing waters, wetlands, and lakes/reservoirs), (2) development and testing of indicators of the ecological condition of freshwater systems, and (3) determination of the delivery of ecosystem services by freshwater systems.

The project narrative must also describe the following items: (1) the applicant's plan for tracking and measuring progress toward achieving the expected environmental outputs and outcomes including those identified in Section I, (2) the qualifications of the proposed key personnel and adequacy of their time commitment to the project, and (3) the applicants institutional capability including laboratory space and equipment that will be available to complete the project.

The project narrative must also include the following information: Submit a list of federally and/or non-federally funded assistance agreements (assistance agreements include Federal grants and cooperative agreements but not Federal contracts) similar in size, scope and relevance to the proposed project that the proposed Lead PI performed within the last three years (no more than 5, and preferably EPA agreements) and describe (i) whether, and how, they were able to successfully complete and manage those agreements, (ii) their history of meeting the reporting requirements under those agreements including submitting acceptable final technical reports and (iii) how they documented and/or reported on whether you were making progress towards achieving the expected results (e.g., outputs and outcomes) under those agreements; and if they were not making progress, please indicate whether, and how, they documented why not. For each agreement identified, include the title, the Principal Investigator, the total amount funded, the project period, a brief (1-3 lines) description of the project, and the record of resulting peer reviewed publications. Provide a point of contact in the primary sponsor's organization with

email address and telephone. In evaluating applicants under these factors in Section V, EPA will consider the information provided by the applicant and may also consider relevant information from other sources, including information from EPA files and from current and prior Federal agency grantors (e.g., to verify and/or supplement the information provided by the applicant). If you do not have any relevant or available past performance or reporting information, please indicate this in the proposal and you will receive a neutral score for these factors under Section V. If you do not provide any response for these items, you may receive a score of 0 for these factors.

<u>The project narrative</u>, including those submitted electronically, must be submitted in English and must not exceed fifty (50) consecutively numbered (bottom center) 8.5X11-inch pages of single-spaced, standard 12-point type with 1-inch margins. This page limitation shall include all text, tables, figures, references, attachments, and appendices. It does not include the materials requested below in items b, c, or d.

- b. The Quality Management Plan must describe the quality system in terms of management and organizational structure, policy and procedures, personnel qualifications and training; procurement of items and services; documentation and records; computer hardware and software; planning; implementation of work processes; assessment and response; and quality improvement. Thus, the Quality Management Plan may be viewed as the "umbrella" document under which individual projects are conducted. The Quality Management Plan is used to demonstrate conformance to Part A requirements of ANSI/ASQC E4-1994. The Quality Management Plan must be approved and signed by the senior management of the organization. For more information, go to http://www.epa.gov/quality.
- c. Budget Narrative includes detailed, itemized budget estimates for the project that is broken down into direct labor, fringe benefits, equipment, travel, other direct costs and overhead with summaries for each year and the total for the entire project. If a subagreement is included in the application, provide a separate budget for the subagreement in the same format if the subagreement is greater than \$25k.

If amounts are budgeted for subcontracts, provide a description of the work that will be subcontracted and an explanation of why it must be subcontracted. Indicate whether the subcontracts will be awarded competitively or if not, what justification exists to make a non-competitive award. Any budget that includes amounts for subcontracts of 40% or more of the total direct costs will be subject to special review. Refer to Section IV.F, Partnerships, for a further discussion of proposed subcontracts.

Please note that institutional cost-sharing is not required. However, if you intend to cost-share, a brief 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.

Describe the basis for calculating the personnel, fringe benefits, travel, equipment, supplies, contractual support, and other costs identified in the itemized budget and explain the basis for their calculation. (Special attention should be given to explaining the "travel," "equipment," and "other"

categories.). For any proposed equipment, identify any tangible non-expendable personal property to be purchased which 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.) Tips for preparing the budget support can be found at http://www.epa.gov/ogd/recipient/tips.htm.

When formulating budgets for applications, applicants must not include management fees or similar charges in excess of the direct costs and indirect costs at the rate approved by the applicants cognizant audit agency, or at the rate provided for by the terms of the agreement negotiated with EPA. The term "management fees or similar charges" refers to expenses added to the direct costs in order to accumulate and reserve funds for ongoing business expenses, unforeseen liabilities, or for other similar costs that are not allowable under EPA assistance agreements. Management fees or similar charges may not be used to improve or expand the project funded under this agreement, except to the extent authorized as a direct cost of carrying out the scope of work.

d. Biographical Sketches - 2-page curriculum vitae should be included for the Principal Investigator, co-principal investigator(s), and any other key personnel identified in the proposal.

B. Submission Instructions for Electronic Applications Using Grants.gov

The electronic submission of your application must be made by an official representative of your institution who is registered with Grants.gov and is authorized to sign applications for Federal assistance. For more information, go to http://www.grants.gov and click on "Get Registered" on the left side of the page. *Note that the registration process may take a week or longer to complete*. If your organization is not currently registered with Grants.gov, please encourage your office to designate an AOR and ask that individual to begin the registration process as soon as possible.

To begin the application process under this grant announcement, go to http://www.grants.gov and click on the "Apply for Grants" tab on the left side of the page. Then click on "Apply Step 1: Download a Grant Application Package and Instructions" to download the compatible Adobe viewer and obtain the application package. To apply through grants.gov you must use Adobe Reader applications and download compatible Adobe Reader version (Adobe Reader applications are available to download for free on the Grants.gov website. For more information on Adobe Reader please visit the Help section on grants.gov at http://www.grants.gov/help/help.jsp or http://www/grants.gov/aboutgrants/program_status.jsp.

Once you have downloaded the viewer, you may retrieve the application package by entering the Funding Opportunity Number, EPA-ORD-08-WED29788, or the CFDA number that applies to the announcement (CFDA 66.511), in the appropriate field. You may also be able to access the application package by clicking on the Application button at the top right of the synopsis page for this announcement on http://www.grants.gov (to find the synopsis page, go to http://www.grants.gov and click on the "Find Grant Opportunities" button on the left side of the page and then go to Search Opportunities and use the Browse by Agency feature to find EPA opportunities).

Application Submission Deadline: Your organization's AOR must submit your complete application electronically to EPA through Grants.gov (http://www.grants.gov) no later than 5pm EDT on 2/20/2009.

Please submit *all* of the application materials described below.

The following forms and documents are required to be submitted under this announcement:

- 1. Application for Federal Assistance (SF-424)
- 2. Budget Information for Non-Construction Programs (SF-424A)
- 3. Key Contact List
- 4. Project Narrative (project narrative attachment form) and Supporting Documentation-See Section IV.A.4 of the announcement

Documents 1 through 4 listed under Application Materials in Section IV.A of this announcement should appear in the "Mandatory Documents" box on the grants.gov Grant Application Package page.

For documents 1-3, click on the appropriate form and then click "Open Form" below the box. The fields that must be completed will be highlighted in yellow. Optional fields and completed fields will be displayed in white. If you enter an invalid response or incomplete information in a field, you will receive an error message. When you have finished filling out each form, click "Save". When you return to the electronic Grant Application Package page, click on the form you just completed, and then click on the box that says, "Move Form to Submission List". This action will move the document over to the box that says, "Mandatory Completed Documents for Submission."

For document 4, you will need to attach electronic files. Prepare each of the documents as described in items 4.a through 4.d of Section IV.A of the announcement and save the documents to your computer as an MS Word, PDF or WordPerfect file. When you are ready to attach the project narrative document to the application package, click on "Project Narrative Attachment Form", and open the form. Click "Add Mandatory Project Narrative File", and then attach the documents (previously saved to your computer) using the browse window that appears. You may then click "View Mandatory Project Narrative File" to view it. Enter a brief descriptive title of your project in the space beside "Mandatory Project Narrative File Filename", the filename should be no more than 40 characters long. If there are other attachments that you need to submit to accompany your proposal such as the supporting documentation described in Section IV.A.4.b-d of the announcement, you may click "Add Optional Project Narrative File" and proceed as before. When you have finished attaching the necessary documents, click "Close Form". When you return to the "Grant Application Package" page, select "Project Narrative Attachment Form" and click "Move Form to Submission List". The form should now appear in the box that says, "Mandatory Completed Documents for Submission."

Once you have finished filling out all of the forms/attachments and they appear in one of the "Completed Documents for Submission" boxes, click the "Save" button that appears at the top of the Web page. It is suggested that you save the document a second time, using a different name, since this will make it easier to submit an amended package later if necessary. Please use the following format when saving your file: "Applicant Name – FY 09(grant category; e.g., Assoc Prog Supp) – 1st Submission" or "Applicant Name – FY 09 (grant category) – Back-up Submission." If it becomes necessary to submit an amended package at a later date, then the name of the 2nd submission should be changed to "Applicant Name – FY 09 (grant category) – 2nd Submission."

Once your application package has been completed and saved, send it to your AOR for submission to the U.S. EPA through Grants.gov. Please advise your AOR to close all other software programs before attempting to submit the application package through Grants.gov.

In the "Application Filing Name" box, your AOR should enter your organization's name (abbreviate where possible), the fiscal year (e.g., FY09), and the grant category (e.g., Assoc Prog Supp). The filing name should not exceed 40 characters. From the "Grant Application Package" page, your AOR may submit the application package by clicking the "Submit" button that appears at the top of the page. The AOR will then be asked to verify the agency and funding opportunity number for which the application package is being submitted. If problems are encountered during the submission process, the AOR should reboot his/her computer before trying to submit the application package again. [It may be necessary to turn off the computer (not just restart it) before attempting to submit the package again.] If the

AOR continues to experience submission problems, he/she should contact grants.gov for assistance (Phone: 1-800-518-4726, Email: http://www.grants.gov/help/help.jsp). If submission problems are not quickly resolved, contact the NHEERL electronic submission support person, Larry L. Hodgson at 740/261-5036 or hodgson.larry@epa.gov.

Application packages submitted through grants.gov will be time/date stamped electronically.

If you have not received a confirmation of receipt from EPA (not from grants.gov) within 30 days of the application deadline, please contact the individual identified in Section VII. Failure to do so may result in your application not being reviewed.

C. Submission Instructions for Printed Hard-Copy Applications

Submit a complete application package including all of the documents identified in Section IV.A of this announcement. The complete application *must be* sent through regular mail, express mail, or a major courier to: Kathy Martin, 200 S.W. 35th Street, Corvallis, OR 97333.

Because of security concerns, applications cannot be personally delivered. To be considered timely, hard copy application packages must be received by 2:00 p.m. local time in Corvallis, OR on 2/20/2009 from the U.S. Postal Service or a major courier. Applications received after the deadline will not be considered and will be returned to the submitter. Printed hard-copy applications, including all documents stated in Section IV.A., above, must be submitted in the original with 3 copies and should be double-sided. Grant application forms can be found at http://www.epa.gov/ogd/AppKit/application.htm

D. Intergovernmental Review

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). The SF424 refers to this Executive Order Requirement. National research programs are generally exempt from review unless the proposals (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. To determine whether their state participates in this process, and how to comply, applicants should consult: http://www.whitehouse.gov/omb/grants/spoc.html.

E. Funding Restrictions

The EPA anticipates funding this project initially at \$190,000 upon award of the agreement.

F. Partnerships

EPA awards funds to one eligible applicant as the "recipient" even if other eligible applicants are named as "partners" or "co-applicants" or members of a "coalition" or "consortium". The recipient is accountable to EPA for the proper expenditure of funds.

Funding may be used to provide subgrants or subawards of financial assistance to fund partnerships provided the recipient complies with applicable requirements for subawards or subgrants including those contained in 40 CFR Parts 30 or 31, as appropriate. Successful applicants must award contracts on a competitive basis for services and products and shall conduct cost and price analyses to the extent required by the procurement provisions of these regulations. The regulations also contain limitations on consultant compensation. Applicants are not required to identify contractors or consultants in their proposal. While applicants are not required to identify contractors or consultants in their proposal, if they do so the fact that an applicant selected for award has named a specific contractor or consultant in the proposal EPA selects does not relieve the applicant of its obligations to comply with competitive procurement requirements. Please note that applicants may not award sole source contracts to consulting, engineering or other firms assisting applicants with the proposal based solely on the firm's role in preparing the proposal.

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 from for-profit organizations to carry out its assistance agreement. The nature of the transaction between the recipient and the subawardee and 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.

Section V of the announcement describes the evaluation criteria and evaluation process that will be used by EPA to make selections under this announcement. During this evaluation, except for those criteria that relate solely to the applicant's qualifications, past performance, and reporting history, the review panel will consider (to the extent applicable under any relevant criteria) the qualifications, expertise, and experience of

- i) an applicant's named subawardees/subgrantees identified in the proposal/application if the applicant demonstrates in the proposal/application that if it receives an award that the subaward/subgrant will be properly awarded consistent with the applicable regulations in 40 CFR Parts 30 or 31. For example, applicants must not use subawards/subgrants to obtain commercial services or products from for profit firms or individual consultants.
- (ii) an applicant's named contractor(s), including consultants, identified in the proposal/application if the applicant demonstrates in its proposal/application that the contractor(s) was selected in compliance with the competitive Procurement Standards in 40 CFR Part 30 or 40 CFR 31.36 as appropriate. For example, an applicant must demonstrate that it selected the contractor(s) competitively or that a proper non-competitive sole-source award consistent with the regulations will be made to the contractor(s), that efforts were made to provide small and disadvantaged businesses with opportunities to compete, and

that some form of cost or price analysis was conducted. EPA may not accept sole source justifications for contracts for services or products that are otherwise readily available in the commercial marketplace.

EPA will not consider the qualifications, experience, and expertise of proposed subawardees/subgrantees and/or contractors during the proposal/application evaluation process unless the applicant complies with these requirements.

G. Amendments

Any amendments to this RFA will be posted on grants.gov under this Funding Opportunity Number and the due date for applications will be extended if deemed appropriate.

H. Confidentiality

By submitting an application in response to this solicitation, the applicant grants the EPA permission to make limited disclosures of the application to technical reviewers both within and outside the Agency for the express purpose of assisting the Agency with evaluating the application. Information from pending or unsuccessful applications 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.

I. Pre-proposal/Application Assistance and Communications.

In accordance with EPA's Assistance Agreement Competition Policy (EPA Order 5700.5A1), EPA staff will not meet with individual applicants to discuss draft proposals, provide informal comments on draft proposals, or provide advice to applicants on how to respond to ranking criteria. Applicants are responsible for the contents of their applications/proposals. However, consistent with the provisions in the announcement, EPA will respond to questions from individual applicants regarding threshold eligibility criteria, administrative issues related to the submission of the proposal, and requests for clarification about the announcement.

V. Application Review Information

Each application that meets the eligibility requirements set forth in Section III will be subjected to technical and programmatic reviews. The technical review will be conducted by a panel consisting of at least two non-EPA reviewers and one EPA reviewer who are able to demonstrate expertise and do not have any conflicts of interest with any of the applications. The purpose is to evaluate the scientific merit of the proposal and the capability of the applicant to complete the project as proposed. The programmatic review will be conducted by other qualified EPA personnel who are able to demonstrate a lack of any conflict of interest with respect to any of the applications. The purpose is to evaluate the applicant's past performance in conducting projects of similar size, scope and relevance.

The following criteria will be used in the evaluation process:

Technical Evaluation Criteria For Technical Review (90%)

- 1. Adequacy of the Technical Approach
 - a. The overall scientific merit of the technical approach for achieving the goals stated under the Funding Priorities/Focus in Section I. (50%)
 - (1) Background, need, and hypotheses: Whether the applicant demonstrates a clear understanding of the scientific issues and goals of the research including whether the proposed hypotheses are sound and address the issues and can be anticipated to lead to a substantial improvement in the understanding of the relationship between the ecological condition of freshwater systems (i.e., flowing waters, wetlands, and lakes/reservoirs) and the delivery of ecosystem services, and the ability to track condition and delivery of services in large-scale (i.e., watershed or larger) surveys. (5%)
 - (2) The applicant's general technical, statistical, and methodological approaches for conducting the proposed study are appropriate and adequate to test the proposed hypotheses, are scientifically sound, and have a high likelihood of success. (7%)
 - (3) Whether the applicant understands issues associated with data from surveys of ecological condition and the ecological processes that support the delivery of ecosystem services. (7%)
 - (4) Whether the proposed approach describes and demonstrates how indicators of ecological condition can be adapted for use in measuring delivery of ecosystem services. (7%)
 - (5) Whether the proposal demonstrates that innovative approaches will be used in the design and implementation of research to relate measures of ecological condition to the delivery of ecosystem services in freshwater systems. (7%)
 - (6) Whether the applicant has identified key considerations, including potential limitations, in assessing ecological condition and the delivery of ecosystem services and on the conduct of large-scale (e.g., watershed, state, regional, national) surveys freshwater systems. (4%)
 - (7) Whether the applicant demonstrates an appropriate and adequate approach and plan for engaging a variety of federal, state, other academic scientists in the fields of aquatic and wetland ecology. (3%)
 - (8) Whether the applicant demonstrates that the proposed approach will produce

- survey methods, indicators and analysis techniques suitable for use in the conduct of large-scale (e.g., watershed, state, regional, national) surveys freshwater systems. (7%)
- (9) Whether the applicant clearly demonstrates capabilities and experience conducting research on assessing ecological condition and the delivery of ecosystem services and on the conduct of large-scale (e.g., watershed, state, regional, national) surveys freshwater systems. (3%)
- b. The applicant's plan for tracking and measuring progress toward achieving the expected environmental outputs and outcomes including those identified in Section I. (5%)
- 2. Qualifications of the proposed key personnel and adequacy of time commitment. (20%)
- 3. Institutional capability including laboratory space and equipment that will be available to complete the project. (10%)
- 4. Quality Management Plan that describes the organization's quality system. (5%)

Programmatic Review Evaluation Criterion for Programmatic Review. (10%)

The Agency will evaluate the applicant's demonstration of the programmatic capability to successfully carry out and manage the proposed project based on the following factors: (i) the past performance of the proposed Lead Principal Investigator in successfully completing and managing federally and/or non-federally funded assistance agreements (an assistance agreement is a grant or cooperative agreement and not a contract) of similar size, scope and relevance to the proposed project during the past five years, (ii) the proposed Lead PI's history of meeting reporting requirements on federally and/or non-federally funded assistance agreements (an assistance agreement is a grant or cooperative agreement and not a contract) of similar size, scope and relevance to the proposed project during the past five years, and (iii) the proposed Lead PI's past performance in documenting and/or reporting on progress towards achieving the expected outcomes and outputs (e.g., results) under federally and/or non-federally funded assistance agreements (an assistance agreement is a grant or cooperative agreement and not a contract) of similar size, scope and relevance to the proposed project during the past five years (and if such progress was not made whether the documentation and/or reports satisfactorily explained why not).

If the Proposed Lead PI has no relevant or available past performance and/or reporting information, the applicant will be given a neutral rating for those criteria. In evaluating applicants under this criterion the Agency may consider information from other sources including agency files and prior/current grantors (e.g., to verify and/or supplement the information provided by the applicant).

Other Factors: When two or more of the highly rated application packages receive equivalent rankings, the respective budgets will be evaluated by EPA staff for cost reasonableness and cost realism to determine which applicant will be selected to receive the award. The application that is determined to be the most reasonable/realistic will be selected for award. The amount of cost sharing proposed (if any) will not result in additional points for any applicant, but will be considered in the evaluation of the reasonableness and realism of the overall budget.

Review and Selection Process:

Evaluation Review Process: The eligibility review discussed in Section III will be conducted by EPA personnel who are not part of the technical or programmatic review panels. The technical review panel will review the application against the criteria above identified as Technical Evaluation Criteria and rank the application based upon this evaluation. The programmatic review will be conducted by one or more EPA reviewers who are not part of the technical evaluation panel and they will review the application against the criteria identified above as Programmatic Evaluation Criteria and rank the application based upon this evaluation. The results of the Technical and Programmatic Evaluations will then be combined to determine the overall ranking of each evaluated eligible applicant.

<u>Source Selection:</u> The EPA Selection Decision Official will make a selection of the applicant for award based upon the combined rankings of the technical and programmatic reviews and, if applicable, the other factors discussed above. The Selection Decision Official is an Office of Research and Development (ORD) manager who will determine which applicant should receive the award as described above.

Following EPA's determination of the awardee, all applicants will be notified regarding their status. Final applications will be requested from those eligible entities whose initial application has been successfully evaluated and preliminarily recommended for award. Those entities will be provided with instructions and a due date for submittal of the final application package.

Anticipated Announcement and Award Dates: The anticipated award date is May 1, 2009.

VI. Award Administration Information

Award Notices: Notice of award will be made in writing by an official in the EPA Grants and Interagency Agreement Management Division. Preliminary selection by the Decision Official in the Office of Research and Development does not guarantee an award will be made. Applicants are cautioned that only a grants officer can bind the Government to the expenditure of funds. No commitment on the part of EPA should be inferred from technical or budgetary discussions with an EPA Program Official. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the EPA Grants Award Official does so at their own risk.

Disputes: Assistance agreement competition-related disputes will be resolved in accordance with the dispute resolution procedures published in 70 FR (Federal Register) 3629, 3630 (January 26, 2005) which can be found at http://www.epa.gov/ogd/competition/resolution.htm. Copies of these procedures may also be requested by contacting the Agency Contact identified in Section VII.

Administrative and National Policy Requirements:

Regulations and OMB Coverage:

Grants and agreements with institutions of higher education, hospitals, and other non-profit organizations are subject to 40 CFR Parts 30 and 40 and OMB Circular A-122 for non-profits and A-21 for institutions of higher learning.

Grants and agreements with state, local, and tribal governments are subject to 40 CFR Parts 31 and 40 and OMB Circular A-87.

<u>Programmatic Terms and Conditions:</u> Terms and conditions will be negotiated with the selected recipient covering the following requirements:

- An acceptable study design document describing the observational study to be performed that adequately addresses issues identified in the planned EPA document on scientific and ethical approaches for observational exposure studies (to be completed in 2009).
- An acceptable quality assurance document, i.e., Quality Assurance Project Plan (QAPP), shall be due within 45 calendar days of completion of the final study design.
- Approval of the protocol for protection of human subjects by an Institutional Review Board prior to the start of data collection
- To further the assistance-agreement objectives of public support and stimulation, applicants must agree to make methods, models, and data resulting from this agreement accessible to the public and to EPA researchers.
- The nature and extent of collaboration between EPA and the recipient.
- OBM clearance shall be obtained prior to the collection of identical information from 10 or more non-Federal respondents.

Reporting:

<u>Quarterly Progress Reports</u>: The selected recipient will be required to submit quarterly progress reports summarizing technical progress, difficulties encountered, and planned activities for the next quarter. Each report shall include a summary of expenditures.

<u>Final Report:</u> The selected recipient will be required to submit a final report within 90 calendar days of the completion of the period of performance.

VII. Agency Contact

The primary agency contact for this RFA is Kathy Martin at

200 S.W. 35th Street Corvallis, OR 97333.

Telephone: (541) 754-4502

E-mail: martin.kathy@epa.gov (applications may not be submitted via email)

If unable to reach Kathy Martin, contact Mr. Larry Hodgson at:

Telephone: (740) 261-5036 E-mail: hodgson.larry@epa.gov

VIII. Other Information

Questions: Questions should be submitted in writing by 1/24/2009. Do not attempt to seek information regarding this RFA from any source other than those identified in Section VII as the information provided may be erroneous. Questions that are considered significant will be answered via an amendment to this RFA.

Animal and Human Subject Research:

a. Human Subjects: A grant applicant 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. For observational studies involving children, pregnant women, or nursing mothers please refer to Subparts B & D of 40 C.F.R. § 26. U.S. Department of Health and Human Services regulations at 45 C.F.R. § 46.101 (e) have long required "...compliance with pertinent Federal laws or regulations which provide additional protection for human subjects." EPA's regulation at 40 C.F.R. Part 26 is such a pertinent Federal regulation. Therefore, the applicant's Institutional Review Board (IRB) approval must state that the applicant's study meets the EPA's regulations at 40 C.F.R. § 26. No work involving human subjects, including recruiting, may be initiated before the EPA has received a copy of the applicant'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.

b. Animal Welfare: A grant 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))

This clause applies if a research facility (defined as any school (except elementary or secondary), institution, organization or person) receives funds under a grant from a federal agency for the purpose of carrying out research, tests, or experiments involving animals.

<u>Data Access and Information Release</u>: 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 EPA must ask for it, and the grantee must submit it, in accordance with A-110 and EPA regulations at 40 C.F.R. 30.36.

<u>DUNS Number</u>: Grant applicants are required to provide a Dun and Bradstreet (D&B) Data Universal Numbering System (DUNS) number when applying for Federal grants or cooperative agreements. OMB has determined that there is a need for improved statistical reporting of Federal grants and cooperative agreements. Use of the DUNS number government-wide will provide a means to identify entities receiving those awards and their business relationships. The identifier will be used for tracking purposes, and to validate address and point of contact information.

A DUNS number will be required whether an applicant is submitting a paper application or using the government-wide electronic portal (Grants.gov). The DUNS number will supplement other identifiers required by statute or regulation, such as tax identification numbers. Organizations can receive a DUNS number in one day, at no cost, by calling the dedicated toll-free DUNS Number request line at 1–866–705–5711. Individuals who would personally receive a grant or cooperative agreement award from the Federal government apart from any business or non-profit organization they may operate are exempt from this requirement. The website where an organization can obtain a DUNS number is: http://www.dnb.com. This takes 30 business days and there is no cost unless the organization requests expedited (1-day) processing, which includes a fee of \$40.