

OMB Number:1028-0095
Expiration Date 01/31/2013

PAPERWORK REDUCTION ACT STATEMENT: A Federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Public burden for the collection of this information is estimated to average 62 hours per response, including the time for reviewing instructions and completing the form. Comments regarding this collection of information should be directed to the Bureau Clearance Officer, U.S. Geological Survey 2150 Centre Avenue Fort Collins, CO 80525 or call 970-226-9445.



Water Resources Research National Competitive Grants Program

Fiscal Year 2010 Request for Proposals

**Announcement No. 10HQPA0002
under Section 104(g) of the
Water Resources Research Act of 1984, as Amended
January 28, 2010**

Closing Dates

4:00 PM, Eastern Time, April 7, 2010 (Investigators)

4:00 PM, Eastern Time, April 21, 2010 (Institutes)

Department of the Interior
U. S. Geological Survey

National Institutes for
Water Resources

**NATIONAL INSTITUTES FOR WATER RESOURCES
U.S. GEOLOGICAL SURVEY**

**WATER RESOURCES RESEARCH NATIONAL COMPETITIVE GRANTS PROGRAM
REQUEST FOR PROPOSALS
TABLE OF CONTENTS**

| | |
|--|-----------|
| ABSTRACT | 1 |
| ELECTRONIC FILING OF PROPOSALS | 1 |
| I. INTRODUCTION | 2 |
| II. PROGRAM OBJECTIVES | 3 |
| III. RESEARCH PRIORITIES | 3 |
| IV. PROPOSALS NOT ELIGIBLE FOR FUNDING | 4 |
| V. APPLICANT ELIGIBILITY AND PROPOSAL APPROVAL | 5 |
| VI. COLLABORATION BY FEDERAL EMPLOYEES | 5 |
| VII. FEDERAL FUNDS | 5 |
| VIII. MATCHING FUNDS | 6 |
| IX. MAXIMUM SIZE AND DURATION OF PROJECT | 6 |
| X. PROPOSAL DUE DATE | 6 |
| XI. PROPOSAL REVIEW, SELECTION, AND AWARD PROCESS | 7 |
| XII. PROPOSAL CONTENTS | 8 |
| XIII. PROPOSAL INSTRUCTIONS | 8 |
| XIV. PROPOSALS SELECTED FOR FUNDING IN PREVIOUS YEARS | 12 |
| XV. REPORTING REQUIREMENTS | 13 |
| ATTACHMENTS | |
| A APPLICATION FOR FEDERAL ASSISTANCE (SF-424) | 15 |
| B BUDGET BREAKDOWN | 19 |
| C BUDGET JUSTIFICATION | 20 |
| D BUDGET SUMMARY | 21 |
| E FOCUS CATEGORIES | 22 |
| F USGS PROGRAM CONTACTS | 23 |
| G APPLICATION CHECKLIST | 24 |

**NATIONAL INSTITUTES FOR WATER RESOURCES
U.S. GEOLOGICAL SURVEY**

**WATER RESOURCES RESEARCH
NATIONAL COMPETITIVE GRANTS PROGRAM
REQUEST FOR PROPOSALS
FY 2010**

ABSTRACT

The U.S. Geological Survey in cooperation with the National Institutes for Water Resources requests proposals for matching grants to support research on the topics of water supply and water availability, including investigations of possible new sources of supply, improvement of impaired waters to usable quality, conservation of existing sources, and limiting growth in demand. Proposals are sought in not only the physical dimensions of supply and demand, but also quality trends in raw water supplies; the role of economics and institutions in water supply and demand; institutional arrangements for tracking and reporting water supply and availability; and institutional arrangements for coping with extreme hydrologic conditions. Any investigator at an accredited institution of higher learning in the United States is eligible to apply for a grant through a Water Research Institute or Center established under the provisions of the Water Resources Research Act of 1984, as amended (<http://water.usgs.gov/wri/institutes.html>). Proposals involving substantial collaboration between the USGS and university scientists are encouraged. Proposals may be for projects of 1 to 3 years in duration and may request up to \$250,000 in federal funds. Successful applicants must match each dollar of the federal grant with one dollar from non-federal sources. Proposals must be filed on the Internet at <https://niwr.net/> by 4:00 PM, Eastern Time, Wednesday, April 7, 2010 and must be approved for submission to the National Competitive Grants Program not later than 4:00 PM, Eastern Time, Wednesday, April 21, 2010 by the Institute or Center through which they were submitted. The SF-424 (Application for Federal Assistance) portion of the application package must be submitted through the Internet site at <http://www.grants.gov> not later than 4:00 PM Eastern Time, Wednesday, April 21, 2010 by the university at which the Institute or Center is located. Approximately \$1 million is available for this program in FY 2010. The Government's obligation under this program is contingent upon the availability of funds.

ELECTRONIC FILING OF PROPOSALS

Proposals under this announcement must be submitted using the following process:

1. All portions of the proposal, **except the SF-424 (Application for Federal Assistance)** must be submitted through the Internet site at <https://niwr.net/>. Prospective applicants (Principal Investigators) must be registered at the niwr.net site prior to submitting a proposal. Registration does not obligate the registrant to submit a proposal. Proposals will be accepted on the niwr.net site beginning February 1, 2010. Detailed instructions for proposal preparation and submission will be provided online at that time.

2. **A separate SF-424 (Application for Federal Assistance) must be submitted for each proposal** through the Internet site at <http://www.grants.gov/> by the university at which the Water Resources Research Institute or Center approving the proposal is located.

Individuals willing to serve as peer reviewers for proposals submitted under this Announcement are also urged to register on the Internet site at <https://niwr.net/>. Registration does not obligate the registrant to review a proposal.

I. INTRODUCTION

This Request for Proposals (RFP) is issued under the provisions of section 104 of the Water Resources Research Act of 1984 (Public Law 98-242), as amended by Public Laws 101-397, 104-147, 106-374, and 109-471. Section 104 of the Water Resources Research Act directs the Secretary of the Interior to administer program grants to Institutes and Centers established under the provisions of section 104(a) of the Act. Water Resources Institutes or Centers have been established in each of the 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam. The Institute in Guam also serves the Federated States of Micronesia and the Commonwealth of the Northern Mariana Islands. The addresses of the 54 Institutes are available on the Internet at <http://water.usgs.gov/wrri/institutes.html>. Responsibility for administration of the State Water Resources Research Institute program has been delegated to the U.S. Geological Survey (USGS).

The 54 Institutes are organized as the National Institutes for Water Resources (NIWR). NIWR cooperates with the USGS in the administration of the State Water Resources Research Institute Program, and the University of Wisconsin Water Resources Institute serves as the lead institute in coordinating the review process (peer reviews, panel review) for this competitive grant program. Questions or comments concerning the review process may be addressed to either John Schefter at the address below or to:

James Hurley
Water Resources Institute
1975 Willow Drive -2nd floor
The University of Wisconsin - Madison
Madison, Wisconsin 53706-1177
(606) 262-1136
hurley@aqua.wisc.edu

Questions or comments concerning this RFP should be directed to:

John Schefter
Chief, Office of External Research
MS 424, U.S. Geological Survey
12201 Sunrise Valley Drive
Reston, Virginia, 20192
Phone: 703-648-6800
schefter@usgs.gov

Kimberly L. Dove
Office of Acquisition and Grants
MS 205, U.S. Geological Survey
12201 Sunrise Valley Drive
Reston, Virginia, 20192
Phone: 703-648-7487
kdove@usgs.gov

II. PROGRAM OBJECTIVES

Section 104(g) of the Water Resources Research Act of 1984 requires that this competitive grant program focus on: “**water problems and issues of a regional or interstate nature beyond those of concern only to a single State** and which relate to specific program priorities identified jointly by the Secretary (of the Interior) and the (water resources research) institutes.”

Objectives of this program also include the following:

- A. Promote collaboration between the USGS and university scientists in research on significant national and regional water resources issues.

Proposals exhibiting substantial collaboration between the USGS and the applicant are encouraged and will receive extra weight in the evaluation and selection process. Collaborative proposals should describe in detail the respective roles of the USGS and the applicant in the proposed work.

Potential applicants seeking collaborative opportunities are encouraged to contact USGS Water Science Center Directors (contact information is available on the Internet at http://water.usgs.gov/district_chief.html). Potential applicants are also encouraged to contact the Water Resources Discipline Research Branch Chiefs and the program contact for water availability and water use (see Attachment F for contact information).

- B. Promote the dissemination and application of the results of the research funded under this program.
- C. Assist in the training of scientists in relevant water resource fields.

Proposals that include a strong educational component (student support) are encouraged, as are proposals from faculty beginning their careers.

The USGS and NIWR prefer that research supported by this program involve substantial collaboration between the USGS and university scientists. Collaboration can range from use of USGS data and information in the research to mutual involvement of USGS and university scientists on projects.

III. RESEARCH PRIORITIES

The following research priorities have been established (levels of priority are not assigned, and the order of listing does not indicate the level of priority):

Proposals are requested on the topics of water supply and availability, including investigations of possible new sources of supply, improvement of impaired waters to usable quality, conservation of existing sources, and limiting growth in demand. Proposals are sought in not only the physical dimensions of supply and demand, but also quality trends in raw water supplies; the role of economics and institutions in water supply and demand; institutional arrangements for

tracking and reporting water supply and availability; and institutional arrangements for coping with extreme hydrologic conditions. Examples of the types of problems that could be addressed include:

- Methods to enhance the long-term reliability of water supplies;
- Indicators of status and trends in water availability based on hydrologic data collected by the USGS and others;
- Management options for preserving or enhancing water availability under drought or flood conditions;
- Improved methods of characterizing and quantifying components of the water cycle;
- Improved estimates of the amount of water required to sustain healthy ecosystems while enhancing supplies for human use;
- Improvements in the assessment of water availability, incorporating technological, institutional, cultural, and economic factors that influence water use and water availability;
- Effects of water regulation and institutional arrangements on availability of water for alternative uses;
- Effectiveness of Best Management Practices (BMPs) in sustaining urban and rural raw water supply quality;
- Institutional characteristics of watershed planning and management organizations that have a demonstrated capability to protect the quality and enhance the reliability of water supply; and,
- Water management in the context of rapid development and conflict for water supply.

For additional information, please see “A Strategy for Federal Science and Technology to Support Water Availability and Quality in the United States,” available at [http://www.ostp.gov/galleries/NSTC/Fed ST Strategy for Water 9-07 FINAL.pdf](http://www.ostp.gov/galleries/NSTC/Fed%20ST%20Strategy%20for%20Water%209-07%20FINAL.pdf)

IV. PROPOSALS NOT ELIGIBLE FOR FUNDING

- A. Proposals for research on health effects involving human subjects.
- B. Proposals for research involving oceanography (estuarine research proposals are acceptable).
- C. Proposals submitted by an Institute or Center that has not met reporting requirements on a previous award by the USGS.
- D. Proposals that do not comply with the terms of this Request for Proposals.

V. APPLICANT ELIGIBILITY AND PROPOSAL APPROVAL

Awards are available only to Water Research Institutes or Centers established pursuant to the provisions of section 104 of the Water Resources Research Act and listed at <http://water.usgs.gov/wrri/institutes.html>. However, any investigator at an institution of higher learning in the United States is eligible to apply for an award through a Water Research Institute or Center. All portions of the proposals, **with the exception of the SF-424 (Application for Federal Assistance)**, must be submitted through the website at <https://niwr.net/>. The SF-424 must be submitted through the website at <http://www.grants.gov> by the university at which the Institute or Center is located. Each proposal will then be authorized for inclusion in the national competition by the Director of the Institute or Center in the state in which the university of the principal investigator is located. Proposals requesting matching funds from an Institute or Center are authorized at the discretion of the Institute or Center Director.

When a proposal is filed on the niwr.net site, the Institute or Center in the State in which the university of the principal investigator is located will be notified electronically that a proposal has been filed. The Director of that Institute or Center will subsequently review the proposal for adherence to the terms of this RFP, and then, following the instructions provided at the website, may approve it for further consideration and technical review. The Director may, during this process, contact the principal investigator to discuss possible clarification or changes in the proposal.

VI. COLLABORATION BY FEDERAL EMPLOYEES

- A. Federal employees may, and are encouraged to, collaborate with college or university investigators in this program.
- B. Federal employees may not serve as a principal investigator, but may serve as a co-principal investigator.
- C. Federal employees and agencies may not receive federal funds for any purpose under these awards.
- D. Federal employees and agencies may not serve as a source of matching funds under these awards.
- E. Federal employees must prepare a Statement of Government Involvement, which is to be included with collaborative proposals (See Section XIII.D.21.)

VII. FEDERAL FUNDS

- A. Approximately \$1 million is available for this program in FY 2010. The Government's obligation under this program is contingent upon the availability of funds.
- B. All successful proposals will be fully funded for the entire duration of the project with FY 2010 funds.

VIII. MATCHING FUNDS

- A. Each applicant must match each Federal dollar provided to support each proposed project with not less than one dollar from non-federal sources. States may have different guidelines as to the sources of matching funds - please check with your Institute or Center Director for details.

Note: Guam, the Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands are exempt from the matching requirement.

- B. Matching funds shall be obligated during the period of performance.
- C. The matching requirement should be met during each 12-month budget period.
- D. Matching funds obligated shall be reflected on line 10.b of each Financial Status Report, Standard Form 269A.
- E. Matching funds may contain indirect costs and non-federal salaries and benefits. The applicant's negotiated indirect cost rate (NICR) may be applied to **both** qualifying federal and non-federal direct costs, and the result used to satisfy part of the matching requirement under the non-federal share. The NICR shall not be applied to tuition and equipment costs. **Federal funds shall not be used to pay indirect costs.**

IX. MAXIMUM SIZE AND DURATION OF PROJECT

- A. Applicants shall not request total federal funds exceeding \$250,000 per project.
- B. Proposed projects may be of 1 to 3 years in duration, with discrete 12-month budget periods.

X. PROPOSAL DUE DATE

Investigators must file their proposals on the Internet at <https://niwr.net/> prior to 4:00 PM Eastern Time, April 7, 2010. Only proposals filed by that time will be transmitted to the National Grants Competition.

Institutes or Centers must approve the proposals filed by investigators in their State prior to 4:00 PM Eastern Time, April 21, 2010. Only proposals approved by that time will be transmitted to the National Grants Competition.

The SF-424 portion of the application package must be filed electronically at <http://www.grants.gov> prior to 4:00 PM Eastern Time, April 21, 2010. Only applications submitted by that time will be considered.

XI. PROPOSAL REVIEW, SELECTION, AND AWARD PROCESS

Each proposal which meets the requirements of this RFP will be evaluated by: 1) written peer reviews from qualified scientists or managers in the area of the proposed research, and 2) a selection panel consisting of Institute directors, university scientists, and USGS employees experienced in water resources research. Proposals will be reviewed according to the following criteria:

25 Points: Relevance and Importance. - The extent to which: (1) the proposal focuses on a water problem or issue of a regional or interstate nature of concern to more than one State and directly addresses a research priority described in Section III; (2) the subject is of particularly high importance to present and future water resources management programs; and (3) the proposal includes collaboration with the USGS if appropriate.

25 Points: Scientific Merit. – The extent to which the proposal (1) has potential to expand fundamental knowledge in its specific area(s); (2) is scientifically sound; and (3) demonstrates cognizance of past work.

10 Points: Feasibility. (1) The extent to which the objectives, methodologies, designs, and techniques are adequate and completely described; and (2) the likelihood of success given the methods and time frame proposed.

10 Points: Information Transfer. How well the proposal actively addresses the eventual transfer of results to user groups and whether it actively addresses the impact that the results could have?

10 Points: Training. The extent to which the proposal has a strong educational component, provides for student support, and engages a principal investigator near the beginning of his or her career?

10 Points: Qualifications of the Investigators. The extent to which the qualifications of the investigators are commensurate with the proposed research, and the adequacy of the facilities and equipment.

10 Points: Budget. The extent to which the budget is reasonable and adequate for the work proposed. Note: the principal investigator's salary is an acceptable budget item, but should not exceed one or two months per year.

Proposals recommended for funding will be forwarded to the USGS for review and approval. Awards will be made directly to the Water Resources Research Institute or Center through which the proposal was submitted. The target award date is August through September with a USGS-preferred project start date of September 1, 2010. The project start date must be no later than September 30, 2010

XII. PROPOSAL CONTENTS

Each proposal shall consist of the following items:

- A. SF 424, Application for Federal Assistance [Attachment A]
- B. Signed Matching Funds Commitment Letter
- C. Suggested Reviewers
- D. Research Proposal, including a Budget Breakdown (Attachment B), Budget Justification (Attachment C) and Budget Summary (Attachment D)

Attachment B (Budget Breakdown), Attachment C (Budget Justification) and Attachment G (Budget Summary) should be considered worksheets; during the proposal submission process, these data will be entered into forms on the website. Upon completion of the submission process, the actual Attachments will be generated from these form entries and bundled with your application package.

XIII. PROPOSAL INSTRUCTIONS

Prior to submission of a proposal, all principal investigators must be registered at <https://niwr.net/>. Registration involves providing basic contact information (name, address, phone, e-mail address, etc.) to a Web form, and subsequently being provided with a user ID and password. This ID and password may be used to update one's contact information, to submit proposals, and to be kept informed of the proposal review process, including final notification of awards. Individuals already registered should not register again.

Each proposal must be submitted through the website at <https://niwr.net/> and shall be prepared and submitted in accordance with the specific instructions provided at that site. Submission will require two distinctly different actions: (1) submission of specified information as text directly into a Web form and (2) "depositing" at the website a document file containing a detailed description of the work being proposed. This file may be prepared using the word processing software of choice, but must be translated to PDF format prior to being deposited. **(Detailed instructions for preparing and submitting this file, and verifying its submission, will be provided at the website when it is opened for receiving proposals, on February 1, 2010.)**

Applications must contain the following sections and adhere to the following guidelines:

- A. **Application for Federal Assistance, SF 424.** (Attachment A)
 - a. The **official applicant is the Water Resources Research Center or Institute** through which the application is submitted.
 - b. The information on the SF-424 must pertain to that Institute/Center and its host university.
 - c. **The SF-424 must be submitted electronically at <http://www.grants.gov> by the university at which the Water Resources Research Center or Institute is located.** Further instructions can be found at <http://www.grants.gov>: click on "For Applicants" on the left side of the screen.

- d. The SF-424 must request the total amount of Federal funds for the full duration of the project.
- e. **An SF424 must be submitted for each proposal. An SF424 covering more than one proposal is not acceptable.**

B. Matching Funds Commitment Letter. The applicant shall provide an institutional cost-sharing agreement (letter) signed by an official authorized to commit the applicant to all or part of the matching share or a third party, in-kind contribution signed by an official authorized to commit the third party.

1. The matching funds commitment letter is to be either scanned and uploaded to the niwr.net website following the instructions on the website or faxed to the number provided on the website prior to final approval of the application on the website by the Institute or Center.
2. The original, signed, letter retained in the Institute's or Center's files. If the proposal is selected for funding, the Institute or Center will be requested to send these documents by mail or parcel delivery so as to be received at the following address within 5 business days of notification that the proposal has been selected for funding:
Office of Acquisition and Grants
Attn: Kimberly L. Dove
MS 205, U.S. Geological Survey
12201 Sunrise Valley Drive, Reston, Virginia 20192

C. Suggested Reviewers. Provide the names and contact information for no more than six (6) suggested reviewers having expertise in the field of the proposal as requested by the Web form at the niwr.net website, including street address, city, state, zip code, phone, fax, email address and subject areas. Suggested reviewers MAY NOT be from your State. In fairness to all applicants, it is requested that no reviewers be contacted other than by the USGS or NIWR.

D. Research Proposal. Each proposal shall consist of the following 24 elements. Items numbered 1 through 13 are to be entered in the Web forms provided at the niwr.net website.

1. Title. Concise but descriptive.
2. Project Type. Select "Research" if not pre-selected by the system.
3. Focus Categories. Choose a maximum of three focus categories from the list provided (Attachment E), with the most preferred focus category first.
4. Research Category. Choose from the following the one category that most closely applies: Social Sciences, Ground-water Flow and Transport, Water Quality, Biological Sciences, Engineering, or Climate and Hydrologic Processes.
5. Keywords. Enter keywords of your choice descriptive of the work.

6. Start Date. Enter the requested beginning date for the project. The target award date is August through September with a USGS-preferred project start date of September 1, 2010. The project start date must be no later than September 30, 2010.
7. End Date. Enter the estimated end date for the project.
8. Principal investigator(s). Provide name, academic rank, university, email address and phone number of ALL principal investigators.
9. Congressional District of the university where the work is to be conducted.
10. Abstract. Provide a brief (one-page) description of the problem, methods, and objectives in the space provided at the Internet site. Please be as descriptive as possible in the space allowed. **The abstract will be distributed to prospective reviewers to elicit their interest in providing a review.**
11. Budget Breakdown, as requested by the Web form (See Attachment B).
12. Budget Justification, as requested by the Web form (See Attachment C).
13. Budget Summary, as requested by the Web form (See Attachment D).

Budget Note: Multi-year projects will be fully funded with FY 2010 funds, if funded. The budget must be complete for all years of the project.

Items 14 through 24 are to be "deposited" as a file document in PDF format on the niwr.net website. Note: **This document shall not exceed 12 single-spaced pages, with 12 point font and at least 1 inch margins, including tables, pictures, graphs, figures, and appendices, but excluding resumes (item 24) and literature citations/references (item 23).** Upon submission of your application components, the entire package will be available in PDF format for your inspection and final approval. **You are responsible for verifying the approval, including compliance with the 12-page limit. Proposals exceeding the 12-page limit will not be considered in the competition.** If editing is required, you must edit the document using your word processor and resubmit the document.

14. Title. Please use the same title as was entered in the Web form under item 1, above.
15. Statement of regional, interstate, or multi-state water problem. Include an explanation of the need for the project, who wants it, and why.
16. Statement of results or benefits. Specify the type of information that is to be gained and how it will be used.
17. Nature, scope, and objectives of the project, including a timeline of activities.

18. Methods, procedures, and facilities. Provide enough information to permit evaluation of the technical adequacy of the approach to satisfy the objectives.
19. Related research. Demonstrate by literature and communication citations the similarities and dissimilarities of the proposed project to completed or on-going work on the same topic.
20. Training potential. Estimate the number of graduate and undergraduate students, by degree level, who are expected to receive training in the project.
21. Statement of Government Involvement. If a Federal employee will collaborate on the project, provide a detailed description of the role and responsibilities of the Federal collaborator in the proposed research project. (Caution: see Item VI, above)
22. Information Transfer Plan. Describe the plan for disseminating information on the results of the research and promoting their application. Each plan should define the subject matter and the problems to be addressed, identify the target audience, indicate the strategies to be employed (e.g., workshops, publications), and identify the cooperators (e.g., Cooperative Extension Service).
23. Literature Citations/References
24. Investigator's qualifications. Include a resume(s) of the principal investigator(s). No resume shall exceed two pages or list more than 15 pertinent publications.

If letters of support for the application are provided, they should be scanned and uploaded to the niwr.net website following the instructions on the website or faxed to the number on the website at <https://niwr.net/>. Please provide the title of the project as it appears in item 1 above in the letter and the application system-generated project number on the letter or fax cover sheet if the letter is faxed. **Letters of support do not count against the 12-page limit.**

An **Application Checklist** is provided to help guide the principal investigator and the relevant Water Center or Institute through the application process. Please see Attachment G.

XIV. PROPOSALS SELECTED FOR FUNDING IN PREVIOUS YEARS

Total Funds Available, Number of Proposals Received and Funded, and the Minimum and Maximum Federal Funds Awarded, by Year.

| Year | Total Funds Available | Number of Proposals Received | Number of Proposals Funded | Minimum. Federal Funds Awarded | Maximum. Federal Funds Awarded |
|-------|-----------------------|------------------------------|----------------------------|--------------------------------|--------------------------------|
| 1999 | \$1,000,000 | 68 | 10 | \$13,833 | \$183,650 |
| 2000 | \$1,000,000 | 106 | 8 | \$41,937 | \$216,999 |
| 2001 | \$1,000,000 | 75 | 9 | \$84,294 | \$150,000 |
| 2002 | \$1,000,000 | 75 | 8 | \$103,134 | \$157,586 |
| 2003 | \$1,000,000 | 76 | 6 | \$92,839 | \$233,953 |
| 2004 | \$950,000 | 45 | 8 | \$69,246 | \$170,596 |
| 2005 | \$950,000 | 49 | 8 | \$63,014 | \$172,842 |
| 2006 | \$920,000 | 61 | 8 | \$58,155 | \$250,000 |
| *2007 | \$814,419 | 63 | 5 | \$61,312 | \$242,508 |
| 2009 | \$937,358 | 61 | 6 | \$82,489 | \$235,148 |

*The program did not receive funding in FY 2007. Projects selected in FY 2007 were supported with FY 2008 funds. A program competition was not held in FY 2008. Descriptions of the projects selected for funding since 1999 are provided at <http://water.usgs.gov/wrri/projects.html>. The research priorities established for FY 2010 are similar to those for FY 2004, FY 2005, FY 2006, FY 2007, and FY 2009 but differ from those of previous years.

XV. REPORTING REQUIREMENTS

All award recipients will be required to submit the following reports:

| Report | Number of Copies and Format | Submit to | Due |
|---|---|---|---|
| Final Technical Report | 1 PDF file. See instructions below. | Project Officer* through Annual Report system at https://niwr.net | No later than 90 days after expiration of the award. |
| Annual Progress Report (except for final year – replaced by Final Technical Report) | 1 PDF file See instructions below. | Project Officer* through Annual Report system at https://niwr.net | No later than May 31 of each year. To be filed with the recipients Annual Program Report. |
| SF-272 Federal Cash Transactions Report (To be Replaced by SF-425) | Original + 1 See instructions below. | Contracting Officer* | Quarterly, at the end of each federal fiscal quarter. |
| SF-425 Federal Financial Report (To Replace both SF-269 and SF-272) | Original +1 See instructions below. | Contracting Officer* | Quarterly, at the end of each federal fiscal quarter. |

*The names and addresses of the contracting officer and project officer will be included in blocks 5 and 10, respectively, of the award document.

A. TECHNICAL REPORTING REQUIREMENTS

The annual progress report and final report shall contain:

1. The “Basic Information” requested by the Annual Report System at <https://niwr.net>, including the project title, project number, start date, end date, research category, focus category, descriptors, and the name of the principal investigator.
2. A description of the problem addressed and work performed under the award and the results and significance thereof.
3. A list of publications resulting from the work under the award.

B. FINANCIAL REPORTING REQUIREMENTS

Cash Management and Financial Reporting Requirements

1. STANDARD FORM 272, FEDERAL CASH TRANSACTIONS REPORT (or its successor SF 425, Federal Financial Report) is required quarterly for each PMS/ASAP subaccount. Quarterly reports are due 45 days after the end of each fiscal quarter until the final Federal Financial Report is submitted. Instructions for submitting SF 272/SF 425 can be found at the PMS website:

http://www.dpm.psc.gov/grant_recipient/psc_272_reports/psc_272_reports.aspx?explorer.event=true

On and after APRIL 1, 2010 (or as notified by the Contracting Officer), the SF 425 Federal Financial Report must be submitted by mail to the grant specialist identified in block 5 of the award document.

If after 45 days, recipient has not submitted a report, the account will be placed in a manual review status. Funds may be withheld for accounts with delinquent reports.

2. FINAL FEDERAL FINANCIAL REPORT.

a. The recipient will liquidate all obligations incurred under the award and submit a final STANDARD FORM 425, FEDERAL FINANCIAL REPORT (which replaces the current SF 269, Financial Status Report) no later than 90 calendar days after the grant/cooperative agreement completion date. Recipient will promptly return any unexpended federal cash advances or will complete a final draw from PMS/ASAP to obtain any remaining amounts due. Once 120 days has passed since the grant/agreement completion date, the PMS/ASAP subaccount for this award may be closed by USGS at any time.

b. Subsequent revision to the final SF 425 will be considered only as follows -

(i) When the revision results in a balance due to the Government, the recipient must submit a revised final Federal Financial Report (SF 425) and refund the excess payment whenever the overcharge is discovered, no matter how long the lapse of time since the original due date of the report.

(ii) When the revision represents additional reimbursable costs claimed by the recipient, a revised final SF 425 may be submitted to the Contracting Officer with an explanation. If approved, the USGS will either request and pay a final invoice or reestablish the PMS/ASAP subaccount to permit the recipient to make a revised final draw. Any revised final report representing additional reimbursable amounts must be submitted no later than 1 year from the due date of the original report, i.e., 15 months following the agreement completion date. USGS will not accept any revised SF 425 covering additional expenditures after that date and will return any late request for additional payment to the recipient.

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission:

- Preapplication
- Application
- Changed/Corrected Application

* 2. Type of Application:

- New
- Continuation
- Revision

* If Revision, select appropriate letter(s):

* Other (Specify)

* 3. Date Received:

Provided by Grants.gov upon submission

4. Applicant Identifier:

5a. Federal Entity Identifier:

* 5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

* b. Employer/Taxpayer Identification Number (EIN/TIN):

* c. Organizational DUNS:

d. Address:

* Street1:

Street2:

* City:

County:

* State:

Province:

* Country:

* Zip / Postal Code:

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

* First Name:

Middle Name:

* Last Name:

Suffix:

Title:

Organizational Affiliation:

* Telephone Number:

Fax Number:

* Email:

Application for Federal Assistance SF-424

Version 02

9. Type of Applicant 1: Select Applicant Type:

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

11. Catalog of Federal Domestic Assistance Number:

CFDA Title:

*** 12. Funding Opportunity Number:**

* Title:

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

*** 15. Descriptive Title of Applicant's Project:**

Attach supporting documents as specified in agency instructions.

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal

* b. Applicant

* c. State

* d. Local

* e. Other

* f. Program Income

* g. TOTAL

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

a. This application was made available to the State under the Executive Order 12372 Process for review on .

b. Program is subject to E.O. 12372 but has not been selected by the State for review.

c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)**

Yes

No

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

**** I AGREE**

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix:

* First Name:

Middle Name:

* Last Name:

Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative:

* Date Signed:

Application for Federal Assistance SF-424

Version 02

*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

BUDGET BREAKDOWN*

Project Number: (Number will be provided by the application system)

Project Title:

| Cost Category | | Federal | Non-Federal | Total |
|--|-------------------------------------|--------------------------|-------------|-------|
| 1. | Salaries and Wages | \$ | \$ | \$ |
| | - <u>Principal Investigator</u> | | | |
| | - _____ | | | |
| | - _____ | | | |
| | - _____ | | | |
| | Total Salaries and Wages | \$ | \$ | \$ |
| 2. | Fringe Benefits | | | |
| 3. | Supplies | | | |
| 4. | Equipment | | | |
| 5. | Services or Consultants | | | |
| 6. | Travel | | | |
| 7. | Other direct costs | | | |
| 8. | Total direct costs | | | |
| 9a. | Indirect costs on federal share | XXXXXXXXXX XXXXXXXXXX | | |
| 9b. | Indirect costs on non-federal share | XXXXXXXXXX XXXXXXXXXX | | |
| 10. | Total estimated costs | \$ | \$ | \$ |
| Total Costs at Campus of the University on which the Institute or Center is located. | | \$ | \$ | \$ |
| Total Costs at other University Campus Name of University: | | \$ | \$ | \$ |

* This form is provided as a worksheet only

BUDGET JUSTIFICATION*

Project Number: (Number will be provided by the application system)

Project Title

| |
|--|
| <p>Salaries and Wages. Provide estimated hours and the rate of compensation proposed for each individual. (Tuition remission and other forms of compensation paid as or in lieu of wages to students performing necessary work are allowable provided that the tuition or other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work.)</p> |
| <p>Fringe Benefits. Provide the overall fringe benefit rate applicable to each category of employee proposed in the project.</p> |
| <p>Supplies. Indicate separately the amounts proposed for office, laboratory, computing, and field supplies.</p> |
| <p>Equipment. Identify non-expendable personal property having a useful life of more than one (1) year and an acquisition cost of more than \$5,000 per unit. If fabrication of equipment is proposed, list parts and materials required for each, and show costs separately from the other items.</p> |
| <p>Services or Consultants. Identify the specific tasks for which these services, consultants, or subcontracts would be used. Estimate amount of time required and the hourly or daily rate.</p> |
| <p>Travel. Provide purpose and estimated costs for all travel.</p> |
| <p>Other Direct Costs. Itemize costs not included elsewhere, including publication costs. Costs for services and consultants should be included and justified under "Services or Consultants (above)."</p> |
| <p>Indirect Costs. Provide negotiated indirect ("Facilities and Administration") cost rate.</p> |

* This form is provided as a worksheet only.

BUDGET SUMMARY*

Project Number: (Number will be provided by the application system)

Project Title:

| COST CATEGORY | Federal First Year | Non-Federal First Year | FEDERAL SECOND YEAR [#] | NON-FEDERAL SECOND YEAR [#] | FEDERAL THIRD YEAR [#] | NON-FEDERAL THIRD YEAR [#] | TOTAL ALL YEARS [#] |
|-------------------------------------|--------------------|------------------------|----------------------------------|--------------------------------------|---------------------------------|-------------------------------------|------------------------------|
| 1. SALARIES AND WAGES | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 2. Fringe Benefits/Labor Overhead | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 3. Supplies | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 4. Equipment | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 5. Services or Consultants | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 6. Travel | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 7. Other Direct Costs | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 8. TOTAL DIRECT COSTS (sum of 1- 7) | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 9. Indirect Costs | | \$ | | \$ | | \$ | \$ |
| 11. Amount Proposed (8 + 9) | | \$ | | \$ | | \$ | \$ |

* This form is provided as a worksheet only.

Multi-year projects only.

| | |
|-------------------------------|--------|
| ACID DEPOSITION | ACD |
| AGRICULTURE | AG |
| CLIMATOLOGICAL PROCESSES | CP |
| CONSERVATION | COV |
| DROUGHT | DROU |
| ECOLOGY | ECL |
| ECONOMICS | ECON |
| EDUCATION | EDU |
| FLOODS | FL |
| GEOMORPHOLOGICAL PROCESSES | GEOMOR |
| GEOCHEMICAL PROCESSES | GEOCHE |
| GROUNDWATER | GW |
| HYDROGEOCHEMISTRY | HYDGEO |
| HYDROLOGY | HYDROL |
| INVASIVE SPECIES | INV |
| IRRIGATION | IG |
| LAW, INSTITUTIONS, AND POLICY | LIP |
| MANAGEMENT AND PLANNING | M&P |
| METHODS | MET |
| MODELS | MOD |
| NITRATE CONTAMINATION | NC |
| NON POINT POLLUTION | NPP |
| NUTRIENTS | NU |
| RADIOACTIVE SUBSTANCES | RAD |
| RECREATION | REC |
| SEDIMENTS | SED |
| SOLUTE TRANSPORT | ST |
| SURFACE WATER | SW |
| TOXIC SUBSTANCES | TS |
| TREATMENT | TRT |
| WASTEWATER | WW |
| WATER QUALITY | WQL |
| WATER QUANTITY | WQN |
| WATER SUPPLY | WS |
| WATER USE | WU |
| WETLANDS | WL |

WATER USE AND WATER AVAILABILITY

William M. Alley
U.S. Geological Survey
4165 Spruance Rd.
San Diego, California 92101
Phone: (619) 225-6125
walley@usgs.gov

NATIONAL RESEARCH PROGRAM**Eastern Region**

Pierre D. Glynn
MS 432
U.S. Geological Survey
12201 Sunrise Valley Drive
Reston, Virginia 20192
Phone: (703) 648-5823
pglynn@usgs.gov

Central Region

Donald H. Campbell
U.S. Geological Survey
MS 418 Denver Federal Center
Lakewood, Colorado 80225
Phone: (303) 236-5022
dhcampbe@usgs.gov

Western Region

Keith R. Prince
U.S. Geological Survey
MS 472 McKelvey Building
345 Middlefield Road
Menlo Park, California 94025
PHONE: (650) 329-4087
krprince@usgs.gov

Application Checklist

Principal Investigator (Items to be completed by Investigator Deadline)

- _____ File application on the website at <https://niwr.net> following the instructions in the RFP and on the website. Filing the application requires the PI to:
- _____ Complete the Basic Info webform, which includes proposal abstract;
 - _____ Complete Suggested Reviewers webform;
 - _____ Complete Budget Breakdown webform;
 - _____ Complete Budget Justification webform;
 - _____ Complete Budget Summary webform;
 - _____ Upload Proposal in pdf format - Check that page limit as stated in the RFP is not exceeded;
 - _____ Upload signed Letter(s) of Commitment of Matching Funds; and
 - _____ Upload signed letter(s) of support (optional, not required)
- _____ Check that email has been received by Water Institute or Center from niwr.net stating that the application has been submitted.

Water Institute or Center (Items to be completed by Institute Deadline)

- _____ Check that email received from niwr.net stating that application has been submitted.
- _____ Review application for conformance with the RFP.
- _____ If revision necessary, “Enable” the proposal on niwr.net and notify the PI of changes to be made. Instructions for “enabling” the proposal for editing are available by clicking on the Approve Proposals” menu item of the 104G system.
- _____ PI makes requested changes and (re)submits the application.
- _____ If application is acceptable, Approve application
- _____ Check that email received from niwr.net stating that application has been approved.
- _____ Submit a SF424 on <http://www.grants.gov> for the application. NOTE: One SF424 is to be submitted for each application/proposal approved by the institute/center. **One SF424 covering all applications/proposals approved is not acceptable.**
- _____ Record and retain confirmation messages from grants.gov, including tracking number, for each SF424.

Note: It is expected that the Principal Investigator will coordinate the application process with the Water Center or Institute in his or her state from the beginning of the process.