F

# Water Resources Research
# National Competitive Grants Program

## Fiscal Year 2015 Announcement

**Announcement No. G15AS00019**
**under Section 104(g) of the**
**Water Resources Research Act of 1984, as Amended**
**November 24, 2014**

## Closing Dates

**5:00 PM, Eastern Time, February 19, 2015 (Investigators)**
**5:00 PM, Eastern Time, March 12, 2015 (Approved by Institutes)**

Department of the Interior
U. S. Geological Survey

National Institutes for
Water Resources

OMB Number 1028-0097
Expiration Date 10/31/2016

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. OMB has reviewed and approved this information collection and assigned OMB Control Number 1028-0097. Your response is required to obtain or retain a benefit in the form of a grant. Public burden for the collection of this information is estimated to average 60 hours per application and 12 hours for grantees to complete the reporting requirement. Comments regarding this collection of information should be directed to the Bureau Clearance Officer, U.S. Geological Survey, 12201 Sunrise Valley Drive, MS 807, Reston, VA 20192, or call 703-648-7174.

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

## WATER RESOURCES RESEARCH NATIONAL COMPETITIVE GRANTS PROGRAM ANNOUNCMENT

## 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 4

VI. COLLABORATION BY FEDERAL EMPLOYEES 5

VII. FEDERAL FUNDS 5

VIII. MATCHING FUNDS 5

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) and ASSURANCES (SF-424B) 15

B: BUDGET BREAKDOWN 22

C: BUDGET JUSTIFICATION 23

D: BUDGET SUMMARY 24

E: FOCUS CATEGORIES 25

F: APPLICATION CHECKLIST 26

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

## WATER RESOURCES RESEARCH
## NATIONAL COMPETITIVE GRANTS PROGRAM
## ANNOUNCEMENT
## FY 2015

## 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 topic of improving and enhancing the nation's water supply, including evaluation of innovative approaches to water treatment, infrastructure design, retrofitting, maintenance, management, and replacement; exploration and advancement of our understanding of changes in the quantity and quality of water resources in response to a changing climate, population shifts, and land use changes; development of methods for better estimation of water supply, both surface and groundwater, including estimation of the physical supply and of the economic supply of water; development and evaluation of processes and governance mechanisms for integrated surface/ground water management; and the evaluation and assessment of conservation practices. 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/wrri/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 5:00 PM, Eastern Time, Thursday, February 19, 2015 and must be approved for submission to the National Competitive Grants Program not later than 5:00 PM, Eastern Time, Thursday, March 12, 2015 by the Institute or Center through which they were submitted. The SF-424 (Application for Federal Assistance) and SF-424B (Assurances) portion of the application package must be submitted through the Internet site at http://www.grants.gov not later than 5:00 PM Eastern Time, Thursday, March 12, 2015 by the university at which the Institute or Center is located. Funds have not yet been appropriated for this program for FY 2015. 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) and SF-424B (Assurances)** 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.

2. **A separate SF-424 (Application for Federal Assistance) and SF-424B (Assurances) 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.

## I. INTRODUCTION

This Program Announcement 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 Institute in Hawaii also serves American Samoa. 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. Questions or comments concerning the review process may be addressed to either Earl Greene at the address below or to:

Dr. James P. Hurley, Director
Water Resources Institute
1975 Willow Drive - 2nd Floor
The University of Wisconsin-Madison
Madison, Wisconsin 53706-1177
(608) 262-0905
hurley@aqua.wisc.edu

Questions or comments concerning this Program Announcement should be directed to:

Program Office
Earl Greene
Chief, Office of External Research
5522 Research Park Drive
Baltimore, Maryland 21228
Phone: 443-498-5505
eagreene@usgs.gov

Grants Office
Kimberly L. Dove
Office of Acquisition and Grants
MS 211, 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. It is anticipated in FY2015 the USGS will have internal funds available for modest support of USGS scientists on selected proposals.

   Potential applicants seeking collaborative opportunities are encouraged to contact USGS scientists directly (http://water.usgs.gov/nrp/science.php) or Water Science Center Directors (http://water.usgs.gov/district_chief.html).

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.

## III. RESEARCH PRIORITIES

Proposals are sought on the topic of improving and enhancing the nation's water supply and availability, and promoting the exploration of new ideas that address or expand our understanding of water problems, including the following specific areas of inquiry (levels of priority are not assigned, and the order of listing does not indicate the level of priority):

- Evaluation of innovative approaches to water treatment, infrastructure design, retrofitting, maintenance, management and replacement.

- Exploration and advancement of our understanding of changes in the quantity and quality of water resources in response to a changing climate, population shifts, and land use changes; including associated economic, environmental, social, and/or infrastructure costs.

- Development of methods for better estimation of water supply, both surface and groundwater, including estimation of the physical supply and of the economic supply of water.

- Development and evaluation of processes and governance mechanisms for integrated surface/ground water management.

- Evaluation and assessment of the effects of water conservation practices, as well as adoption, penetration and permanence.

## 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 Announcement.

## 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/index.php). 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) and SF-424B (Assurances),** must be submitted through the website at **https://niwr.net/.** The SF-424 and SF-424B 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 Announcement, 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.) USGS employees are encouraged to include a budget with the Statement of Government Involvement.

## VII. FEDERAL FUNDS

A. Funds have not yet been appropriated for this program for FY 2015. 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 2015 funds, if available.

## 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, American Samoa, 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.i of each Financial Status Report, Standard Form 425.

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 5:00 PM Eastern Time, Thursday, February 19, 2015. 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 5:00 PM Eastern Time, Thursday, March 12, 2015. Only proposals approved by that time will be transmitted to the National Grants Competition.

The SF-424 and SF-424B portions of the application package must be filed electronically at http://www.grants.gov prior to 5:00 PM Eastern Time, Thursday, March 12, 2015. Only applications submitted by that time will be considered.

## XI. PROPOSAL REVIEW, SELECTION, AND AWARD PROCESS

Each proposal which meets the requirements of this Announcement 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 the federal share of the salary 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, 2015. The project start date must be no later than September 30, 2015.

## XII. PROPOSAL CONTENTS

Each proposal shall consist of the following items:

A. SF-424, Application for Federal Assistance, and SF-424B, Assurances [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.)**

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

**A. Application for Federal Assistance, SF-424 and Assurances, SF-424B** (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 and SF-424B must pertain to that Institute/Center and its host university.
c. **The SF-424 and SF-424B 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 SF-424 and SF-424B must be submitted for each proposal. An SF-424 and SF-424B 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. Signed matching funds commitment letters are to scanned and uploaded to the niwr.net website following the instructions on the website.
2. **Note: Copies of the original signed letter(s) need only be uploaded to niwr.net at the time of submission of the application; they need NOT be mailed to the USGS. Please be sure that the scanned documents are legible.**

**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, 2015. The project start date must be no later than September 30, 2015.

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 2015 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. A brief narrative description is sufficient; there is no specified format or form. (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 at https://niwr.net/. **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 |
| 2010 | $950,183 | 46 | 6 | $60,396 | $247,563 |
| 2011 | $1,064,754 | 40 | 5 | $140,162 | $249,949 |
| 2012 | $853,498 | 46 | 6 | $35,885 | $243,835 |
| 2014 | $963,704 | 68 | 4 | $230,839 | $248,556 |

*The program did not receive funding in FY 2007 and FY 2013. Projects selected in FY 2007 were supported with FY 2008 funds. A program competition was not held in FY 2008 nor held in FY 2013. Projects Descriptions of the projects selected for funding since 2002 are provided at (http://water.usgs.gov/wrri/national-competitive-grants.php).

## 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-425 Federal Financial Report | Submit Electronically. | www.fedconnect.net* | See XV(B) below "Financial Reporting Requirements" |

*Please see the Terms and Conditions provided with 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. Annual Financial Reports.

The recipient will submit annual STANDARD FORM 425, FEDERAL FINANCIAL REPORT(S) for each individual USGS award. The SF 425 is available at - http://www.whitehouse.gov/omb/grants_forms. The SF 425 will be due ninety (90) calendar days after the grant year (i.e., 12 months after the approved effective date of the grant agreement and every 12 months thereafter until the expiration date of the grant agreement). USGS acknowledges that this annual reporting schedule may not always correspond with a specific budget period. The SF 425 must be submitted electronically through the FedConnect Message Center (www.fedconnect.net). If after 90 days, recipient has not submitted a report, the recipient's account in ASAP will be placed in a manual review status until the report is submitted.

2. Final Financial Report.

a. The recipient will liquidate all obligations incurred under the award and submit a final STANDARD FORM 425, FEDERAL FINANCIAL REPORT through FedConnect (www.fedconnect.net) no later than 90 calendar days after the grant/cooperative agreement completion date. The SF 425 is available at - http://www.whitehouse.gov/omb/grants_forms. Recipient will promptly return any unexpended federal cash advances or will complete a final draw from ASAP to obtain any remaining amounts due. Once 120 days has passed since the grant/agreement completion date, the 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 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.

OMB Number: 4040-0004
Expiration Date: 8/31/2016

## Application for Federal Assistance SF-424

*** 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:

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/Parish:
* State:
Province:
* Country: USA: UNITED STATES
* 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**

*** 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.):**

Add Attachment | Delete Attachment | View Attachment

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

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

**Application for Federal Assistance SF-424**

**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 in attachment.)**

☐ Yes ☐ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

**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:

## INSTRUCTIONS FOR THE SF-424

This is a standard form required for use as a cover sheet for submission of pre-applications and applications and related information under discretionary programs. Some of the items are required and some are optional at the discretion of the applicant or the federal agency (agency). Required fields on the form are identified with an asterisk (*) and are also specified as "Required" in the instructions below. In addition to these instructions, applicants must consult agency instructions to determine other specific requirements.

| Item | Entry: | Item: | Entry: |
|---|---|---|---|
| 1. | **Type of Submission:** (Required) Select one type of submission in accordance with agency instructions.<br>• Pre-application<br>• Application<br>• Changed/Corrected Application – Check if this submission is to change or correct a previously submitted application. Unless requested by the agency, applicants may not use this form to submit changes after the closing date. | 10. | **Name Of Federal Agency**: (Required) Enter the name of the federal agency from which assistance is being requested with this application. |
| | | 11. | **Catalog Of Federal Domestic Assistance Number/Title:** Enter the Catalog of Federal Domestic Assistance number and title of the program under which assistance is requested, as found in the program announcement, if applicable. |
| 2. | **Type of Application**: (Required) Select one type of application in accordance with agency instructions.<br><br>• New – An application that is being submitted to an agency for the first time.<br>• Continuation - An extension for an additional funding/budget period for a project with a projected completion date. This can include renewals.<br>• Revision - Any change in the federal government's financial obligation or contingent liability from an existing obligation. If a revision, enter the appropriate letter(s). More than one may be selected. If "Other" is selected, please specify in text box provided.<br><br>A. Increase Award<br>B. Decrease Award<br>C. Increase Duration<br>D. Decrease Duration<br>E. Other (specify) | 12. | **Funding Opportunity Number/Title:** (Required) Enter the Funding Opportunity Number (FON) and title of the opportunity under which assistance is requested, as found in the program announcement. |
| | | 13. | **Competition Identification Number/Title:** Enter the competition identification number and title of the competition under which assistance is requested, if applicable. |
| | | 14. | **Areas Affected By Project:** This data element is intended for use only by programs for which the area(s) affected are likely to be different than the place(s) of performance reported on the SF-424 Project/Performance Site Location(s) Form. Add attachment to enter additional areas, if needed. |
| 3. | **Date Received:** Leave this field blank. This date will be assigned by the Federal agency. | 15. | **Descriptive Title of Applicant's Project:** (Required) Enter a brief descriptive title of the project. If appropriate, attach a map showing project location (e.g., construction or real property projects). For pre-applications, attach a summary description of the project. |
| 4. | **Applicant Identifier:** Enter the entity identifier assigned buy the Federal agency, if any, or the applicant's control number if applicable. | | |
| 5a. | **Federal Entity Identifier**: Enter the number assigned to your organization by the federal agency, if any. | 16. | **Congressional Districts Of**: 16a. (Required) Enter the applicant's congressional district. 16b. Enter all district(s) affected by the program or project. Enter in the format: 2 characters state abbreviation – 3 characters district number, e.g., CA-005 for California 5th district, CA-012 for California 12 district, NC-103 for North Carolina's 103 district. If all congressional districts in a state are affected, enter "all" for the district number, e.g., MD-all for all congressional districts in Maryland. If nationwide, i.e. all districts within all states are affected, enter US-all. If the program/project is outside the US, enter 00-000. This optional data element is intended for use only by programs for which the area(s) affected are likely to be different than place(s) of performance reported on the SF-424 Project/Performance Site Location(s) Form. Attach an additional list of program/project congressional districts, if needed. |
| 5b. | **Federal Award Identifier**: For new applications, enter NA. For a continuation or revision to an existing award, enter the previously assigned federal award identifier number. If a changed/corrected application, enter the federal identifier in accordance with agency instructions. | | |
| 6. | **Date Received by State:** Leave this field blank. This date will be assigned by the state, if applicable. | | |
| 7. | **State Application Identifier:** Leave this field blank. This identifier will be assigned by the state, if applicable. | | |
| 8. | **Applicant Information**: Enter the following in accordance with agency instructions: | | |
| | **a. Legal Name**: (Required) Enter the legal name of applicant that will undertake the assistance activity. This is the organization that has registered with the Central Contractor Registry (CCR). Information on registering with CCR may be obtained by visiting www.Grants.gov. | 17. | **Proposed Project Start and End Dates**: (Required) Enter the proposed start date and end date of the project. |
| | **b. Employer/Taxpayer Number (EIN/TIN):** (Required) Enter the employer or taxpayer identification number (EIN or TIN) as assigned by the Internal Revenue Service. If your organization is not in the US, enter 44-4444444. | 18. | **Estimated Funding:** (Required) Enter the amount requested, or to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions should be included on appropriate lines, as applicable. If the action will result in a dollar change to an existing award, indicate only the amount of the change. For decreases, enclose the amounts in parentheses. |

| | | | |
|---|---|---|---|
| | **c. Organizational DUNS**: (Required) Enter the organization's DUNS or DUNS+4 number received from Dun and Bradstreet. Information on obtaining a DUNS number may be obtained by visiting www.Grants.gov. | 19. | **Is Application Subject to Review by State Under Executive Order 12372 Process?** (Required) Applicants should contact the State Single Point of Contact (SPOC) for Federal Executive Order 12372 to determine whether the application is subject to the State intergovernmental review process. Select the appropriate box. If "a." is selected, enter the date the application was submitted to the State. |
| | **d. Address**: Enter address: Street 1 (Required); city (Required); County/Parish, State (Required if country is US), Province, Country (Required), 9-digit zip/postal code (Required if country US). | 20. | **Is the Applicant Delinquent on any Federal Debt?** (Required) Select the appropriate box. This question applies to the applicant organization, not the person who signs as the authorized representative. Categories of federal debt include; but, may not be limited to: delinquent audit disallowances, loans and taxes. If yes, include an explanation in an attachment. |
| | **e. Organizational Unit:** Enter the name of the primary organizational unit, department or division that will undertake the assistance activity.<br><br>**f. Name and contact information of person to be contacted on matters involving this application:** Enter the first and last name (Required); prefix, middle name, suffix, title. Enter organizational affiliation if affiliated with an organization other than that in 7.a. Telephone number and email (Required); fax number. | 21. | **Authorized Representative**: To be signed and dated by the authorized representative of the applicant organization. Enter the first and last name (Required); prefix, middle name, suffix. Enter title, telephone number, email (Required); and fax number. A copy of the governing body's authorization for you to sign this application as the official representative must be on file in the applicant's office. (Certain federal agencies may require that this authorization be submitted as part of the application.) |
| 9. | Type of Applicant: (Required) Select up to three applicant type(s) in accordance with agency instructions.<br><br>A. State Government<br>B. County Government<br>C. City or Township Government<br>D. Special District Government<br>E. Regional Organization<br>F. U.S. Territory or Possession<br>G. Independent School District<br>H. Public/State Controlled Institution of Higher Education<br>I. Indian/Native American Tribal Government (Federally Recognized)<br>J. Indian/Native American Tribal Government (Other than Federally Recognized)<br>K. Indian/Native American Tribally Designated Organization<br>L. Public/Indian Housing Authority<br>M. Nonprofit<br>N. Private Institution of Higher Education<br>O. Individual<br>P. For-Profit Organization (Other than Small Business)<br>Q. Small Business<br>R. Hispanic-serving Institution<br>S. Historically Black Colleges and Universities (HBCUs)<br>T. Tribally Controlled Colleges and Universities (TCCUs)<br>U. Alaska Native and Native Hawaiian Serving Institutions<br>V. Non-US Entity<br>W. Other (specify) | | |

OMB Number: 4040-0007
Expiration Date: 06/30/2014

## ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

**NOTE:** Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.

2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.

3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.

4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.

5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).

6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C.§§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U. S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee- 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).

14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.

15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.

16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

19. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

| SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL | TITLE |
|---|---|
| APPLICANT ORGANIZATION | DATE SUBMITTED |

**Standard Form 424B (Rev. 7-97) Back**

BUDGET BREAKDOWN*

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

| Cost Category | Federal | Non-Federal | Total |
|---|---|---|---|
| 1. Salaries and Wages<br>- Principal Investigator(s)<br>- Graduate Student(s)<br>- Undergraduate Student(s)<br>- Others<br>Total Salaries and Wages | $ | $ | $ |
| 2. Fringe Benefits<br>- Principal Investigator(s)<br>- Graduate Student(s)<br>- Undergraduate Student(s)<br>- Others<br>Total Fringe Benefits | | | |
| 3. Tuition<br>- Graduate Student(s)<br>- Undergraduate Student(s)<br>Total Tuition | | | |
| 4. Supplies | | | |
| 5. Equipment | | | |
| 6. Services or Consultants | | | |
| 7. Travel | | | |
| 8. Other direct costs | | | |
| 9. Total direct costs | | | |
| 10a. Indirect costs on federal share | XXXXXXXX<br>XXXXXXXX | | |
| 10b. Indirect costs on non-federal share | XXXXXXXX<br>XXXXXXXX | | |
| 11. Total estimated costs | $ | $ | $ |
| Total Costs at Campus of the University on which the Institute or Center is located. | $ | $ | $ |
| Total Costs at other University Campus<br>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

| |
|---|
| **Salaries and Wages for PIs.** Provide personnel, title/position, estimated hours and the rate of compensation proposed for each individual. |
| |
| **Salaries and Wages for Graduate Students.** Provide personnel, title/position, estimated hours and the rate of compensation proposed for each individual. (Other forms of compensation paid as or in lieu of wages to students performing necessary work are allowable provided that the other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work. Also, note that tuition has its own category below and that health insurance, if provided, is to be included under fringe benefits.) |
| |
| **Salaries and Wages for Undergraduate Students.** Provide personnel, title/position, estimated hours and the rate of compensation proposed for each individual. (Other forms of compensation paid as or in lieu of wages to students performing necessary work are allowable provided that the other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work. Also, note that tuition has its own category below and that health insurance, if provided, is to be included under fringe benefits.) |
| |
| **Salaries and Wages for Others.** Provide personnel, title/position, estimated hours and the rate of compensation proposed for each individual. |
| |
| **Fringe Benefits for PIs.** Provide the overall fringe benefit rate applicable to each category of employee proposed in the project. . Note: include health insurance here, if applicable. |
| |
| **Fringe Benefits for Graduate Students.** Provide the overall fringe benefit rate applicable to each category of employee proposed in the project. Note: include health insurance here, if applicable. |
| |
| **Fringe Benefits for Undergraduate Students.** Provide the overall fringe benefit rate applicable to each category of employee proposed in the project. Note: include health insurance here, if applicable |
| |
| **Fringe Benefits for Others.** Provide the overall fringe benefit rate applicable to each category of employee proposed in the project. . Note: include health insurance here, if applicable. |
| |
| **Tuition for Graduate Students.** |
| |
| **Tuition for Undergraduate Students** |
| |
| **Supplies.** Indicate separately the amounts proposed for office, laboratory, computing, and field supplies. Provide a breakdown of the supplies in each category. |
| |
| **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. A detailed breakdown is required. |
| |
| **Services or Consultants.** Identify the specific tasks for which these services, consultants, or subcontracts would be used. Provide a detailed breakdown of the services or consultants to include personnel, time, salary, supplies, travel, etc. |
| |
| **Travel.** Provide purpose and estimated costs for all travel. A breakdown should be provided to include location, number of personnel, number of days, per diem rate, lodging rate, mileage and mileage rate, airfare (whatever is applicable). |
| |
| **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). Please provide a breakdown for costs listed under this category. |
| |
| **Indirect Costs.** Provide negotiated indirect ("Facilities and Administration") cost rate. |
| |

* 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 Year 1 | Non-Federal Year 1 | FEDERAL YEAR 2# | NON-FEDERAL YEAR 2# | FEDERAL YEAR 3# | NON FEDERAL YEAR 3# | TOTAL ALL YEARS# |
|---|---|---|---|---|---|---|---|
| 1. Salaries and Wages for: - - -----<br>- Principal Investigators<br>- Grad. Students<br>- Undergrad.. Students<br>Total Salaries and Wages | $ | $ | $ | $ | $ | $ | $ |
| 2. Fringe Benefits for:<br>- Principal Investigators<br>- Grad. Students<br>- Undergrad. Students<br>Total Fringe Benefits | $ | $ | $ | $ | $ | $ | $ |
| 3. Tuition for:<br>- Grad. Students<br>- Undergrad. Students<br>Total Tuition | | | | | | | |
| 4. Supplies | $ | $ | $ | $ | $ | $ | $ |
| 5. Equipment | $ | $ | $ | $ | $ | $ | $ |
| 6. Services or Consultants | $ | $ | $ | $ | $ | $ | $ |
| 7. Travel | $ | $ | $ | $ | $ | $ | $ |
| 8. Other Direct Costs | $ | $ | $ | $ | $ | $ | $ |
| 9. TOTAL DIRECT COSTS (sum of 1- 8) | $ | $ | $ | $ | $ | $ | $ |
| 10. Indirect Costs | | $ | | $ | | $ | $ |
| 11. Amount Proposed (9 + 10) | | $ | | $ | | $ | $ |

* 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 |
| GEOMORPOLOGICAL 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 |
| WETLA | |

## 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 Announcement 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 Announcement 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 Announcement.

_____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 an SF-424 and SF-424B on http://www.grants.gov for the application. NOTE: One SF-424 and SF-424B is to be submitted for each application/proposal approved by the institute/center. **One SF-424 and SF-424B covering all applications/proposals approved is not acceptable.**

_____Record and retain confirmation messages from grants.gov, including tracking number, for each application submitted.

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.