

# U.S. Geological Survey Department of the Interior

# STATE WATER RESOURCES RESEARCH INSTITUTE PROGRAM FISCAL YEAR 2018 REQUEST FOR APPLICATIONS

under Section 104 of the Water Resources Research Act of 1984, as Amended

ANNOUNCEMENT G18AS00008 Revised November 01, 2017

# CLOSING DATE JANUARY 18, 2018 5:00 P.M. Eastern Standard Time

OMB Number: 1028-0097 Expiration Date: 2/29/2020

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## **U.S.** Geological Survey

# STATE WATER RESOURCES RESEARCH INSTITUTE PROGRAM FISCAL YEAR 2018 REQUEST FOR APPLICATIONS

#### TABLE OF CONTENTS

ELEC	CTRONIC FILING OF APPLICATIONS REQUIRED	1
I.	INTRODUCTION	1
II.	PROGRAM OBJECTIVES	1
III.	ELIGIBLE APPLICANTS	2
IV.	APPLICATIONS NOT ELIGIBLE FOR FUNDING	2
V.	FEDERAL FUNDS	2
VI.	MATCHING FUNDS	3
VII.	APPLICATION DUE DATE	3
VIII.	APPLICATION CONTENTS	4
IX.	APPLICATION INSTRUCTIONS	4
х.	REPORTING REQUIREMENTS	7
ATTA	ACHMENTS	
A	APPLICATION FOR FEDERAL ASSISTANCE (SF-424)	10
B	ASSURANCES (SF-424B)	15
$\mathbf{C}$	BUDGET BREAKDOWN	17
D	BUDGET JUSTIFICATION	18
$\mathbf{E}$	BUDGET SUMMARY	19
F	FOCUS CATEGORIES	20
G	FEDERAL AWARD IDENTIFIERS	21

#### STATE WATER RESOURCES RESEARCH INSTITUTE PROGRAM REQUEST FOR APPLICATIONS FY 2018

#### ELECTRONIC FILING OF APPLICATIONS REQUIRED

Applications under this Announcement must be submitted through the Internet site at https://niwr.net/. Institute Directors or their designee(s) are responsible for submitting their applications electronically. Preparation of each application must follow the instructions contained herein and on the Internet site.

#### **INTRODUCTION** I.

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. Responsibility for administration of the State Water Resources Research Institute program has been delegated to the U.S. Geological Survey (USGS).

The USGS contacts for this program are:

Program Office Earl Greene Director, Water Resources Research Act Program 5522 Research Park Drive Baltimore, MD 21228

Phone: 571-332-4184

email: eagreene@usgs.gov

**Grants Office** 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

email: kdove@usgs.gov

#### II. **PROGRAM OBJECTIVES**

Section 104(b) of the Water Resources Research Act of 1984 requires the Institutes or Centers to:

- (1) "plan, conduct, or otherwise arrange for competent applied and peer reviewed research that fosters –
  - (A) improvements in water supply reliability;
  - (B) the exploration of new ideas that
    - (i) address water problems; or
    - (ii) expand understanding of water and water-related phenomena;

- (C) the entry of new research scientists, engineers, and technicians into water resources fields; and
- (D) the dissemination of research results to water managers and the public.
- (2) "cooperate closely with other colleges and universities in the State that have demonstrated capabilities for research, information dissemination, and graduate training in order to develop a statewide program designed to resolve State and regional water and related land problems." The Act also requires each institute to:
- (3) "cooperate closely with other institutes and other organizations in the region to increase the effectiveness of the institutes and for the purpose of promoting regional coordination."

Applications submitted under this Announcement are to be in furtherance of these objectives and promote the national mission and objectives of the U.S. Geological Survey which are focused on providing water quality and quantity information, understanding water availability, addressing the influence of climate on water resources, and responding to water-related emerging needs. Specific areas of emphasis are at the discretion of the individual Institute or Center Directors.

#### III. ELIGIBLE APPLICANTS

Applications will be accepted only from Institutes or Centers established pursuant to the provisions of Section 104 of the Water Resources Research Act of 1984, as amended. The applicant may consider project proposals only from faculty members or affiliates at institutions of higher education in its State.

#### IV. APPLICATIONS NOT ELIGIBLE FOR FUNDING

- A. Applications for research on health effects involving human subjects.
- B. Applications for research involving oceanography (estuarine research applications are acceptable).
- C. Applications submitted by an Institute or Center that has not met reporting requirements on a previous award by the USGS.

#### V. FEDERAL FUNDS

Funds have not yet been appropriated for this program for FY 2018. For planning purposes, assume that the amount available to each Institute or Center in FY 2018 is \$92,335. Assume that a total of \$277,005 is available to the regional Institute in Guam, which serves Guam, the Federated States of Micronesia and the Commonwealth of the Northern Mariana Islands. Assume that a total of \$184,670 is available to the regional Institute in Hawaii, which serves Hawaii and American Samoa. The Government's obligation under this program is contingent upon the availability of appropriated funds.

#### VI. MATCHING FUNDS

A. Each applicant must match each Federal dollar provided with not less than two dollars from non-federal sources.

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

- B. The matching requirement applies to the overall application, not the individual projects within the application.
- C. Matching funds shall be obligated during the period of performance.
- D. The matching requirement should be met during each 12-month budget period.

Note: Matching funds in excess of the required 2:1, non-Federal:Federal, match are acceptable and can be credited against subsequent year matches during the period of the grant.

- E. Matching funds obligated shall be reflected on line 10.i. of each Federal Financial Report, Standard Form 425.
- F. 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.**

Regulations pertaining to allowable matching funds are provided in the Code of Federal Regulations at 43CFR12.64 and in the following OMB Circulars:

Circular A-21 for Educational Institutions Circular A-87 for State, Local, and Indian Tribal Governments Circular A-122 for Private Nonprofit Organizations

#### VII. APPLICATION DUE DATE

Applications must be filed at https://niwr.net/ prior to 5:00 PM Eastern Standard Time, January 18, 2018.

#### VIII. APPLICATION CONTENTS

Each application shall consist of the following items:

- A. Signed SF 424, Application for Federal Assistance [Attachment A]
- B. Signed Assurances [Attachment B]
- C. Signed Matching Funds Commitment Letter
- D. Program Administration/Management Description, including a Budget Breakdown (Attachment C) and Budget Justification (Attachment D) for Administration/Management
- F. Project Proposals, including a Budget Breakdown (Attachment C) and Budget Justification (Attachment D) for each Project
- G. Budget Summary (Attachment E)

Attachment C (Budget Breakdown), Attachment D (Budget Justification) and Attachment E (Budget Summary) should be considered worksheets. During the proposal submission process, data for Attachments C and D will be entered into a form 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. The application system will generate Attachment E automatically by compiling information from the budget breakdown forms for all of the projects.

\*(NEW) - Proposals submitted to USGS must include a supplementary document of no more than two pages labeled "Data Management Plan" (DMP). This supplementary document should describe how the proposal will conform to USGS policy on the dissemination and sharing of research results and associated data. A valid DMP may include only the statement that no detailed plan is needed (e.g. "No data are expected to be produced from this project"), as long as the statement is accompanied by a clear justification. This supplementary document may include:

- the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project;
- the standards to be used for data and metadata format and content (where existing standards are absent or deemed inadequate, this should be documented along with any proposed solutions or remedies);
- policies for access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements;
- provisions for re-use, re-distribution, and the production of derivatives; and
- plans for archiving data, samples, and other research products, and for preservation of free public access to them.

Additional guidance on data management plans is available from the USGS Data Management web site here: http://www.usgs.gov/datamanagement/plan/dmplans.php

Simultaneously submitted collaborative proposals and proposals that include subawards are a single unified project and should include only one supplemental combined DMP by the lead PI

that also addresses all subaward data management needs, regardless of the number of non-lead collaborative proposals or subawards included.

#### IX. APPLICATION INSTRUCTIONS

Each application 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 document files containing detailed descriptions of the work being proposed. These files 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 these files, and verifying their submission are provided at the website).

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

The first three sections of the application, below, (Application for Federal Assistance, Assurances, and Matching Funds Commitment Letter) are to be signed and:

- 1. Scanned and uploaded to niwr.net following the instructions on that website.
- 2. Note: Copies of the original signed documents 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.
- **A. Application for Federal Assistance, SF 424**. (Attachment A) The SF 424 shall be signed by an authorized representative of the applicant.
- **B.** Assurances (Attachment B). The Assurances shall be signed by an authorized representative of the applicant.
- C. Matching Funds Commitment Letter. The applicant shall provide an institutional costsharing 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.

#### D. Description of Program Management and Administration

At this section of the website, please provide or correct the following information in the Web form presented by the site:

- 1. Institute Director. Name, academic rank, email address and phone number.
- 2. <u>Administrative Personnel</u>. Name, academic rank or title, email address and phone number of other principals involved in administration of the program, if any.
- 3. <u>Budget Breakdown</u>, as requested by the Web form (See Attachment C).

- 4. Budget Justification, as requested by the Web form (See Attachment D).
- 5. <u>Program and Management Overview</u>, in the space provided by the Web form.
- **E. Project Proposals.** (Includes research, education, information transfer, and information management system proposals. "Graduate Fellowship" and "Seed Grant" projects must each be entered as **separate** research proposals if they support research.)

Each proposal shall consist of the following 20 elements. Items numbered 1 through 12 are to be entered in the Web form provided at the website.

- 1. <u>Title</u>. Concise but descriptive.
- 2. <u>Project Type</u>. Choose from the following: Research, Information Transfer, Information Management System, Education, or Other (please specify).
- 3. <u>Focus Categories</u>. Choose a maximum of three focus categories from the list provided (Attachment F), with the most preferred focus category first.
- 4. <u>Research Category</u>. 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. <u>Keywords</u>. Enter keywords of your choice descriptive of the work.
- 6. <u>Start Date</u>. Enter the actual beginning date for the project.
- 7. End Date. Enter the estimated end date for the project.
- 8. <u>Principal investigator(s)</u>. Provide name, academic rank, university, email address and phone number of the principal investigators.
- 9. Congressional District of the university where the work is to be conducted.
- 10. <u>Abstract</u>. Provide a brief (one-page) description of the problem, methods, and objectives in the space provided at the Internet site.
- 11. Budget Breakdown, as requested by the Web form (See Attachment C).
- 12. Budget Justification, as requested by the Web form (See Attachment D).

Items 13 through 20 are to be "deposited" as a file document in PDF format at the website. Note: This document shall not exceed 10 single-spaced pages - 12 point font, exclusive of resumes (item 20). 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 10-page limit. If editing is required, you must edit the problem document(s) using your word processor and resubmit that application component.

- 13. Title. Please use the same title as was entered in the Web form under item 1, above.
- 14. <u>Statement of regional or State water problem</u>. Include an explanation of the need for the project, who wants it, and why.
- 15. <u>Statement of results or benefits</u>. Specify the type of information that is to be gained and how it will be used.
- 16. Nature, scope, and objectives of the project, including a timeline of activities.
- 17. <u>Methods</u>, <u>procedures</u>, <u>and facilities</u>. Provide enough information to permit evaluation of the technical adequacy of the approach to satisfy the objectives.
- 18. <u>Related research</u>. (Research projects only) Show by literature and communication citations the similarities and dissimilarities of the proposed project to completed or on-going work on the same topic.
- 19. <u>Training potential</u>. Estimate the number of graduate and undergraduate students, by degree level, who are expected to receive training in the project.
- 20. <u>Investigator's qualifications</u>. Include resume(s) of the principal investigator(s). No resume shall exceed two pages or list more than 15 pertinent publications.
- **F. Budget Summary** (See Attachment E). The application system will generate this form automatically by compiling information from the budget breakdown forms for all of the projects.

#### X. REPORTING REQUIREMENTS

#### TECHNICAL REPORTING REQUIREMENTS

- A. The recipient shall prepare an Annual Program Report summarizing its activities during the reporting period under its base grant, national competitive grant program awards for which it is the lead institute NIWR-USGS Internships, and supplemental awards funded either by the USGS or by pass-through funds from another Federal agency. The reporting period for the annual program is March 1 through February 28.
- **B.** The Annual Program Report is to be filed on the Internet at https://niwr.net/ by May 31 of each year. The report for the program awards, internship awards and supplemental awards should be filed within 90 days after the completion date of the individual award.

- C. **The Annual Program Report** for each Institute shall consist of the following components and shall be in the format specified in the Annual Report guidelines provided at https://niwr.net/.
  - (1) **Research**: A synopsis of each ongoing research project and of each research project completed during the reporting period. This includes projects funded under the base grant and the National Competitive Grant Program, as well as projects supported by supplemental grants funded by the USGS and other Federal agencies. Include only those National Competitive Grant Program projects for which you are the lead institute.
  - (2) <u>Publications</u>: A list of all reports published during the reporting period as a result of projects supported with section 104 and required matching funds, including base grants and National Competitive Grant awards for which you are the lead institute, and as a result of supplemental awards.
  - (3) <u>Information Transfer Program</u>: A brief description of information transfer activities supported with section 104 and required matching funds during the reporting period.
  - (4) <u>STUDENT SUPPORT</u>: A summary of the number of students supported with section 104 and required matching funds, including the base grant and National Competitive Grant Program awards for which you are the lead institute. Report, also, the number of students supported under the NIWR-USGS Student Internship Program and other supplemental awards during the reporting period.
  - (5) <u>STUDENT INTERNSHIP PROGRAM</u>: A Student Evaluation of Internship at the U.S. Geological Survey for each student who completed an internship during the reporting period.
  - (6) **NOTABLE ACHIEVEMENTS AND AWARDS**: Provide a brief description of any especially notable achievements and awards resulting from work supported with section 104 and required matching funds and by supplemental grants during the reporting period.
- D. Supplemental awards may require progress reports; this requirement will be stated within the award document.

#### 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 - <a href="http://www.whitehouse.gov/omb/grants\_forms">http://www.whitehouse.gov/omb/grants\_forms</a>. 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 - <a href="http://www.whitehouse.gov/omb/grants">http://www.whitehouse.gov/omb/grants</a> 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  New  Application  Continuation  Changed/Corrected Application  * If Revision, select appropriate letter(s):  * Other (Specify):  Revision					
* 3. Date Received:  4. Applicant Identifier:					
5a. Federal Entity Identifier:	5b. Federal Award Identifier:				
State Use Only:					
6. Date Received by State: 7. State Ap	plication 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: *Fi Middle Name:  * Last Name: Suffix:	rst Name:				
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 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)				
** 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:				

#### **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.  • Pre-application  • Application	10.	Name Of Federal Agency: (Required) Enter the name of the federal agency from which assistance is being requested with this application.
	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.	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.  New – An application that is being submitted to an agency for the first time.	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.
	Continuation - An extension for an additional funding/budget period for a project with a projected completion date. This can include renewals. Revision - Any change in the federal government's financial obligation or contingent liability from an existing obligation. If	13.	Competition Identification Number/Title: Enter the competition identification number and title of the competition under which assistance is requested, if applicable.
	a revision, enter the appropriate letter(s). More than one may be selected. If "Other" is selected, please specify in text box provided.  A. Increase Award  B. Decrease Duration  B. Decrease Duration  C. Increase Duration	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)
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.		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
6.	Date Received by State: Leave this field blank. This date will be assigned by the state, if applicable.		district number, e.g., MD-all for all congressional districts in Maryland. If nationwide, i.e. all districts within all states are
7.	State Application Identifier: Leave this field blank. This identifier will be assigned by the state, if applicable.		affected, enter US-all. If the program/project is outside the US, enter 00-000. This optional data element is intended for use
8.	Applicant Information: Enter the following in accordance with agency instructions:		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.
	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.
40	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.      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.  A. State Government B. County Government C. City or Township Government D. Special District Government E. Regional Organization F. U.S. Territory or Possession G. Independent School District H. Public/State Controlled Institution of Higher Education I. Indian/Native American Tribal Government (Pederally Recognized) J. Indian/Native American Tribal Government (Other than Federally Recognized) K. Indian/Native American Triball Government (Other than Federally Recognized) K. Indian/Native American Triball Government (Other than Federally Recognized) K. Indian/Native American Tribally Designated Organization L. Public/Indian Housing Authority				

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:

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

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- 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-
- 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.).
- 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.
- 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."
- 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

#### **BUDGET BREAKDOWN\***

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

Cost Category	Federal	Non-Federal	Total
1. Salaries and Wages	\$	\$	\$
- Principal Investigator(s)			
- Graduate Student(s)			
- <u>Undergraduate Student(s)</u>			
- Others			
Total Salaries and Wages			
2. Fringe Benefits - Principal Investigator(s)			
- Graduate Student(s)			
- <u>Undergraduate Student(s)</u>			
- Others			
Total Fringe Benefits 3. Tuition			
- Graduate Student(s)			
- <u>Undergraduate Student(s)</u>			
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 XXXXXXXX		
10b. Indirect costs on non-federal share	XXXXXXXX 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 Name of University:	\$	\$	\$
* This forms is musticled as a granteheat only			

<sup>\*</sup> This form is provided as a worksheet only

## Budget Justification **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.

<sup>\*</sup> This form is provided as a worksheet only.

#### **BUDGET SUMMARY\***

Project Number							All P	rojects
Principal Investigator								
Cost Category	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal
Salaries and Wages								
Fringe Benefits								
Supplies								
Equipment								
Services or Consultants								
Travel								
Other Costs								
<b>Total Direct Costs</b>								
Indirect Costs								
<b>Total Estimated Costs</b>								

<sup>\*</sup> This form is provided as a worksheet only. The application system will generate this form automatically by compiling information from the budget breakdown forms for all of the projects.

#### Focus Categories

ACD **ACID DEPOSITION** 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 **NPP** NON POINT POLLUTION **NUTRIENTS** NU RADIOACTIVE SUBSTANCES **RAD REC** RECREATION **SEDIMENTS SED SOLUTE TRANSPORT** ST SURFACE WATER SW **TOXIC SUBSTANCES** TS **TREATMENT TRT** WASTEWATER WW WATER QUALITY WQL WATER QUANTITY **WQN** WS WATER SUPPLY WATER USE WU **WETLANDS** WL

### Federal Award Identifiers

Institute	Federal Award Identifier
Alabama	G16AP00037
Alaska	G16AP00038
Arizona	G16AP00039
Arkansas	G16AP00040
California	G16AP00041
Colorado	G16AP00042
Connecticut	G16AP00043
Delaware	G16AP00044
DC	G16AP00045
Florida	G16AP00046
Georgia	G16AP00047
Guam	G16AP00048
Hawaii	G16AP00049
Idaho	G16AP00050
Illinois	G16AP00051
Indiana	G16AP00052
Iowa	G16AP00053
Kansas	G16AP00054
Kentucky	G16AP00055
Louisiana	G16AP00056
Maine	G16AP00057
Maryland	G16AP00061
Massachusetts	G16AP00062
Michigan	G16AP00063
Minnesota	G16AP00064
Mississippi	G16AP00065
Missouri	G16AP00066

Institute	Federal Award Identifier
Montana	G16AP00067
Nebraska	G16AP00068
Nevada	G16AP00069
New Hampshire	G16AP00070
New Jersey	G16AP00071
New Mexico	G16AP00072
New York	G16AP00073
North Carolina	G16AP00074
North Dakota	G16AP00075
Ohio	G16AP00076
Oklahoma	G16AP00077
Oregon	G16AP00078
Pennsylvania	G16AP00079
Puerto Rico	G16AP00080
Rhode Island	G16AP00081
South Carolina	G16AP00082
South Dakota	G16AP00083
Tennessee	G16AP00084
Texas	G16AP00085
Utah	G16AP00086
Vermont	G16AP00087
Virginia	G16AP00088
Virgin Islands	G16AP00089
Washington	G16AP00090
West Virginia	G16AP00091
Wisconsin	G16AP00092
Wyoming	G16AP00093