

IOWA WATER CENTER

2010 Request for Proposals

The Iowa Water Center announces its annual 104(B) research grants program sponsored by the U.S. Geological Survey and is seeking water research proposals. Funding for projects selected will be available beginning March 1, 2010, for a one-year period. Multiple-year projects will be considered, but continued funding for subsequent years is subject to the availability of funds and progress made in the first year. Investigators must give a clear indication of what research results/products can be achieved if funding is available for one year only. Priority will be given to projects that show potential for attracting additional grant money from state, federal, and other sources to support the research program. If funded, two short but required reports must be completed during the project year as a USGS requirement. The Iowa Water Center will also request a fact sheet from your work and contribution to the Iowa Water Conference. Please see page 5 for details.

Note: Subsequent year funding is **not** guaranteed. Researchers seeking second-year funding must resubmit their proposal showing a new budget and the progress made.

A. 2010 Priority Areas Identified for this Research Initiative

Our understanding of nutrient and sediment movement processes and how these materials affect Iowa's surface and ground water is improving. However, a variety of issues linking land management and water quality at multiple scales require further study. Identifying the most significant sediment and nutrient sources in our watersheds is a challenge and targeting these sources increases the benefit of conservation practices. This is particularly important because Iowa is repeatedly identified as a major contributor of nutrients and sediment to surface water. If we can improve our ability to trace soil material movement on the landscape and to our water bodies, we can focus our Best Management Practices for better water quality.

Other research questions exist that are critical to understanding Iowa's water quality issues. They include: How can we better trace nutrient movement in overland flow; how can we improve models for prediction of sediment and nutrient movement; can we utilize state-of-the art science and technology, such as LiDAR to improve our estimates of soil loss or nutrient delivery to streams?

The Iowa Water Center is requesting proposals focusing on the issues highlighted above.

B. Funding

Funds from this program can be requested for graduate student support, supplies, local travel, and analytical costs. Investigators will be asked to show matching funds (2:1 nonfederal to federal dollars). Funding per project will normally be in the range of \$25,000 to \$30,000 per year for a maximum of two years.

C. Evaluation Criteria for Funding

Proposals will be reviewed for scientific merit and relevance to the above research areas by the Center's Advisory Committee. The committee consists of representatives from

Iowa State University, University of Iowa, University of Northern Iowa, Iowa Department of Natural Resources, Iowa Department of Agriculture and Land Stewardship, Natural Resources Conservation Service, and Environmental Protection Agency. Evaluation of proposals will be based on scientific merit and the following criteria:

1. Project has potential to lead to significant future funding from state, federal, and other sources.
2. Proposals are within the high priority areas for this initiative.
3. The final outcome of the project will result in a product such as a refereed publication, patent, technology development and/or a better understanding of a process that will help Iowa citizens.

D. Proposal Guidelines

Please include the information listed below. The body of the proposal (items 10 through 16) should not exceed 6 single-spaced pages in 12-point, Times New Roman font.

1. **Principal Investigator(s):** Provide name, academic rank, university, email address, and phone number of the principal investigators.
2. **Focus Categories:** Choose a maximum of three from the list on page 3.
3. **Research Category:** Choose the option that most closely applies.
4. **Keywords:** Include keywords that are descriptive of the work.
5. **Duration of Project:** Actual beginning date and estimated end date for the project.
6. **Congressional District** of the university where the work is to be conducted.
7. **Abstract:** Provide a brief (one-page) description of the problem, methods, and objectives.
8. **Budget Breakdown** (*see page 4*)
9. **Budget Justification** (*see page 5*)
10. **Title**
11. **Statement of regional or State water problem:** Include an explanation of the need for the project, who wants it, and why.
12. **Statement of results or benefits:** Specify the type of information that is to be gained and how it will be used.
13. **Nature, scope, and objectives of the project,** including a timeline of activities.
14. **Methods, procedures, and facilities:** Provide enough information to permit evaluation of the technical adequacy of the approach to satisfy the objectives.
15. **Related research:** Show by literature and communication citations the similarities and dissimilarities of the proposed project to completed or on-going work on the same topic.
16. **Training potential:** Estimate the number of graduate and undergraduate students, by degree level, who are expected to receive training in the project.
17. **Investigator's qualifications:** Include resume(s) of the principal investigator(s). No resume shall exceed two pages or list more than 15 pertinent publications.
18. **Cost-share documentation:** Provide a letter from sponsor indicating that funds are approved for 2:1 match. A memo from your accountant stating that funds are available to meet the cost-share requirement will also suffice.

E. Deadline: Please email the proposal as a Word file (**no** pdf files) to iowawatercenter@iastate.edu, by close of business Monday, **November 30, 2009**. **Note:**

Please refer to the National Institutes for Water Resources website <https://niwr.org> for additional information.

Focus Categories

Research Category Code

Acid Deposition ACD
Agriculture AG
Climatological Processes CP
Conservation COV
Drought DROU
Ecology ECL
Economics ECON
Education EDU
Floods FL
Geomorphological Processes GEOMOR
Geochemical Processes GEOCHE
Groundwater GW
Hydrogeochemistry HYDGEO
Hydrology HYDROL
Invasive Species INV
Irrigation IG
Law, Institutions, & Policy LIP
Management & Planning M&P
Methods MET
Models MOD
Nitrate Contamination NC
Non-Point Pollution NPP
Nutrients NU
Radioactive Substances RAD
Recreation REC
Sediments SED
Solute Transport ST
Surface Water SW
Toxic Substances TS
Treatment TRT
Wastewater WW
Water Quality WQL
Water Quantity WQN
Water Supply WS
Water Use WU
Wetlands WL

Budget Breakdown

Cost Category	Federal Funds requested	Non-Federal matching funds	Total
1. Salaries and Wages			
Principal Investigator/post doc/grad/undergrad			
Principal Investigator/post doc/grad/undergrad			
Principal Investigator/post doc/grad/undergrad			
Total Salaries and Wages			
2. Fringe Benefits			
Principal Investigator/post doc/grad/undergrad			
Principal Investigator/post doc/grad/undergrad			
Principal Investigator/post doc/grad/undergrad			
Total Fringe Benefits			
3. Supplies			
4. Equipment			
5. Services and Consultants			
6. Travel			
7. Other direct costs			
8. Total direct costs			
9a. Indirect costs on federal share	XXXXXXX		
9b. Indirect costs on non-federal share	XXXXXXX		
10. Total estimated costs			

Budget Justification

1. Salaries and Wages: Provide estimated hours and the rate of compensation proposed for each individual (X hours @ \$X). Tuition remission and other forms of compensation paid as or in lieu of wages to students performing necessary work are allowable provided that the tuition or other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work.

2. Fringe Benefits: Provide the overall fringe benefit rate applicable to each category of employee proposed in the project.

3. Supplies: Indicate separately the amounts proposed for office, laboratory, computing, and field supplies. Please be specific.

4. Equipment: Identify non-expendable personal property having a useful life of more than one 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.

5. Services or Consultants: Identify the specific tasks for which these services, consultants, or subcontracts would be used. Estimate amount of time required and the hourly or daily rate. Provide a detailed list (ie sample analysis: 1000 samples @ \$8/sample.)

6. Travel: Provide purpose and estimated costs for all travel.

7. 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.

8. Indirect Costs: No indirect costs are associated with these grants.

If project is accepted for funding, the following tasks must be completed during the award year:

- 1.) Annual review completed in June detailing publications generated from project, number of students supported and notable awards and achievements.
- 2.) Annual survey completed in October indicating number of students supported by project and accomplishments.
- 3.) One page fact sheet must be developed and will be posted on the Iowa Water Center webpage.
- 4.) PI's could be asked to present research findings at conferences and meetings led by the Iowa Water Center.