

IOWA WATER CENTER

2021 Request for Proposals

The Iowa Water Center (IWC), the Water Resources Research Institute for the State of Iowa as authorized by the Water Resources Research Act of 1964, seeks proposals for the annual 104(b) competitive grants program. This program consists of two opportunities for 2021: a targeted seed grant research competition and a graduate student supplemental research competition. Funding for selected projects will be available beginning March 1, 2021 (funding availability dependent upon congressional budget action) for a one-year period. Projects should address local or regional water research needs.

IWC is administered through a partnership between Iowa State University and the U.S. Geological Survey. As such, project activities and expenditures will be subject to federal requirements under Uniform Guidance (UG). To read more about UG, please visit: <http://www.ospa.iastate.edu/omb-uniform-guidance>.

Applicants are required to complete an intent to submit notice due October 8, 2020, with full proposals due October 15, 2020.

Questions can be directed towards the Program Contact:

Hanna Bates

Acting Assistant Director

hbates@iastate.edu

Phone: 515-294-5650 *Please leave a voicemail message and the call will be returned.*

Targeted Seed Grant Research Competition

This program is intended to address the most pressing water research needs in the state of Iowa as determined by the agencies and organizations that comprise the IWC Advisory Board (<http://www.water.iastate.edu/content/advisory-board>). For 2021, the board has identified the following area in which we are soliciting proposals up to \$20,000 per project:

Impact of Covid-19 on Water, Environment and Connected Social-Ecological Systems

Water, ecosystems, the environment, and related social systems such as oversight and monitoring, policy, and governance at multiple levels have been impacted by COVID-19. Water has seen noticeable, positive impacts due to the reduction of recreational waterbased activities and loading from manufacturing and other sources on a global scale. The focus of this call for the Targeted Seed Grant Research Competition is to examine the connection between human activities and resulting impacts on water and associated ecological and human systems, spanning the recovery of natural resources throughout the

pandemic and the potential following degradation of natural resources as society returns to normalcy. Impacts of COVID-19 has the potential to influence social behavior, water infrastructure, groundwater, aquatic environments, and changes in precipitation associated with changes in aerosols and pollutants.

Proposals evaluating the consequences of current policies and practices as well as proposed alternatives to safeguard recovered systems or enhance systems, lessen adverse impacts, or increase resilience are also welcome for this grant competition.

Potential topics of interest regarding COVID-19 impacts include:

- Precipitation and discharge
- Lakes, rivers, and streams
- Water infrastructure
- Effluent management and water quality
- Virus transport in the aquatic environment

Eligible applicants include faculty, staff, and graduate students at Iowa's accredited colleges and universities. Priority will be given to proposals that engage early career faculty and/or graduate and undergraduate students.

IWC anticipates funding for approximately 1-2 targeted seed grants in 2021. **Due to federal funding cycle constraints and impacts of COVID-19 on research activities, the estimated date of funds expended must be by February 28, 2022. The deadline is subject to change as the funding availability from USGS has not been released.** Final analysis and reporting can continue through May 7, 2022 upon agreement with IWC.

Proposals must be submitted by email to iowawatercenter@iastate.edu with the subject line:

2021 IWC Seed Research Competition - [Your Last Name]

Graduate Student Supplemental Research Competition

This program is designed to allow students to complete additional research objectives or products beyond the scope of their current water related funded project. Funding of up to \$5,000 for one year is available to graduate students nearing completion of their program of study or those with well-established, active research projects. (The readiness of the student to embark on additional research is subjective, and students should consult with their major professor before deciding to apply.) The proposed budget must include funds for publication costs; students will be required to submit their research to peer-reviewed publications.

The Iowa Water Center anticipates funding for approximately three graduate student supplemental grants in 2021. **Due to federal funding cycle constraints and impacts of COVID-19 on research activities, the estimated date of funds expended must be by February 28, 2022. The deadline is subject to change as the funding availability**

from USGS has not been released. Final analysis and reporting can continue through May 7, 2022 upon agreement with IWC.

Proposals must be submitted by email to iowawatercenter@iastate.edu with the subject line:

2021 IWC Graduate Research Competition - [Your Last Name]

Funding

Funds from this program can be requested for student support, hourly wages, supplies, local travel, analytical costs and publication costs. Requesting federal funds for travel to conferences to present research is discouraged. Additional cost categories that are imperative for the project are allowed; applicants are encouraged to contact IWC with questions prior to submitting the proposal.

Investigators will be required to provide documentation of committed matching funds. The U.S. Geological Survey **requires a 2:1 nonfederal to federal funds match.** The sponsor will not pay indirect costs; researchers are encouraged to use forfeited indirect costs as a portion of the required match.

Intent to Apply

Applicants must notify IWC via email (iowawatercenter@iastate.edu) of proposal submission intention by **October 8th at 5PM Central Time.** The notice of intent should include a working title of the project, items 1-4 from the proposal guidelines (see p.4 of this RFP), and three to six names, including contact information, of potential reviewers. Reviewers should be qualified to evaluate the scientific merit of the study design and without conflict of interest to the applicant. Reviewers can be either within or outside the state or the applicant's home institution.

Conflict of Interest for Reviewers

The following guidelines and situations are determined to be conflicts of interest, and therefore, individuals who fall into these categories should not be suggested as reviewers for proposals:

- Individuals who serve on thesis, dissertation, or advising committee to the PI or Co-PI(s)
- Individuals who have served as a co-author on publications with the PI or CoPI(s) at least once in the past three years
- Individuals who are colleagues with the PI or Co-PI(s) within the same department or similar unit for the past three years
- Individuals who supervise or who have supervised the PI or Co-PI(s)
- Individuals who have a direct or indirect financial interest in the proposal
- Individuals who have a personal relationship with the PI or Co-PI(s)

Proposal Guidelines

Proposals must include the information listed below in the order presented and identified by the corresponding number. 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. Graduate students should list their adviser as a co-investigator.
2. **Focus Categories:** Choose a maximum of three from the list on page 6.
3. **Research Category:** Choose one from the list on page 6.
4. **Keywords:** Include keywords that are descriptive of the work.
5. **Duration of Project:** Estimated beginning date and end date for the project. *Funding must be spent by February 28, 2022 – all documentation for the project will have this end date, even if the project concludes at a later date.*
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:** Use the budget template on page 7.
9. **Budget Justification:** Use the justification template on page 8.
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 cost-share sources indicating that funds are approved for 2:1 match. Cost share should include unrecovered indirect costs on both the federal and nonfederal portions of the budget.
19. **Data Management Plan (DMP):** This brief supplementary document (one paragraph or less) 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.

Deadline: Please email the proposal as a Word file (**no** pdf files) to iowawatercenter@iastate.edu, by close of business **October 15, 2020 5PM Central Time**.

Iowa State University applicants: this opportunity is considered internal; you do not need to submit a Goldsheet before applying.

Evaluation Criteria for Funding

Proposals will be reviewed for scientific merit by scientists not involved with this RFP. This information will be used by IWC staff and the IWC Advisory Board to rank proposals for quality and relevance.

Review criteria include:

1. Scientific and technical merit (20%)
2. Applicability to the research, education, and training needs identified by the advisory board (20%)
3. Competence of the PI for carrying out the proposed study efficiently and effectively (15%)
4. Appropriateness of submitted budget to the proposed study (15%)
5. Student educational opportunities arising from the proposed study (10%)
6. Potential for technology transfer via workshops, tech reports, journal articles, theses, etc. (10%)
7. Feasibility of completing the work in the proposed timeframe (5%)
8. Quality of proposal: grammar, structure, readability (5%)

Awarded Proposals Expectations

Upon notification of award in early December, IWC staff will work with the principal investigator (PI) to make budget and narrative adjustments as recommended by the advisory board and in accordance with USGS requirements. IWC submits projects for federal approval in mid-January as part of its “base grant” package. Notice of funding is anticipated late February. If this timeline is delayed for any reason (most commonly due to congressional budget setting), IWC staff will communicate with the PI. IWC will make every effort to accommodate projects so that they are completed in the time allotted.

Once USGS releases FY21 funds to IWC, work can begin on the project. IWC staff will work with PIs and their home department/institution to set up the project account. IWC will periodically monitor funding on the project to ensure funds are spent in a timely manner. It is the responsibility of the PI to oversee appropriateness and allowability of project expenditures.

PIs will have the opportunity throughout the project period to be featured in photos, videos, and written content produced by IWC to promote their research.

PIs are required to submit a final report at the completion of the project. This brief report should include significant findings or accomplishments; awards, publications, and presentations; and the number of students involved in the project. Additionally, PIs will work with IWC staff to prepare a final technical report, published by IWC.

Finally, awardees are expected to give a poster or presentation at the Iowa Water Conference or equivalent local event (e.g., Prairie Lakes Conference, Iowa Groundwater Association meeting) at or near the conclusion of the project.

Focus Categories

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

Research Categories

Biological Sciences
Climate and Hydrologic Processes
Ecological Processes
Engineering
Ground-water Flow and Transport
Social Sciences
Water Quality

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	XXXXXXXX		
9b. Indirect costs on non-federal share	XXXXXXXX		
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 (i.e. sample analysis: 1000 samples @ \$8/sample.)
- 6. Travel:** Provide purpose and estimated costs for all travel. Travel opportunities must be specific (i.e. travel to XYZ conference in XYZ location on XYZ dates) and costs must be itemized (e.g. airfare, lodging, parking, per diem).
- 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. Please use forfeited indirect costs as part of the required match.

Proposal Checklist

- Read RFP in totality
- Intent to apply submitted via email to iowawatercenter@iastate.edu by October 8, 2020 by 5PM Central Time, including potential reviewers. Complete proposal guidelines
- Complete budget with a 2:1 nonfederal to federal funds match
- Submit proposal as a Word Document by October 15, 2020 5PM Central Time to iowawatercenter@iastate.edu
 - Proposals must be submitted by email to iowawatercenter@iastate.edu with the subject line:
 - 2021 IWC Seed Research Competition - [Your Last Name]; or
 - 2021 IWC Graduate Research Competition – [Your Last Name]