Call for Student Research Proposals 2016

DEADLINE: Friday March 18, 2016 5:00 PM

The Virginia Water Resources Research Center (VWRRC) is providing competitive funding for research in water resources for the period June 1, 2016 to May 30, 2017. Proposals are invited in all areas of water resources-related research including science, policy, management, and engineering. The maximum funding amount is $5,000 for one year; up to four proposals may be awarded. Applicants must be enrolled as a full-time undergraduate or graduate student at a Virginia institution of higher education and be a participant in active research. Faculty and staff are encouraged to contribute as Co-Principal Investigators. One faculty member acting as the main faculty research supervisor must be included as a CoPI.

Example research areas include but are not limited to:

- Watershed planning, management, and policy
- Impacts of climate change on water resources
- Extreme events, floods, in-stream flows
- Source water protection
- Groundwater withdrawal, demand, allocation in coastal aquifers
- Stormwater management and water infrastructure
- Private & small-scale water infrastructure (wells, sewerage) in rural areas
- Watershed community engagement
- Intersection of water & energy
- Ecological impacts or ecosystem services
- Occurrence, fate, and transport of pollutants including sediment and nutrients

Evaluation Criteria and Selection Process

Proposals will be evaluated with emphasis on intellectual merit, innovation, likelihood of success, broader impacts on Virginians, and alignment with state or regional water resources challenges. The following criteria will be considered:

- How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields?
- To what extent does the proposed activity suggest and explore creative and original concepts and innovative, promising approaches to solving water-related problems?
- How clear are the objectives of the proposed work?
- How well qualified is the proposer (and Co-PIs) to conduct the project?
- How well conceived and organized is the proposed activity? Is there sufficient access to resources? Is the research leveraging existing resources?
- Does the proposed activity address water resources problems of major importance to Virginia or the region?

Financial need is not a criterion in the selection of the successful candidate.
Eligibility

- Students are eligible at any point in their graduate program and undergraduate students are eligible if they take on independent study credit or a research project with a faculty member and are at least junior level standing. Students must be full-time status during the grant period. The student’s main faculty research supervisor in his or her referee letter should address student eligibility.
- Appropriate topics may be in water resources science and engineering (including its physical, chemical, or biological aspects) or in water resources policy, planning, and management (including economics, systems analysis, sociology, and law).
- The faculty member acting as the main faculty research supervisor must be included as a CoPI.
- Only one application is allowed per student and the student must write the proposal.

Guidelines

All proposals should be written using 12-point Times New Roman font with 1-inch margins and standard page dimensions (8.5" by 11").

Cover page: The cover page should be no more than one single-spaced typed page and should include (a) project title; (b) name of the student PI and faculty CoPI(s) including university and department/school, mailing address, phone number, and email address; (c) total budget request; (d) five keywords describing research; and (e) an abstract. If there is more than one CoPI, indicate which is the student’s main research supervisor.

Statement of Objectives and Significance: The statement should be not more than one single-spaced typed page (including figures) and should outline specifically what is to be accomplished in the proposed project (including goals, objectives, hypotheses, or research questions). The background, significance, and relevance of the proposed project should be explained in terms of important water resource issues in Virginia.

Technical Approach and Outcomes: This section is limited to two single-spaced typed pages (including figures) that address 1) how the proposed work will be carried out and 2) what results are expected (i.e., scientific, policy or technical contributions). This section should include specific aspects of experimental design, analysis, and methodologies as appropriate. Details should be adequate to evaluate probability of project completion/success (a timeline is suggested). The proposal should be written so that a general professional in water resources (i.e., not necessarily a specialist) can assess its laudability and merit. If relevant, research progress to date should be stated. References cited are not included in the page count.

Detailed Budget: Provide a detailed listing of each budget item and its estimated cost.
Acceptable budget items might include, but are not limited to: student summer salary; research costs such as laboratory supplies, computer simulation time, analytical costs, or field instrumentation; travel costs to field sites and/or one technical symposium.

CV and Transcripts: The student should provide a copy of his or her current CV (2 page maximum). Transcripts are not required and should not be submitted.
**Letters of Recommendation:** The student’s main faculty research supervisor (or in the case of undergraduate applicants, the research advisor or department head) and another member of the student’s thesis committee (or in the case of undergraduate applicants, another faculty member) must each submit a letter of recommendation by email in support of the proposal. *Student eligibility, academic performance, and qualifications to carry out the research* should be addressed in the letter by the student’s main faculty research supervisor and other letter writer. Specific examples demonstrating the student’s ability will provide a stronger endorsement. Letters must be received by the application deadline through the web recommendation letter submission page (see URL below). It is the student’s responsibility to arrange for supporting letters, check on their status with letter writers (not the VWRRC), and to communicate the following instructions to letter writers. An automatic email will be sent to the letter writer and the student when a recommendation is submitted.

- Letters should be typed on official letterhead, signed by the referee, saved in PDF format, and uploaded using the web recommendation letter submission page:  
  [http://tinyurl.com/VWRRC-grant-recommend](http://tinyurl.com/VWRRC-grant-recommend)

**Other details and submission:** The budget may not include indirect costs and must not exceed $5,000. The funding will be awarded as a grant to the student’s faculty advisor. *Proposals submitted from institutions outside of Virginia Tech will only be accepted from students’ university office of sponsored programs or grants and contracts office and not directly from individual students or departments.* Project duration will be for a maximum of one year beginning on June 1, 2016. Cost sharing is not required. Incomplete applications and those that do not conform to the above format will not be considered and applicants will not be notified as such. Proposals and letters should be submitted online by **March 18, 2016 at 5:00 PM EDT.** The proposal packet with the exception of recommendation letters should be submitted using the web interface available at:  
[http://tinyurl.com/VWRRC-grant](http://tinyurl.com/VWRRC-grant)

**Deliverables**

Required deliverables for projects funded under this program include, but are not limited to, an annual report formatted for communicating to the general public (due: June 15, 2017; details provided in award letter), copies of publications and follow-on proposals generated from the project, and VWRRC support must be acknowledged in all publications and presentations. *It is the responsibility of the faculty Co-PI to communicate publications and proposals resulting from this grant even after the reporting period.*

**For More Information Contact:** Kevin McGuire ([kevin.mcguire@vt.edu](mailto:kevin.mcguire@vt.edu)), 540-231-6017