

Texas Water Resources Institute
Graduate Student Research Programs
W. G. Mills Memorial Endowment Fellowship

Fiscal Year 2024 Request for Proposals

Application Deadline: March 20, 2023, by 11:59 PM CST

Mills Fellowship Award: \$7,500
Total Awards Planned: 4

Funding Acknowledgement: Mills Fellowships are provided through the W.G. Mills Memorial Fellowship in Hydrology.



The Texas Water Resources Institute (TWRI) is happy to announce its call for proposals for graduate students conducting water resources research. TWRI has funds available for graduate students through the [TWRI W.G. Mills Memorial Fellowship in Hydrology Program \(Mills Fellowship\)](#), which are available to Texas A&M College Station, Galveston and Qatar only. Proposals are due March 20, 2023, by 11:59 p.m.

TWRI anticipates funding 4 graduate research projects of up to \$7,500 each in the area of water resources and hydrology that have the potential to help Texas solve future water problems. We expect the funds will become available no sooner than September 1, 2023, and the period of performance ending August 31, 2024. Those students selected for the Mills Fellowship are eligible for an out-of-state tuition waiver.

Eligibility

- Applications from graduate students doing water resources-related research in Texas are encouraged. This program can support either ongoing or new studies.
- Proposals should be developed by the graduate student applying for the project in collaboration with his or her faculty advisor. Students with junior faculty thesis and dissertation advisors are highly encouraged to apply for these grants.
- Students must be enrolled at least half-time.
- Citizenship: Students must be citizens of the United States or have permanent immigration visas

TWRI Research Priorities

Proposed research can deal with a wide range of water resources topics. However, priority will be given to research addressing the science, technology, policy or socio-economics of:

- developing innovative water management strategies to aid in implementing the Texas State Water Plan that address agricultural and urban water conservation, identifying new surface water and groundwater sources, desalination, reuse (potable and non-potable), and aquifer storage and recovery;
- evaluating and understanding the implications of water availability and quality on human health outcomes;
- addressing major water quality impairments in Texas, which includes bacteria, dissolved oxygen, mercury, and other hazardous contaminants;
- understanding the vulnerability of groundwater resources (both quantity and quality) from both a management and policy perspective;
- understanding impacts of climate variability, climate change and drought on Texas water resources, along with measures to adapt and mitigate these impacts;
- understanding the long-term effects of catastrophic flooding events on surface water and groundwater resources, along with measures to adapt to or mitigate these effects;
- exploring new ideas that address or expand our understanding of water problems;
- evaluating abundance, locations, and persistence of legacy nutrients;
- evaluating trends of integrated processes, and how do changes in one aspect of water quantity and availability affect other long-term aspects; and
- evaluating risks of water conflict: drivers, thresholds, sector/community balance, stakeholder actions, agent-based modeling, relevant laws and regulations, and adaptive management.
- investigating the presence, fate, transport and management/remediation strategies for contaminants of emerging concern (including, but not limited to, PFAS, microplastics, endocrine disrupting compounds)

Timeline

The Mills Fellowship tuition and fees may be applied as early as the fall 2023 semester. The maximum project timeline is one year, ending August 31, 2024, but projects may be completed with funds being spent down as needed earlier than the end date.

Budget

The TWRI Mills Scholarship Program funds are strictly for tuition and fees only.

Other budgetary notes:

- A maximum of **\$7,500** may be requested.
- You may request less than \$7,500 if needed.
- There is no match requirement.
- If a student is unable to complete their project as proposed and approved or if all funds are not used within the one-year timeline, the funds will be returned to TWRI.

Reporting Requirements

Students will be required to submit a progress/final report at the end of their funding cycle and provide an oral overview of their report (specific details of the oral report to be discussed and agreed upon between recipients and TWRI). The progress/final report may include the student's thesis or dissertation or a summary of it, a manuscript suitable for publication as a TWRI technical report, or a journal article. In addition, those receiving funds must work with the TWRI communications team to publicize their results in the form of photo(s) and a story. Acknowledgement must be given to TWRI's program in any resulting publications for efforts partially funded by these funds. Finally, the selected students are responsible for alerting TWRI of any new contact information after the award/graduation to be contacted annually for updates for five years following the funding.

Evaluation and Ranking Criteria

Proposals will be evaluated through a panel review process by TWRI staff and an external selection committee using the following criteria:

Are TWRI Research Priorities being addressed in the proposed research?

Will it help better manage Texas water resources and/or solve future water problems?

Will it advance existing science, or is it new and innovative?

Does the work proposed seem doable? Can the research be accomplished?

Applications that do not adhere to the criteria outlined in this RFP may not be considered for funding.

Application & Deadline

Graduate students interested in applying should complete the Proposal Application Form using the criteria below. The completed Proposal Application Form (Microsoft Word must be e-mailed to Danielle Kalisek at Danielle.Kalisek@ag.tamu.edu). Proposals must be received electronically by **11:59 p.m. CST, March 20, 2023**, to be considered.

For technical questions, contact Lucas Gregory at lfgregory@ag.tamu.edu.

Proposal Application Form

2023–2024 TWRI Graduate Student Research Program

W.G. Mills Memorial Fellowship in Hydrology

Please complete all parts of this Proposal Application Form to be considered for the Texas Water Resources Institute (TWRI) Graduate Student Research Programs. Proposals should be at least 11-point Times New Roman font with 1-inch margins. Proposals must be received electronically by **11:59 p.m. CST, March 20, 2023**, to be considered.

The completed Proposal Application Form must be e-mailed as a Microsoft Word document attachment to Danielle Kalisek at Danielle.Kalisek@ag.tamu.edu. The Basic Information of the application package is **limited to 5 pages** and must include items 1 through 11 below. You do not have to keep the instructions within your application form but ensure that each section is titled accordingly and that required items 1 through 11 are addressed. *Applications with Basic Information beyond the 5-page limit will not be considered in the review process.* The Other Required Information 11-13 is not included in the 5-page limit.

Basic Information

1. **Title** of proposal. Concise but descriptive.
2. **Student** name, contact information (email and phone number), university, department, degree being pursued as well as degree starting month and year and expected month and year of graduation.
3. **Faculty advisor or committee chair** name, title, contact information (email and phone number), university and department.
4. **Would these funds be initiating new research or supporting ongoing research?** If ongoing, please briefly explain where you are at in the research and project timeline, funding source, funding amount (please differentiate between federal and nonfederal), and project start and end dates.
5. **Amount Requested (max \$7,500).** List the amount of tuition and fees needed for the year.
6. **Keywords.** Enter up to eight keywords of your choice that are descriptive of the proposed work.
7. **Abstract.** Please provide 200 words or less about your proposed research problem, methods and objectives, and describe how your research will address the research priorities.
8. **Description of your research proposed research**, emphasizing how it will address water resources-related concerns, particularly how it will benefit Texas, including:
 - a. **Statement of critical regional or state water problem.** Describe how your research will address RFP research priorities and explain the need for the project, who wants it and why.
 - b. **Statement of expected results or benefits.** Specify the type of information that is to be gained and how it will be used.
 - c. **Nature, scope and objectives of the research, including a timeline of activities.** This is the major emphasis of your proposal
 - d. **Methods, procedures and facilities.** Provide enough information to permit evaluation of the technical adequacy of the approach to satisfy the objectives.

Note: Reference/Citations do not count toward the 5-page limit.
9. **Related research.** Show by literature citations the similarities and dissimilarities of the proposed project to completed or ongoing work on the same topic.
10. **Training potential.** Estimate the number of graduate students and undergraduate students, by degree level, who are expected to receive training in the project.
11. **Intended career path** you anticipate pursuing.

Other Required Information *(These items are not included in the 5-page limit.)*

12. **Academic qualifications of the student:** current degree plan/grades, unofficial transcript or list of courses taken and grades.

13. **Investigators Qualifications**

Include resume(s) for both the principal investigator(s) student and advisor(s). No resume should exceed two (2) pages or list more than 15 pertinent publications.