OKLAHOMA WATER RESOURCES CENTER

USGS 104(b) Annual Base Grants Program
Request for Pre-Proposals PY2025

Deadline: Applications must be submitted online by October 15, 2024, 5:00 PM

More Information:
See the OWRC website
http://water.okstate.edu/
See the USGS website
https://water.usgs.gov/wrri

Questions:
Tracy Beck
water@okstate.edu
405-744-7093

Program Description and Objectives:

The Oklahoma Water Research Center (OWRC) is seeking preproposals that address high priority water problems in the State of Oklahoma. As one of 54 federally authorized water resource institutes and centers throughout the United States and its territories, it operates under the authority of the Water Resources Research Act of 1964 through the Water Resources Research Institutes Program administered by the USGS.

This Act directed the OWRC to plan, conduct, or otherwise arrange for competent applied and peer reviewed research that fosters improvements in water supply reliability, the exploration of new ideas that address water problems or expands understanding of water and water-related phenomena, the entry of new research scientists, engineers, and technicians into water resources fields, and the dissemination of research results to water managers and the public. **Pre-proposals submitted under this announcement should further these objectives.**

Funding Information:

We anticipate funding three faculty projects (up to $30,000 each) subject to the following stipulations:

- Funds will be administered through the Oklahoma Water Resources Center.
- All awards are subject to the availability of federal funds and other applicable considerations.
- Applicants must provide a 1:1 match in non-federal funds. All indirect costs (F&A) must be waived but may be counted as match. Salaries, benefits, and other project-related expenses covered by other state sources may also be counted as match.

Project Period:

Grants will support one-year projects (Note that project extensions are not allowed by USGS for this program unless there are extreme circumstances). The project year is anticipated to extend from September 1, 2025, to August 31, 2026.

Eligibility:

Researchers at **any** institution of higher education in Oklahoma are eligible for this annual competition. We encourage diverse participation. To broaden participation and achieve our goal of promoting Workforce Development and Water Literacy, preference may be given to early career researchers

and/or projects supporting or engaging multiple students. Multiple pre-proposals from the same researcher are welcome if each represents a distinct research project.

Selection Criteria:

40% – Relevance: Degree to which proposals address a top OWRC/Water Research Advisory Board (WRAB) Priority (see priorities below)
30% – Scientific Merit: Innovative &/or significantly contributes to knowledge in field; scientifically sound and appropriate methods used; cognizant of past work and status of the science.
20% – Training Potential: Level of involvement of students, early career professors, underrepresented minorities and/or regional universities
10% – Proposal Quality: Well written, logical flow, complete and adheres to RFP.

Research Priorities

- **Emerging Contaminants:** Research the measurement, sources, fate, transport, and cost-effective treatment of PFAS, PFOA, microplastics, and other contaminants (6PPD, neonicotinoids, selenium) in water resources, treated water for reuse, biosolids, land application, and agro-ecosystems in Oklahoma.

- **Groundwater Resources**: Improve understanding of brackish and fresh groundwater resources in Oklahoma, including groundwater use, recharge rates, potential impacts of climate change, opportunities and practices for enhanced aquifer recharge (e.g., soil health improvement, stormwater capture & enhanced recharge via natural features) and aquifer storage and recovery, surface water/groundwater interactions, and related topics to support effective management and governance.

- **Surface Water Supplies & Availability:** Evaluate systems-based approaches to improve & enhance agricultural conservation practice implementation and effectiveness to reduce erosion, enhance soil quality, and improve water quantity and quality (e.g., regenerative practices, cedar control, irrigation management); Evaluate impacts of landuse and climate change on water availability, hydrology, and reservoir storage & management; Improve understanding of agricultural and domestic water usage; Enhance treatment technology for municipal wastewater and produced water reuse; Evaluate the impact of reuse on downstream users; Evaluate the impacts of reservoir sedimentation on storage, achieving minimum flows, and supporting downstream water rights; Improve data and models to support water infrastructure planning

Pre-proposal Guidelines:

Project pre-proposals must be submitted online
https://water.okstate.edu/opportunities/104b.html

Information requested includes:

- PI Information (Note: PI must be a Faculty Member): Name, Phone #, Email, Institution, and Department
- Rank of PI
- Co-PI information: Name(s), Rank(s), Email, Institution(s), and Department(s)
- Project Title (20 word maximum)
- Research Priorities addressed (see list above)

- Abstract (250 words)
- Statement of State or Regional Water Problem Addressed (200 word maximum)
- Nature, Scope, and Objective(s) of Project (80 words maximum)
- Methods and Procedures (200 words maximum)
- Expected Outcome, Statement of Results or Benefits (80 words maximum)
- Number of Students Supported
- Funds Requested
- References Cited

Reporting Requirements:

All outputs of your 104(b) supported research must acknowledge both the USGS and OWRC for the 104(b) grant opportunity and must include the project number assigned to your research.

Recipients are expected to attend a virtual orientation at the outset of the project, submit a poster or presentation to the Governor's Water Conference and Research Symposium, as well as present results to the Water Research Advisory Board.

Award recipients are expected to provide appropriate information needed to produce a short article about completed research to be featured in the OWRC newsletter.

At the completion of the project, recipients will be required to provide:

- Name, major, degree program of all students who worked on the project.
- One or more publication quality photo(s) of project-related work (and/or student(s) performing such work).
- List of research publications, conference proceedings, patents, fact sheets and other products resulting from project.
- List of training sessions, information transfer, and notable achievements and awards.
- A final abstract (around 250 words) summarizing major findings and implications/impact of the project.

Follow-up reporting will be requested in future years to report on publications and other outcomes that result from this project in subsequent years.