U.S. Geological Survey
Department of the Interior

and

Kentucky Water Research Institute

# Request for Proposals
# Fiscal Year 2025

Under Section 104(b) of the
Water Resources Research Act of 1984, as amended

Issue Date: February 5, 2025

**PROPOSALS DUE:**
**March 21, 2025 5:00 pm**

Direct questions and proposal submissions to:
Kentucky Water Research Institute
kwri@uky.edu

For Additional Instructions and Required Templates, please visit:
https://kwri.uky.edu/usgs-grant-applications

## I.    General Information

The Kentucky Water Research Institute (KWRI) is requesting proposals for its FY 2025 104b program. This program, funded through the U.S. Geological Survey (USGS), will be targeted toward supporting water-related research efforts conducted by students at universities and colleges in Kentucky.

The following information and instructions apply to the application process for the FY 2025 KWRI competitive water research grants through the USGS 104b program. The project period for FY 2025 is anticipated to be from September 1, 2025 through August 31, 2026.

**Proposal submissions are due March 21, 2025 at 5:00PM by email to [KWRI@uky.edu](mailto:KWRI@uky.edu)**. The KWRI staff and KWRI's Committee on Research and Policy will discuss, review, and score each proposal. If selected for funding, applicants may be required to address reviewer comments and/or provide additional project information.

## II.    Program Objectives and Research Priorities

KWRI is one of 54 federally authorized water resource institutes or centers throughout the United States and its territories. It operates under the authority of the Water Resources Research Act of 1964 (P.L. 88-379 codified at 42 U.S.C. 10301 et seq.) through the Water Resources Research Institutes Program administered by the USGS. KWRI's Section 104(b) grant program supports the following objectives specified in the Water Resources Research Act of 1964:

1. Plan, conduct, or otherwise arrange for competent applied and peer reviewed research that fosters:
    a. improvements in water supply reliability;
    b. the exploration of new ideas that address water problems or expand understanding of water and water-related phenomena;
    c. the entry of new research scientists into water resources fields; and
    d. the dissemination of research results to water managers and the public.
2. Cooperate closely with other colleges and universities from the Commonwealth that have demonstrated capabilities for research, information dissemination, and graduate training in order to develop a statewide program designated to resolve State and regional water and related land problems.
3. Cooperate closely with other institutes and other organizations in the region to increase the effectiveness of the institutes and for the purpose of promoting regional coordination.

Proposals submitted are to be in furtherance of these objectives and promote the national mission and objectives of the USGS which are focused on providing water quality and quantity information, understanding water availability, addressing the influence of climate on water resources, and responding to water-related emerging needs. Proposals will be evaluated based on these research priorities as well as research priorities specific to Kentucky. Proposals must address one or more of the topics listed below.

- Water Scarcity and Availability

- Water Hazards and Climate Variability

- Water Quality

- Water Policy, Planning, and Socioeconomics

- Watershed and Ecosystem Function

- Water Technology and Innovation

- Workforce Development and Water Literacy

For more information about these research priority areas, the refer to the USGS 10-year vision report:

> Donohue, M.J., Greene, E.A., and Lerner, D.T., 2021, Water Resources Research Act Program—Current status, development opportunities, and priorities for 2020–30: U.S. Geological Survey Circular 1488, 27 p., https://doi.org/10.3133/cir1488.

## III.  Eligibility

Proposals will only be considered from faculty members, post-doctoral fellows, or students with faculty sponsors at accredited colleges or universities in Kentucky (public or private). Proposals from university research staff may be considered, however investigators should contact KWRI for guidance before submitting a proposal. KWRI cannot contract directly with students. Faculty applicants will be considered the Principal Investigator and should ensure that the specifications listed in this RFP are met.

Faculty are strongly encouraged to collaborate with their student(s) in the proposal development process. Faculty are encouraged to collaborate with federal employees under this program, but federal employees may not serve as the Principal Investigator (they may serve as Co-principal investigator) and may not receive federal funds for any purpose or serve as a source of matching funds.

The project period will be one-year with an anticipated start date of September 1, 2025 and end date of August 31, 2026.

Proposals not meeting the specifications of this RFP will not be considered for funding and will be returned without review. Research proposals should focus on a research question or address need-based objectives rather than simply characterizing a community or situation or focusing on monitoring only.

The following are not eligible for funding:

- Research on health effects involving human subjects.

- Research conducted outside of Kentucky.

- Proposals that focus exclusively on aquatic biology or biological systems (unless to be used as an indicator or wider application for water resources).

- Proposals that fund students who have been previously supported by a USGS 104b grant unless part of a renewal application. However, previously funded faculty may apply to support a different student.

## IV. Funding

All awards are subject to the availability of funds, quality of the proposals submitted, and other applicable considerations.  We are soliciting two different types of proposals:

- Research grants: funding requests of up to $20,000 (excluding match) per year, with competitive renewal for up to two years

- Student research seed or enhancement grants: funding requests of up to $10,000 (excluding match) for one year

**While projects are one year in duration, we consider renewal of projects for a second year.** If you are anticipating renewing this project for a second year, please include a paragraph describing anticipated objectives for the second year in the proposal.  Funding for the second year of proposed renewal proposals will depend upon successful completion of year one objectives, availability of funds, and competitive review of a renewal proposal. Renewal proposals will be funded as a separate one-year project, with no carryover of funds between years.

Student research seed grants and research enhancement grants are intended to be incubators for future research funding (i.e. pilot grants) or enhancements to existing funding.

Grant funds may be used for student salary, student tuition, travel, equipment, lab materials, supplies, analytical devices, services, or other items that improve the quality of the student's research experience. **Funds may not be requested for indirect costs, major equipment purchases, meals for meetings or events, or honoraria.**

Proposals involving direct collaboration with the USGS Ohio-Kentucky-Indiana Water Science Center (see personnel at https://www.usgs.gov/centers/oki-water/connect) are encouraged but no funding may be used to support their involvement.

There are restrictions on using grant funds for Uncrewed Aircraft Systems (UAS). If your request includes funding for UAS, please refer to the "Covered UAS Assessment Guide" (Attachment D) for guidance in determining whether the UAS is covered. The Department of Interior will not approve funding for covered UAS. Additionally, all UAS operated under DOI operational control, including cooperator aircraft, must have a current OAS-36U DOI UAS Data Card or letter of authorization issued by the Office of Aviation Services. If you are submitting a proposal that includes UAS, please review https://www.doi.gov/sites/doi.gov/files/opm-11.pdf for more detailed information.

## V.    Matching Funds

Requirements:

- For USGS funding, each applicant must match each Federal (USGS) dollar provided with not less than one dollar from non-federal sources (*1:1, Non-Federal:Federal*).

- Matching funds shall be obligated during the period of performance.

- The matching requirement should be met during the 12-month budget period.

- *Note: Matching funds in excess of the required 1:1, Non-Federal:Federal, match are acceptable.*

- Signed letters of cost-share commitment must be submitted as per the instructions in this RFP.

- Matching funds may contain indirect costs and non-federal salaries and benefits. The applicant's negotiated indirect cost rate (NICR) may be applied to **both** qualifying federal and non-federal direct costs, and the result used to satisfy part of the matching requirement under the non-federal share. The NICR shall *not* be applied to equipment costs. **Federal funds shall not be used to pay for indirect costs.**

## VI.    Scoring Criteria

Proposals must comply with the proposal submission instructions and be written following the templates provided in Attachments A, B, and C. Proposals which meet the requirements of this RFP will be evaluated by a two-step process. First, the KWRI Committee on Research and Policy and/or subject expert peer reviewers will evaluate the merit of the proposals and make recommendations on what projects should be considered for funding. Second, KWRI will consider these recommendations as well as other criteria to make final funding decisions dependent upon the Congressional allocation.

The Committee on Research and Policy will review proposals according to the following criteria:

- **25% Relevance.** Does the proposal define the water problem and justify the needs and benefits? Does the research address an area of regional or state need as defined in the research priorities outlined in Section II? Is enough background information and justification provided to enable a reviewer outside of your discipline to evaluate the project merits?

- **25% Impact**. Will the proposed research achieve meaningful contributions to the field? Will the research objectives result in meaningful outcomes? Is the data likely to generate follow-on funding? Does the research effectively engage and inform appropriate stakeholder audiences? What are the quality and quantity of deliverables produced including, but are not limited to, dissertations, proposals for follow on funding, journal articles, conference proceedings, factsheets, draft legislation, workshop or coursework materials, pre- and post- surveys of stakeholders, and economic analysis?

- **25% Technical Merit**. To what extent does the proposal's scope, objectives, methods, procedures, facilities, and related research sections demonstrate (1) the potential to expand fundamental knowledge through the stated goals and objectives; (2) scientifically sound approach and objectives; and (3) cognizance of past and on-going work on the same topic?

- **25% Training**. Does the proposal promote student and/or post-doctoral education and training? How many students will participate in or benefit from the project? To what depth (master's thesis, doctoral dissertation, workshop, course content)? Research that funds and informs a student's master's thesis or doctoral dissertation is a funding priority.

KWRI staff will review the following additional criteria:

- **Qualifications and Past Performance of the Investigators**. Are the qualifications of the investigators and the adequacy of the facilities and equipment commensurate with the proposed research? The development of early career investigators and/or the entry of established investigators into new areas of research are considered funding priorities of this program. If investigators have previously been funded through this program, their performance under prior projects will be considered.

- **Budget**. Is the budget reasonable and adequate for the work proposed? Proposals with budgets providing student support are a funding priority.  Note that USGS requires a high level of detail for the budget.  Particularly for the supplies and other expenses, you need to provide an itemized list with numbers of units, cost per unit, etc.  Proposals without this level of detail will be returned for revision by USGS. Any example budget template has been provided.

- **Regional Distribution**. The geographic distribution of projects by congressional district will be considered in the final selection of project funding.

### VII. Proposal and Project Timelines

Proposals must be submitted electronically by email to [KWRI@uky.edu](mailto:KWRI@uky.edu) by **March 21, 2025 at 5:00 PM**. Questions may also be submitted to [KWRI@uky.edu](mailto:KWRI@uky.edu).

The following table presents the anticipated timeline of KWRI's proposal review and selection process, the application submission to USGS, and the project timeline. The government's obligation of support for this program is contingent upon the availability of appropriated funds. Delays in the federal budget and appropriations process may result in potential delays in the project start dates.

| Date | Milestone |
|---|---|
| February 5, 2025 | RFP is Released |
| **March 21, 2025** | **Proposal Submissions Due to KWRI** |
| May 2, 2025 | Expected USGS RFP Submission Due Date |
| September 1, 2025 | Expected Project Start Date |
| March 1, 2026 | Expected Mid-Year Project Status Update (6 months from Project Start Date) |
| June 1, 2026 | Expected 3rd quarter Project Status Update (9 months from Project Start Date) |
| August 31, 2026 | Expected Project End Date (12 months from Project Start Date) |
| October 2026 | KWRI Annual Symposium Presentation |
| October 31, 2026 | Final Report Due Date (60 days after Project End Date) |

### VIII. Proposal Instructions

Each proposal to KWRI shall consist of the items detailed below. Please respond with the file formats specified below (MS Word, Excel, or PDF). All templates are available for download on the KWRI website here: https://www.research.uky.edu/KWRI/applications.

1. Project Proposal (Attachment A – MS Word Template)
2. Project Data and Budget (Attachment B– MS Excel Template)
3. Budget Justification (Attachment C– MS Word Template)
4. Letter(s) of Support (see items 21 and 22 below for more information)

**Project Proposal (Use Attachment A):**

Enter responses to items 1 through 9 in the template provided to you (Attachment A). This should be written in narrative form- you do not need to number the items. This document shall not exceed eight (8) single-spaced pages (12-point type, 1-inch margins) exclusive of citations and resume(s) (item 9).

1. **Title.** Concise but descriptive.

2. **Principal investigator(s).** Provide name, academic rank, university, email address and phone number of the principal investigator(s) and co-PIs.

3. **Statement of regional or state water problem.** Describe the water problem or issue and how it relates to the region or the state. Discuss how the research relates to the research priorities described in Section II of this RFP. Document the magnitude of the situation and relevance of the issue/problem to the stakeholders of the research and why they are interested in this topic. Be sure to indicate how the research will benefit the region/state and how the research fits into the broader scientific field.

4. **Statement of results or benefits.** Specify the type of information that is to be gained and how it will be used. For research projects, include plans for information transfer, follow on funding potential, and community or stakeholder collaboration or participation.

5. **Nature, scope, and objectives of the project, including a timeline of activities**.

6. **Methods, procedures, and facilities.** Provide enough information to permit evaluation of the technical adequacy of the approach to satisfy the objectives.

7. **Related research.** (Research projects only) Provide context for the proposed work in terms of previous and ongoing research, including citations. Collaborative proposals with the USGS should describe the nature of the project and the responsibilities for all investigators involved.

8. **Training potential.** Estimate the number of post-doctoral fellows, graduate, and undergraduate students, by degree level, who are expected to receive training in the project. Distinguish between those directly supported by grant funding and those covered by matching funds or other sources. If the information is available, please include each student's name, major, and expected graduation date, and indicate if the project will be used to inform his or her master's thesis or doctoral dissertation.

9. **Investigator qualifications.** Include short (no more than two (2) pages) biographical sketches of the principal investigator(s). Please provide the telephone number, postal address, and email address of all project participants (post-doctoral fellows, students and faculty).

**Project Data and Budget (Use Attachment B):**

A new section has been added to the budget worksheets (Attachment B) by the USGS to collect data about each project (columns A and B). This information is intended to simplify the annual reporting process.

**Project Data:**

10. **Simple Language Summary (B1):** Enter a summary of the project that would be understandable to an individual without specific expertise in the research topic. Please limit the summary to approximately 250 words.

11. **Project ID (B2):** Use the format KY_2025_PIName, where KY is the state abbreviation, 2024 is the fiscal year, and PIName is the last name of the PI. Append a number to the last name if they have multiple projects (e.g. KY_2025_Smith or KY_2025_Jones1).

12. **Fiscal Year (B3):** Enter the current fiscal year (2025).

13. **Principle Investigator (B4):** Enter the name of the principle investigator.

14. **PI Affiliation (B5):** Enter the name of the University with which the PI is primarily affiliated.

15. **Project Title (B6):** Enter the project's title.  Concise but descriptive.

16. **Project Type (B7):** Select the project type from the dropdown menu (Research, Information Transfer, or Education and Outreach).

17. **Congressional District (B8):** Enter the congressional district of your university, using the format SS-### (e.g. KY-001). If project work, such as field work, will also be performed in other congressional districts, enter multiple districts as a comma-separated list.

18. **Science Priority (B9)**. Select the most relevant science priority from the dropdown menu: (1) Water Scarcity and Availability, (2) Water Hazards and Climate Variability, (3) Water Quality, (4) Water Policy, Planning, and Socioeconomics, (5) Watershed and

Ecosystem Function, (6) Water Technology and Innovation, or (7) Workforce Development and Water Literacy.

19. **USGS Cross-Discipline Landscapes (B10):** Select the most relevant cross-discipline landscape from the dropdown menu.

20. **USGS Cross-Discipline Science Topic (B11):** Select "None of the Above."

21. **Geographic Study Area (B12):** Enter the geographic study area.

22. **Keywords (B13 to B16):** Select primary, secondary, and tertiary keywords from the dropdown menu. If additional keywords are needed, enter them as a comma-separated list in cell B16 *Keywords (Additional)*.

23. **Student Support Breakdown (B18-22):** Enter the number of post-doc, graduate, and undergraduate students who are supported by federal funds in cells B18 to B20. Do not count students who are supported only by matching funds. Enter the grand total of all students supported in cell B22, including any students that are supported entirely by matching funds.

**Budget Data:**

The USGS budget template (Attachment B, columns C to G) contains an upper section and a lower section.

For the (orange shaded) Salary and Wage, Total Fringe Benefits, and Tuition sections (rows 8-25), do not directly edit the main table, but use the Breakdown tables (rows 37-74). For each Breakdown table, provide names along with each person's role (click in the Role cell to select from a menu of roles), and then enter the Federal and Non-Federal funding amounts. Note that filling out these tables will automatically populate the corresponding section in the main table at the top of the sheet.

In the upper tables, enter financial data for Supplies (row 26), Equipment (row 27), Services or Consultants (row 28), Travel (row 29), Other Direct Costs (row 30), and Indirect Costs (rows 32 and 33).

**Detailed Budget Narrative (Use Attachments B and C)**

Enter responses to items 24 and 25 in the templates provided to you (Attachments B and C).

24. **Budget Breakdown.** See Attachment B (MS Excel).

25. **Budget Justification.** See Attachment C (PDF). Proposals lacking adequate detail in the budget justification will be eliminated from consideration. USGS employees may not receive compensation for participation in the project.

**Letter(s) of Support**

26. **Institutional Matching Funds Commitment Letter (<u>non-University of Kentucky</u> <u>applicants only</u>).\*** The applicant shall provide an institutional cost sharing agreement (letter) signed by an official authorized to commit the applicant to all or part of the

matching share. This letter should be addressed to "Director, Kentucky Water Research Institute." The letter should be from the University Office of Sponsored Research or equivalent authorizing unit. For institutions that do not have such an office, the letter should come from the unit that will receive and administer the funds, if awarded. The total amount committed must match the amount entered in the Budget Breakdown (Item 24, above).

    a. **\*Project proposals from the University of Kentucky do not need to submit a letter from their college at the time of submission.** Projects selected for funding from the University of Kentucky will be required to review the electronic Internal Approval Form (eIAF) process to verify contribution of the required level of matching when KWRI's application is submitted to the USGS **(do not fill out a proposal initiation form or have CGS complete an eIAF. This process will be coordinated by KWRI**; however, you should work with CGS to develop your budget)

27. **External cost-share commitment letter(s).** If cost share commitments are made by third parties, a commitment letter is required from each of these entities. Similar to Item 26, the applicant shall provide a cost sharing agreement (letter) addressed to KWRI indicating the commitment amount and signed by an official authorized to commit from the third party. The total amount committed must match the amount entered in the Budget Breakdown (Item 24, above).

**Data Management Plan**

Selected proposals will be requested to submit a supplementary document of no more than four pages labeled "Data Management Plan" (DMP). This document 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.

Additional guidance on data management plans is available from the USGS Data Management web site here: https://www.usgs.gov/products/data-and-tools/data-management/data-management-plans.
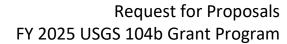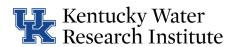
**IX.    Project Reporting Requirements**

If selected for funding, you will be required to complete a mid-year project status report (6 months from project start date), third quarter status report, give an oral or poster presentation at the KWRI Annual Symposium (October 2026), and complete a final report summary (14 months after project award date). If the project funding is delayed, you may be asked to submit a revised timeline.

Final project reporting will include the following:

1.  PROJECT IMPACT SUMMARY: Plain language 250-word synopsis of the primary findings and/or impact of this project for a general audience.

2.  PHOTO or GRAPHIC: At least one publication quality photo or graphic with a descriptive caption that may be used to highlight the project.  Photos highlighting students engaging in the research work are encouraged.

3.  PRODUCTS: A list of all reports, journal articles, book chapters, theses, dissertations, and other published works developed as a result of the grant during or subsequent to the reporting period. Electronic copies of these works should be submitted to KWRI, where possible. All works (written or verbal) should contain the acknowledgement of support as follows:

    a.  Acknowledgement in any publication (including Web pages) of any material based on or developed using funds, in the following terms, <u>"This material is based upon work supported by the U.S. Geological Survey and the Kentucky Water Research Institute under Grant No. G21AP10631."</u> It should also include the disclaimer: "The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Geological Survey or the Kentucky Water Research Institute. Mention of trade names or commercial products does not constitute their endorsement."

    b.  Orally acknowledge support during all news media interviews, including popular media such as radio, television, and news magazines.

4.  AWARDS, ACHIEVEMENTS, or GRANTS: Provide a list of any notable achievements, awards, or follow-on funding applications (planned, successful, and unsuccessful) with the monetary benefits resulting from grant supported work during the reporting period. This applies to PIs, Co-PIs, and any students working on the project.

5.  CONFERENCE PRESENTATIONS: A list of all presentation titles, presenters, venues, audiences.

6.  EDUCATION AND OUTREACH: A list of all education and outreach activities with audiences, attendees, and estimated duration of interaction. Other activities such as media activities, and social media engagement should also be reported.

7.  STUDENT SUPPORT: Contact information of all students working on the project including major, academic year, and email. If the 104b supported research informed a thesis or

dissertation, please provide detailed information about that effort including title and date of defense.