The Kentucky Water Resources Research Institute announces a request for research proposals for its 2017-2018 104B program. This program, funded through the U.S. Geological Survey, will be targeted toward supporting water-related research efforts conducted by students at universities in Kentucky.

KWRRI hopes to award several (5-10) student research enhancement grants of up to $5,000 in the general area of water resources. KWRRI will also consider funding 1 or 2 additional proposals for up to $10,000 for projects directly collaborating with investigators at the USGS Kentucky Water Science Center on current relevant issues. Proposals are due in the KWRRI office by no later than 5:00 p.m. on September 30, 2016. Please note that federal funding is contingent upon support provided by Congress through the USGS for the Institutes program. Delays in announcing or implementing awards past the usual March 1 project start date are possible.

- Applications proposing to support students at any university in Kentucky doing water resources-related research applicable to conditions in Kentucky are eligible and encouraged. This program can support either ongoing studies or new research projects.
- New faculty members are especially encouraged as well as new lines of research for more established faculty members. Applicants from regional universities receive special consideration during the selection process. The selection process will also consider diversity as a factor.
- The intent of this competitive grants program is to strengthen student research and education programs related to water resources. The program provides an opportunity for students to assist in preparing, submitting, and implementing a competitive grant. Student support will be provided only once (students funded through previous proposals cannot receive additional support, but previously funded faculty members may apply to support a different student in 2017-2018).
- Proposed research can deal with a wide range of topics, but must be directly related to water resources (focusing primarily on quantity and quality) such as conservation and management of water resources, surface water, groundwater, wastewater, stormwater, irrigation, drinking water, watersheds, water policy, water marketing, geographic information systems, computer modeling, aquatic ecosystems and biological effects on water quantity and quality, environmental flow needs, and riparian issues. Proposals on all water-related concerns in the Commonwealth can be considered (as long as the primary focus is on water quantity or quality). However, research on health effects involving human subjects is excluded.
• Proposals should strengthen the research efforts of a student (either undergraduate or graduate) attending a Kentucky university. It is suggested that federal funds be utilized for student summer research support in order to expedite the resources in a timely manner.

• Proposals should be developed by the faculty member seeking support through this grant program in collaboration with their student(s) if possible. Faculty applicants will be considered the Principal Investigator and should insure that the specifications listed in this RFP are met. Proposals not meeting the specifications will not be reviewed or selected.

• A maximum of $5,000 may be requested ($10,000 if direct collaboration with USGS is proposed). Grant funds may be used for student salary, 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 student tuition and fees or for major equipment purchases.

• Grants require a 2:1 match with non-federal funds ($2 of non-federal funds to match each $1 of federal funds provided through KWRRI). A letter of commitment signed by an official authorized to commit matching funds for institutions other than the University of Kentucky must be provided with each proposal from other campuses. All external commitments for matching should be received by the Institute within 2 weeks after the proposal due date. Projects selected from the University of Kentucky will be required to complete the electronic Internal Approval Form process to verify contribution of the required level of matching when KWRRI's application is submitted to the USGS (do not complete the eIAF until informed that your UK project has been selected).

• Indirect costs may not be charged to federal funds, but since they must be waived by the student's institution, they can be used to help meet the 2:1 matching requirement.

• In addition to waived institutional indirect costs, the 2:1 match can include salaries, wages, and fringe benefits of faculty advisors and students; other direct funding provided by non-federal sources; lab expenses; supplies furnished by the student's department; and research assistantships provided by non-federal sources through the university in support of the specified project activities.

• Deliverables: Projects will be required to submit a brief mid-year progress report (September 2017 assuming projects start on time). A final project report is also required. All students will be expected to present their results at the annual water resources symposium (March 2018). Copies of any student thesis or dissertation resulting from the project and any manuscripts submitted for publication as journal articles must also be provided to the Institute as deliverables.

• When submitting proposals, please provide the telephone number, postal address, and email address of all project participants (both student and faculty advisor).

• Projects submitting a signed letter of support from their university regarding matching funds approval may submit it by fax at 859-323-1049 or by email followed by the original signed copy by regular mail. The University of Kentucky projects that are selected will be required to complete the electronic Internal Approval Form and Conflict of Interest process (with the faculty member as a co-PI on KWRRI's application to USGS that will be submitted in mid-January 2017), but should wait until notified by the electronic approval system. Proposals must be submitted following the specified format via email (Word document attachment only) to Jim Kipp at jim.kipp@uky.edu.

• Failure to follow all instructions will result in the proposal being eliminated from consideration for funding.

If you have any questions about this RFP, please contact: Jim Kipp, Associate Director
Voice: (859) 257-1832
Fax: (859) 323-1049
jim.kipp@uky.edu
Proposal Format Instructions: 2017-2018 104b Student Research Enhancement Project

1. Title of Proposal:

2. Focus Categories (to be completed by Institute personnel):

3. Keywords: (3 or 4 descriptive words not included in the title - selected by the PI)

4. Duration (March 2017 - February 2018 pending availability of funding)
   delays are possible and beyond the control of the KWRRI

5. Federal Funds Requested (should not be more than $5,000 [or $10,000 for collaborative efforts with the USGS Kentucky Water Science Center], but may be less):

6. Non-federal Matching Funds (at least two times the federal funds requested):

7. Names and Contact Information (mailing address, phone number and email address)
   Principal Investigator (faculty advisor) and
   Co-principal Investigator (student)

8. Congressional District (federal district where research will be conducted):

9. Statement of Critical Water Problem (no more than ¼ page):

10. Nature, Scope, and Objective of the Research (including a timeline of activities)

11. Methods, Procedures, Facilities

12. Related Research (include a discussion of literature and communication citations for similar completed or on-going work on the topic - should include your own work and related investigations by others). Proposals for collaboration with the USGS should describe the nature of the project and the responsibilities and activities of all investigators involved.

13. Results Expected (no more than ¼ page, but should include plans for information transfer)

14. Training Potential (the number of students supported by or anticipated to be involved in working on the project, level (graduate or undergraduate), and student discipline area for each individual)

15. Budget Table (see form for organizing budget request)

16. Budget Justification Narrative (should be detailed and specific – see budget justification instructions). Proposals lacking adequate detail in the budget justification will be eliminated from consideration. USGS employees may not receive compensation for participation in the project.

17. Investigator qualifications (1-Page vita for each faculty mentor and student)
The main body of the proposal (Sections 9 – 14) should be brief (no more than three or four pages of text: 12 point font, 1-inch margins). A list of citations and relevant references is encouraged, but need not be included within this page limit. A 1-page budget table (Section 15) and a detailed budget justification narrative (Section 16) must also be submitted and should include full documentation of matching. An example budget table and instructions for the budget justification are provided.

**Budget Justification**

A. **Salaries and wages.** Identify each participant and provide rate of pay and number of hours (or percentage of faculty appointment and annual salary) to be worked on the project. USGS employees who collaborate may not receive compensation through the project budget.

B. **Fringe Benefits.** Give fringe benefit rate for each person funded through the proposal (with federal funds or matching). Use the appropriate student and faculty fringe benefit rates.

C. **Supplies.** List all supplies to be purchased in the conduct and dissemination of research; for example, computer software, lab glassware, fuel for research vehicles, computer expendables, reagents, chemical supplies, supplies for poster sessions, etc. Be as explicit as possible (provide unit costs and number of units in addition to total costs for each item).

D. **Equipment.** Furnish a detailed description of any minor equipment purchased or utilized as match and why it is required for this research. Equipment purchase should not be a major percentage of the requested federal funds or match.

E. **Travel.** List destination, purpose of trip, mode of transport, and approximate cost for each trip (rate/mile and number of miles for ground transportation), per diem rates and any other relevant information related to travel expenses.

F. **Other direct costs.**
   1. **Publication costs.** Funds to cover costs of printing of technical reports, page charges for reprints of papers in refereed journals published as a result of research conducted under this grant.
   2. **Other costs.** Analytical services, long-distance telephone charges, data processing costs, other cost not included in specified categories

**Indirect costs.** Please furnish the indirect cost rate and base from which it is computed for facilities and administration costs approved for your institution. This information can be obtained from the Sponsored Research Office or Office of Contracts and Grants on your campus. Indirect costs cannot be requested from the sponsor, but may be counted toward the required 2:1 match.

**Matching funds** typically contain waived indirect costs and contributed non-federal salaries/benefits and other direct costs. The applicant’s negotiated indirect cost rate (NICR) may be applied to both 1) qualifying federal and 2) non-federal direct costs, and the results used to satisfy part of the matching requirement under the non-federal share. The NICR shall not be applied to tuition or equipment costs.

**Proposals lacking budget detail as indicated above will not be considered for funding.**
BUDGET BREAKDOWN

Proposed start date: March 1, 2017     Completion date: February 28, 2018

Project Title:_________________________________________________________

Principal Investigators:___________________________________________________

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Federal</th>
<th>Non-Federal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Salaries and wages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Fringe benefits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Supplies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Services and consultants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Travel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Other direct costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Total direct costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Indirect costs on Federal Request</td>
<td>XXXXXXXXX</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>10. Indirect costs on Non-Federal Match</td>
<td>XXXXXXXXX</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>11. Total estimated costs</td>
<td></td>
<td></td>
<td>**</td>
</tr>
</tbody>
</table>

This form is provided for general format only. Use additional sheets to incorporate the requested supporting information for justification. Be specific and provide as much detail as possible. Federal funds may not be requested for indirect costs.

*Matching funds may contain waived indirect costs and other non-federal funds. 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 tuition and equipment costs.

**Total Non-Federal match must be at least two times the requested Total Federal Funds.