

## POSITION VACANCY ANNOUNCEMENT

Kansas Geological Survey, The University of Kansas, Lawrence, Kansas

**Position:** Postdoctoral Researcher

### Position overview:

We are looking for a postdoctoral researcher with a passion for water sustainability and socio-environmental research to contribute to the USDA-funded Sustainable Adaptations to the Future Environment of Kansas's Agriculture and Water (SAFE KAW) project - [more info about the project here](#).

The postdoc will synthesize methods from hydrology, hydrogeology, biogeochemistry, crop modeling, and community resilience to explore the response of the Kansas River Basin to climate change and identify strategies for sustaining the linked social-agricultural-hydrological system in the 21<sup>st</sup> century. It is expected this work will lead to fundamental advances in human-water systems theory and applied research benefits for local water and land managers. Thus, the ideal candidate would have strong technical skills for working with and coupling environmental and social models, interest in advancing human-water systems theory, and a desire to engage with an interdisciplinary team of researchers and stakeholders.

This position is based at the [Kansas Geological Survey](#), a research center at the [University of Kansas](#). This postdoc will be part of the HydroEcology of Anthropogenic Landscapes group (HEAL@KGS) supervised by Sam Zipper (<https://www.samzipper.com>) and will work closely with project collaborators at the KGS (Erin Seybold), Kansas State University (Vaishali Sharda, Kate Nelson), project graduate students/interns, and stakeholders.

**Start Date:** July 2023-January 2024 (flexible)

**Application Deadline:** Review of applications will begin March 15, 2023, and continue until the position is filled.

**Work Location:** This position will work on-site at the Lawrence, KS campus with possibility of a hybrid (remote and on-site work) schedule as deemed by the supervisor.

**Salary, Employment Status, and Fringe Benefits:** This position is funded for three years with an expected salary of \$55,000 annually. Other benefits include university staff privileges; up to 176 hours of paid vacation earned per year, 96 hours of sick leave earned per year, and nine paid holidays plus one discretionary day annually; group medical and dental insurance, life and disability insurance, and retirement program options. The initial appointment will be for one year with the expectation of renewal assuming satisfactory performance.

### Job Description

- 30%: Develop coupled socio-environmental modeling and analysis tools.
- 35%: Use modeling tools and data analysis to conduct socio-environmental research.
- 15%: Disseminate findings through conference presentations, publications, stakeholder workshops, and open-source code.
- 10%: Work with and mentor project graduate students and interns.
- 10%: Service to discipline and institution through participation in activities that may include collaboration with other KGS researchers, scientific peer review, serving professional societies, and public outreach and education.

### Required Qualifications

Evaluation of the following requirements will be made through (1) descriptions of research and educational experiences in cover letter, (2) record of accomplishments in resume/curriculum vitae, (3) information from professional references, and (4) transcripts.

1. Ph.D. in a discipline related to water, environmental, and/or agricultural science or engineering, conferred no more than 4 years prior to the start date.

2. Experience working with one or more of the following:
  - statistical or numerical hydrologic, hydrogeologic, and/or biogeochemical models
  - process-based crop models such as DSSAT
  - regression, machine-learning, or econometric analysis techniques
3. Coding experience in Python or a comparable language (R, MATLAB, Julia, etc.).
4. Experience working both independently and collaboratively.
5. Strong communication skills as evidenced by peer-reviewed publications/conference presentations.

NOTE: To be appointed at the Postdoctoral Researcher title, it is necessary to have the PhD conferred at the time of hire. Appointments made without a diploma or certified transcript indicating an earned doctorate are conditional hires and are appointed on an interim basis not to exceed 6-months. Upon verification of degree the appointment will be extended to its full duration.

### Preferred Qualifications

1. Experience working with stakeholders on issues related to water management.
2. Experience with coupling interdisciplinary models and/or high-performance computing.
3. Experience working with optimization methods.
4. Experience with policy analysis techniques.
5. Familiarity with irrigated agricultural landscapes.

### Contact Information to Applicants

For further information about research aspects of the position, contact Sam Zipper at [samzipper@ku.edu](mailto:samzipper@ku.edu)  
For further information about other aspects of the position, contact Annette Delaney at [adelaney@ku.edu](mailto:adelaney@ku.edu) or (785) 864-2152.

### Additional Candidate Instruction

Apply online at <https://employment.ku.edu/staff/24327BR> and upload the following information:

- Cover letter (max 2 pages) including how you meet the required and preferred qualifications, your career goals, and why you are excited about the position.
- Full CV.
- Contact information for 3 references (relationship, email address and phone number).
- College and graduate school transcripts (unofficial copies acceptable).

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**Kansas Geological Survey:** The Kansas Geological Survey (KGS) is a research and service division of the University of Kansas that investigates and provides information about the state's geologic and groundwater resources. The KGS has no regulatory authority and does not take positions on natural resource issues. More information at KGS— <http://www.kgs.ku.edu>.

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<http://policy.ku.edu/IOA/nondiscrimination>