

Location: University of Missouri, School of Natural Resources in Columbia, Missouri. Remote work within the U.S. will be considered for a highly qualified individual.

Title: Applied Watershed Modeler

Duration: 1.5 years, full-time

Start date: July preferred, negotiable

Salary: 50 – 60k depending on experience; [benefits included](#)

Application deadline: accepting applications until July 25, 2025 or until filled

Description: We seek a postdoctoral researcher or skilled M.S. graduate to be part of an interdisciplinary team that will use an integrated approach to understand how landscape-scale processes and land management activities are affecting instream habitat and associated aquatic communities. The successful candidate will lead the development of a modeling framework that links the effects of land management activities (e.g., Best Management Practices) on river ecohydrology (river discharge and timing) to anticipate responses of associated aquatic biota. This research is focused on the watersheds of Fort Leonard Wood (FLW), with a goal of providing stakeholders with an understanding of the co-benefits of implementing different conservation practices that are primarily designed to reduce sediment loads into streams and rivers.

This position will conduct applied research while working with Dr. Jodi Whittier, University of Missouri (MU) and Dr. Natalja Cerkasova, Texas A&M, as well as collaborating with staff from the US Army Corp of Engineers and FLW. There will be opportunities to develop peer-reviewed manuscripts, attend professional society conferences, and to collaborate with other researchers in the MU School of Natural Resources.

Benefits: This position is eligible for university benefits. The University offers a comprehensive benefits package, including medical, dental and vision plans, retirement, paid time off, and educational fee discounts. For additional information on university benefits, please visit the Faculty & Staff Benefits website at <http://www.umsystem.edu/totalrewards/benefits>

Community Information: Columbia, MO, is known as an ideal college town, combining small-town comforts, community spirit and low cost of living with big-city culture, activities, and resources. Home to nationally renowned public schools and other colleges and educational centers, Columbia is packed with restaurants and entertainment venues and hosts more than a dozen annual cultural festivals.

Qualifications:

- MS or PhD in a natural resources, environmental engineering, or related field

- Ability to work independently with multiple agency and academic team members
- Experienced with developing and using SWAT, SWAT +, and R, Python, or other scripting languages
- Experienced in data analysis methods and techniques, geospatial and ecohydrological computational methods and statistical analysis
- Proficiency in using MS Word, Excel, PowerPoint
- Demonstrated effective verbal and written communication skills
- High level of organization and self-motivation
- Ability to prepare concise written reports

Duties:

- Collaborate closely with US Army Corps of Engineers - Engineer Research and Development Center, and FLW personnel.
- Develop watershed models using SWAT+ to estimate discharge and sediment input for two watersheds that transect a military base.
- Project how implementation of additional or reconstructed management actions would alter water quantity and quality.
- Summarize spatial datasets representing species distributions, natural habitat components, and study area boundaries.
- Present findings at professional society meetings.
- Regularly develop written reports summarizing findings and provide to FLW.
- Draft manuscripts for submission to professional journals.

Contact: Dr. Jodi Whittier whittierj@missouri.edu

Apply by sending a cover letter; a curriculum vitae; unofficial transcripts and contact information (including telephone numbers and e-mail addresses) for three professional references to whittierj@missouri.edu.