

Position Available: Post-Doctoral Research Associate Studying the Impacts of Nature-Based Solutions on Soil Morphology and Plant-Available Soil Water Storage to Mitigate Urban Stormwater Runoff

The Pedology Laboratory in the Department of Plant and Soil Science at Texas Tech University and the Catchment Hydrology and Spatial Analysis Laboratory in the Department of Environmental Sciences at the University of California – Riverside seek to recruit a jointly-mentored Post-Doctoral Research Associate to study the impacts of nature-based solutions on soil morphology and plant-available water storage to mitigate stormwater runoff in the Lower Los Angeles River (LLAR) watershed in Los Angeles County, California.

The successful applicant will work on the following aspects of the project:

- (1) Leading field campaigns at select sites in the LLAR to excavate, describe, and sample soils
- (2) Installing and maintaining a network of soil sensors
- (3) Analyzing samples in the laboratory for soil physical, chemical, and morphological properties
- (4) Developing and implementing numerical modeling experiments using HYDRUS and/or ParFlow.CLM
- (5) Assisting in the development of a calculator tool to quantify the performance of proposed infrastructure projects to the LA County Safe, Clean Water Program (SCWP).

The Post-Doctoral Research Associate will be based at Texas Tech University and expected to actively participate in and lead regular and annual project meetings as well as lead papers stemming from this work. This position will provide the successful candidate with professional development opportunities (e.g., modeling, field work, and laboratory analysis) within the context of a highly collaborative, multi-institutional, and interdisciplinary team. This position is for one year with the possibility of extension for another year based on performance evaluation.

Position Requirements:

- PhD in soil science, hydrology, critical zone science, ecosystem ecology, or related field
- Demonstrated record of quantitative research experience that includes fieldwork, laboratory analyses, and statistical analyses
- Ability to describe soil morphological properties in the field
- Extensive experience with a scripting language such as R, Python, or MATLAB and the analysis of complex datasets
- Hydrologic modeling experience
- Record of publishing in peer-reviewed scientific journals

Preferred Qualifications:

- Fluency in R
- Experience with HYDRUS and/or ParFlow-CLM
- Proximal sensing experience applied to soils especially VisNIR imaging
- Demonstrated experience successfully working with and mentoring undergraduate and/or graduate students

Applicants who meet all the required qualifications should visit the Texas Tech University job application site at <http://www.depts.ttu.edu/hr/workattexastech/> and search for Requisition ID 34995BR.

Application Materials:

- One page cover letter describing the applicant's research experiences and interests
- Curriculum vitae including a summary of education and research experience, publication list, involvement in research grants, etc.
- Copy of the PhD certificate
- Names, addresses, emails, and phone numbers for at least three academic referees

For further inquiries or questions related to this posting, please contact by email with *SCWP POSTDOC* in the subject line both:

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