Postdoctoral Scholar–Modeling the effects of drought on watershed processes to inform management of Lahontan cutthroat trout in Summit Lake, NV

Department of Natural Resources and Environmental Science | University of Nevada, Reno

The Fire & Dryland Ecosystems Lab at UNR invites applications for a Postdoctoral Scholar position starting in the Spring of 2020. The researcher will work on a large interdisciplinary project to examine how historical and future drought influence stream discharge in the Summit watershed where Nevada's only naturally spawning and self-sustaining lake cutthroat trout occur. This will involve expanding and improving the ecohydrologic–biogeochemical model RHESSys to examine how drought and the timing of snowmelt interact with other processes occurring around Summit Lake—including wildfire, horse grazing, and restoration—to affect streamflow dynamics and trout populations.

This project will directly inform resource management in the scenic and wild Great Basin. Summit Lake has the last naturally spawning population of Lahontan cutthroat trout, which used to sustain the Agai Panina Ticutta (Summit Lake Fish Eaters). This project has direct implications for how the Summit Lake Tribe will manage Lahontan cutthroat trout in the future. The postdoc will work in close collaboration with the Chandra Aquatic Ecosystems Lab and the <u>Global Water Center</u> at UNR. The Global Water Center is a vibrant community with researchers focused on all aspects of water.



Requirements

- Ph.D. in ecology, hydrology, environmental science or similar discipline
- Research experience in ecohydrology
- Extensive experience with process-based modeling

Preferred skills

- Strong Unix/Linux development experience using C and shell scripts
- Experience with the ecohydrologic model RHESSys

Salary and benefits are competitive and based on experience. The position will be offered as an annual contract with an expectation the position will be renewed for up to two years. Applications should be sent as a *single* PDF containing cover letter with qualifications and research interests, CV, and contact information for three references to Erin Hanan (<u>ehanan@unr.edu</u>). Review of candidates will continue until the position is filled.