

**Two Graduate Student Assistantships:
Wildfire Risk and Effects on Water Security in the Pacific Northwest**



The [Fire & Dryland Ecosystems Lab](#) led by Dr. Erin Hanan in the [Department of Natural Resources and Environmental Sciences](#) at the [University of Nevada, Reno](#) invites graduate student applications for two positions. Students would work on interdisciplinary projects investigating how wildfire risk is changing in the Pacific Northwest and how fire will affect water security in municipal watersheds. These NASA and US Forest Service-funded projects are collaborations among the University of Nevada-Reno (UNR), Washington State University (WSU), Oregon State University (OSU), the University of Idaho (UI) and the US Forest Service. The graduate students will be expanding and improving the ecohydrologic–biogeochemical model RHESSys to better simulate fire regimes and their effects wildfire on water quantity and quality. Both students will begin in Summer or Fall of 2023.

The students will work collaboratively and travel to participate in stakeholder meetings in Oregon and Washington. We seek applicants with a high level of enthusiasm for process-based modeling research that contributes to understanding ecosystem processes and their response to disturbances. The students will have access to substantial existing data from past and ongoing studies, a network of unique study sites, and a dynamic team of investigators. Successful applicants will be expected to work independently as well as collaboratively as a member of the research group, develop independent research questions related to the overall project goals, participate in model development, and publish research results.

Candidates with a strong background in ecohydrology and quantitative and/or programming skills are especially encouraged to apply. Prior experience conducting wildfire research, or enthusiasm for obtaining these qualifications, is also strongly desired. Preference will be given to PhD applicants, although MSc applicants with relevant prior experience will be considered.

Requirements

- BSc and/or MSc degree in hydrology, engineering, ecology, environmental science, or a closely related discipline
- Excellent written, verbal, and computation skills

Preferred skills

- Research experience in hydrology and/or biogeochemistry
- Unix/Linux development experience using C and shell scripts
- Experience with R and GitHub
- Familiarity and/or enthusiasm for working with process-based models

Both positions will be supported through Graduate Research Assistantships, which include stipend, tuition waiver, and health benefits.

Additional details about UNR: The successful UNR applicant will have the opportunity to complete a Ph.D. through one of three programs (1) the Ecology, Evolution and Conservation Biology graduate program: <https://www.unr.edu/eecb>, (2) the Graduate Program in Hydrologic Sciences (<https://www.unr.edu/hydrologic-sciences>), or (3) the Natural Resources and Environmental Sciences graduate program (<https://www.unr.edu/nres>). To receive full consideration for additional fellowship funding, prospective PhD students must submit complete applications to the UNR Graduate School (<https://www.unr.edu/grad>) by **December 1, 2021**. Questions about the UNR opportunity should be directed to Dr. Erin Hanan (ehanan@unr.edu).

To express interest in these positions, prospective students should contact Dr. Hanan (ehanan@unr.edu) prior to beginning a formal application and should email a description of research interests and professional goals, a CV, and unofficial transcripts. Please include LASTNAME, FIRSTNAME and the type of degree (PhD, MSc) you are seeking in the email subject line.

We encourage applicants from any race, color, religion, ethnic, gender, gender identity or expression, sexual orientation, disability, age, or veteran status.