

Opportunity Title: USDA-ARS Internship in Vadose Zone Gas and Moisture Monitoring in Post-Fire Landscapes

Opportunity Reference Code: USDA-FS-PSWRS-2024-0355

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-FS-PSWRS-2024-0355

How to Apply *To submit your application, scroll to the bottom of this opportunity and click **APPLY**.*

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations. At least one recommendation must be submitted in order for the mentor to view your application.

All documents must be in English or include an official English translation.

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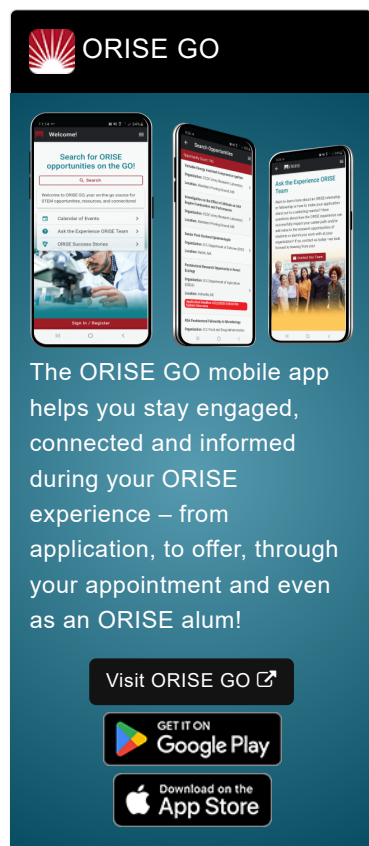
Application Deadline 1/3/2025 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis.**

USDA Forest Service Office/Lab and Location: A fellowship opportunity is available with the US Department of Agriculture (USDA) Forest Service (FS) within the Pacific Southwest Research Station (PSWRS) located in Shaver Lake or Coarsegold, California.

At the heart of the USDA Forest Service's mission is their purpose. Everything they do is intended to help sustain forests and grasslands for present and future generations. Why? Because their stewardship work supports nature in sustaining life. This is the purpose that drives the agency's mission and motivates their work across the agency. It's been there from the agency's very beginning, and it still drives them. To advance the mission and serve their purpose, the USDA Forest Service balances the short and long-term needs of people and nature by: working in collaboration with communities and our partners; providing access to resources and experiences that promote economic, ecological, and social vitality; connecting people to the land and one another; and delivering world-class science, technology and land management.

Research Project: This fellowship is designed to immerse early-career researchers in cutting-edge methods for assessing vadose zone gas and moisture dynamics in the unique setting of post-fire Sierra Nevada watersheds.



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Your research will involve monitoring carbon dioxide fluxes and water storage dynamics in the subsurface, focusing on the interactions between forest recovery, seasonal climate drivers, and biogeochemical cycles. This fellowship offers a unique opportunity to contribute to understanding carbon and water processes in fire-impacted ecosystems, while building your expertise in hydrology, geophysics, and ecological monitoring.

Learning Objectives: As a Fellow, you will receive comprehensive training in field and laboratory techniques, including the use of advanced Vadose Zone Monitoring Systems (VMS). By interning on this project, you will gain valuable experience in environmental instrumentation, data analysis, and interdisciplinary research collaboration. We are committed to your professional development and will support your growth through mentorship, training workshops, and opportunities to contribute to impactful research publications.

Mentor: The mentor for this opportunity is David Dralle (david.dralle@usda.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: December 2, 2024. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for two years and eight months but may be extended upon recommendation of USDA Forest Service and is contingent on the availability of funds.

Level of Participation: The appointment is full-time

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S. citizens only.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and USDA Forest Service. Participants do not become employees of USDA, USDA Forest Service, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process please email ORISE.USFS.PSWRS@ornl.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a bachelor's degree in one of the relevant fields. Degree must have been received within the past two

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years.

- Eligibility**
- Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Bachelor's Degree received within the last 24 month(s).
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#) 👁)
 - **Computer, Information, and Data Sciences** ([17](#) 👁)
 - **Earth and Geosciences** ([21](#) 👁)
 - **Engineering** ([27](#) 👁)
 - **Environmental and Marine Sciences** ([14](#) 👁)
 - **Physics** ([16](#) 👁)