Opportunity Title: USDA FS Fire and Drought Mortality Impacts on Root-Zone Hydrology
Opportunity Reference Code: USDA-FS-PSWRS-2025-0074

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-FS-PSWRS-2025-0074

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 9/12/2025 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). This project is based at three long-term ecohydrological research sites (Soaproot, Newt Creek, and Providence), which are managed by the PSWRS of the USDA FS in the Sierra Nevada.

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: The participant will engage in field-based research examining the impacts of wildfire and drought-induced tree mortality on

water quality and quantity in headwater forest ecosystems.

The participant will collect water and gas samples from boreholes, soils, and streams, with a focus on capturing spatiotemporal variation in hydrologic and biogeochemical responses to disturbance. Specific activities will include participating in field campaigns to monitor moisture dynamics, collecting and analyzing water samples for major ions, nutrients, water stable isotopes, and carbon isotopes, and assisting in the maintenance and calibration of field instrumentation.

Laboratory activities will involve preparing and analyzing samples using techniques such as ion chromatography and isotope ratio spectroscopy. The participant will collaborate closely with graduate students and project collaborators to synthesize results, compare site responses, and contribute to research on how forest structure and climate extremes shape water availability and watershed function.

Learning Objectives: This opportunity will provide training in hydrologic instrumentation, sample analysis, and environmental data interpretation, supporting the agency's mission to advance science-based forest and water resource management.

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: August 2025. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for 3 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. **The anticipated stipend is $16,251.10 monthly.**

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

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email ORISE.USFS.PSWRS@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should be a faculty member at a US instituition and returning to the University at the completion of the appointment.

Stipend $16,251.10 – $16,251.11 Monthly

Point of Contact Justina

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12)
  - **Communications and Graphics Design** (2)
  - **Computer, Information, and Data Sciences** (17)
  - **Earth and Geosciences** (21)
  - **Engineering** (27)
  - **Environmental and Marine Sciences** (14)
  - **Life Health and Medical Sciences** (51)
  - **Mathematics and Statistics** (11)
  - **Physics** (16)
  - **Science & Engineering-related** (2)
  - **Social and Behavioral Sciences** (29)