

Opportunity Title: USDA-FS Wildland Fire Weather Research Opportunity

Opportunity Reference Code: USDA-FS-PNWRS-2025-0261

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-FS-PNWRS-2025-0261

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.

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!

Application Deadline 2/27/2026 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 Northwest Research Station (PNWRS) located in Seattle, Washington.

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: Weather is a critical element in wildland fire, driving both fire behavior and smoke dispersion. These are issues for both wildfires and prescribed fires, and the needs for the two types of fires, and the two areas of impact, are very different. While smoke and fire behavior are



OAK RIDGE INSTITUTE
FOR SCIENCE AND EDUCATION



ORISE GO

The ORISE GO mobile app helps you stay engaged, connected and informed during your ORISE experience – from application, to offer, through your appointment and even as an ORISE alum!

Visit ORISE GO 

GET IT ON
 Google Play

Download on the
 App Store

Opportunity Title: USDA-FS Wildland Fire Weather Research Opportunity

Opportunity Reference Code: USDA-FS-PNWRS-2025-0261

traditionally studied separately, they are closely related through fire intensity, consumption, buoyancy fluxes, etc. Prescribed fires are intentionally executed to achieve specific goals, and the intent and goals lead to constraints that either don't exist, or cannot be selected/managed during wildfires.

Participants assigned to this project will gain valuable research experience at the intersection of atmospheric science, fire behavior, and applied risk management, with a focus on lower-intensity fires typical of prescribed burning. The fellow will be closely mentored by a Forest Service scientist, receiving guidance in research design, data analysis, and professional development while shaping a research focus that aligns with their interests and career goals.

Through this mentored experience, the participant will learn how atmospheric conditions influence fire behavior by connecting atmospheric model output with on-the-ground weather observations. They may gain hands-on experience with field and remote measurement techniques, including in situ measurements of fire behavior, smoke lofting, and turbulence, as well as remote sensing using UAS, satellite data, or acoustic methods. The participant may also develop skills in translating complex fire-weather science into educational materials for fuel managers and firefighters, strengthening their science communication abilities.

Across all possible research paths, the fellow will build strong technical skills under the guidance of their Forest Service mentor by applying fundamental fluid dynamics to real-world fire science problems. This includes developing novel statistical approaches, analyzing satellite and remote sensing datasets, implementing machine learning algorithms, evaluating numerical model performance, improving fire-weather risk assessment tools, and deepening their understanding of fire and smoke as ecological and atmospheric processes. This project offers a supportive, mentored research environment that prepares participants for careers in atmospheric science, fire science, remote sensing, and applied environmental decision-making.

Learning Objectives: The fellow will collaborate with leading experts in fire meteorology and smoke transport and dispersion. The fellowship provides excellent opportunities to learn about interactions between the planetary boundary layer, complex terrain, and mixing processes involved in smoke and fire. The breadth of techniques and skills used in fire/smoke-atmosphere interactions research guarantees that whatever skills the fellow starts with, there are other skills they will add to their portfolio. The team's regular interactions with land management and air quality management practitioners provide an unparalleled opportunity to understand the application needs that drive the research questions of greatest potential impact.

Mentor: The mentors for this opportunity are Susan O'Neill (susan.oneill1@usda.gov), Brian Potter (brian.potter@usda.gov), and Joseph Charney (joseph.j.charney@usda.gov). If you have questions about

Opportunity Title: USDA-FS Wildland Fire Weather Research Opportunity

Opportunity Reference Code: USDA-FS-PNWRS-2025-0261

the nature of the research, please contact the mentors.

Anticipated Appointment Start Date: January/February 2026. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be up to one year 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 range is \$70,000 - \$90,000 annually.**

Citizenship Requirements: This opportunity is available to U.S. citizens and Lawful Permanent Residents (LPR) 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.PNWRS@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received or be currently pursuing a master's degree in one of the relevant fields.

Preferred skills:

- Previous experience with coupled fire-atmosphere models.

Stipend \$70,000.00 – \$90,000.00 Yearly

- Eligibility Requirements**
- **Citizenship:** LPR or U.S. Citizen
 - **Degree:** Master's Degree.
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#))
 - **Communications and Graphics Design** ([2](#))
 - **Computer, Information, and Data Sciences** ([17](#))
 - **Earth and Geosciences** ([21](#))
 - **Engineering** ([29](#))
 - **Environmental and Marine Sciences** ([14](#))
 - **Mathematics and Statistics** ([11](#))
 - **Physics** ([16](#))

Opportunity Title: USDA-FS Wildland Fire Weather Research Opportunity

Opportunity Reference Code: USDA-FS-PNWRS-2025-0261

- **Science & Engineering-related** ([2](#) )
- **Social and Behavioral Sciences** ([29](#) )