

Opportunity Title: USFS Postdoctoral Fellowship in Environmental Economics

Opportunity Reference Code: USDA-USFS-2021-0206

Organization U.S. Department of Agriculture (USDA)

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A complete application package consists of:

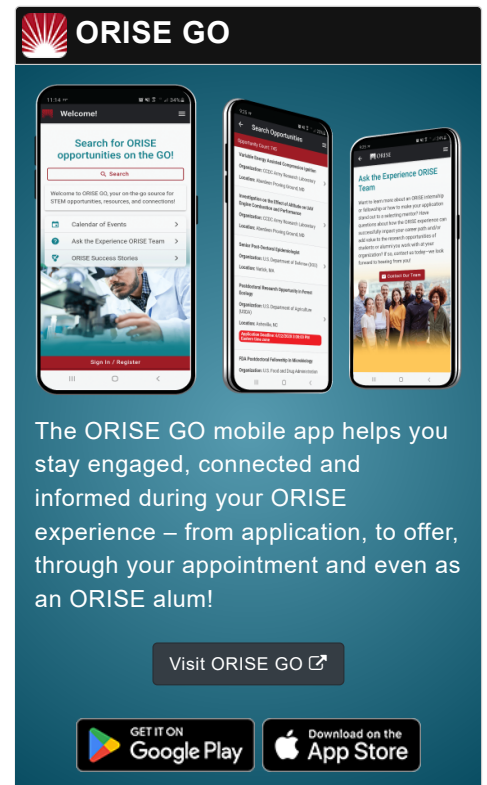
- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Selected candidate must provide proof of completion of the degree before the appointment can start. All transcripts must be in English or include an official English translation. Click [Here](#) for detailed information about acceptable transcripts.
- A current resume/CV
- Two educational or professional recommendations. Applications need at least one recommendation submitted in order to be viewed by the mentor.

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

Description **Applications will be reviewed on a rolling-basis, and this opportunity will remain open until a qualified candidate is identified.*

USFS Office/Lab and Location: A research opportunity is available with the US Forest Service (USFS), Pacific Southwest Research Station in Riverside, California. This opportunity will begin remotely, and transfer to Riverside at the beginning of 2023.

Research Project: Minimizing the risk of catastrophic wildfire while sustaining multiple environmental and societal benefits on forested lands is essential to the Forest Service's mission. While management has demonstrated the ability to effectively achieve individual benefits (e.g., wood products, water), the ability to improve ecological resilience while meeting market needs across multiple benefits remains elusive. Satisfying such a need will require long-term support for landscape restoration through sustained monetary investments in the goods and services management actions will provide. This is in line with the Forest Service's Conservation Finance Program, which aims to accelerate the pace and scale of priority work through raising capital to cover project costs. By evaluating ecosystem services with respect to existing and potential new markets, and constructing a portfolio of these benefits, the Forest Service can develop partnerships to facilitate conservation investment to fund future projects, while targeting equitable ecosystem service provision and minimizing natural disturbance risks. This study seeks to quantify and value ecosystem services in a manner that facilitates market investments in funding new and existing



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restoration projects on National Forest lands by constructing and utilizing a portfolio of ecosystem service benefits.

Through the support of Region 5's Conservation Investment program, this study will develop and quantify a suite of metrics that could be marketed to investors across the 2.5 million-acre Tahoe Central Sierra Initiative (TCSI) landscape. We will define a set of ecosystem service opportunities and management constraints that will be inputs into a spatial decision support tool (DST) currently under development by Dr. Povak for TCSI. This project will enhance the utility of the tool by spatially representing opportunities to defray management costs through financial incentives on services provided by management. These data will then be fed into a constrained linear programming model of forest management to identify options for a 10-20-year plan for TCSI that will accomplish the shared stewardship commitments and yield fungible benefits. The framework we develop in this study is not limited to the TCSI; our goal is to build an approach that can be applied across landscapes within California and beyond. In addition to providing concrete management strategies for the TCSI, this project will serve as a model that other National Forests can follow.

Learning Objectives: Learning outcomes of this project include an understanding of the conservation finance process from the perspective of a government entity, information that would be useful in positions related to academia, private conservation work, or public service. The selected participant will also learn how to manage a large, interdisciplinary team of academic and government collaborators to address relevant questions concerning conservation, environmental management, and environmental markets. Furthermore, the participant will learn and participate in advances in ecosystem service valuation projects, concerning but not limited to water resources.

Mentor(s): The mentor for this opportunity is Matthew Sloggy (matthew.sloggy@usda.gov). If you have questions about the nature of the research please contact the mentors.

Anticipated Appointment Start Date: As soon as a qualified candidate is identified. Start date is flexible and negotiable, and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but may be extended upon recommendation of USFS 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.

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citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the [Guidelines for Non-U.S. Citizens Details page](#) of the program website for information about the valid immigration statuses that are acceptable for program participation.

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 USFS. Participants do not become employees of USDA, USFS, 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 USForestService@orise.orau.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a doctoral degree in one of the relevant fields. Degree must have been received within the past five years.

Preferred skills:

- Technical writing and communication skills.
- Familiarity with, and experience in, economic valuation
- Programming for statistical and/or spatial analysis in R, Python, or another suitable language
- A strong background in statistical analysis

**Eligibility
Requirements**

- **Degree:** Doctoral Degree.
- **Discipline(s):**
 - **Earth and Geosciences** (21 👁)
 - **Engineering** (3 👁)
 - **Environmental and Marine Sciences** (14 👁)
 - **Life Health and Medical Sciences** (46 👁)
 - **Mathematics and Statistics** (10 👁)
 - **Social and Behavioral Sciences** (29 👁)