USGS Post-Doctoral Research Fellowship to research advanced methods for simulating wildfire behavior, burn severity, and post-fire impacts on ecological and hydrological systems.

The United States Geological Survey is recruiting a post-doctoral scientist for a multi-disciplinary project focused on (1) evaluating and synthesizing methods, approaches, and projects related to burn severity mapping and prediction, (2) improving burn severity modeling using statistical, machine learning, and/or mechanistic modeling approaches, (3) linking burn severity modeling efforts to ongoing work with computational fluid dynamics fire models, and (4) using results to inform decision making. The post-doc will participate in framing and performing analyses and authoring and presenting results of research. The project supports ongoing research and offers opportunities to collaborate with a broader community of investigators and decision-makers through the USGS Core Science Systems, Ecosystems, Natural Hazards, and Water Resources Mission Areas.

Applicants should possess strong understanding of the drivers and controls of vegetation/fuel production, fuel flammability, fire behavior in ecosystems of the western US, and how land management practices influence them. Experience with geospatial methods/GIS skills is also necessary, as is advanced statistical expertise. Python and/or R programming skills; knowledge of C, C++, and/or Fortran programming is a strong plus for model development and integration.

Funding for the fellowship is for one year and is subject to renewal up to 3 additional years depending on available funding. Remuneration is US$ ~$84,000, plus benefits. The post-doc will work with project co-leads Todd Hawbaker (USGS Geosciences and Environmental Change Science Center), Rachel Loehman (Alaska Science Center), and Paul Steblein (USGS Fire Science Coordinator). The research fellow's duty station is the Geosciences and Environmental Change Science Center, located in Lakewood, CO.

To apply, please prepare a cover letter, curriculum vitae, transcripts, and contact information for three references and send them to tjhawbaker@usgs.gov via email with the subject line "Fire Modeling Post-Doc." In the cover letter, please explain your interest in the position and relevant experience, as well as citizenship status. For eligibility requirements, see (https://www.usgs.gov/about/organization/science-support/human-capital/usgs-postdoctoral-research-fellowship-program). The successful applicant will develop a research proposal in collaboration with the research team as a requirement of the hiring process. Application will be accepted until July 31st or the position is filled. Submit applications and any questions to:

Todd Hawbaker, tjhawbaker@usgs.gov
United States Geological Survey
Geosciences and Environmental Change Science Center