

## Post-Doctoral Scholar (Forest Disturbance Hydrology and Water Quality) Dept. of Forest Engineering, Resources, and Management Oregon State University, Corvallis, OR

Position: Postdoctoral Scholar

**Location(s)**: Corvallis, Oregon State University

Job Description: The Department of Forest Engineering, Resources, and Management (FERM) in the College of Forestry at Oregon State University has a funded position available for a Postdoctoral Scholar (1.0 FTE, up to 36 months, starting as available), to begin once a suitable candidate is found. The opportunity will support one Postdoctoral Scholar to use existing data from on-going research projects and external partners to perform an initial characterization of the range of potential post-fire water quality responses across the Pacific Northwest. The scholar will also work with collaborators to establish new research sites to collect additional empirical water quality data, focusing on data gaps. This empirical data will be used to inform models and decision-support for drinking water treatment and ecosystem services.

Wildfire activity has increased dramatically in the western United States, raising the threats to aquatic ecosystem health and source water supplies for downstream communities. As such, the Scholar will have the opportunity to leverage unique water quality data sets that are being collected by our multi-agency collaboration to address important questions of how wildfires impact key water quality constituents, which will facilitate future policy and land management decisions.

The Post-Doctoral Scholar will join the Forest Ecohydrology and Watershed Science (FEWS) Lab (http://fews.forestry.oregonstate.edu/) in the Department of Forest Engineering, Resources, and Management at Oregon State University (http://ferm.forestry.oregonstate.edu/). The FEWS Lab is deeply committed to creating a diverse, equitable, and inclusive environment. The group works primarily in the US West and internationally to study issues related to land use and natural disturbance (e.g., wildfire) impacts on hydrology, water quality, aquatic ecosystem health, and downstream community drinking water.

The Scholar will also work as part of a large, trans-disciplinary team of scientists, including forest hydrologists, biogeochemists, geospatial analysts, aquatic ecologists, drinking water treatment engineers, socio-economists, and others from Oregon State University (OSU), Washington State University (WSU), Montana State University, the US Forest Service (USFS), and others. This collaboration will provide unique perspectives and opportunities to engage in research that will help inform policies for managing and protecting source water quality, watershed health, and drinking water treatment. The position will also contribute to the mission of both the College of Forestry and Oregon State University by (a) conducting distinctive problem-solving research, (b) supporting a continuous search for new knowledge and solutions, (c) educating and engaging practitioners and users of the world's forest resources, and (d) maintaining a rigorous focus on academic excellence.

**Application procedure:** We encourage all interested applicants to apply for this position by sending all application materials to Kevin Bladon (<a href="kevin.bladon@oregonstate.edu">kevin.bladon@oregonstate.edu</a>). The position will remain open until filled. Interested applicants should submit: (a) a CV that includes the names of at least three professional references, their e-mail addresses, and telephone contact numbers and (b) a cover letter or email describing their interests and experiences in the topic area, goals, and how they meet the required position qualifications outlined below.

## **Required qualifications:**

- The Scholar must possess a PhD in from an accredited university by the date of the interview.
- Excellent writing and oral communication skills
- Field and lab research experience or work experience related to aquatic chemistry, biogeochemistry, forest hydrology, or related fields
- Spatial and statistical analyses in R, MATLAB, Python, ArcGis, QGIS, or similar
- Ability to fit linear and non-linear mixed-effects regression models
- Interests applying spatial and analytical skills to problems in forest hydrology and water quality
- Desire to collaborate on producing peer-reviewed publications and other derived products
- Interest in collaboration in a conscientious and inclusive way

## **Preferred qualifications:**

- Experience with Python, Google Earth Engine, HTML markdown language, and Git/GitHub
- Research experience on wildfire effects on hydrology or water quality
- Experience with multiple regression, logistic regression, machine learning, and other statistical modeling approaches as applied to spatial inference
- Evidence of successful multidisciplinary collaborations
- A demonstrable commitment to promoting and enhancing diversity