



JOB ANNOUNCEMENT

POSITION TITLE: Postdoctoral Researcher

SUPERVISOR: Scott Roberts, Director of Water Programs

TERMS: \$60,000 - \$78,000 annual salary based upon experience and qualifications; Full-time-Exempt

LOCATION: The position will be based in Durango, CO or Silverton, CO

DURATION: This position is fully funded for two years and has a strong potential to transition into a permanent research position with the Mountain Studies Institute

Mountain Studies Institute (MSI) is a 501 (c)(3) non-advocacy, mountain education and research nonprofit established in 2002. MSI was created to increase knowledge of our unique mountain environments, deepen our understanding of the issues that affect them, and develop solutions for the benefit of our vibrant mountain communities. We build partnerships to steward natural and cultural values by engaging scientists, citizens, and land managers to innovate solutions through advancing research, promoting education, and developing best practices to put science into action.

Mountain Studies Institute (MSI) is seeking a motivated and dedicated Postdoctoral researcher, whom would be co-advised by Dr. Jake Kurzweil at MSI and the United States Geological Survey to lead the technical analysis and publication process on a very exciting effort to quantify the hydrologic impacts of Low-Tech Process Based Restoration (LT-PBR). MSI has been working on implementing LT-PBR structures in Southwest Colorado for the past five years and has identified a clear knowledge gap in that very few, have fully quantified the impact of LT-PBR work on the water balance, particularly impacts across elevation bands. This position would directly support our efforts to fill this gap by monitoring, analyzing, and publishing data on field sites in southwest Colorado including Mesa Verde National Park, Canyon of the Ancients National Monument, and Silverton. This will be accomplished by installing a network of stream gages and groundwater wells, as well as collecting and interpreting LiDAR, semi-hyperspectral imaging, and thermal sensors from drone flights, as well as processing open sourced evapotranspiration products.

In addition to this primary project, the Postdoc would have the opportunity to work on our Snow Smart Forestry project where we are developing a hyper-resolution process-based snow model (SnowPALM) to generate hydrologically informed wildfire treatments that will be implemented by the San Juan National Forest and monitored by MSI. There are other funded projects focusing on large scale stream restoration that the Postdoc can also contribute to, if interested.

The expectation is that this individual will be able to:

- Implement and lead all research components, with support from MSI staff, including experimental design, field campaigns, data analysis, and publication in a peer reviewed journal
- Interpret research results through publication and oral presentations
- Represent MSI in meetings with the public, partners, and scientific conferences

PERSONAL CHARACTERISTICS

The successful candidate will have a passion for physical hydrology and remote sensing related to applied science and restoration. They will thrive in a team atmosphere and bring a proactive approach to addressing the needs of a dynamic organization. Occasional long days, evenings, and/or weekends are required.

MINIMUM QUALIFICATIONS

- Education: PhD in a relevant field including Hydrology, Geography, Geology, Chemistry, Earth Sciences, Snow Science, etc.
- >5 year (inclusive of graduate school) in a similar or related field directly relevant to ecohydrologic research
- Experienced with numerical hydrologic analyses
- Expertise in database management (R, Python, Access, MatLab)
- Expertise with statistical analysis and associated software packages (R, python, JMP, SAS, etc.)
- Track record of relevant publishing in peer-reviewed journals

PREFERRED QUALIFICATIONS

- Experience with drone piloting and LiDAR and other sensor data processing
- Expertise in remote sensing and Geographic Information Systems (can include ESRI ArcGIS Pro, Survey 123, Q GIS, python, R, Google Earth Engine) and spatial data management
- Experience in snow science including snow surveys and snow water equivalent

DESIRED EXPERIENCE AND SKILLS

- Experience building rapport with partners and navigate stakeholder relationships collaboratively
- Grant writing experience and track record of success
- Experience with tribal, state, and federal government agencies (Southern Ute Tribe, Ute Mountain Ute Tribe, Navajo Nation, EPA, BLM, USFS, CDPHE, DRMS, USACE)
- Local knowledge of the San Juan Mountains and the Four Corners region

CERTIFICATIONS TO BE OBTAINED BEFORE OR UPON HIRING

- Wilderness First Aid or higher. Minimum AIARE Avalanche 1 or equivalent, or ability to obtain
- A valid driver's license, personal automotive insurance, and experience operating a four-wheel drive vehicle in mountain and winter conditions

Note that experience includes lived experience, traditional knowledge, volunteer experience, educational experience and coursework, work experience, other related qualifications, skills, and experience. No candidate will meet every requirement. If you're excited about the position and think you may be a good candidate, we encourage you to apply.



Mountain Studies Institute

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BENEFITS

MSI offers a competitive benefits package including health, dental, vision and life insurance; generous vacation, sick, and holiday pay; and a 403(b) retirement plan with match after one year of employment.

TO APPLY

To apply, send a cover letter and resume including publication references and major research presentations. Please submit as one PDF document with the title "LastName_Researcher" to: apply@mountainstudies.org. Applications will be accepted until August 15, 2026. References will be requested for short-listed applicants only.

BACKGROUND CHECK

The selected candidate will be required to successfully pass a background check prior to their start date.

DIVERSITY MAKES US STRONGER

MSI aims to build a welcoming, inclusive team that is as diverse as the many mountain communities we serve. We seek a broad range of perspectives and backgrounds to achieve our mission and maintain an environment where all staff are valued and respected.

As an equal opportunity employer, we are committed to employment practices that ensure that employees and applicants for employment are provided with equal opportunities without regard to race, color, national origin, ancestry, sex, age, religion, physical or mental disability, medical condition, veteran status, marital status, pregnancy, sexual orientation, gender identity, gender expression, genetic information, or any other factor that is not related to the position. This policy applies to all aspects of one's employment, including hiring, transfer, promotion, compensation, benefits, and termination.