

**Postdoctoral Research
Associate:
Watershed Carbon
Fluxes across Flow
Regimes and Ecoregions**



Position Summary

The postdoctoral position is part of a project that will investigate how and when DOC moves through different types of rivers and ecosystems, especially during floods. The main objectives of this proposal are to test assumptions of watershed DOC flux behavior and to develop new ways to quantify and forecast DOC flux across understudied flow regimes and ecoregions. These objectives will be addressed through multiple approaches, including data synthesis, modeling, and new sensor technologies that will identify the key watershed and climate conditions controlling DOC flux across diverse landscapes.

The postdoctoral position responsibilities include: execute and creatively expand upon ongoing data synthesis and modeling tasks, lead collaborative project papers, conduct field research in Michigan and potentially the Alaskan Arctic, and assist with data management plan. The researcher will have the opportunity to mentor students and participate in STEM education and outreach activities. The position is based in the Department of Earth and Environmental Sciences at Michigan State University under the supervision of Dr. Jay Zarnetske (www.zarnetskelab.com). A minimum of two years of funding is available for this position. The position will begin as a one-year appointment with extension available depending on satisfactory performance.

Required Degree: Doctorate

Minimum Requirements: The successful candidate will have earned a PhD in hydrology, ecology, biogeochemistry, engineering, statistics, remote sensing, data science, or related field by the position start date.

Desired Qualifications: Additional preferred qualifications include: a strong background in hydrological and/or ecosystem ecology theory; time-series analysis and spatial modeling; expertise in R, matlab, C, Google Earth Engine; analyzing large remotely-sensed and point-level data; big data management; high performance computing and cloud computing; previous project management experience; and exceptional work ethic, professionalism, and collaborative skills.

Required Application Materials and How to Apply:

- 1) a cover letter of interest detailing qualifications for the position with “Watershed Carbon Fluxes” in the subject line, 2) curriculum vitae, 3) a list of three professional references with contact information (institution, email address, phone number).
- 2) Submit all application materials via <http://careers.msu.edu/cw/en-us/listing/> under Job Number 490237. Contact with Jay Zarnetske with questions at jpz@msu.edu.

Special Instructions: Review of applications will begin October 20, 2019, and the position will remain open until filled. Desired start date is January 13, 2020, but earlier or later start dates may be possible if identified in the application cover letter.

Website: See additional information on the lab and projects here: www.zarnetskelab.com

Salary: \$48,000. Full Time, Fixed Term.

MSU Statement: Michigan State University has been advancing the common good with uncommon will for more than 160 years. One of the top research universities in the world, MSU pushes the boundaries of discovery and forges enduring partnerships to solve the most pressing global challenges while providing life-changing opportunities to a diverse and inclusive academic community through more than 200 programs of study in 17 degree-granting colleges.