TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

At the **Faculty of Environmental Sciences, Department of Forest Sciences, Institute of Soil Science and Site Ecology**, the **Chair of Soil Resources and Land Use** offers a position as

**Research Associate / PhD student (m/f/x)**  
(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **December 1, 2023**. The position is limited until November 30, 2026 and comprises 65% of the fulltime weekly hours. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position offers the chance to obtain further academic qualification (usually PhD).

**Tasks:** The position is within an ongoing project funded by the State of Saxony aiming at a better understanding of the dynamics of dissolved organic matter (DOM) along the terrestrial-aquatic continuum ([https://www.boden.sachsen.de/quellstarke-von-gelostem-organischem-kohlenstoff-docus-boden-22509.html](https://www.boden.sachsen.de/quellstarke-von-gelostem-organischem-kohlenstoff-docus-boden-22509.html)). Dissolved organic matter (DOM) is an important component of the carbon and nutrient cycles in terrestrial and aquatic systems. Changing environmental conditions with more frequent and intense storm and drought events result in increasing DOM concentrations and fluxes, which threaten drinking water quality. In the catchment of the Sosa drinking water reservoir (Ore Mountains), the dynamics of DOM in soil and stream water have been continuously monitored for more than two years. This monitoring program will be continued and supplemented by manipulation experiments in the field. The aims of both approaches are (a) the identification of important DOM sources, (b) quantitative recording periods of high DOM fluxes, as well as (c) testing potential options to decrease high DOM fluxes into the reservoir. The well-equipped long-term monitoring sites in the Ore Mountains form the basis of the project. Different methods to characterize DOM composition will be combined with statistical approaches linking soil and water data of different temporal and spatial scale. This project is a joint effort of TU Dresden, the Saxon State Office for Environment, Agriculture and Geology (LfULG), the TU Bergakademie Freiberg and other national and international stakeholders and scientists.

**Requirements:** We are looking for a highly motivated PhD student with a university degree (master or equivalent) in earth or natural sciences (e.g., Biogeochemistry, Soil Sciences, Earth Sciences, Environmental Sciences, Aquatic Ecology, Hydrology) or related subjects and strong knowledge on controls on DOM in natural systems. Experiences in field and laboratory work and a driving license are required. The potential candidate should have experience in biogeochemical analyses. The position requires very good command of spoken and written English and German, and excellent communication skills.
We offer: an inspiring international and interdisciplinary atmosphere with state-of-the-art analytical tools to analyze DOM production, processing, and transport along the terrestrial–aquatic continuum. TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university and offers a Dual Career Service. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Please submit your detailed application (including CV, motivation letter, a summary of your master thesis (if already completed) and the names (affiliation, telephone, e-mail) of two references) by August 9, 2023 (stamped arrival date of the university central mail service applies) to: TU Dresden, Fakultät Umweltwissenschaften, Fachrichtung Forstwissenschaften, Institut für Bodenkunde und Standortslehre, Professur für Bodenressourcen und Landnutzung, Herrn Prof. Karsten Kalbitz, Helmholtzstr. 10, 01069 Dresden, Germany or via the TUD SecureMail Portal https://securemail.tu-dresden.de by sending it as a single PDF file to karsten.kalbitz@tu-dresden.de. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: https://tu-dresden.de/karriere/datenschutzhinweis.