



StressRes: Monitoring and modelling system for the assessment of stress on groundwater resources and drinking water management.

The management of groundwater and drinking water is subject to a number of stress factors, in particular drought, competition for use and pollution. The StressRes research project (2023-2026) is developing a real-time digital monitoring and integrated modelling system for drinking water catchments and groundwater governance that takes these different stressors into account.

Political elements of groundwater governance

At the Chair of Forest and Environmental Policy, we are particularly interested in the political elements of groundwater governance, analysing the challenges for groundwater governance, especially how groundwater can be allocated among stakeholders in times of scarcity to reduce conflicts and the issuing of water rights. Based on this and on a comparative case study in Germany, we aim to develop successful governance arrangements for the governance of groundwater.

Digitalisation of groundwater management

Furthermore, we are interested in the overall opportunities and challenges of digitalisation for groundwater management from an end-user perspective. In particular, we explore how end-users perceive digital water technologies and whether they are willing and sufficiently equipped to use them.

The Federal Ministry of Education and Research (BMBF) is funding the joint project "StressRes" as part of the funding measure „Nachhaltige Grundwasserbewirtschaftung: LURCH" under the federal programme "Wasser: N". Wasser: N is part of the BMBF strategy "Forschung für Nachhaltigkeit (FONA)"

Project lead: Dr. Sylvia Kruse

Timeframe: April 2023 – March 2026

Contact: Dr. Sylvia Kruse (principle investigator), sylvia.kruse@ifp.uni-freiburg.de ;

Dr. Tanya Baycheva- Merger (Post doc), tanya.baycheva@ifp.uni-freiburg.de

Jakob Kramer (PhD candidate), jakob.kramer@ifp.uni-freiburg.de

Link to project website: <https://www.drought.uni-freiburg.de/stressres>

Project Partners: Universität Freiburg ([Professur für Umwelthydrosysteme](#), [Professur für Hydrologie](#), [Professur für Forst- und Umweltpolitik](#)), [Universität Hohenheim](#), [TRUEBNER GmbH](#), [WWL Umweltplanung und Geoinformatik GbR](#)