

The **Forschungszentrum Jülich (FZJ) experimental water resources bulletin (eWRB)** gives a **regular seasonal update** on the **current state and the upcoming potential evolution of terrestrial near-surface water resources**. The eWRB is an open access research data product for an expert environmental sciences and stakeholder audience as well as the interested public.

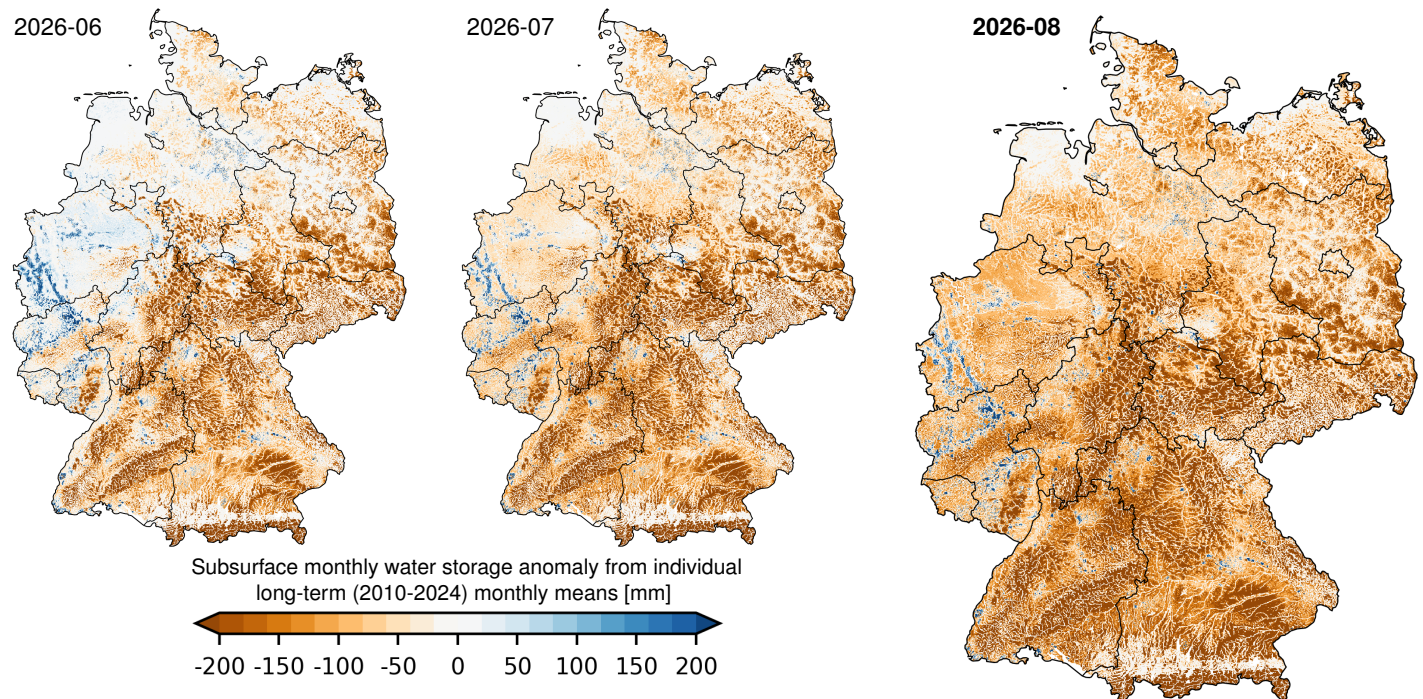


Fig. 1: Monthly anomalies of total subsurface water storage, i.e. shallow groundwater, for the past season with respect to long-term monthly means from 2010-2024 in mm water column. With the eWRB, the total subsurface water storage includes the shallow soil zone and groundwater to a depth of 60m. Data: Hindcasts from ParFlow/CLM simulations with ECMWF HRES atmospheric forcing.

State and possible developments: The extremely dry and warm summer months have significantly intensified the soil moisture deficit nationwide. In August, the average soil moisture level reached its lowest point since at least 2010. According to forecasts, the situation is not expected to improve significantly in the fall and winter, particularly in the central, eastern, and southern regions. Basis: 50-member ensemble forecast from 2026-09-01.

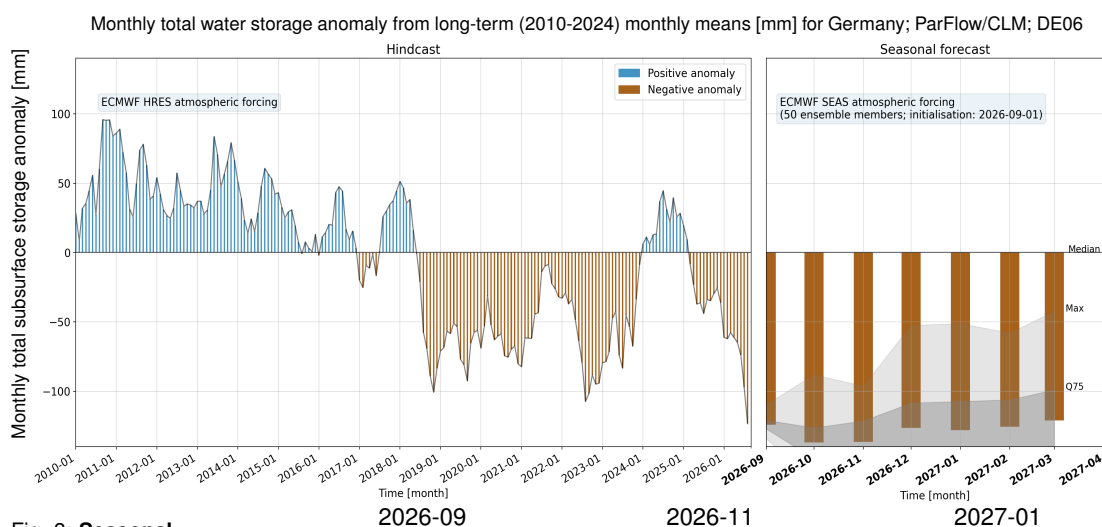
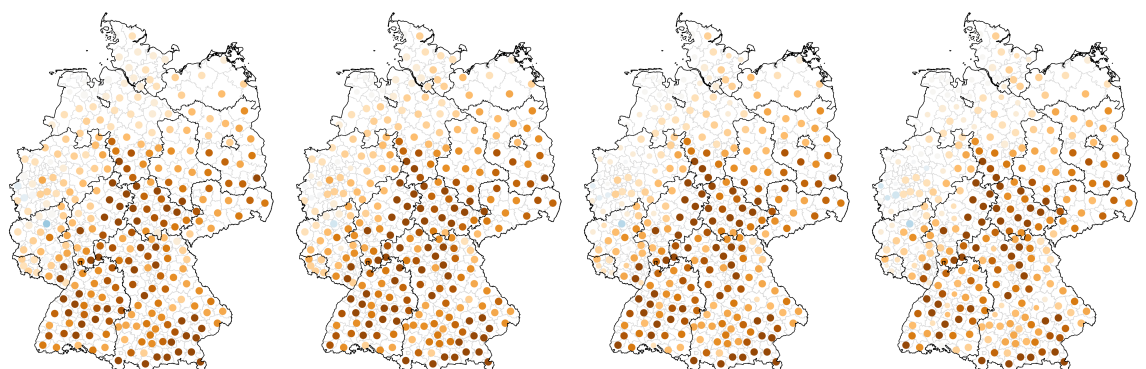


Fig. 2: Past evolution of monthly total subsurface water storage anomalies as spatial means for Germany from 2010-Jan to 2026-Aug as simulated at 611m resolution with the ParFlow/CLM (www.parflow.org) integrated hydrological model based on daily forecasts driven by ECMWF HRES deterministic atmospheric forcing ("hindcast"), and 7-months forecast from 2026-Sept to 2027-Mar based on ECMWF SEAS 50-member ensemble ("seasonal forecast").

Fig. 3: Seasonal forecasts (2026-Sept to 2027-Mar); mean of total subsurface water storage anomalies from 50-member ParFlow/CLM ensemble (initialized on 2026-09-01), ECMWF SEAS seasonal ensemble prediction driven. Dots: NUTS-3 level administrative regions; dot size: proportional to how many members agree in their sign.



FZJ Experimental Water Resources Bulletin for Germany, usage conditions and disclaimer

www.wasser-monitor.de/bulletin

eWRB project team

A. Belleflamme, K. Goergen, S. Hammoudeh, S. Kollet
Research Centre Jülich, IBG-3 Agrosphere, 52425 Jülich, Germany
Contact: eWRB@fz-juelich.de

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Updates

The FZJ Water Resources Bulletin information products are prototypical scientific products, that are part of a knowledge transfer towards practical real-world applicability. The forecast products are generated in a quasi-operational mode, i.e., they are not part of an official forecasting service. Nevertheless, the FZJ Water Resources Bulletin project team attempts to provide a forecast at the beginning of each meteorological season, within reason.

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