Fig S1: Groundwater head changes standardized by the standard deviation of natural variability for S_{SHIFT}.
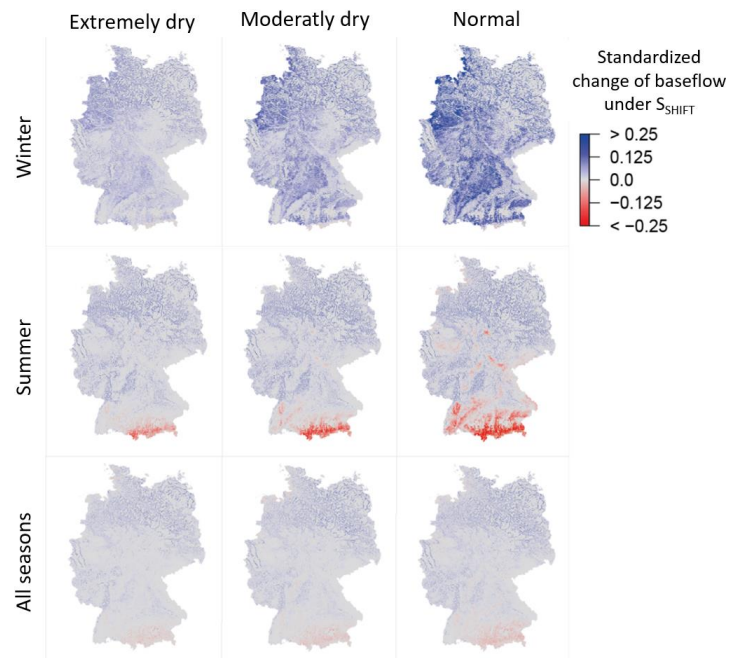
Fig S2: Baseflow changes standardized by the standard deviation of natural variability for S_{SHIFT}.
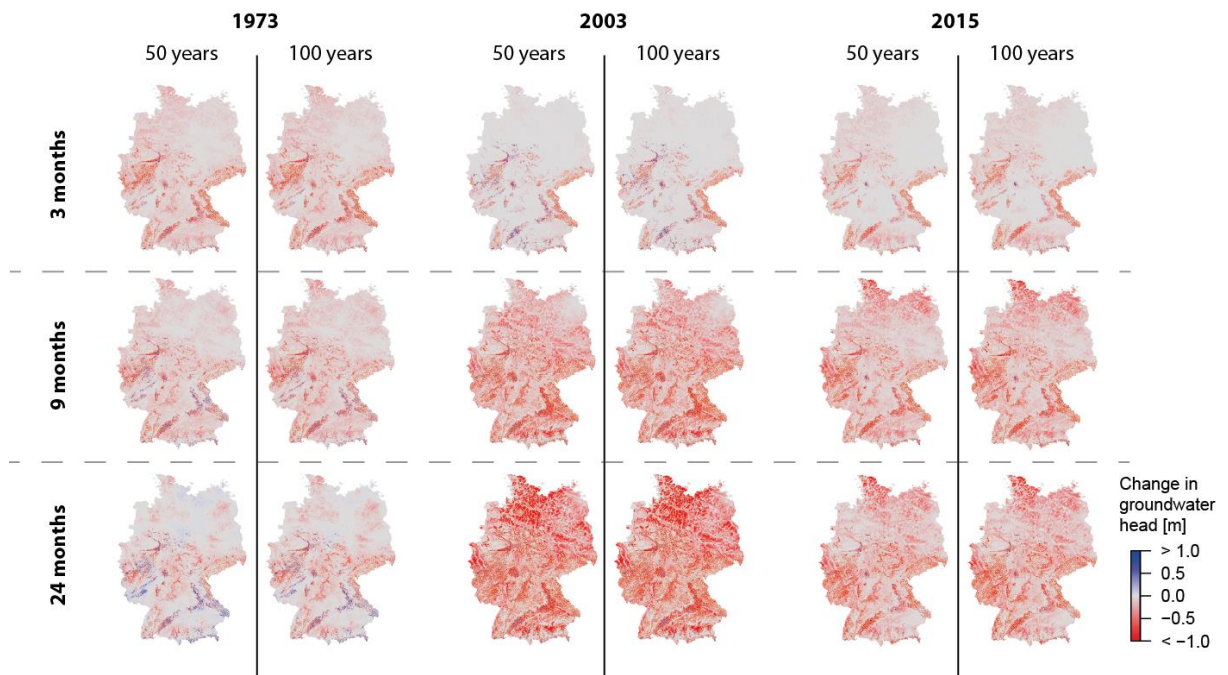
Fig. S3: Average groundwater head changes during drought across Germany for the S$_{EVENT}$ scenarios: response of different events (1973, 2003, 2015), different antecedent recharge reduction time scales (3, 9, 24 months) and two return periods (T$_{RP}$ = 50 and T$_{RP}$ = 100 years).
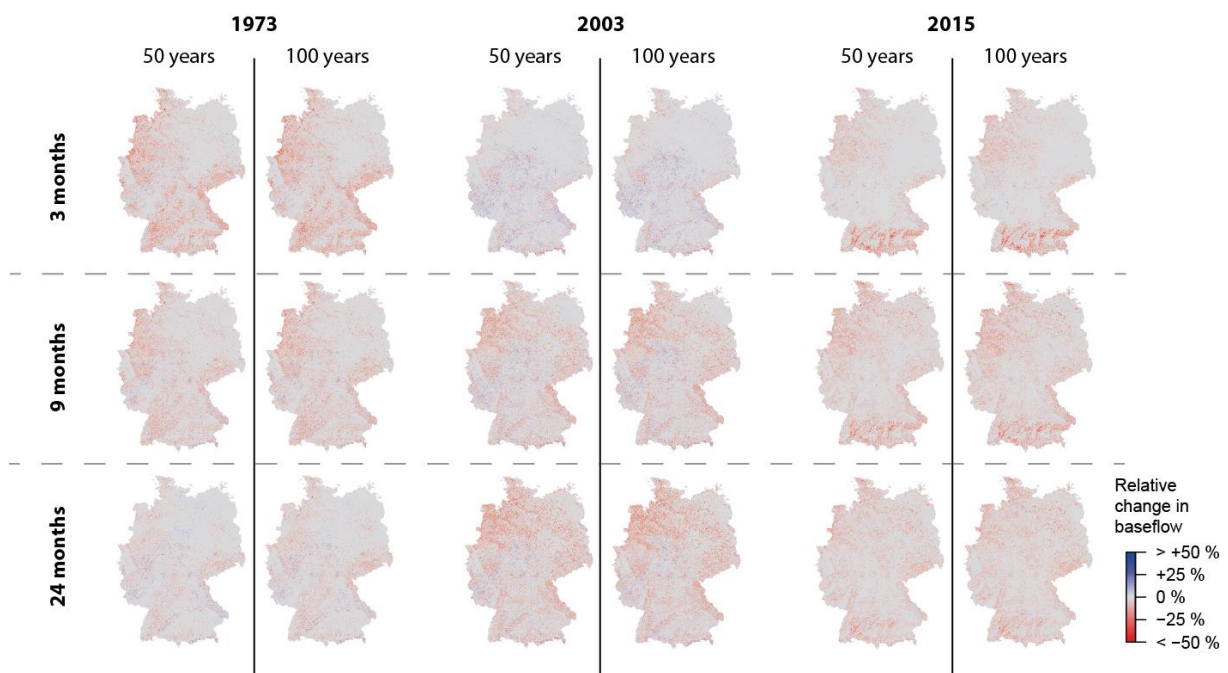
Fig. S4: Average relative changes of baseflow across Germany for different recharge scenarios. Maps are in the same order like in Figure 5.
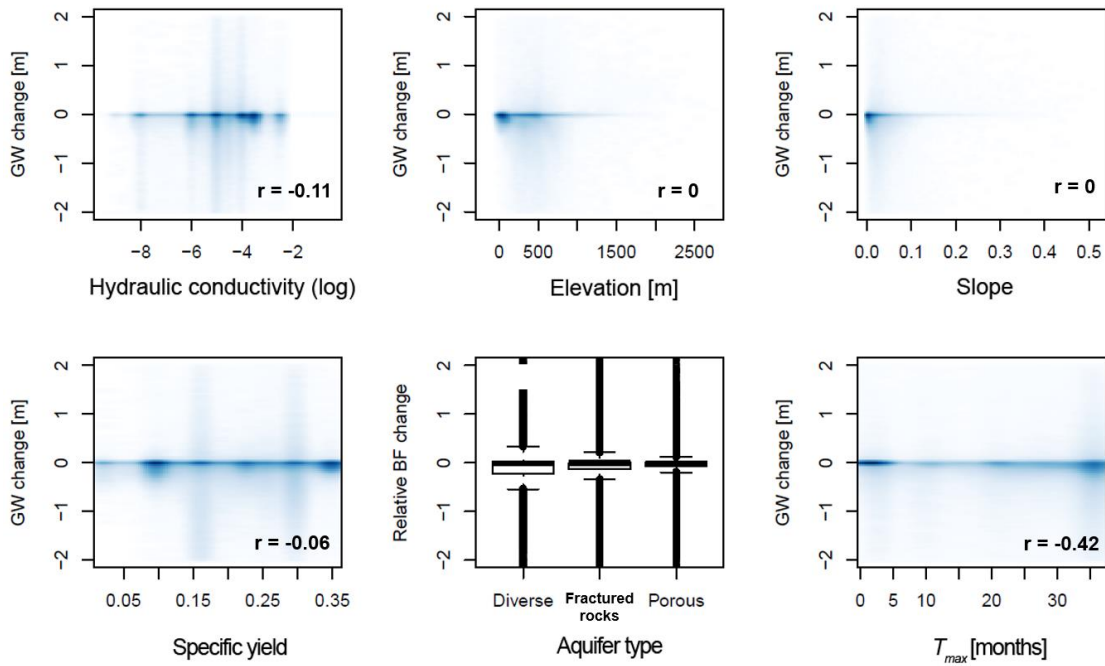
Fig S5: Average groundwater head changes for 24-months antecedent recharge reductions according to T_{RP} = 100y for the 1973 drought event over different factors. Blue colours indicate the smoothed density derived from all model grid cells. Boxes illustrate the distribution of T_{rec} in three different categories of aquifer type. r is the Spearman correlation coefficient for the variables compared.
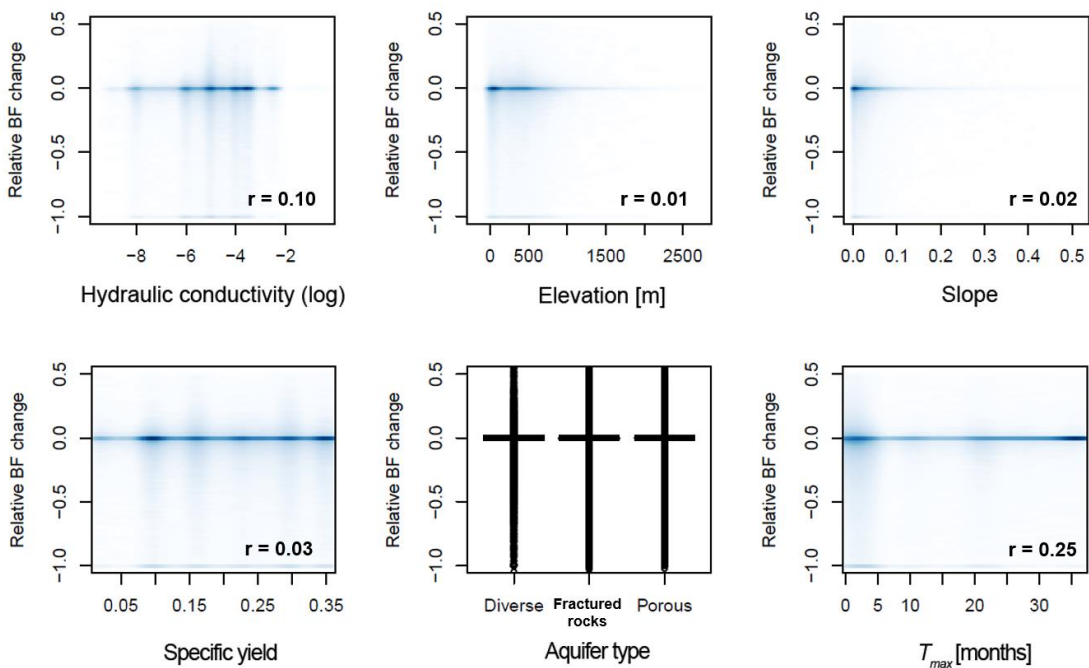
Fig S6: Relative baseflow changes for 24-months antecedent recharge reductions according to T_{RP} = 100y the 2003 drought event over different factors. Figure style according to Figure S5.