Supplementary Materials: Using High-Resolution Data to Test Parameter Sensitivity of the Distributed Hydrological Model HydroGeoSphere

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Table S1. Area weighted soil parameters at the Erkensruhr catchment. θs, θr, α and n are the porosity, residual saturation and the Van-Genuchten-Mualem shape parameters; Ks is the saturated conductivity.

Soil Type	Thickness (cm)	θs	θr	α (1/cm)	n	Ks (cm/d)
Layer 1						
Cambisol	50	0.30	0.08	0.01	1.27	50
Gleysol	130	0.45	0.09	0.03	1.29	49
Planosol	50	0.07	0.02	0.05	1.41	43
Vertisol	20	0.24	0.08	0.01	1.25	48
Layer 2						
Cambisol	131	0.11	0.03	0.01	1.26	17
Gleysol	80	0.07	0.02	0.05	1.41	43
Planosol	73	0.29	0.09	0.01	1.17	30
Vertisol	180	0.04	0.01	0.02	1.26	4
Layer 3						
Cambisol	100	0.04	0.01	0.00	1.20	9
Planosol	90	0.05	0.00	0.15	1.51	0

Table S2. Area weighted soil parameters at the Wüstebach catchment for the soil types of the Erkensruhr catchment. θs, θr, α and n are the porosity, residual saturation and the Van-Genuchten-Mualem shape parameters; Ks is the saturated conductivity.

Soil Type	Thickness (cm)	θs	θr	α (1/cm)	n	Ks (cm/d)
Layer 1						
Cambisol	25	0.26	0.04	0.02	1.31	2.81
Gleysol	25	0.34	0.04	0.02	1.33	7.62
Layer 2						
Cambisol	30	0.26	0.04	0.02	1.31	2.31
Gleysol	30	0.28	0.04	0.02	1.32	2.73
Layer 3						
Cambisol	50	0.18	0.04	0.01	1.56	0.99
Planosol	50	0.19	0.03	0.01	1.37	1.07
Layer 4						
Cambisol	40	0.13	0.07	0.01	2.57	0.13
Planosol	40	0.12	0.03	0.01	1.95	0.17