

Set of model runs	Parameter sets	No. of runs per site	Period
Calibration	Latin hypercube sampling	1000	Calibration period (Table 2)
Validation_Calibrated	Parameter sets from Calibration runs where $KGE_{avg} \geq P_{95}$ (site-specific)	≥ 50	Validation period (Table 2)
Validation_G-For08	Same as for Validation_Calibrated, but with S_f estimated with G-For08 estimate	≥ 50	Validation period (Table 2)
Validation_G-For10	Same as for Validation_Calibrated, but with S_f estimated with G-For10 estimate	≥ 50	Validation period (Table 2)