

Parameter	Definition	Lower bound	Upper bound	Daily simulation with SWAT model		Event-based sub-daily simulation with SWAT-EVENT model
				Long-term period	Flood period	
ALPHA_BF	Baseflow alpha factor (days)	0	1	4	3	4
BLAI	Maximum potential leaf area index	0	1	10	8	15
CANMX	Maximum canopy storage (mm)	0	10	11	11	12
CH_K2	Effective hydraulic conductivity in main channel alluvium (mm h <sup>-1</sup> )	0	150	5	5	11
CH_N2	Manning's "n" value for the main channel	0.01	0.3	1	1	1
CN2 <sup>a</sup>	Initial SCS runoff curve number for moisture condition II	-25	25	3	4	2
EPCO	Plant uptake compensation factor	0	1	12	12	16
ESCO	Soil evaporation compensation factor	0	1	6	6	17
GW_DELAY	Groundwater delay time (days)	0	20	15	13	10
GW_REVAP <sup>b</sup>	Groundwater "revap" coefficient	-0.036	0.036	14	14	14
GWQMN	Threshold depth of water in the shallow aquifer required for return flow to occur (mm)	0.01	100	8	9	7
REVAPMN <sup>b</sup>	Threshold depth of water in the shallow aquifer for "revap" or percolation to the deep aquifer to occur (mm)	-100	100	16	16	13
SOL_AWC <sup>a</sup>	Available water capacity of the soil layer (mm mm <sup>-1</sup> )	-30	30	7	7	5
SOL_K <sup>a</sup>	Saturated hydraulic conductivity (mm h <sup>-1</sup> )	-50	50	13	15	8
SOL_Z <sup>a</sup>	Depth from soil surface to bottom of layer (mm)	-30	30	9	10	6
SURLAG	Surface runoff lag coefficient	0	20	2	2	9
t <sub>subadj</sub> <sup>a</sup>	Sub-basin level UH parameter (h)	-50	50			3