

# Available performance criteria

Performance criteria for the model domain, based on performances at individual subbasins where observations exists.

- **average/median:** criteria calculated in subbasins individually, and then combined (equal weight to each station, irrespective of time series length)
- **regional:** criteria calculated on a combined long time series over all subbasins (thus weighted by data lengths)
- **spatial:** time series at each subbasin is collapsed to a single long-term average, these averages are then combined to a “spatial series” over all subbasins, and the criteria calculated over those

**Note:** TAU and any of the RA criteria only can be calculated as the 4 first criteria.

Criterion ID	Description	Equation ID
MR2	average of Nash-Sutcliffe efficiency for all subbasins with observations.	AVNSE
MRE	average of the relative bias for all subbasins (Note: fraction, not %).	AVRB
MRA	average value of subbasin values of efficiency (RA) similar to Nash-Sutcliffe with coefficient $a$ instead of a square.	AVRA
MCC	Pearson correlation coefficient, average of all subbasins with observations.	AVCC
MRS	error in standard deviation, average of all subbasins with observations.	AVRSB
MAR	average of absolute relative bias for all subbasins (Note: fraction, not %).	AVARB
RR2	regional Nash-Sutcliffe efficiency (all data combined in one long time series).	REGNSE
RRE	regional relative bias (all data combined in one long time series).	REGRB
RRA	regional efficiency similar to Nash-Sutcliffe with coefficient $a$ instead of a square.	REGRA
MD2	median of Nash-Sutcliffe efficiency for all subbasins with observations.	MEDNSE
MDA	median of all subbasins' RA (efficiency similar to Nash-Sutcliffe with coefficient $a$ instead of a square).	MEDRA
MKG	median of all subbasins' Kling-Gupta efficiency.	MEDKGE
MNR	median of all subbasins' normalised RMSE.	MEDNE
SR2	spatial Nash-Sutcliffe efficiency calculated using annual means for all subbasins (requires at least 5 years and 5 subbasins with data) to calculate the Nash-Sutcliffe efficiency.	SPATNSE
SRA	Spatial efficiency similar to Nash-Sutcliffe with coefficient $a$ instead of a square.	SPATRA
TAU	average of Kendall's rank correlation coefficient (Tau) value for all subbasins.	AVTAU