

## LIST OF SYMBOLS

$A_c$	gross capacity of reservoir, gross storage, storage capacity, total storage capacity, reservoir storage
$A_c^o$	live storage capacity
$A_r^n$	flood surcharge storage capacity
$A_r^o$	flood control storage capacity
$A_s$	inactive storage, dead storage
$A_z$	active storage capacity
$C_s$	coefficient of skewness
$C_v$	coefficient of variation
$E$	coefficient of excess, excess coefficient
$F$	drainage basin area, backwater (inundated) area [ $m^2$ ; ha; $km^2$ ]
$f$	pole distance
$H$	stage, water head [m]
$H_E$	depth of evaporation [mm]
$H_S$	precipitation depth [mm]
$H$	altitude [metres above sea level]
	depth, spill height [m]
$k_i$	module discharge coefficient
	$\left[ \text{e.g., } k_{r,i} = \frac{Q_{r,i}}{Q_a} \right]$
$k_p$	module discharge coefficient with a probability $p$
$M_i$	central moment of $i$ th order
$M_b$	reservoir bottom level
$M_{max}$	maximum water level (as a rule during the so-called design flood)
$M_r^n$	level of flood surcharge storage capacity
$M_r^o$	level of flood control storage capacity
$M_s$	level of inactive storage, dead storage
$M_z$	level of active storage capacity
$m_i$	moment (general) of the $i$ th order
$m_{0,i}$	initial moment of the $i$ th order
$N$	probable return (exceedance) period [years]
$O$	reservoir release or withdrawal [ $m^3 s^{-1}$ ]

$O_{nd}$	non-damaging discharge [ $\text{m}^3 \text{s}^{-1}$ ]
$O_p$	yield (withdrawal) with probability $p$ [ $\text{m}^3 \text{s}^{-1}$ ]
$\sum O$	amount of water released from a reservoir within a given period [ $\text{m}^3$ ]
$\sum_o$	mass curve of reservoir discharge
$o$	pole
$P$	probability of exceedance
	design reliability of water supply
	output [kW; MW]
	inflow to a reservoir [ $\text{m}^3 \text{s}^{-1}$ ]
$P_o, P_t, P_d$	design reliability of water supply according to occurrence (o), time (duration) (t), or volume of supplied water (d)
$PV_N$	theoretical flood characterized by a hydrograph (time behaviour), its maximum peak discharge being equal to the $N$ -year flood discharge
$\sum P$	amount of water flowing into a reservoir within a given period [ $\text{m}^3$ ]
$\sum_P$	mass curve of inflow
$Q$	discharge and inflow to a reservoir [ $\text{m}^3 \text{s}^{-1}$ ]
$Q_a$	mean discharge in an over-year period [ $\text{m}^3 \text{s}^{-1}$ ]
$Q_d$	mean daily discharge [ $\text{m}^3 \text{s}^{-1}$ ]
$Q_{Md}$	mean daily discharge with the probability of $M$ -day exceeding [ $\text{m}^3 \text{s}^{-1}$ ]
$Q_m$	mean monthly discharge [ $\text{m}^3 \text{s}^{-1}$ ]
$Q_N$	maximum discharge with probable $N$ -year return (exceedance) period [ $\text{m}^3 \text{s}^{-1}$ ]
$Q_{\min, N}$	minimum discharge with probable $N$ -year return (exceedance) period [ $\text{m}^3 \text{s}^{-1}$ ]
$Q_{nd}$	non-damaging discharge [ $\text{m}^3 \text{s}^{-1}$ ]
$Q_p$	mean daily discharge with a probability of exceedance $p$ per cent [ $\text{m}^3 \text{s}^{-1}$ ]
$Q_r$	mean annual discharge [ $\text{m}^3 \text{s}^{-1}$ ]
$Q_{r,p}$	mean annual discharge with a probability of exceedance $p$ [ $\text{m}^3 \text{s}^{-1}$ ]
$\sum Q_a$	mean annual runoff from a catchment (mean discharge volume) per year [ $\text{m}^3$ ]—also $W_a$
$\sum Q$	discharge mass curve
$q$	specific runoff from a catchment [ $\text{l s}^{-1} \text{km}^{-2}$ ]
$r$	correlation coefficient
$r(\tau)$	correlation function
$S$	discharge area [ $\text{m}^2$ ]
$s$	sample standard deviation
$s^2$	sample variance
$t$	chronological time
$U_Q$	aggregate discharge curve
$V$	storage capacity, reservoir capacity [ $\text{m}^3$ ; $10^6 \text{m}^3$ ]
$V_c$	total storage capacity [ $\text{m}^3$ ; $10^6 \text{m}^3$ ]

$V_r$	flood control storage capacity [ $\text{m}^3$ ; $10^6 \text{ m}^3$ ]
$V_z$	active storage capacity [ $\text{m}^3$ ; $10^6 \text{ m}^3$ ]
$V_z^s$	seasonal component of active storage capacity [ $\text{m}^3$ ; $10^6 \text{ m}^3$ ]
$V_z^v$	over-year component of active storage capacity [ $\text{m}^3$ ; $10^6 \text{ m}^3$ ]
$W_{N,Q}$	flood volume beyond the chosen discharge value $Q$ with a probable $N$ -year period of return (exceedance) [ $\text{m}^3$ ]
$W_F$	volume of flood wave [ $\text{m}^3$ ]
$W_{F,N}$	volume of theoretical flood wave with $N$ -year maximum discharge [ $\text{m}^3$ ]
$\bar{x}$	arithmetic mean of sample
$\tilde{x}, x_{\text{me}}$	median
$\hat{x}, x_{\text{mo}}$	mode
$\alpha$	coefficient of the (safe) yield, relative yield
$\alpha = \frac{O_p}{Q_a}$	
$\beta$	relative storage capacity
$\beta_z$	relative active storage capacity
$\beta_z^s$	relative seasonal component of active storage capacity
$\beta_z^v$	relative over-year component of active storage capacity
$\mu$	mean value of the population
$\sigma$	standard deviation of the population
$\sigma^2$	dispersion variance of the population
$\tau$	duration
	discharge-travel time

Less frequently used symbols are explained in the text.