



### 3.1.1 Symbols and Definitions

To provide consistency within this section, the symbols listed in Table 3-3 will be used. These symbols were selected because of their wide use in technical publications. In some cases, the same symbol is used in existing publications for more than one definition. Where this occurs in this manual, the symbol will be defined where it occurs in the text or equations.

**Table 3-3. Symbols and Definitions for Stormwater Runoff**

Symbol	Definition	Units
A	Drainage area	acres (or mi <sup>2</sup> )
B <sub>f</sub>	Baseflow	cfs
C	Runoff coefficient	-
C <sub>f</sub>	Frequency factor	-
CN	SCS-runoff curve number	-
CP <sub>v</sub>	Channel protection volume	acre-feet
d	Time interval	hours
E	Evaporation	ft
E <sub>t</sub>	Evapotranspiration	ft
F <sub>p</sub>	Pond and swamp adjustment factor	-
G <sub>h</sub>	Hydraulic gradient	ft/ft
I or i	Runoff intensity	in/hr
IA	Percent of impervious cover	%
I	Infiltration	ft
I	Inflows	cfs
I <sub>a</sub>	Initial abstraction from total rainfall	in
k <sub>h</sub>	Infiltration rate	ft/day
L	Flow length	ft
n	Manning roughness coefficient (Manning's "n")	-
O <sub>f</sub>	Overflow	acre-feet
O	Outflows	cfs
P	Accumulated rainfall	in
P <sub>2</sub>	2-year, 24-hour rainfall	in
P <sub>w</sub>	Wetted perimeter	ft
PF	Peaking factor	-
Q	Rate of runoff or depth of runoff	cfs or inches
Q <sub>p</sub>	Peak rate of discharge	cfs
Q <sub>p2</sub>	2-year event peak discharge	cfs
Q <sub>p10</sub>	10-year event peak discharge	cfs
Q <sub>p25</sub>	25-year event peak discharge	cfs
Q <sub>p100</sub>	100-year event peak discharge	cfs
Q <sub>wq</sub>	Water quality peak discharge	cfs
Q <sub>wv</sub>	Water quality runoff peak volume	in
q	Storm runoff during a time interval	in
q <sub>u</sub>	Unit peak discharge	cfs (or cfs/mi <sup>2</sup> /inch)
R	Clark watershed storage constant	-
R	Hydraulic radius	ft
R <sub>o</sub>	Runoff	acre-feet
R <sub>v</sub>	Runoff coefficient	-



Symbol	Definition	Units
S	Ground slope	ft/ft or %
S	Potential maximum retention	in
S	Slope of hydraulic grade line	ft/ft
T <sub>L</sub>	Lag time	hours
T <sub>p</sub>	Time to peak	hours
T <sub>t</sub> or t <sub>t</sub>	Travel time	min or hours
t	Time	min
T <sub>c</sub> or t <sub>c</sub>	Time of concentration	min
TIA	Total impervious area	%
V	Velocity	ft/s
V	Pond volume	acre-feet
WQv	Water quality volume	acre-feet
W <sub>s</sub>	Average ground surface slope as a percentage	%