

Runoff Class

The runoff class of the site can be determined from soil survey data. Guidance in determining the runoff class is based on the soil saturated hydraulic conductivity (K_{Sat}) and the percent slope of the site. (See USDA-NRCS Soil Survey Manual, Agricultural Handbook 18, 1993.)

A more simplified table has been developed using soil permeability classes (table 3). The result of using the matrix relating soil permeability class and slope provides the value categories: NEGLIGIBLE, VERY LOW, LOW, MEDIUM, HIGH, and VERY HIGH.

Table 3.

The surface RUNOFF CLASS site characteristic determined from the relationship of the soil permeability class and field slope. Adapted from Soil Survey Manual (1993) Table 3-10.

Soil Permeability Class*

	Very Rapid	Moderately Rapid and Rapid	Moderately Slow and Moderate	Slow	Very Slow
Slope (%)	Runoff Class***				
Concave**	N	N	N	N	N
< 1	N	N	N	L	M
1 - 5	N	LV	L	M	H
5 - 10	LV	L	M	H	HV
10 - 20	LV	L	M	H	HV
> 20	L	M	H	HV	HV

* Permeability class of the least permeable layer within the upper 39 inches (one meter) of the soil profile. Permeability classes for specific soils can be obtained from a published soil survey

Soil Permeability Classes in inches per hour (in/hr):

very slow (<0.06 in/hr), slow (0.06 - 0.20 in/hr), moderately slow (0.20 - 0.60 in/hr), moderate (0.60 - 2.00 in/hr), moderately rapid (2.00 - 6.00 in/hr), rapid (6.00 - 20.00 in/hr), very rapid (>20.00 in/hr).

** Area from which no or very little water escapes by overland flow

*** RUNOFF CLASS:

N = negligible, LV = very low, L = low, M = medium, H = high, HV = very high.