

Appendix 6E-1 Rational Method Runoff Coefficients

Recommended Coefficient of Runoff Values for Various Selected Land Uses

Description of Area	Runoff Coefficients
Business: Industrial and Commercial	0.80-0.90
Apartments and Townhomes	0.65-0.75
Schools	0.50-0.60
Residential - lots 10,000 sq. ft.	0.40-0.50
- lots 12,000 sq. ft.	0.40-0.45
- lots 17,000 sq. ft.	0.35-0.45
- lots ½ acre or more	0.30-0.40
Parks, Cemeteries and Unimproved Areas	0.20-0.35
Paved and Roof Areas	0.90
Cultivated Areas	0.50-0.70
Pasture	0.35-0.45
Lawns	0.25-0.35
Forest	0.20-0.30
Steep Grass (2:1)*	0.40-0.70
Shoulder and Ditch Areas *	0.35-0.50

Comments:

1. The lowest range of runoff coefficients may be used for flat areas (areas where the majority of the grades and slopes are 2% and less).
2. The average range of runoff coefficients should be used for intermediate areas (areas where the majority of the grades and slopes are from 2% to 6%).
3. The highest range of runoff coefficients shall be used for steep areas (areas where the majority of the grades are greater than 6%), for cluster areas, and for development in clay soil areas.
4. See Appendixes 6E-2, 6E-3, 6E-4 and 6E-5 for runoff coefficients with the C_f factor applied.

*Lower runoff coefficients should be used for permanent or established conditions (post-construction), i.e. sizing stormwater management basins.

*Higher runoff coefficients should be used to design roadside ditch linings (construction). The design considers the ditch lining as not yet established.

Comments: Runoff Coefficients compiled from various sources.

