

Appendix 6E-2 Rational Method Runoff Coefficients with 10 yr
C_f factor Applied

C _{Cf} Values for 10 Year Storm Frequency (C _f =1.0)					
Land Use		Average Watershed Slope			Average % Impervious
		Flat <2%	Rolling 2% - 6%	Steep >6%	
Business, Commercial & Industrial		0.8	0.85	0.90	90%
Apartments and Townhomes		0.65	0.70	0.75	75%
Schools		0.50	0.55	0.60	50%
Residential	lots 10,000 sq. ft	0.40	0.45	0.50	35%
	lots 12,000 sq. ft.	0.40	0.43	0.45	30%
	lots 17,000 sq. ft.	0.35	0.40	0.45	25%
	lots ½ acre or more	0.30	0.35	0.40	20%
Parks, Cemeteries and Unimproved Areas		0.20	0.28	0.35	15%
Paved and Roof Areas		0.90			100%
Cultivated Areas		0.50	0.60	0.70	Varies
Pasture		0.35	0.40	0.45	Varies
Lawns		0.25	0.30	0.35	Varies
Forest		0.20	0.25	0.30	Varies
Railroad Yard Areas		0.20	0.30	0.40	
Roadway Slopes (2:1) w/ Little or No Vegetated Cover		0.70			
Roadway Shoulder & Ditch Areas w/ Little or No Vegetated Cover		0.50			
Roadway Slopes (2:1) w/ Established Vegetated Cover		0.40			
Roadway Shoulder & Ditch Areas w/ Established Vegetated Cover		0.35			

Rational Formula (Revised) – $Q = C_{Cf} A i^{\ddagger}$

[‡] Source: VDOT