Appendix 6E-4 **Rational Method Runoff Coefficients with 50 yr C_f factor Applied**

C_{Cf} Values for 50 Year Storm Frequency (C_f=1.2)					
Land Use		**Average Watershed Slope**			**Average % Impervious**
		Flat <2%	**Rolling 2% - 6%**	**Steep >6%**	
Business, Commercial & Industrial		0.96	1.00	1.00	90%
Apartments and Townhomes		0.78	0.84	0.90	75%
Schools		0.6	0.66	0.72	50%
Residential	lots 10,000 sq. ft	0.48	0.54	0.60	35%
	lots 12,000 sq. ft.	0.48	0.51	0.54	30%
	lots 17,000 sq. ft.	0.42	0.48	0.54	25%
	lots ½ acre or more	0.36	0.42	0.48	20%
Parks, Cemeteries and Unimproved Areas		0.24	0.33	0.42	15%
Paved and Roof Areas			1.00		100%
Cultivated Areas		0.6	0.72	0.84	Varies
Pasture		0.42	0.48	0.54	Varies
Lawns		0.3	0.36	0.42	Varies
Forest		0.24	0.30	0.36	Varies
Railroad Yard Areas		0.24	0.36	0.48	
Roadway Slopes (2:1) w/ Little or No Vegetated Cover			0.84		
Roadway Shoulder & Ditch Areas w/ Little or No Vegetated Cover			0.60		
Roadway Slopes (2:1) w/ Established Vegetated Cover			0.48		
Roadway Shoulder & Ditch Areas w/ Established Vegetated Cover			0.42		

Rational Formula (Revised) – $Q = C_{Cf} \, A \, i$[‡]

[‡] Source: VDOT