AVERAGE RUNOFF COEFFICIENTS FOR USE IN RATIONAL FORMULA

Hydrologic Soil Group****		A			B			C			D			
Land Slope		0-2%	2-6%	6%+	0-2%	2-6%	6%+	0-2%	2-6%	6%+	0-2%	2-6%	6%+	Percent-Impervious Surface*
Land Use	RF** (yrs)													
Commercial	5&10	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	.85	
	50	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	70 - 95
	100	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98	.98	
Industrial														
	5&10	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80	
	50	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90	65 - 90
	100	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	
High Density Residential (<12,000 sf)	5&10	.55	.57	.58	.56	.58	.60	.58	.60	.62	.60	.62	.65	
	50	.62	.64	.66	.63	.66	.68	.66	.68	.70	.68	.70	.73	40 - 60
	100	.65	.67	.69	.66	.69	.71	.69	.71	.74	.71	.74	.77	
Medium Density Residential (12000 to 1/2 acre)	5&10	.31	.35	.38	.33	.37	.40	.38	.40	.45	.40	.45	.50	
	50	.35	.40	.43	.37	.42	.45	.43	.45	.51	.45	.51	.57	15 - 30***
	100	.37	.42	.45	.39	.44	.47	.45	.47	.54	.47	.54	.60	
Low Density Residential (>1/2 acre)	5&10	.20	.25	.28	.23	.27	.30	.28	.30	.38	.30	.34	.43	
	50	.23	.28	.32	.26	.31	.34	.32	.34	.43	.34	.38	.49	5 - 15
	100	.24	.29	.34	.27	.33	.36	.34	.36	.45	.36	.40	.51	
Agricult. and Other Open Land	5&10	.14	.18	.20	.16	.20	.25	.20	.22	.30	.22	.28	.38	
	50	.16	.20	.23	.18	.23	.28	.23	.25	.34	.25	.32	.43	less than 5
	100	.17	.21	.24	.19	.24	.29	.24	.26	.36	.26	.34	.45	

* Average range of percent-impervious surface expected for designated land-use condition.

** Design storm return frequency in years.

*** Where percent-impervious surface ran ges between 30 and 40 percent (e.g. 35%) interpolate runoff coefficient between values given.

**** Hydrologic soil group for a particular type of soil may be obtained from the "Soil Survey of Allen County" by the U.S.D.A.'s Soil Conservation Service or th e "Master Plan for Storm Drainage", by the Three Rivers Coordinating Council, April 1972.

NOTE: Calculated "C" factors based upon actual conditions may be used.

City Utilities
Design Standards
Manual

Exhibit SW5-2
Runoff Coefficients for Use in Rational Formula

Created: May 2012

Revised: