CITY OF LAWRENCEVILLE
STORM WATER DESIGN MANUAL

HYDROLOGY
CHAPTER 2

Table of Contents

ITEM		PAGES FROM	TO
2.1	**Hydrologic Methods**	**2.1-1**	**2.1-1**
2.2	**Symbols and Definitions**	**2.2-1**	**2.2-1**
2.3	**Design Frequency and Rainfall**	**2.3-1**	**2.3-2**
2.4	**Rational Method**	**2.4-1**	**2.4-5**
2.4.1	Introduction	2.4-1	2.4-1
2.4.2	Equation	2.4-1	2.4-1
2.4.3	Infrequent Storms	2.4-1	2.4-2
2.4.4	Time of Concentration	2.4-2	2.4-3
2.4.5	Rainfall Intensity	2.4-3	2.4-3
2.4.6	Runoff Coefficient	2.4-3	2.4-4
2.4.7	Composite Coefficients	2.4-5	2.4-5
2.5	**Example Problem – Rational Formula**	**2.5-1**	**2.5-3**
2.5.1	Introduction	2.5-1	2.5-1
2.5.2	Problem	2-5-1	2.5-3
2.6	**SCS Unit Hydrograph**	**2.6-1**	**2.6-12**
2.6.1	Introduction	2.6-1	2.6-1
2.6.2	Equations and Concepts	2.6-1	2.6-6

2.6.3	Runoff Factor	2.6-6	2.6-6
2.6.4	Urban Modifications	2.6-7	2.6-7
2.6.5	Travel Time Estimation	2.6-7	2.6-12
2.6.6	Triangular Hydrograph	2.6-12	2.6-12
2.7	**Simplified SCS Peak Discharge & Hydrographs**	**2.7-1**	**2.7-8**
2.7.1	Overview	2.7-1	2.7-1
2.7.2	Peak Discharges	2.7-2	2.7-2
2.7.3	Computations	2.7-3	2.7-4
2.7.4	Limitations	2.7-5	2.7-5
2.7.5	Example Problem	2.7-5	2.7-7
2.7.6	Hydrograph Generation	2.7-7	2.7-7
2.7.7	Composite Hydrographs	2.7-7	2.7-7
2.7.8	Example Problem	2.7-7	2.7-8
2.8	**Water Quality Storm – Volume and Peak Discharge**	**2.8-1**	**2.8-4**
2.8.1	Overview	2.8-1	2.8-1
2.8.2	Water Quality Storm	2.8-1	2.8-1
2.8.3	Water Quality Storm Peak Discharge	2.8-1	2.8-2
2.8.4	Computations	2.8-2	2.8-3
2.8.5	Limitations	2.8-2	2.8-3
2.8.6	Example	2.8-3	2.8-4
2.9	**U.S. Geological Survey Flow And Hydrograph Method**	**2.9-1**	**2.9-5**
2.9.1	Introduction	2.9-1	2.9-1
2.9.2	Peak Discharge Equations	2.9-1	2.9-2

2.9.3 Limitations 2.9-2 2.9-2

2.9.4 Hydrographs 2.9-2 2.9-3

2.9.5 Limitations 2.9-3 2.9-3

2.9.6 Rural Basins 2.9-3 2.9-4

2.9.7 Limitations 2.9-4 2.9-4

2.9.8 Example Problem 2.9-5 2.9-5

2.10 SCS Unit Discharge Hydrographs 2.10-1 2.10-10

2.11 Impervious Area Calculations 2.11-1 2.11-4

2.11.1 Urban Modifications 2.11-1 2.11-1

2.11.2 Connected Impervious Areas 2.11-1 2.11-2

2.11.3 Unconnected Impervious Areas 2.11-2 2.11-3

2.11.4 Composite Curve Numbers 2.11-4 2.11-4

2.12 References 2.12-1 2.12-1

END OF TABLE OF CONTENTS CHAPTER 2