City of Aurora 100 Year Modified Rational Method for Stormwater Management

Project Name: _____

Tributary Area: _____ acre

Runoff Coefficient Calculations

Impervious Area :	_____ x 0.96 =	_____	C_r = Total/A = _____
Grass Area :	_____ x 0.50 =	_____	
Blue/Green Det :	_____ x 0.90 =	_____	C_f Cr*1.25 = _____
Wet Retention :	_____ x 1.00 =	_____	
	Total		

Release Rate, Qr (0.1 cfs/acre) = _____ cfs

Storm Duration (hours)	Rain Intensity (in/hr)	Runoff Rate (cfs)	Release Rate (cfs)	Storage Rate (cfs)	Storage Required acre-ft
t	I	$Q=C_f*I*A$	Q_r	$Q_s=Q-Q_r$	$Q_s*t/12$
1	3.95				
2	2.48				
3	1.79				
4	1.44				
5	1.21				
6	1.05				
8	0.83				
10	0.69				
12	0.61				
15	0.51				
18	0.43				
21	0.39				
24	0.35				

Storage: _____ acre-ft

Required Storage for Indian Creek and Blackberry Creek Watersheds increase by 10% _____ acre-ft

REQUIRED STORAGE = _____ acre-ft

AURORA The City of Lights

Engineering Department

Revisions	
Date:	By:

100 Year Detention Volume – Modified Rational Method

Scale: None	Checked	**EXHIBIT IV-1**
Date: 12/03	Drawn: D.F.	