

6. Design Tables

This section of the manual contains the following tables:

Table 6.1 Maximum Runoff Storage/Settling Volume Using Conservative Method (m^3), 25-year, 24-hour Storm, Holding 100%

Table 6.2 Minimum Storage/Settling Volume Required (m^3) and Peak Discharge Rate (m^3/s) Using Rational Method 25-year, 5-minute Peak Discharge Rate

Table 6.3 Infiltration Area Required Based on Saturated Hydraulic Conductivity of Soil Texture Classes

Table 6.1 Maximum Runoff Storage/Settling Volume Using Conservation Method (m³), 25-year, 24-hour Storm, Holding 100%

Area of Runoff Collection Area (m ²)	Thunder Bay Airport							
	Storage/Settling Volume*	Discharge Rate for following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
	(m ³)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
(gal)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	
100	9.39	6.52E-04	5.21E-04	4.35E-04	3.72E-04	3.26E-04	2.90E-04	2.61E-04
	2,479.50	10.33	8.26	6.89	5.90	5.17	4.59	4.13
200	18.77	1.30E-03	1.04E-03	8.69E-04	7.45E-04	6.52E-04	5.79E-04	5.21E-04
	4,959.00	20.66	16.53	13.77	11.81	10.33	9.18	8.26
300	28.16	1.96E-03	1.56E-03	1.30E-03	1.12E-03	9.78E-04	8.69E-04	7.82E-04
	7,438.50	30.99	24.79	20.66	17.71	15.50	13.77	12.40
400	37.54	2.61E-03	2.09E-03	1.74E-03	1.49E-03	1.30E-03	1.16E-03	1.04E-03
	9,918.00	41.32	33.06	27.55	23.61	20.66	18.37	16.53
500	46.93	3.26E-03	2.61E-03	2.17E-03	1.86E-03	1.63E-03	1.45E-03	1.30E-03
	12,397.50	51.66	41.32	34.44	29.52	25.83	22.96	20.66
600	56.32	3.91E-03	3.13E-03	2.61E-03	2.23E-03	1.96E-03	1.74E-03	1.56E-03
	14,877.00	61.99	49.59	41.32	35.42	30.99	27.55	24.79
700	65.70	4.56E-03	3.65E-03	3.04E-03	2.61E-03	2.28E-03	2.03E-03	1.83E-03
	17,356.50	72.32	57.85	48.21	41.32	36.16	32.14	28.93
800	75.09	5.21E-03	4.17E-03	3.48E-03	2.98E-03	2.61E-03	2.32E-03	2.09E-03
	19,836.00	82.65	66.12	55.10	47.23	41.32	36.73	33.06
900	84.47	5.87E-03	4.69E-03	3.91E-03	3.35E-03	2.93E-03	2.61E-03	2.35E-03
	22,315.50	92.98	74.38	61.99	53.13	46.49	41.32	37.19
1,000	93.86	6.52E-03	5.21E-03	4.35E-03	3.72E-03	3.26E-03	2.90E-03	2.61E-03
	24,795.00	103.31	82.65	68.87	59.04	51.66	45.92	41.32
1,500	140.79	9.78E-03	7.82E-03	6.52E-03	5.59E-03	4.89E-03	4.35E-03	3.91E-03
	37,192.49	154.97	123.97	103.31	88.55	77.48	68.87	61.99
2,000	187.72	0.01	0.01	8.69E-03	7.45E-03	6.52E-03	5.79E-03	5.21E-03
	49,589.99	206.62	165.30	137.75	118.07	103.31	91.83	82.65
2,500	234.65	0.02	0.01	0.01	9.31E-03	8.15E-03	7.24E-03	6.52E-03
	61,987.49	258.28	206.62	172.19	147.59	129.14	114.79	103.31
3,000	281.58	0.02	0.02	0.01	0.01	9.78E-03	8.69E-03	7.82E-03
	74,384.99	309.94	247.95	206.62	177.11	154.97	137.75	123.97
3,500	328.51	0.02	0.02	0.02	0.01	0.01	0.01	9.13E-03
	86,782.49	361.59	289.27	241.06	206.62	180.80	160.71	144.64
4,000	375.44	0.03	0.02	0.02	0.01	0.01	0.01	0.01
	99,179.98	413.25	330.60	275.50	236.14	206.62	183.67	165.30
4,500	422.37	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	111,577.48	464.91	371.92	309.94	265.66	232.45	206.62	185.96
5,000	469.30	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	123,974.98	516.56	413.25	344.37	295.18	258.28	229.58	206.62
5,500	516.23	0.04	0.03	0.02	0.02	0.02	0.02	0.01
	136,372.48	568.22	454.57	378.81	324.70	284.11	252.54	227.29
6,000	563.16	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	148,769.98	619.87	495.90	413.25	354.21	309.94	275.50	247.95
6,500	610.09	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	161,167.48	671.53	537.22	447.69	383.73	335.77	298.46	268.61
7,000	657.02	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	173,564.97	723.19	578.55	482.12	413.25	361.59	321.42	289.27
7,500	703.95	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	185,962.47	774.84	619.87	516.56	442.77	387.42	344.37	309.94
8,000	750.88	0.05	0.04	0.03	0.03	0.03	0.02	0.02
	198,359.97	826.50	661.20	551.00	472.29	413.25	367.33	330.60
8,500	797.81	0.06	0.04	0.04	0.03	0.03	0.02	0.02
	210,757.47	878.16	702.52	585.44	501.80	439.08	390.29	351.26

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/Settling Volume*	Sault Ste. Marie Airport						
		Discharge Rate for following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
(gal)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	
100	8.47	5.88E-04	4.71E-04	3.92E-04	3.36E-04	2.94E-04	2.62E-04	2.35E-04
	2,238.58	9.33	7.46	6.22	5.33	4.66	4.15	3.73
200	16.95	1.18E-03	9.42E-04	7.85E-04	6.73E-04	5.88E-04	5.23E-04	4.71E-04
	4,477.15	18.65	14.92	12.44	10.66	9.33	8.29	7.46
300	25.42	1.77E-03	1.41E-03	1.18E-03	1.01E-03	8.83E-04	7.85E-04	7.06E-04
	6,715.73	27.98	22.39	18.65	15.99	13.99	12.44	11.19
400	33.90	2.35E-03	1.88E-03	1.57E-03	1.35E-03	1.18E-03	1.05E-03	9.42E-04
	8,954.31	37.31	29.85	24.87	21.32	18.65	16.58	14.92
500	42.37	2.94E-03	2.35E-03	1.96E-03	1.68E-03	1.47E-03	1.31E-03	1.18E-03
	11,192.88	46.64	37.31	31.09	26.65	23.32	20.73	18.65
600	50.84	3.53E-03	2.82E-03	2.35E-03	2.02E-03	1.77E-03	1.57E-03	1.41E-03
	13,431.46	55.96	44.77	37.31	31.98	27.98	24.87	22.39
700	59.32	4.12E-03	3.30E-03	2.75E-03	2.35E-03	2.06E-03	1.83E-03	1.65E-03
	15,670.04	65.29	52.23	43.53	37.31	32.65	29.02	26.12
800	67.79	4.71E-03	3.77E-03	3.14E-03	2.69E-03	2.35E-03	2.09E-03	1.88E-03
	17,908.61	74.62	59.70	49.75	42.64	37.31	33.16	29.85
900	76.27	5.30E-03	4.24E-03	3.53E-03	3.03E-03	2.65E-03	2.35E-03	2.12E-03
	20,147.19	83.95	67.16	55.96	47.97	41.97	37.31	33.58
1,000	84.74	5.88E-03	4.71E-03	3.92E-03	3.36E-03	2.94E-03	2.62E-03	2.35E-03
	22,385.77	93.27	74.62	62.18	53.30	46.64	41.46	37.31
1,500	127.11	8.83E-03	7.06E-03	5.88E-03	5.04E-03	4.41E-03	3.92E-03	3.53E-03
	33,578.65	139.91	111.93	93.27	79.95	69.96	62.18	55.96
2,000	169.48	0.01	9.42E-03	7.85E-03	6.73E-03	5.88E-03	5.23E-03	4.71E-03
	44,771.53	186.55	149.24	124.37	106.60	93.27	82.91	74.62
2,500	211.85	0.01	0.01	9.81E-03	8.41E-03	7.36E-03	6.54E-03	5.88E-03
	55,964.41	233.19	186.55	155.46	133.25	116.59	103.64	93.27
3,000	254.22	0.02	0.01	0.01	0.01	8.83E-03	7.85E-03	7.06E-03
	67,157.30	279.82	223.86	186.55	159.90	139.91	124.37	111.93
3,500	296.59	0.02	0.02	0.01	0.01	0.01	9.15E-03	8.24E-03
	78,350.18	326.46	261.17	217.64	186.55	163.23	145.09	130.58
4,000	338.96	0.02	0.02	0.02	0.01	0.01	0.01	9.42E-03
	89,543.06	373.10	298.48	248.73	213.20	186.55	165.82	149.24
4,500	381.33	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	100,735.95	419.73	335.79	279.82	239.85	209.87	186.55	167.89
5,000	423.70	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	111,928.83	466.37	373.10	310.91	266.50	233.19	207.28	186.55
5,500	466.07	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	123,121.71	513.01	410.41	342.00	293.15	256.50	228.00	205.20
6,000	508.44	0.04	0.03	0.02	0.02	0.02	0.02	0.01
	134,314.59	559.64	447.72	373.10	319.80	279.82	248.73	223.86
6,500	550.81	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	145,507.48	606.28	485.02	404.19	346.45	303.14	269.46	242.51
7,000	593.18	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	156,700.36	652.92	522.33	435.28	373.10	326.46	290.19	261.17
7,500	635.55	0.04	0.04	0.03	0.03	0.02	0.02	0.02
	167,893.24	699.56	559.64	466.37	399.75	349.78	310.91	279.82
8,000	677.92	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	179,086.13	746.19	596.95	497.46	426.40	373.10	331.64	298.48
8,500	720.29	0.05	0.04	0.03	0.03	0.03	0.02	0.02
	190,279.01	792.83	634.26	528.55	453.05	396.41	352.37	317.13

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/Settling Volume*	Windsor Airport						
		Discharge Rate for following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
(gal)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	
100	8.66	6.02E-04	4.81E-04	4.01E-04	3.44E-04	3.01E-04	2.67E-04	2.41E-04
	2,288.77	9.54	7.63	6.36	5.45	4.77	4.24	3.81
200	17.33	1.20E-03	9.63E-04	8.02E-04	6.88E-04	6.02E-04	5.35E-04	4.81E-04
	4,577.54	19.07	15.26	12.72	10.90	9.54	8.48	7.63
300	25.99	1.81E-03	1.44E-03	1.20E-03	1.03E-03	9.03E-04	8.02E-04	7.22E-04
	6,866.31	28.61	22.89	19.07	16.35	14.30	12.72	11.44
400	34.66	2.41E-03	1.93E-03	1.60E-03	1.38E-03	1.20E-03	1.07E-03	9.63E-04
	9,155.08	38.15	30.52	25.43	21.80	19.07	16.95	15.26
500	43.32	3.01E-03	2.41E-03	2.01E-03	1.72E-03	1.50E-03	1.34E-03	1.20E-03
	11,443.84	47.68	38.15	31.79	27.25	23.84	21.19	19.07
600	51.98	3.61E-03	2.89E-03	2.41E-03	2.06E-03	1.81E-03	1.60E-03	1.44E-03
	13,732.61	57.22	45.78	38.15	32.70	28.61	25.43	22.89
700	60.65	4.21E-03	3.37E-03	2.81E-03	2.41E-03	2.11E-03	1.87E-03	1.68E-03
	16,021.38	66.76	53.40	44.50	38.15	33.38	29.67	26.70
800	69.31	4.81E-03	3.85E-03	3.21E-03	2.75E-03	2.41E-03	2.14E-03	1.93E-03
	18,310.15	76.29	61.03	50.86	43.60	38.15	33.91	30.52
900	77.98	5.42E-03	4.33E-03	3.61E-03	3.09E-03	2.71E-03	2.41E-03	2.17E-03
	20,598.92	85.83	68.66	57.22	49.05	42.91	38.15	34.33
1000	86.64	6.02E-03	4.81E-03	4.01E-03	3.44E-03	3.01E-03	2.67E-03	2.41E-03
	22,887.69	95.37	76.29	63.58	54.49	47.68	42.38	38.15
1,500	129.96	9.03E-03	7.22E-03	6.02E-03	5.16E-03	4.51E-03	4.01E-03	3.61E-03
	34,331.53	143.05	114.44	95.37	81.74	71.52	63.58	57.22
2,000	173.28	0.01	9.63E-03	8.02E-03	6.88E-03	6.02E-03	5.35E-03	4.81E-03
	45,775.38	190.73	152.58	127.15	108.99	95.37	84.77	76.29
2,500	216.60	0.02	0.01	0.01	8.60E-03	7.52E-03	6.69E-03	6.02E-03
	57,219.22	238.41	190.73	158.94	136.24	119.21	105.96	95.37
3,000	259.92	0.02	0.01	0.01	0.01	9.03E-03	8.02E-03	7.22E-03
	68,663.07	286.10	228.88	190.73	163.48	143.05	127.15	114.44
3,500	303.24	0.02	0.02	0.01	0.01	0.01	9.36E-03	8.42E-03
	80,106.91	333.78	267.02	222.52	190.73	166.89	148.35	133.51
4,000	346.56	0.02	0.02	0.02	0.01	0.01	0.01	9.63E-03
	91,550.76	381.46	305.17	254.31	217.98	190.73	169.54	152.58
4,500	389.88	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	102,994.60	429.14	343.32	286.10	245.23	214.57	190.73	171.66
5,000	433.20	0.03	0.02	0.02	0.02	0.02	0.01	0.01
	114,438.44	476.83	381.46	317.88	272.47	238.41	211.92	190.73
5,500	476.52	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	125,882.29	524.51	419.61	349.67	299.72	262.25	233.12	209.80
6,000	519.84	0.04	0.03	0.02	0.02	0.02	0.02	0.01
	137,326.13	572.19	457.75	381.46	326.97	286.10	254.31	228.88
6,500	563.16	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	148,769.98	619.87	495.90	413.25	354.21	309.94	275.50	247.95
7,000	606.48	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	160,213.82	667.56	534.05	445.04	381.46	333.78	296.69	267.02
7,500	649.80	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	171,657.67	715.24	572.19	476.83	408.71	357.62	317.88	286.10
8,000	693.12	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	183,101.51	762.92	610.34	508.62	435.96	381.46	339.08	305.17
8,500	736.44	0.05	0.04	0.03	0.03	0.03	0.02	0.02
	194,545.35	810.61	648.48	540.40	463.20	405.30	360.27	324.24

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area Of Runoff Collection Area (m ²)	Storage/ Settling Volume*	Chatham WPCP							
		Discharge Rate for following Retention Periods							
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr	
		(m ³)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
(gal)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)		
100	8.46	5.87E-04	4.70E-04	3.91E-04	3.36E-04	2.94E-04	2.61E-04	2.35E-04	
	2,233.56	9.31	7.45	6.20	5.32	4.65	4.14	3.72	
200	16.91	1.17E-03	9.39E-04	7.83E-04	6.71E-04	5.87E-04	5.22E-04	4.70E-04	
	4,467.11	18.61	14.89	12.41	10.64	9.31	8.27	7.45	
300	25.37	1.76E-03	1.41E-03	1.17E-03	1.01E-03	8.81E-04	7.83E-04	7.05E-04	
	6,700.67	27.92	22.34	18.61	15.95	13.96	12.41	11.17	
400	33.82	2.35E-03	1.88E-03	1.57E-03	1.34E-03	1.17E-03	1.04E-03	9.39E-04	
	8,934.23	37.23	29.78	24.82	21.27	18.61	16.54	14.89	
500	42.28	2.94E-03	2.35E-03	1.96E-03	1.68E-03	1.47E-03	1.30E-03	1.17E-03	
	11,167.79	46.53	37.23	31.02	26.59	23.27	20.68	18.61	
600	50.73	3.52E-03	2.82E-03	2.35E-03	2.01E-03	1.76E-03	1.57E-03	1.41E-03	
	13,401.34	55.84	44.67	37.23	31.91	27.92	24.82	22.34	
700	59.19	4.11E-03	3.29E-03	2.74E-03	2.35E-03	2.06E-03	1.83E-03	1.64E-03	
	15,634.90	65.15	52.12	43.43	37.23	32.57	28.95	26.06	
800	67.64	4.70E-03	3.76E-03	3.13E-03	2.68E-03	2.35E-03	2.09E-03	1.88E-03	
	17,868.46	74.45	59.56	49.63	42.54	37.23	33.09	29.78	
900	76.10	5.28E-03	4.23E-03	3.52E-03	3.02E-03	2.64E-03	2.35E-03	2.11E-03	
	20,102.02	83.76	67.01	55.84	47.86	41.88	37.23	33.50	
1000	84.55	5.87E-03	4.70E-03	3.91E-03	3.36E-03	2.94E-03	2.61E-03	2.35E-03	
	22,335.57	93.06	74.45	62.04	53.18	46.53	41.36	37.23	
1,500	126.83	8.81E-03	7.05E-03	5.87E-03	5.03E-03	4.40E-03	3.91E-03	3.52E-03	
	33,503.36	139.60	111.68	93.06	79.77	69.80	62.04	55.84	
2,000	169.10	0.01	9.39E-03	7.83E-03	6.71E-03	5.87E-03	5.22E-03	4.70E-03	
	44,671.15	186.13	148.90	124.09	106.36	93.06	82.72	74.45	
2,500	211.38	0.01	0.01	9.79E-03	8.39E-03	7.34E-03	6.52E-03	5.87E-03	
	55,838.93	232.66	186.13	155.11	132.95	116.33	103.41	93.06	
3,000	253.65	0.02	0.01	0.01	0.01	8.81E-03	7.83E-03	7.05E-03	
	67,006.72	279.19	223.36	186.13	159.54	139.60	124.09	111.68	
3,500	295.93	0.02	0.02	0.01	0.01	0.01	9.13E-03	8.22E-03	
	78,174.51	325.73	260.58	217.15	186.13	162.86	144.77	130.29	
4,000	338.20	0.02	0.02	0.02	0.01	0.01	0.01	9.39E-03	
	89,342.29	372.26	297.81	248.17	212.72	186.13	165.45	148.90	
4,500	380.48	0.03	0.02	0.02	0.02	0.01	0.01	0.01	
	100,510.08	418.79	335.03	279.19	239.31	209.40	186.13	167.52	
5,000	422.75	0.03	0.02	0.02	0.02	0.01	0.01	0.01	
	111,677.87	465.32	372.26	310.22	265.90	232.66	206.81	186.13	
5,500	465.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	
	122,845.65	511.86	409.49	341.24	292.49	255.93	227.49	204.74	
6,000	507.30	0.04	0.03	0.02	0.02	0.02	0.02	0.01	
	134,013.44	558.39	446.71	372.26	319.08	279.19	248.17	223.36	
6,500	549.58	0.04	0.03	0.03	0.02	0.02	0.02	0.02	
	145,181.23	604.92	483.94	403.28	345.67	302.46	268.85	241.97	
7,000	591.85	0.04	0.03	0.03	0.02	0.02	0.02	0.02	
	156,349.01	651.45	521.16	434.30	372.26	325.73	289.54	260.58	
7,500	634.13	0.04	0.04	0.03	0.03	0.02	0.02	0.02	
	167,516.80	697.99	558.39	465.32	398.85	348.99	310.22	279.19	
8,000	676.40	0.05	0.04	0.03	0.03	0.02	0.02	0.02	
	178,684.59	744.52	595.62	496.35	425.44	372.26	330.90	297.81	
8,500	718.68	0.05	0.04	0.03	0.03	0.02	0.02	0.02	
	189,852.37	791.05	632.84	527.37	452.03	395.53	351.58	316.42	

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/ Settling Volume* (m ³)	Owen Sound						
		Discharge Rate for following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
(gal)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	
100	7.44	5.17E-04	4.13E-04	3.44E-04	2.95E-04	2.58E-04	2.30E-04	2.07E-04
	1,965.03	8.19	6.55	5.46	4.68	4.09	3.64	3.28
200	14.88	1.03E-03	8.27E-04	6.89E-04	5.90E-04	5.17E-04	4.59E-04	4.13E-04
	3,930.06	16.38	13.10	10.92	9.36	8.19	7.28	6.55
300	22.32	1.55E-03	1.24E-03	1.03E-03	8.86E-04	7.75E-04	6.89E-04	6.20E-04
	5,895.09	24.56	19.65	16.38	14.04	12.28	10.92	9.83
400	29.75	2.07E-03	1.65E-03	1.38E-03	1.18E-03	1.03E-03	9.18E-04	8.27E-04
	7,860.11	32.75	26.20	21.83	18.71	16.38	14.56	13.10
500	37.19	2.58E-03	2.07E-03	1.72E-03	1.48E-03	1.29E-03	1.15E-03	1.03E-03
	9,825.14	40.94	32.75	27.29	23.39	20.47	18.19	16.38
600	44.63	3.10E-03	2.48E-03	2.07E-03	1.77E-03	1.55E-03	1.38E-03	1.24E-03
	11,790.17	49.13	39.30	32.75	28.07	24.56	21.83	19.65
700	52.07	3.62E-03	2.89E-03	2.41E-03	2.07E-03	1.81E-03	1.61E-03	1.45E-03
	13,755.20	57.31	45.85	38.21	32.75	28.66	25.47	22.93
800	59.51	4.13E-03	3.31E-03	2.76E-03	2.36E-03	2.07E-03	1.84E-03	1.65E-03
	15,720.23	65.50	52.40	43.67	37.43	32.75	29.11	26.20
900	66.95	4.65E-03	3.72E-03	3.10E-03	2.66E-03	2.32E-03	2.07E-03	1.86E-03
	17,685.26	73.69	58.95	49.13	42.11	36.84	32.75	29.48
1000	74.39	5.17E-03	4.13E-03	3.44E-03	2.95E-03	2.58E-03	2.30E-03	2.07E-03
	19,650.29	81.88	65.50	54.58	46.79	40.94	36.39	32.75
1,500	111.58	7.75E-03	6.20E-03	5.17E-03	4.43E-03	3.87E-03	3.44E-03	3.10E-03
	29,475.43	122.81	98.25	81.88	70.18	61.41	54.58	49.13
2,000	148.77	0.01	8.27E-03	6.89E-03	5.90E-03	5.17E-03	4.59E-03	4.13E-03
	39,300.57	163.75	131.00	109.17	93.57	81.88	72.78	65.50
2,500	185.96	0.01	0.01	8.61E-03	7.38E-03	6.46E-03	5.74E-03	5.17E-03
	49,125.71	204.69	163.75	136.46	116.97	102.35	90.97	81.88
3,000	223.16	0.02	0.01	0.01	8.86E-03	7.75E-03	6.89E-03	6.20E-03
	58,950.86	245.63	196.50	163.75	140.36	122.81	109.17	98.25
3,500	260.35	0.02	0.01	0.01	0.01	9.04E-03	8.04E-03	7.23E-03
	68,776.00	286.57	229.25	191.04	163.75	143.28	127.36	114.63
4,000	297.54	0.02	0.02	0.01	0.01	0.01	9.18E-03	8.27E-03
	78,601.14	327.50	262.00	218.34	187.15	163.75	145.56	131.00
4,500	334.73	0.02	0.02	0.02	0.01	0.01	0.01	9.30E-03
	88,426.28	368.44	294.75	245.63	210.54	184.22	163.75	147.38
5,000	371.93	0.03	0.02	0.02	0.01	0.01	0.01	0.01
	98,251.43	409.38	327.50	272.92	233.93	204.69	181.95	163.75
5,500	409.12	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	108,076.57	450.32	360.26	300.21	257.33	225.16	200.14	180.13
6,000	446.31	0.03	0.02	0.02	0.02	0.02	0.01	0.01
	117,901.71	491.26	393.01	327.50	280.72	245.63	218.34	196.50
6,500	483.50	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	127,726.86	532.20	425.76	354.80	304.11	266.10	236.53	212.88
7,000	520.70	0.04	0.03	0.02	0.02	0.02	0.02	0.01
	137,552.00	573.13	458.51	382.09	327.50	286.57	254.73	229.25
7,500	557.89	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	147,377.14	614.07	491.26	409.38	350.90	307.04	272.92	245.63
8,000	595.08	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	157,202.28	655.01	524.01	436.67	374.29	327.50	291.12	262.00
8,500	632.27	0.04	0.04	0.03	0.03	0.02	0.02	0.02
	167,027.43	695.95	556.76	463.97	397.68	347.97	309.31	278.38

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data." - Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/ Settling Volume* (m ³)	Stratford MOE						
		Discharge Rate for following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
(gal)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	
100	10.91	7.57E-04	6.06E-04	5.05E-04	4.33E-04	3.79E-04	3.37E-04	3.03E-04
	2,881.04	12.00	9.60	8.00	6.86	6.00	5.34	4.80
200	21.81	1.51E-03	1.21E-03	1.01E-03	8.66E-04	7.57E-04	6.73E-04	6.06E-04
	5,762.08	24.01	19.21	16.01	13.72	12.00	10.67	9.60
300	32.72	2.27E-03	1.82E-03	1.51E-03	1.30E-03	1.14E-03	1.01E-03	9.09E-04
	8,643.11	36.01	28.81	24.01	20.58	18.01	16.01	14.41
400	43.62	3.03E-03	2.42E-03	2.02E-03	1.73E-03	1.51E-03	1.35E-03	1.21E-03
	11,524.15	48.02	38.41	32.01	27.44	24.01	21.34	19.21
500	54.53	3.79E-03	3.03E-03	2.52E-03	2.16E-03	1.89E-03	1.68E-03	1.51E-03
	14,405.19	60.02	48.02	40.01	34.30	30.01	26.68	24.01
600	65.44	4.54E-03	3.64E-03	3.03E-03	2.60E-03	2.27E-03	2.02E-03	1.82E-03
	17,286.23	72.03	57.62	48.02	41.16	36.01	32.01	28.81
700	76.34	5.30E-03	4.24E-03	3.53E-03	3.03E-03	2.65E-03	2.36E-03	2.12E-03
	20,167.27	84.03	67.22	56.02	48.02	42.02	37.35	33.61
800	87.25	6.06E-03	4.85E-03	4.04E-03	3.46E-03	3.03E-03	2.69E-03	2.42E-03
	23,048.30	96.03	76.83	64.02	54.88	48.02	42.68	38.41
900	98.15	6.82E-03	5.45E-03	4.54E-03	3.90E-03	3.41E-03	3.03E-03	2.73E-03
	25,929.34	108.04	86.43	72.03	61.74	54.02	48.02	43.22
1,000	109.06	7.57E-03	6.06E-03	5.05E-03	4.33E-03	3.79E-03	3.37E-03	3.03E-03
	28,810.38	120.04	96.03	80.03	68.60	60.02	53.35	48.02
1,500	163.59	0.01	9.09E-03	7.57E-03	6.49E-03	5.68E-03	5.05E-03	4.54E-03
	43,215.57	180.06	144.05	120.04	102.89	90.03	80.03	72.03
2,000	218.12	0.02	0.01	0.01	8.66E-03	7.57E-03	6.73E-03	6.06E-03
	57,620.76	240.09	192.07	160.06	137.19	120.04	106.71	96.03
2,500	272.65	0.02	0.02	0.01	0.01	9.47E-03	8.42E-03	7.57E-03
	72,025.95	300.11	240.09	200.07	171.49	150.05	133.38	120.04
3,000	327.18	0.02	0.02	0.02	0.01	0.01	0.01	9.09E-03
	86,431.14	360.13	288.10	240.09	205.79	180.06	160.06	144.05
3,500	381.71	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	100,836.33	420.15	336.12	280.10	240.09	210.08	186.73	168.06
4,000	436.24	0.03	0.02	0.02	0.02	0.02	0.01	0.01
	115,241.52	480.17	384.14	320.12	274.38	240.09	213.41	192.07
4,500	490.77	0.03	0.03	0.02	0.02	0.02	0.02	0.01
	129,646.71	540.19	432.16	360.13	308.68	270.10	240.09	216.08
5,000	545.30	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	144,051.90	600.22	480.17	400.14	342.98	300.11	266.76	240.09
5,500	599.83	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	158,457.09	660.24	528.19	440.16	377.28	330.12	293.44	264.10
6,000	654.36	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	172,862.28	720.26	576.21	480.17	411.58	360.13	320.12	288.10
6,500	708.89	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	187,267.47	780.28	624.22	520.19	445.87	390.14	346.79	312.11
7,000	763.42	0.05	0.04	0.04	0.03	0.03	0.02	0.02
	201,672.66	840.30	672.24	560.20	480.17	420.15	373.47	336.12
7,500	817.95	0.06	0.05	0.04	0.03	0.03	0.03	0.02
	216,077.85	900.32	720.26	600.22	514.47	450.16	400.14	360.13
8,000	872.48	0.06	0.05	0.04	0.03	0.03	0.03	0.02
	230,483.04	960.35	768.28	640.23	548.77	480.17	426.82	384.14
8,500	927.01	0.06	0.05	0.04	0.04	0.03	0.03	0.03
	244,888.23	1,020.37	816.29	680.25	583.07	510.18	453.50	408.15

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/Settling Volume* (m ³) (gal)	Brantford MOE						
		Discharge Rate for following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
100	7.63	5.30E-04	4.24E-04	3.53E-04	3.03E-04	2.65E-04	2.35E-04	2.12E-04
	2,015.22	8.40	6.72	5.60	4.80	4.20	3.73	3.36
200	15.26	1.06E-03	8.48E-04	7.06E-04	6.05E-04	5.30E-04	4.71E-04	4.24E-04
	4,030.44	16.79	13.43	11.20	9.60	8.40	7.46	6.72
300	22.89	1.59E-03	1.27E-03	1.06E-03	9.08E-04	7.95E-04	7.06E-04	6.36E-04
	6,045.66	25.19	20.15	16.79	14.39	12.60	11.20	10.08
400	30.51	2.12E-03	1.70E-03	1.41E-03	1.21E-03	1.06E-03	9.42E-04	8.48E-04
	8,060.88	33.59	26.87	22.39	19.19	16.79	14.93	13.43
500	38.14	2.65E-03	2.12E-03	1.77E-03	1.51E-03	1.32E-03	1.18E-03	1.06E-03
	10,076.10	41.98	33.59	27.99	23.99	20.99	18.66	16.79
600	45.77	3.18E-03	2.54E-03	2.12E-03	1.82E-03	1.59E-03	1.41E-03	1.27E-03
	12,091.33	50.38	40.30	33.59	28.79	25.19	22.39	20.15
700	53.40	3.71E-03	2.97E-03	2.47E-03	2.12E-03	1.85E-03	1.65E-03	1.48E-03
	14,106.55	58.78	47.02	39.18	33.59	29.39	26.12	23.51
800	61.03	4.24E-03	3.39E-03	2.83E-03	2.42E-03	2.12E-03	1.88E-03	1.70E-03
	16,121.77	67.17	53.74	44.78	38.39	33.59	29.86	26.87
900	68.66	4.77E-03	3.81E-03	3.18E-03	2.72E-03	2.38E-03	2.12E-03	1.91E-03
	18,136.99	75.57	60.46	50.38	43.18	37.79	33.59	30.23
1,000	76.29	5.30E-03	4.24E-03	3.53E-03	3.03E-03	2.65E-03	2.35E-03	2.12E-03
	20,152.21	83.97	67.17	55.98	47.98	41.98	37.32	33.59
1,500	114.43	7.95E-03	6.36E-03	5.30E-03	4.54E-03	3.97E-03	3.53E-03	3.18E-03
	30,228.31	125.95	100.76	83.97	71.97	62.98	55.98	50.38
2,000	152.57	0.01	8.48E-03	7.06E-03	6.05E-03	5.30E-03	4.71E-03	4.24E-03
	40,304.42	167.94	134.35	111.96	95.96	83.97	74.64	67.17
2,500	190.71	0.01	0.01	8.83E-03	7.57E-03	6.62E-03	5.89E-03	5.30E-03
	50,380.52	209.92	167.94	139.95	119.95	104.96	93.30	83.97
3,000	228.86	0.02	0.01	0.01	9.08E-03	7.95E-03	7.06E-03	6.36E-03
	60,456.63	251.90	201.52	167.94	143.94	125.95	111.96	100.76
3,500	267.00	0.02	0.01	0.01	0.01	9.27E-03	8.24E-03	7.42E-03
	70,532.73	293.89	235.11	195.92	167.94	146.94	130.62	117.55
4,000	305.14	0.02	0.02	0.01	0.01	0.01	9.42E-03	8.48E-03
	80,608.83	335.87	268.70	223.91	191.93	167.94	149.28	134.35
4,500	343.28	0.02	0.02	0.02	0.01	0.01	0.01	9.54E-03
	90,684.94	377.85	302.28	251.90	215.92	188.93	167.94	151.14
5,000	381.43	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	100,761.04	419.84	335.87	279.89	239.91	209.92	186.59	167.94
5,500	419.57	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	110,837.15	461.82	369.46	307.88	263.90	230.91	205.25	184.73
6,000	457.71	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	120,913.25	503.81	403.04	335.87	287.89	251.90	223.91	201.52
6,500	495.85	0.03	0.03	0.02	0.02	0.02	0.02	0.01
	130,989.35	545.79	436.63	363.86	311.88	272.89	242.57	218.32
7,000	534.00	0.04	0.03	0.02	0.02	0.02	0.02	0.01
	141,065.46	587.77	470.22	391.85	335.87	293.89	261.23	235.11
7,500	572.14	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	151,141.56	629.76	503.81	419.84	359.86	314.88	279.89	251.90
8,000	610.28	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	161,217.67	671.74	537.39	447.83	383.85	335.87	298.55	268.70
8,500	648.42	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	171,293.77	713.72	570.98	475.82	407.84	356.86	317.21	285.49

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/Settling Volume*	Guelph Arboretum							
		Discharge Rate for following Retention Periods							
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr	
		(m ³)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	
(gal)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)		
100	8.20	5.69E-04	4.55E-04	3.80E-04	3.25E-04	2.85E-04	2.53E-04	2.28E-04	
	2,165.80	9.02	7.22	6.02	5.16	4.51	4.01	3.61	
200	16.40	1.14E-03	9.11E-04	7.59E-04	6.51E-04	5.69E-04	5.06E-04	4.55E-04	
	4,331.60	18.05	14.44	12.03	10.31	9.02	8.02	7.22	
300	24.60	1.71E-03	1.37E-03	1.14E-03	9.76E-04	8.54E-04	7.59E-04	6.83E-04	
	6,497.39	27.07	21.66	18.05	15.47	13.54	12.03	10.83	
400	32.79	2.28E-03	1.82E-03	1.52E-03	1.30E-03	1.14E-03	1.01E-03	9.11E-04	
	8,663.19	36.10	28.88	24.06	20.63	18.05	16.04	14.44	
500	40.99	2.85E-03	2.28E-03	1.90E-03	1.63E-03	1.42E-03	1.27E-03	1.14E-03	
	10,828.99	45.12	36.10	30.08	25.78	22.56	20.05	18.05	
600	49.19	3.42E-03	2.73E-03	2.28E-03	1.95E-03	1.71E-03	1.52E-03	1.37E-03	
	12,994.79	54.14	43.32	36.10	30.94	27.07	24.06	21.66	
700	57.39	3.99E-03	3.19E-03	2.66E-03	2.28E-03	1.99E-03	1.77E-03	1.59E-03	
	15,160.58	63.17	50.54	42.11	36.10	31.58	28.08	25.27	
800	65.59	4.55E-03	3.64E-03	3.04E-03	2.60E-03	2.28E-03	2.02E-03	1.82E-03	
	17,326.38	72.19	57.75	48.13	41.25	36.10	32.09	28.88	
900	73.79	5.12E-03	4.10E-03	3.42E-03	2.93E-03	2.56E-03	2.28E-03	2.05E-03	
	19,492.18	81.22	64.97	54.14	46.41	40.61	36.10	32.49	
1,000	81.99	5.69E-03	4.55E-03	3.80E-03	3.25E-03	2.85E-03	2.53E-03	2.28E-03	
	21,657.98	90.24	72.19	60.16	51.57	45.12	40.11	36.10	
1,500	122.98	8.54E-03	6.83E-03	5.69E-03	4.88E-03	4.27E-03	3.80E-03	3.42E-03	
	32,486.97	135.36	108.29	90.24	77.35	67.68	60.16	54.14	
2,000	163.97	0.01	9.11E-03	7.59E-03	6.51E-03	5.69E-03	5.06E-03	4.55E-03	
	43,315.95	180.48	144.39	120.32	103.13	90.24	80.21	72.19	
2,500	204.96	0.01	0.01	9.49E-03	8.13E-03	7.12E-03	6.33E-03	5.69E-03	
	54,144.94	225.60	180.48	150.40	128.92	112.80	100.27	90.24	
3,000	245.96	0.02	0.01	0.01	9.76E-03	8.54E-03	7.59E-03	6.83E-03	
	64,973.93	270.72	216.58	180.48	154.70	135.36	120.32	108.29	
3,500	286.95	0.02	0.02	0.01	0.01	9.96E-03	8.86E-03	7.97E-03	
	75,802.92	315.85	252.68	210.56	180.48	157.92	140.38	126.34	
4,000	327.94	0.02	0.02	0.02	0.01	0.01	0.01	9.11E-03	
	86,631.91	360.97	288.77	240.64	206.27	180.48	160.43	144.39	
4,500	368.93	0.03	0.02	0.02	0.01	0.01	0.01	0.01	
	97,460.90	406.09	324.87	270.72	232.05	203.04	180.48	162.43	
5,000	409.93	0.03	0.02	0.02	0.02	0.01	0.01	0.01	
	108,289.89	451.21	360.97	300.81	257.83	225.60	200.54	180.48	
5,500	450.92	0.03	0.03	0.02	0.02	0.02	0.01	0.01	
	119,118.88	496.33	397.06	330.89	283.62	248.16	220.59	198.53	
6,000	491.91	0.03	0.03	0.02	0.02	0.02	0.02	0.01	
	129,947.86	541.45	433.16	360.97	309.40	270.72	240.64	216.58	
6,500	532.90	0.04	0.03	0.02	0.02	0.02	0.02	0.01	
	140,776.85	586.57	469.26	391.05	335.18	293.29	260.70	234.63	
7,000	573.90	0.04	0.03	0.03	0.02	0.02	0.02	0.02	
	151,605.84	631.69	505.35	421.13	360.97	315.85	280.75	252.68	
7,500	614.89	0.04	0.03	0.03	0.02	0.02	0.02	0.02	
	162,434.83	676.81	541.45	451.21	386.75	338.41	300.81	270.72	
8,000	655.88	0.05	0.04	0.03	0.03	0.02	0.02	0.02	
	173,263.82	721.93	577.55	481.29	412.53	360.97	320.86	288.77	
8,500	696.87	0.05	0.04	0.03	0.03	0.02	0.02	0.02	
	184,092.81	767.05	613.64	511.37	438.32	383.53	340.91	306.82	

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."
- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/Settling Volume* (m ³) (gal)	Hamilton Airport						
		Discharge Rate for Following Retention Periods						
		4 hr (m ³ /s)	5 hr (m ³ /s)	6 hr (m ³ /s)	7 hr (m ³ /s)	8 hr (m ³ /s)	9 hr (m ³ /s)	10 hr (m ³ /s)
		(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)
100	9.61 2,539.73	6.68E-04 10.58	5.34E-04 8.47	4.45E-04 7.05	3.82E-04 6.05	3.34E-04 5.29	2.97E-04 4.70	2.67E-04 4.23
200	19.23 5,079.46	1.34E-03 21.16	1.07E-03 16.93	8.90E-04 14.11	7.63E-04 12.09	6.68E-04 10.58	5.93E-04 9.41	5.34E-04 8.47
300	28.84 7,619.19	2.00E-03 31.75	1.60E-03 25.40	1.34E-03 21.16	1.14E-03 18.14	1.00E-03 15.87	8.90E-04 14.11	8.01E-04 12.70
400	38.46 10,158.92	2.67E-03 42.33	2.14E-03 33.86	1.78E-03 28.22	1.53E-03 24.19	1.34E-03 21.16	1.19E-03 18.81	1.07E-03 16.93
500	48.07 12,698.65	3.34E-03 52.91	2.67E-03 42.33	2.23E-03 35.27	1.91E-03 30.23	1.67E-03 26.46	1.48E-03 23.52	1.34E-03 21.16
600	57.68 15,238.38	4.01E-03 63.49	3.20E-03 50.79	2.67E-03 42.33	2.29E-03 36.28	2.00E-03 31.75	1.78E-03 28.22	1.60E-03 25.40
700	67.30 17,778.11	4.67E-03 74.08	3.74E-03 59.26	3.12E-03 49.38	2.67E-03 42.33	2.34E-03 37.04	2.08E-03 32.92	1.87E-03 29.63
800	76.91 20,317.84	5.34E-03 84.66	4.27E-03 67.73	3.56E-03 56.44	3.05E-03 48.38	2.67E-03 42.33	2.37E-03 37.63	2.14E-03 33.86
900	86.53 22,857.57	6.01E-03 95.24	4.81E-03 76.19	4.01E-03 63.49	3.43E-03 54.42	3.00E-03 47.62	2.67E-03 42.33	2.40E-03 38.10
1,000	96.14 25,397.30	6.68E-03 105.82	5.34E-03 84.66	4.45E-03 70.55	3.82E-03 60.47	3.34E-03 52.91	2.97E-03 47.03	2.67E-03 42.33
1,500	144.21 38,095.96	0.01 158.73	8.01E-03 126.99	6.68E-03 105.82	5.72E-03 90.70	5.01E-03 79.37	4.45E-03 70.55	4.01E-03 63.49
2,000	192.28 50,794.61	0.01 211.64	0.01 169.32	8.90E-03 141.10	7.63E-03 120.94	6.68E-03 105.82	5.93E-03 94.06	5.34E-03 84.66
2,500	240.35 63,493.26	0.02 264.56	0.01 211.64	0.01 176.37	9.54E-03 151.17	8.35E-03 132.28	7.42E-03 117.58	6.68E-03 105.82
3,000	288.42 76,191.91	0.02 317.47	0.02 253.97	0.01 211.64	0.01 181.41	0.01 158.73	8.90E-03 141.10	8.01E-03 126.99
3,500	336.49 88,890.56	0.02 370.38	0.02 296.30	0.02 246.92	0.02 211.64	0.01 185.19	0.01 164.61	9.35E-03 148.15
4,000	384.56 101,589.22	0.03 423.29	0.02 338.63	0.02 282.19	0.02 241.88	0.01 211.64	0.01 188.13	0.01 169.32
4,500	432.63 114,287.87	0.03 476.20	0.02 380.96	0.02 317.47	0.02 272.11	0.02 238.10	0.01 211.64	0.01 190.48
5,000	480.70 126,986.52	0.03 529.11	0.03 423.29	0.02 352.74	0.02 302.35	0.02 264.56	0.01 235.16	0.01 211.64
5,500	528.77 139,685.17	0.04 582.02	0.03 465.62	0.02 388.01	0.02 332.58	0.02 291.01	0.02 258.68	0.01 232.81
6,000	576.84 152,383.82	0.04 634.93	0.03 507.95	0.03 423.29	0.02 362.82	0.02 317.47	0.02 282.19	0.02 253.97
6,500	624.91 165,082.47	0.04 687.84	0.03 550.27	0.03 458.56	0.02 393.05	0.02 343.92	0.02 305.71	0.02 275.14
7,000	672.98 177,781.13	0.05 740.75	0.04 592.60	0.03 493.84	0.03 423.29	0.02 370.38	0.02 329.22	0.02 296.30
7,500	721.05 190,479.78	0.05 793.67	0.04 634.93	0.03 529.11	0.03 453.52	0.03 396.83	0.02 352.74	0.02 317.47
8,000	769.12 203,178.43	0.05 846.58	0.04 677.26	0.04 564.38	0.03 483.76	0.03 423.29	0.02 376.26	0.02 338.63
8,500	817.19 215,877.08	0.06 899.49	0.05 719.59	0.04 599.66	0.03 513.99	0.03 449.74	0.03 399.77	0.02 359.80

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/Settling Volume* (m ³) (gal)	Toronto Pearson Int. Airport						
		Discharge Rate for Following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	
100	9.22	6.40E-04	5.12E-04	4.27E-04	3.66E-04	3.20E-04	2.84E-04	2.56E-04
	2,434.33	10.14	8.11	6.76	5.80	5.07	4.51	4.06
200	18.43	1.28E-03	1.02E-03	8.53E-04	7.31E-04	6.40E-04	5.69E-04	5.12E-04
	4,868.65	20.29	16.23	13.52	11.59	10.14	9.02	8.11
300	27.65	1.92E-03	1.54E-03	1.28E-03	1.10E-03	9.60E-04	8.53E-04	7.68E-04
	7,302.98	30.43	24.34	20.29	17.39	15.21	13.52	12.17
400	36.86	2.56E-03	2.05E-03	1.71E-03	1.46E-03	1.28E-03	1.14E-03	1.02E-03
	9,737.31	40.57	32.46	27.05	23.18	20.29	18.03	16.23
500	46.08	3.20E-03	2.56E-03	2.13E-03	1.83E-03	1.60E-03	1.42E-03	1.28E-03
	12,171.63	50.72	40.57	33.81	28.98	25.36	22.54	20.29
600	55.29	3.84E-03	3.07E-03	2.56E-03	2.19E-03	1.92E-03	1.71E-03	1.54E-03
	14,605.96	60.86	48.69	40.57	34.78	30.43	27.05	24.34
700	64.51	4.48E-03	3.58E-03	2.99E-03	2.56E-03	2.24E-03	1.99E-03	1.79E-03
	17,040.29	71.00	56.80	47.33	40.57	35.50	31.56	28.40
800	73.72	5.12E-03	4.10E-03	3.41E-03	2.93E-03	2.56E-03	2.28E-03	2.05E-03
	19,474.61	81.14	64.92	54.10	46.37	40.57	36.06	32.46
900	82.94	5.76E-03	4.61E-03	3.84E-03	3.29E-03	2.88E-03	2.56E-03	2.30E-03
	21,908.94	91.29	73.03	60.86	52.16	45.64	40.57	36.51
1,000	92.15	6.40E-03	5.12E-03	4.27E-03	3.66E-03	3.20E-03	2.84E-03	2.56E-03
	24,343.27	101.43	81.14	67.62	57.96	50.72	45.08	40.57
1,500	138.23	9.60E-03	7.68E-03	6.40E-03	5.49E-03	4.80E-03	4.27E-03	3.84E-03
	36,514.90	152.15	121.72	101.43	86.94	76.07	67.62	60.86
2,000	184.30	0.01	0.01	8.53E-03	7.31E-03	6.40E-03	5.69E-03	5.12E-03
	48,686.53	202.86	162.29	135.24	115.92	101.43	90.16	81.14
2,500	230.38	0.02	0.01	0.01	9.14E-03	8.00E-03	7.11E-03	6.40E-03
	60,858.16	253.58	202.86	169.05	144.90	126.79	112.70	101.43
3,000	276.45	0.02	0.02	0.01	0.01	9.60E-03	8.53E-03	7.68E-03
	73,029.80	304.29	243.43	202.86	173.88	152.15	135.24	121.72
3,500	322.53	0.02	0.02	0.01	0.01	0.01	9.95E-03	8.96E-03
	85,201.43	355.01	284.00	236.67	202.86	177.50	157.78	142.00
4,000	368.60	0.03	0.02	0.02	0.01	0.01	0.01	0.01
	97,373.06	405.72	324.58	270.48	231.84	202.86	180.32	162.29
4,500	414.68	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	109,544.69	456.44	365.15	304.29	260.82	228.22	202.86	182.57
5,000	460.75	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	121,716.33	507.15	405.72	338.10	289.80	253.58	225.40	202.86
5,500	506.83	0.04	0.03	0.02	0.02	0.02	0.02	0.01
	133,887.96	557.87	446.29	371.91	318.78	278.93	247.94	223.15
6,000	552.90	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	146,059.59	608.58	486.87	405.72	347.76	304.29	270.48	243.43
6,500	598.98	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	158,231.23	659.30	527.44	439.53	376.74	329.65	293.02	263.72
7,000	645.05	0.04	0.04	0.03	0.03	0.02	0.02	0.02
	170,402.86	710.01	568.01	473.34	405.72	355.01	315.56	284.00
7,500	691.13	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	182,574.49	760.73	608.58	507.15	434.70	380.36	338.10	304.29
8,000	737.20	0.05	0.04	0.03	0.03	0.03	0.02	0.02
	194,746.12	811.44	649.15	540.96	463.68	405.72	360.64	324.58
8,500	783.28	0.05	0.04	0.04	0.03	0.03	0.02	0.02
	206,917.76	862.16	689.73	574.77	492.66	431.08	383.18	344.86

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/Settling Volume*	Barrie WPCP						
		Discharge Rate for Following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
(gal)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	
	2,389.15	9.95	7.96	6.64	5.69	4.98	4.42	3.98
200	18.09	1.26E-03	1.00E-03	8.37E-04	7.18E-04	6.28E-04	5.58E-04	5.02E-04
	4,778.31	19.91	15.93	13.27	11.38	9.95	8.85	7.96
300	27.13	1.88E-03	1.51E-03	1.26E-03	1.08E-03	9.42E-04	8.37E-04	7.54E-04
	7,167.46	29.86	23.89	19.91	17.07	14.93	13.27	11.95
400	36.18	2.51E-03	2.01E-03	1.67E-03	1.44E-03	1.26E-03	1.12E-03	1.00E-03
	9,556.61	39.82	31.86	26.55	22.75	19.91	17.70	15.93
500	45.22	3.14E-03	2.51E-03	2.09E-03	1.79E-03	1.57E-03	1.40E-03	1.26E-03
	11,945.77	49.77	39.82	33.18	28.44	24.89	22.12	19.91
600	54.26	3.77E-03	3.01E-03	2.51E-03	2.15E-03	1.88E-03	1.67E-03	1.51E-03
	14,334.92	59.73	47.78	39.82	34.13	29.86	26.55	23.89
700	63.31	4.40E-03	3.52E-03	2.93E-03	2.51E-03	2.20E-03	1.95E-03	1.76E-03
	16,724.07	69.68	55.75	46.46	39.82	34.84	30.97	27.87
800	72.35	5.02E-03	4.02E-03	3.35E-03	2.87E-03	2.51E-03	2.23E-03	2.01E-03
	19,113.23	79.64	63.71	53.09	45.51	39.82	35.39	31.86
900	81.40	5.65E-03	4.52E-03	3.77E-03	3.23E-03	2.83E-03	2.51E-03	2.26E-03
	21,502.38	89.59	71.67	59.73	51.20	44.80	39.82	35.84
1,000	90.44	6.28E-03	5.02E-03	4.19E-03	3.59E-03	3.14E-03	2.79E-03	2.51E-03
	23,891.53	99.55	79.64	66.37	56.88	49.77	44.24	39.82
1,500	135.66	9.42E-03	7.54E-03	6.28E-03	5.38E-03	4.71E-03	4.19E-03	3.77E-03
	35,837.30	149.32	119.46	99.55	85.33	74.66	66.37	59.73
2,000	180.88	0.01	0.01	8.37E-03	7.18E-03	6.28E-03	5.58E-03	5.02E-03
	47,783.07	199.10	159.28	132.73	113.77	99.55	88.49	79.64
2,500	226.10	0.02	0.01	0.01	8.97E-03	7.85E-03	6.98E-03	6.28E-03
	59,728.84	248.87	199.10	165.91	142.21	124.44	110.61	99.55
3,000	271.32	0.02	0.02	0.01	0.01	9.42E-03	8.37E-03	7.54E-03
	71,674.60	298.64	238.92	199.10	170.65	149.32	132.73	119.46
3,500	316.54	0.02	0.02	0.01	0.01	0.01	9.77E-03	8.79E-03
	83,620.37	348.42	278.73	232.28	199.10	174.21	154.85	139.37
4,000	361.76	0.03	0.02	0.02	0.01	0.01	0.01	0.01
	95,566.14	398.19	318.55	265.46	227.54	199.10	176.97	159.28
4,500	406.98	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	107,511.91	447.97	358.37	298.64	255.98	223.98	199.10	179.19
5,000	452.20	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	119,457.67	497.74	398.19	331.83	284.42	248.87	221.22	199.10
5,500	497.42	0.03	0.03	0.02	0.02	0.02	0.02	0.01
	131,403.44	547.51	438.01	365.01	312.87	273.76	243.34	219.01
6,000	542.64	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	143,349.21	597.29	477.83	398.19	341.31	298.64	265.46	238.92
6,500	587.86	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	155,294.98	647.06	517.65	431.37	369.75	323.53	287.58	258.82
7,000	633.08	0.04	0.04	0.03	0.03	0.02	0.02	0.02
	167,240.74	696.84	557.47	464.56	398.19	348.42	309.71	278.73
7,500	678.30	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	179,186.51	746.61	597.29	497.74	426.63	373.31	331.83	298.64
8,000	723.52	0.05	0.04	0.03	0.03	0.03	0.02	0.02
	191,132.28	796.38	637.11	530.92	455.08	398.19	353.95	318.55
8,500	768.74	0.05	0.04	0.04	0.03	0.03	0.02	0.02
	203,078.05	846.16	676.93	564.11	483.52	423.08	376.07	338.46

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/ Settling Volume* (m ³) (gal)	Oshawa WPCP						
		Discharge Rate for Following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	
100	6.91	4.80E-04	3.84E-04	3.20E-04	2.74E-04	2.40E-04	2.13E-04	1.92E-04
	1,824.49	7.60	6.08	5.07	4.34	3.80	3.38	3.04
200	13.81	9.59E-04	7.67E-04	6.39E-04	5.48E-04	4.80E-04	4.26E-04	3.84E-04
	3,648.98	15.20	12.16	10.14	8.69	7.60	6.76	6.08
300	20.72	1.44E-03	1.15E-03	9.59E-04	8.22E-04	7.19E-04	6.39E-04	5.76E-04
	5,473.47	22.81	18.24	15.20	13.03	11.40	10.14	9.12
400	27.63	1.92E-03	1.53E-03	1.28E-03	1.10E-03	9.59E-04	8.53E-04	7.67E-04
	7,297.96	30.41	24.33	20.27	17.38	15.20	13.51	12.16
500	34.53	2.40E-03	1.92E-03	1.60E-03	1.37E-03	1.20E-03	1.07E-03	9.59E-04
	9,122.45	38.01	30.41	25.34	21.72	19.01	16.89	15.20
600	41.44	2.88E-03	2.30E-03	1.92E-03	1.64E-03	1.44E-03	1.28E-03	1.15E-03
	10,946.94	45.61	36.49	30.41	26.06	22.81	20.27	18.24
700	48.35	3.36E-03	2.69E-03	2.24E-03	1.92E-03	1.68E-03	1.49E-03	1.34E-03
	12,771.43	53.21	42.57	35.48	30.41	26.61	23.65	21.29
800	55.25	3.84E-03	3.07E-03	2.56E-03	2.19E-03	1.92E-03	1.71E-03	1.53E-03
	14,595.92	60.82	48.65	40.54	34.75	30.41	27.03	24.33
900	62.16	4.32E-03	3.45E-03	2.88E-03	2.47E-03	2.16E-03	1.92E-03	1.73E-03
	16,420.41	68.42	54.73	45.61	39.10	34.21	30.41	27.37
1,000	69.07	4.80E-03	3.84E-03	3.20E-03	2.74E-03	2.40E-03	2.13E-03	1.92E-03
	18,244.90	76.02	60.82	50.68	43.44	38.01	33.79	30.41
1,500	103.60	7.19E-03	5.76E-03	4.80E-03	4.11E-03	3.60E-03	3.20E-03	2.88E-03
	27,367.35	114.03	91.22	76.02	65.16	57.02	50.68	45.61
2,000	138.13	9.59E-03	7.67E-03	6.39E-03	5.48E-03	4.80E-03	4.26E-03	3.84E-03
	36,489.80	152.04	121.63	101.36	86.88	76.02	67.57	60.82
2,500	172.66	0.01	9.59E-03	7.99E-03	6.85E-03	6.00E-03	5.33E-03	4.80E-03
	45,612.25	190.05	152.04	126.70	108.60	95.03	84.47	76.02
3,000	207.20	0.01	0.01	9.59E-03	8.22E-03	7.19E-03	6.39E-03	5.76E-03
	54,734.70	228.06	182.45	152.04	130.32	114.03	101.36	91.22
3,500	241.73	0.02	0.01	0.01	9.59E-03	8.39E-03	7.46E-03	6.71E-03
	63,857.15	266.07	212.86	177.38	152.04	133.04	118.25	106.43
4,000	276.26	0.02	0.02	0.01	0.01	9.59E-03	8.53E-03	7.67E-03
	72,979.60	304.08	243.27	202.72	173.76	152.04	135.15	121.63
4,500	310.79	0.02	0.02	0.01	0.01	0.01	9.59E-03	8.63E-03
	82,102.05	342.09	273.67	228.06	195.48	171.05	152.04	136.84
5,000	345.33	0.02	0.02	0.02	0.01	0.01	0.01	9.59E-03
	91,224.51	380.10	304.08	253.40	217.20	190.05	168.93	152.04
5,500	379.86	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	100,346.96	418.11	334.49	278.74	238.92	209.06	185.83	167.24
6,000	414.39	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	109,469.41	456.12	364.90	304.08	260.64	228.06	202.72	182.45
6,500	448.92	0.03	0.02	0.02	0.02	0.02	0.01	0.01
	118,591.86	494.13	395.31	329.42	282.36	247.07	219.61	197.65
7,000	483.46	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	127,714.31	532.14	425.71	354.76	304.08	266.07	236.51	212.86
7,500	517.99	0.04	0.03	0.02	0.02	0.02	0.02	0.01
	136,836.76	570.15	456.12	380.10	325.80	285.08	253.40	228.06
8,000	552.52	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	145,959.21	608.16	486.53	405.44	347.52	304.08	270.29	243.27
8,500	587.05	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	155,081.66	646.17	516.94	430.78	369.24	323.09	287.19	258.47

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/Settling Volume* (m ³) (gal)	Peterborough Airport						
		Discharge Rate for Following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
		(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)
100	7.59	5.27E-04	4.22E-04	3.51E-04	3.01E-04	2.64E-04	2.34E-04	2.11E-04
	2,005.18	8.35	6.68	5.57	4.77	4.18	3.71	3.34
200	15.18	1.05E-03	8.43E-04	7.03E-04	6.02E-04	5.27E-04	4.69E-04	4.22E-04
	4,010.36	16.71	13.37	11.14	9.55	8.35	7.43	6.68
300	22.77	1.58E-03	1.27E-03	1.05E-03	9.04E-04	7.91E-04	7.03E-04	6.33E-04
	6,015.55	25.06	20.05	16.71	14.32	12.53	11.14	10.03
400	30.36	2.11E-03	1.69E-03	1.41E-03	1.20E-03	1.05E-03	9.37E-04	8.43E-04
	8,020.73	33.42	26.74	22.28	19.10	16.71	14.85	13.37
500	37.95	2.64E-03	2.11E-03	1.76E-03	1.51E-03	1.32E-03	1.17E-03	1.05E-03
	10,025.91	41.77	33.42	27.85	23.87	20.89	18.57	16.71
600	45.54	3.16E-03	2.53E-03	2.11E-03	1.81E-03	1.58E-03	1.41E-03	1.27E-03
	12,031.09	50.13	40.10	33.42	28.65	25.06	22.28	20.05
700	53.13	3.69E-03	2.95E-03	2.46E-03	2.11E-03	1.84E-03	1.64E-03	1.48E-03
	14,036.28	58.48	46.79	38.99	33.42	29.24	25.99	23.39
800	60.72	4.22E-03	3.37E-03	2.81E-03	2.41E-03	2.11E-03	1.87E-03	1.69E-03
	16,041.46	66.84	53.47	44.56	38.19	33.42	29.71	26.74
900	68.31	4.74E-03	3.80E-03	3.16E-03	2.71E-03	2.37E-03	2.11E-03	1.90E-03
	18,046.64	75.19	60.16	50.13	42.97	37.60	33.42	30.08
1,000	75.91	5.27E-03	4.22E-03	3.51E-03	3.01E-03	2.64E-03	2.34E-03	2.11E-03
	20,051.82	83.55	66.84	55.70	47.74	41.77	37.13	33.42
1,500	113.86	7.91E-03	6.33E-03	5.27E-03	4.52E-03	3.95E-03	3.51E-03	3.16E-03
	30,077.74	125.32	100.26	83.55	71.61	62.66	55.70	50.13
2,000	151.81	0.01	8.43E-03	7.03E-03	6.02E-03	5.27E-03	4.69E-03	4.22E-03
	40,103.65	167.10	133.68	111.40	95.48	83.55	74.27	66.84
2,500	189.76	0.01	0.01	8.79E-03	7.53E-03	6.59E-03	5.86E-03	5.27E-03
	50,129.56	208.87	167.10	139.25	119.36	104.44	92.83	83.55
3,000	227.72	0.02	0.01	0.01	9.04E-03	7.91E-03	7.03E-03	6.33E-03
	60,155.47	250.65	200.52	167.10	143.23	125.32	111.40	100.26
3,500	265.67	0.02	0.01	0.01	0.01	9.22E-03	8.20E-03	7.38E-03
	70,181.38	292.42	233.94	194.95	167.10	146.21	129.97	116.97
4,000	303.62	0.02	0.02	0.01	0.01	0.01	9.37E-03	8.43E-03
	80,207.30	334.20	267.36	222.80	190.97	167.10	148.53	133.68
4,500	341.57	0.02	0.02	0.02	0.01	0.01	0.01	9.49E-03
	90,233.21	375.97	300.78	250.65	214.84	187.99	167.10	150.39
5,000	379.53	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	100,259.12	417.75	334.20	278.50	238.71	208.87	185.67	167.10
5,500	417.48	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	110,285.03	459.52	367.62	306.35	262.58	229.76	204.23	183.81
6,000	455.43	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	120,310.94	501.30	401.04	334.20	286.45	250.65	222.80	200.52
6,500	493.38	0.03	0.03	0.02	0.02	0.02	0.02	0.01
	130,336.86	543.07	434.46	362.05	310.33	271.54	241.36	217.23
7,000	531.34	0.04	0.03	0.02	0.02	0.02	0.02	0.01
	140,362.77	584.84	467.88	389.90	334.20	292.42	259.93	233.94
7,500	569.29	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	150,388.68	626.62	501.30	417.75	358.07	313.31	278.50	250.65
8,000	607.24	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	160,414.59	668.39	534.72	445.60	381.94	334.20	297.06	267.36
8,500	645.19	0.04	0.04	0.03	0.03	0.02	0.02	0.02
	170,440.50	710.17	568.14	473.45	405.81	355.08	315.63	284.07

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/Settling Volume*	Port Colborne						
		Discharge Rate for Following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
(gal)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	
100	9.16	6.36E-04	5.09E-04	4.24E-04	3.63E-04	3.18E-04	2.83E-04	2.54E-04
	2,419.27	10.08	8.06	6.72	5.76	5.04	4.48	4.03
200	18.32	1.27E-03	1.02E-03	8.48E-04	7.27E-04	6.36E-04	5.65E-04	5.09E-04
	4,838.54	20.16	16.13	13.44	11.52	10.08	8.96	8.06
300	27.47	1.91E-03	1.53E-03	1.27E-03	1.09E-03	9.54E-04	8.48E-04	7.63E-04
	7,257.81	30.24	24.19	20.16	17.28	15.12	13.44	12.10
400	36.63	2.54E-03	2.04E-03	1.70E-03	1.45E-03	1.27E-03	1.13E-03	1.02E-03
	9,677.08	40.32	32.26	26.88	23.04	20.16	17.92	16.13
500	45.79	3.18E-03	2.54E-03	2.12E-03	1.82E-03	1.59E-03	1.41E-03	1.27E-03
	12,096.34	50.40	40.32	33.60	28.80	25.20	22.40	20.16
600	54.95	3.82E-03	3.05E-03	2.54E-03	2.18E-03	1.91E-03	1.70E-03	1.53E-03
	14,515.61	60.48	48.39	40.32	34.56	30.24	26.88	24.19
700	64.11	4.45E-03	3.56E-03	2.97E-03	2.54E-03	2.23E-03	1.98E-03	1.78E-03
	16,934.88	70.56	56.45	47.04	40.32	35.28	31.36	28.22
800	73.26	5.09E-03	4.07E-03	3.39E-03	2.91E-03	2.54E-03	2.26E-03	2.04E-03
	19,354.15	80.64	64.51	53.76	46.08	40.32	35.84	32.26
900	82.42	5.72E-03	4.58E-03	3.82E-03	3.27E-03	2.86E-03	2.54E-03	2.29E-03
	21,773.42	90.72	72.58	60.48	51.84	45.36	40.32	36.29
1,000	91.58	6.36E-03	5.09E-03	4.24E-03	3.63E-03	3.18E-03	2.83E-03	2.54E-03
	24,192.69	100.80	80.64	67.20	57.60	50.40	44.80	40.32
1,500	137.37	9.54E-03	7.63E-03	6.36E-03	5.45E-03	4.77E-03	4.24E-03	3.82E-03
	36,289.03	151.20	120.96	100.80	86.40	75.60	67.20	60.48
2,000	183.16	0.01	0.01	8.48E-03	7.27E-03	6.36E-03	5.65E-03	5.09E-03
	48,385.38	201.61	161.28	134.40	115.20	100.80	89.60	80.64
2,500	228.95	0.02	0.01	0.01	9.09E-03	7.95E-03	7.07E-03	6.36E-03
	60,481.72	252.01	201.61	168.00	144.00	126.00	112.00	100.80
3,000	274.74	0.02	0.02	0.01	0.01	9.54E-03	8.48E-03	7.63E-03
	72,578.07	302.41	241.93	201.61	172.80	151.20	134.40	120.96
3,500	320.53	0.02	0.02	0.01	0.01	0.01	9.89E-03	8.90E-03
	84,674.41	352.81	282.25	235.21	201.61	176.41	156.80	141.12
4,000	366.32	0.03	0.02	0.02	0.01	0.01	0.01	0.01
	96,770.75	403.21	322.57	268.81	230.41	201.61	179.21	161.28
4,500	412.11	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	108,867.10	453.61	362.89	302.41	259.21	226.81	201.61	181.45
5,000	457.90	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	120,963.44	504.01	403.21	336.01	288.01	252.01	224.01	201.61
5,500	503.69	0.03	0.03	0.02	0.02	0.02	0.02	0.01
	133,059.79	554.42	443.53	369.61	316.81	277.21	246.41	221.77
6,000	549.48	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	145,156.13	604.82	483.85	403.21	345.61	302.41	268.81	241.93
6,500	595.27	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	157,252.48	655.22	524.17	436.81	374.41	327.61	291.21	262.09
7,000	641.06	0.04	0.04	0.03	0.03	0.02	0.02	0.02
	169,348.82	705.62	564.50	470.41	403.21	352.81	313.61	282.25
7,500	686.85	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	181,445.16	756.02	604.82	504.01	432.01	378.01	336.01	302.41
8,000	732.64	0.05	0.04	0.03	0.03	0.03	0.02	0.02
	193,541.51	806.42	645.14	537.62	460.81	403.21	358.41	322.57
8,500	778.43	0.05	0.04	0.04	0.03	0.03	0.02	0.02
	205,637.85	856.82	685.46	571.22	489.61	428.41	380.81	342.73

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/Settling Volume*	Brockville Airport						
		Discharge Rate for Following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
(gal)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	
100	7.78	5.40E-04	4.32E-04	3.60E-04	3.09E-04	2.70E-04	2.40E-04	2.16E-04
	2,055.37	8.56	6.85	5.71	4.89	4.28	3.81	3.43
200	15.56	1.08E-03	8.65E-04	7.20E-04	6.18E-04	5.40E-04	4.80E-04	4.32E-04
	4,110.75	17.13	13.70	11.42	9.79	8.56	7.61	6.85
300	23.34	1.62E-03	1.30E-03	1.08E-03	9.26E-04	8.10E-04	7.20E-04	6.48E-04
	6,166.12	25.69	20.55	17.13	14.68	12.85	11.42	10.28
400	31.12	2.16E-03	1.73E-03	1.44E-03	1.24E-03	1.08E-03	9.61E-04	8.65E-04
	8,221.50	34.26	27.40	22.84	19.57	17.13	15.22	13.70
500	38.90	2.70E-03	2.16E-03	1.80E-03	1.54E-03	1.35E-03	1.20E-03	1.08E-03
	10,276.87	42.82	34.26	28.55	24.47	21.41	19.03	17.13
600	46.68	3.24E-03	2.59E-03	2.16E-03	1.85E-03	1.62E-03	1.44E-03	1.30E-03
	12,332.25	51.38	41.11	34.26	29.36	25.69	22.84	20.55
700	54.46	3.78E-03	3.03E-03	2.52E-03	2.16E-03	1.89E-03	1.68E-03	1.51E-03
	14,387.62	59.95	47.96	39.97	34.26	29.97	26.64	23.98
800	62.24	4.32E-03	3.46E-03	2.88E-03	2.47E-03	2.16E-03	1.92E-03	1.73E-03
	16,443.00	68.51	54.81	45.67	39.15	34.26	30.45	27.40
900	70.02	4.86E-03	3.89E-03	3.24E-03	2.78E-03	2.43E-03	2.16E-03	1.95E-03
	18,498.37	77.08	61.66	51.38	44.04	38.54	34.26	30.83
1,000	77.81	5.40E-03	4.32E-03	3.60E-03	3.09E-03	2.70E-03	2.40E-03	2.16E-03
	20,553.75	85.64	68.51	57.09	48.94	42.82	38.06	34.26
1,500	116.71	8.10E-03	6.48E-03	5.40E-03	4.63E-03	4.05E-03	3.60E-03	3.24E-03
	30,830.62	128.46	102.77	85.64	73.41	64.23	57.09	51.38
2,000	155.61	0.01	8.65E-03	7.20E-03	6.18E-03	5.40E-03	4.80E-03	4.32E-03
	41,107.49	171.28	137.02	114.19	97.87	85.64	76.12	68.51
2,500	194.51	0.01	0.01	9.01E-03	7.72E-03	6.75E-03	6.00E-03	5.40E-03
	51,384.37	214.10	171.28	142.73	122.34	107.05	95.16	85.64
3,000	233.42	0.02	0.01	0.01	9.26E-03	8.10E-03	7.20E-03	6.48E-03
	61,661.24	256.92	205.54	171.28	146.81	128.46	114.19	102.77
3,500	272.32	0.02	0.02	0.01	0.01	9.46E-03	8.40E-03	7.56E-03
	71,938.11	299.74	239.79	199.83	171.28	149.87	133.22	119.90
4,000	311.22	0.02	0.02	0.01	0.01	0.01	9.61E-03	8.65E-03
	82,214.99	342.56	274.05	228.37	195.75	171.28	152.25	137.02
4,500	350.12	0.02	0.02	0.02	0.01	0.01	0.01	9.73E-03
	92,491.86	385.38	308.31	256.92	220.22	192.69	171.28	154.15
5,000	389.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	102,768.73	428.20	342.56	285.47	244.69	214.10	190.31	171.28
5,500	427.93	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	113,045.61	471.02	376.82	314.02	269.16	235.51	209.34	188.41
6,000	466.83	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	123,322.48	513.84	411.07	342.56	293.62	256.92	228.37	205.54
6,500	505.73	0.04	0.03	0.02	0.02	0.02	0.02	0.01
	133,599.35	556.66	445.33	371.11	318.09	278.33	247.41	222.67
7,000	544.64	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	143,876.23	599.48	479.59	399.66	342.56	299.74	266.44	239.79
7,500	583.54	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	154,153.10	642.30	513.84	428.20	367.03	321.15	285.47	256.92
8,000	622.44	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	164,429.97	685.12	548.10	456.75	391.50	342.56	304.50	274.05
8,500	661.34	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	174,706.85	727.95	582.36	485.30	415.97	363.97	323.53	291.18

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Storage/Settling Volume*	Ottawa Int. Airport						
		Discharge Rate for Following Retention Periods						
		4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr
		(m ³)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)	(m ³ /s)
(gal)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	(gal/min)	
100	8.68	6.02E-04	4.82E-04	4.02E-04	3.44E-04	3.01E-04	2.68E-04	2.41E-04
	2,291.78	9.55	7.64	6.37	5.46	4.77	4.24	3.82
200	17.35	1.20E-03	9.64E-04	8.03E-04	6.89E-04	6.02E-04	5.36E-04	4.82E-04
	4,583.56	19.10	15.28	12.73	10.91	9.55	8.49	7.64
300	26.03	1.81E-03	1.45E-03	1.20E-03	1.03E-03	9.04E-04	8.03E-04	7.23E-04
	6,875.34	28.65	22.92	19.10	16.37	14.32	12.73	11.46
400	34.70	2.41E-03	1.93E-03	1.61E-03	1.38E-03	1.20E-03	1.07E-03	9.64E-04
	9,167.12	38.20	30.56	25.46	21.83	19.10	16.98	15.28
500	43.38	3.01E-03	2.41E-03	2.01E-03	1.72E-03	1.51E-03	1.34E-03	1.20E-03
	11,458.90	47.75	38.20	31.83	27.28	23.87	21.22	19.10
600	52.05	3.61E-03	2.89E-03	2.41E-03	2.07E-03	1.81E-03	1.61E-03	1.45E-03
	13,750.68	57.29	45.84	38.20	32.74	28.65	25.46	22.92
700	60.73	4.22E-03	3.37E-03	2.81E-03	2.41E-03	2.11E-03	1.87E-03	1.69E-03
	16,042.46	66.84	53.47	44.56	38.20	33.42	29.71	26.74
800	69.40	4.82E-03	3.86E-03	3.21E-03	2.75E-03	2.41E-03	2.14E-03	1.93E-03
	18,334.24	76.39	61.11	50.93	43.65	38.20	33.95	30.56
900	78.08	5.42E-03	4.34E-03	3.61E-03	3.10E-03	2.71E-03	2.41E-03	2.17E-03
	20,626.02	85.94	68.75	57.29	49.11	42.97	38.20	34.38
1,000	86.75	6.02E-03	4.82E-03	4.02E-03	3.44E-03	3.01E-03	2.68E-03	2.41E-03
	22,917.80	95.49	76.39	63.66	54.57	47.75	42.44	38.20
1,500	130.13	9.04E-03	7.23E-03	6.02E-03	5.16E-03	4.52E-03	4.02E-03	3.61E-03
	34,376.71	143.24	114.59	95.49	81.85	71.62	63.66	57.29
2,000	173.51	0.01	9.64E-03	8.03E-03	6.89E-03	6.02E-03	5.36E-03	4.82E-03
	45,835.61	190.98	152.79	127.32	109.13	95.49	84.88	76.39
2,500	216.89	0.02	0.01	0.01	8.61E-03	7.53E-03	6.69E-03	6.02E-03
	57,294.51	238.73	190.98	159.15	136.42	119.36	106.10	95.49
3,000	260.26	0.02	0.01	0.01	0.01	9.04E-03	8.03E-03	7.23E-03
	68,753.41	286.47	229.18	190.98	163.70	143.24	127.32	114.59
3,500	303.64	0.02	0.02	0.01	0.01	0.01	9.37E-03	8.43E-03
	80,212.31	334.22	267.37	222.81	190.98	167.11	148.54	133.69
4,000	347.02	0.02	0.02	0.02	0.01	0.01	0.01	9.64E-03
	91,671.22	381.96	305.57	254.64	218.26	190.98	169.76	152.79
4,500	390.39	0.03	0.02	0.02	0.02	0.01	0.01	0.01
	103,130.12	429.71	343.77	286.47	245.55	214.85	190.98	171.88
5,000	433.77	0.03	0.02	0.02	0.02	0.02	0.01	0.01
	114,589.02	477.45	381.96	318.30	272.83	238.73	212.20	190.98
5,500	477.15	0.03	0.03	0.02	0.02	0.02	0.01	0.01
	126,047.92	525.20	420.16	350.13	300.11	262.60	233.42	210.08
6,000	520.52	0.04	0.03	0.02	0.02	0.02	0.02	0.01
	137,506.83	572.95	458.36	381.96	327.40	286.47	254.64	229.18
6,500	563.90	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	148,965.73	620.69	496.55	413.79	354.68	310.35	275.86	248.28
7,000	607.28	0.04	0.03	0.03	0.02	0.02	0.02	0.02
	160,424.63	668.44	534.75	445.62	381.96	334.22	297.08	267.37
7,500	650.66	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	171,883.53	716.18	572.95	477.45	409.25	358.09	318.30	286.47
8,000	694.03	0.05	0.04	0.03	0.03	0.02	0.02	0.02
	183,342.43	763.93	611.14	509.28	436.53	381.96	339.52	305.57
8,500	737.41	0.05	0.04	0.03	0.03	0.03	0.02	0.02
	194,801.34	811.67	649.34	541.11	463.81	405.84	360.74	324.67

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Table 6.2 Minimum Storage/Settling Volume Required (m³) and Peak Discharge Rate (m³/s) Using Rational Method 25-year, 5-minute Peak Discharge Rate

Area of Runoff Collection Area (m ²)	Thunder Bay Airport		Sault Ste. Marie Airport		Windsor Airport	
	Storage Volume	Peak Discharge Rate	Storage Volume	Peak Discharge Rate	Storage Volume	Peak Discharge Rate
	(m ³)	(m ³ /s)	(m ³)	(m ³ /s)	(m ³)	(m ³ /s)
	(gal)	(gal/min)	(gal)	(gal/min)	(gal)	(gal/min)
100	3.88	4.31E-03	3.79	4.21E-03	4.55	0.01
	1,023.92	68.26	1,000.13	66.68	1,201.38	80.09
200	7.75	0.01	7.57	0.01	9.10	0.01
	2,047.83	136.52	2,000.26	133.35	2,402.76	160.18
300	11.63	0.01	11.36	0.01	13.64	0.02
	3,071.75	204.78	3,000.40	200.03	3,604.13	240.28
400	15.50	0.02	15.14	0.02	18.19	0.02
	4,095.66	273.04	4,000.53	266.70	4,805.51	320.37
500	19.38	0.02	18.93	0.02	22.74	0.03
	5,119.58	341.31	5,000.66	333.38	6,006.89	400.46
600	23.26	0.03	22.72	0.03	27.29	0.03
	6,143.49	409.57	6,000.79	400.05	7,208.27	480.55
700	27.13	0.03	26.50	0.03	31.83	0.04
	7,167.41	477.83	7,000.92	466.73	8,409.64	560.64
800	31.01	0.03	30.29	0.03	36.38	0.04
	8,191.32	546.09	8,001.05	533.40	9,611.02	640.73
900	34.88	0.04	34.07	0.04	40.93	0.05
	9,215.24	614.35	9,001.19	600.08	10,812.40	720.83
1,000	38.76	0.04	37.86	0.04	45.48	0.05
	10,239.15	682.61	10,001.32	666.75	12,013.78	800.92
1,500	58.14	0.06	56.79	0.06	68.22	0.08
	15,358.73	1,023.92	15,001.98	1,000.13	18,020.67	1,201.38
2,000	77.52	0.09	75.72	0.08	90.95	0.10
	20,478.31	1,365.22	20,002.64	1,333.51	24,027.56	1,601.84
2,500	96.90	0.11	94.65	0.11	113.69	0.13
	25,597.88	1,706.53	25,003.29	1,666.89	30,034.44	2,002.30
3,000	116.28	0.13	113.58	0.13	136.43	0.15
	30,717.46	2,047.83	30,003.95	2,000.26	36,041.33	2,402.76
3,500	135.66	0.15	132.51	0.15	159.17	0.18
	35,837.04	2,389.14	35,004.61	2,333.64	42,048.22	2,803.21
4,000	155.04	0.17	151.44	0.17	181.91	0.20
	40,956.62	2,730.44	40,005.27	2,667.02	48,055.11	3,203.67
4,500	174.42	0.19	170.37	0.19	204.65	0.23
	46,076.19	3,071.75	45,005.93	3,000.40	54,062.00	3,604.13
5,000	193.80	0.22	189.30	0.21	227.39	0.25
	51,195.77	3,413.05	50,006.59	55.56	60,068.89	4,004.59
5,500	213.18	0.24	208.23	0.23	250.13	0.28
	56,315.35	3,754.36	55,007.25	3,667.15	66,075.78	4,405.05
6,000	232.56	0.26	227.16	0.25	272.86	0.30
	61,434.92	4,095.66	60,007.91	4,000.53	72,082.67	4,805.51
6,500	251.94	0.28	246.09	0.27	295.60	0.33
	66,554.50	4,436.97	65,008.57	4,333.90	78,089.56	5,205.97
7,000	271.32	0.30	265.02	0.29	318.34	0.35
	71,674.08	4,778.27	70,009.22	4,667.28	84,096.45	5,606.43
7,500	290.70	0.32	283.95	0.32	341.08	0.38
	76,793.65	5,119.58	75,009.88	5,000.66	90,103.33	6,006.89
8,000	310.08	0.34	302.88	0.34	363.82	0.40
	81,913.23	5,460.88	80,010.54	5,334.04	96,110.22	6,407.35

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area Of Runoff Collection Area (m ²)	Chatham WPCP		Owen Sound		Stratford MOE	
	Storage Volume	Peak Discharge Rate	Storage Volume	Peak Discharge Rate	Storage Volume	Peak Discharge Rate
	(m ³)	(m ³ /s)	(m ³)	(m ³ /s)	(m ³)	(m ³ /s)
	(gal)	(gal/min)	(gal)	(gal/min)	(gal)	(gal/min)
100	4.24	4.71E-03	4.43	4.93E-03	3.99	0.00
	1,120.88	74.73	1,171.50	78.10	1,053.19	70.21
200	8.49	0.01	8.87	0.01	7.97	0.01
	2,241.76	149.45	2,342.99	156.20	2,106.38	140.43
300	12.73	0.01	13.30	0.01	11.96	0.01
	3,362.64	224.18	3,514.49	234.30	3,159.56	210.64
400	16.97	0.02	17.74	0.02	15.95	0.02
	4,483.52	298.90	4,685.98	312.40	4,212.75	280.85
500	21.22	0.02	22.17	0.02	19.93	0.02
	5,604.40	373.63	5,857.48	390.50	5,265.94	351.06
600	25.46	0.03	26.61	0.03	23.92	0.03
	6,725.28	448.35	7,028.97	468.60	6,319.13	421.28
700	29.70	0.03	31.04	0.03	27.91	0.03
	7,846.16	523.08	8,200.47	546.70	7,372.31	491.49
800	33.94	0.04	35.48	0.04	31.89	0.04
	8,967.04	597.80	9,371.97	624.80	8,425.50	561.70
900	38.19	0.04	39.91	0.04	35.88	0.04
	10,087.91	672.53	10,543.46	702.90	9,478.69	631.91
1,000	42.43	0.05	44.35	0.05	39.87	0.04
	11,208.79	747.25	11,714.96	781.00	10,531.88	702.13
1,500	63.65	0.07	66.52	0.07	59.80	0.07
	16,813.19	1,120.88	17,572.44	1,171.50	15,797.81	1,053.19
2,000	84.86	0.09	88.69	0.10	79.74	0.09
	22,417.59	1,494.51	23,429.92	1,561.99	21,063.75	1,404.25
2,500	106.08	0.12	110.87	0.12	99.67	0.11
	28,021.98	1,868.13	29,287.40	1,952.49	26,329.69	1,755.31
3,000	127.29	0.14	133.04	0.15	119.60	0.13
	33,626.38	2,241.76	35,144.87	2,342.99	31,595.63	2,106.38
3,500	148.51	0.17	155.21	0.17	139.54	0.16
	39,230.78	2,615.39	41,002.35	2,733.49	36,861.56	2,457.44
4,000	169.72	0.19	177.39	0.20	159.47	0.18
	44,835.18	2,989.01	46,859.83	3,123.99	42,127.50	2,808.50
4,500	190.94	0.21	199.56	0.22	179.41	0.20
	50,439.57	3,362.64	52,717.31	3,514.49	47,393.44	3,159.56
5,000	212.15	0.24	221.73	0.25	199.34	0.22
	56,043.97	3,736.26	58,574.79	3,904.99	52,659.38	3,510.63
5,500	233.37	0.26	243.90	0.27	219.27	0.24
	61,648.37	4,109.89	64,432.27	4,295.48	57,925.31	3,861.69
6,000	254.58	0.28	266.08	0.30	239.21	0.27
	67,252.76	4,483.52	70,289.75	4,685.98	63,191.25	4,212.75
6,500	275.80	0.31	288.25	0.32	259.14	0.29
	72,857.16	4,857.14	76,147.23	5,076.48	68,457.19	4,563.81
7,000	297.01	0.33	310.42	0.34	279.07	0.31
	78,461.56	5,230.77	82,004.71	5,466.98	73,723.13	4,914.88
7,500	318.23	0.35	332.60	0.37	299.01	0.33
	84,065.95	5,604.40	87,862.19	5,857.48	78,989.07	5,265.94
8,000	339.44	0.38	354.77	0.39	318.94	0.35
	89,670.35	5,978.02	93,719.66	6,247.98	84,255.00	5,617.00

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."
- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area Of Runoff Collection Area (m ²)	Brantford MOE		Guelph Arboretum		Hamilton Airport	
	Storage Volume	Peak Discharge Rate	Storage Volume	Peak Discharge Rate	Storage Volume	Peak Discharge Rate
	(m ³)	(m ³ /s)	(m ³)	(m ³ /s)	(m ³)	(m ³ /s)
	(gal)	(gal/min)	(gal)	(gal/min)	(gal)	(gal/min)
100	3.69	4.10E-03	4.30	4.77E-03	4.61	0.01
	974.52	64.97	1,134.91	75.66	1,217.84	81.19
200	7.38	0.01	8.59	0.01	9.22	0.01
	1,949.04	129.94	2,269.81	151.32	2,435.69	162.38
300	11.07	0.01	12.89	0.01	13.83	0.02
	2,923.56	194.90	3,404.72	226.98	3,653.53	243.57
400	14.76	0.02	17.18	0.02	18.44	0.02
	3,898.07	259.87	4,539.62	302.64	4,871.37	324.76
500	18.44	0.02	21.48	0.02	23.05	0.03
	4,872.59	324.84	5,674.53	378.30	6,089.22	405.95
600	22.13	0.02	25.78	0.03	27.66	0.03
	5,847.11	389.81	6,809.43	453.96	7,307.06	487.14
700	25.82	0.03	30.07	0.03	32.27	0.04
	6,821.63	454.78	7,944.34	529.62	8,524.90	568.33
800	29.51	0.03	34.37	0.04	36.88	0.04
	7,796.15	519.74	9,079.24	605.28	9,742.75	649.52
900	33.20	0.04	38.67	0.04	41.49	0.05
	8,770.67	584.71	10,214.15	680.94	10,960.59	730.71
1,000	36.89	0.04	42.96	0.05	46.10	0.05
	9,745.19	649.68	11,349.06	756.60	12,178.43	811.90
1,500	55.33	0.06	64.44	0.07	69.15	0.08
	14,617.78	974.52	17,023.58	1,134.91	18,267.65	1,217.84
2,000	73.78	0.08	85.92	0.10	92.20	0.10
	19,490.37	1,299.36	22,698.11	1,513.21	24,356.87	1,623.79
2,500	92.22	0.10	107.40	0.12	115.25	0.13
	24,362.97	1,624.20	28,372.64	1,891.51	30,446.08	2,029.74
3,000	110.67	0.12	128.88	0.14	138.30	0.15
	29,235.56	1,949.04	34,047.17	2,269.81	36,535.30	2,435.69
3,500	129.11	0.14	150.36	0.17	161.35	0.18
	34,108.15	2,273.88	39,721.70	2,648.11	42,624.52	2,841.63
4,000	147.56	0.16	171.84	0.19	184.40	0.20
	38,980.75	2,598.72	45,396.22	3,026.41	48,713.74	3,247.58
4,500	166.00	0.18	193.33	0.21	207.45	0.23
	43,853.34	2,923.56	51,070.75	3,404.72	54,802.95	3,653.53
5,000	184.45	0.20	214.81	0.24	230.50	0.26
	48,725.93	3,248.40	56,745.28	3,783.02	60,892.17	4,059.48
5,500	202.89	0.23	236.29	0.26	253.55	0.28
	53,598.53	3,573.24	62,419.81	4,161.32	66,981.39	4,465.43
6,000	221.34	0.25	257.77	0.29	276.60	0.31
	58,471.12	3,898.07	68,094.34	4,539.62	73,070.60	4,871.37
6,500	239.78	0.27	279.25	0.31	299.65	0.33
	63,343.71	4,222.91	73,768.87	4,917.92	79,159.82	5,277.32
7,000	258.23	0.29	300.73	0.33	322.71	0.36
	68,216.30	4,547.75	79,443.39	5,296.23	85,249.04	5,683.27
7,500	276.67	0.31	322.21	0.36	345.76	0.38
	73,088.90	4,872.59	85,117.92	5,674.53	91,338.25	6,089.22
8,000	295.12	0.33	343.69	0.38	368.81	0.41
	77,961.49	5,197.43	90,792.45	6,052.83	97,427.47	6,495.16

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."
- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Toronto Pearson Int. Airport		Barrie WPCC		Oshawa WPCP	
	Storage Volume	Peak Discharge Rate	Storage Volume	Peak Discharge Rate	Storage Volume	Peak Discharge Rate
	(m ³)	(m ³ /s)	(m ³)	(m ³ /s)	(m ³)	(m ³ /s)
	(gal)	(gal/min)	(gal)	(gal/min)	(gal)	(gal/min)
100	4.45	4.94E-03	4.13	4.59E-03	3.17	3.52E-03
	1,175.15	78.34	1,091.61	72.77	837.92	55.86
200	8.90	0.01	8.26	0.01	6.34	0.01
	2,350.31	156.69	2,183.21	145.55	1,675.83	111.72
300	13.35	0.01	12.40	0.01	9.52	0.01
	3,525.46	235.03	3,274.82	218.32	2,513.75	167.58
400	17.79	0.02	16.53	0.02	12.69	0.01
	4,700.62	313.37	4,366.43	291.10	3,351.66	223.44
500	22.24	0.02	20.66	0.02	15.86	0.02
	5,875.77	391.72	5,458.04	363.87	4,189.58	279.31
600	26.69	0.03	24.79	0.03	19.03	0.02
	7,050.93	470.06	6,549.64	436.64	5,027.49	335.17
700	31.14	0.03	28.93	0.03	22.20	0.02
	8,226.08	548.41	7,641.25	509.42	5,865.41	391.03
800	35.59	0.04	33.06	0.04	25.38	0.03
	9,401.24	626.75	8,732.86	582.19	6,703.32	446.89
900	40.04	0.04	37.19	0.04	28.55	0.03
	10,576.39	705.09	9,824.47	654.96	7,541.24	502.75
1,000	44.48	0.05	41.32	0.05	31.72	0.04
	11,751.55	783.44	10,916.07	727.74	8,379.15	558.61
1,500	66.73	0.07	61.98	0.07	47.58	0.05
	17,627.32	1,175.15	16,374.11	1,091.61	12,568.73	837.92
2,000	88.97	0.10	82.64	0.09	63.44	0.07
	23,503.10	1,566.87	21,832.14	1,455.48	16,758.31	1,117.22
2,500	111.21	0.12	103.31	0.11	79.30	0.09
	29,378.87	1,958.59	27,290.18	1,819.35	20,947.88	1,396.53
3,000	133.45	0.15	123.97	0.14	95.16	0.11
	35,254.64	2,350.31	32,748.22	2,183.21	25,137.46	1,675.83
3,500	155.70	0.17	144.63	0.16	111.02	0.12
	41,130.42	2,742.03	38,206.25	2,547.08	29,327.03	1,955.14
4,000	177.94	0.20	165.29	0.18	126.88	0.14
	47,006.19	3,133.75	43,664.29	2,910.95	33,516.61	2,234.44
4,500	200.18	0.22	185.95	0.21	142.73	0.16
	52,881.97	3,525.46	49,122.33	3,274.82	37,706.19	2,513.75
5,000	222.42	0.25	206.61	0.23	158.59	0.18
	58,757.74	3,917.18	54,580.36	3,638.69	41,895.76	2,793.05
5,500	244.67	0.27	227.27	0.25	174.45	0.19
	64,633.52	4,308.90	60,038.40	4,002.56	46,085.34	3,072.36
6,000	266.91	0.30	247.93	0.28	190.31	0.21
	70,509.29	4,700.62	65,496.43	4,366.43	50,274.92	3,351.66
6,500	289.15	0.32	268.59	0.30	206.17	0.23
	76,385.06	5,092.34	70,954.47	4,730.30	54,464.49	3,630.97
7,000	311.39	0.35	289.26	0.32	222.03	0.25
	82,260.84	5,484.06	76,412.51	5,094.17	58,654.07	3,910.27
7,500	333.64	0.37	309.92	0.34	237.89	0.26
	88,136.61	5,875.77	81,870.54	5,458.04	62,843.65	4,189.58
8,000	355.88	0.40	330.58	0.37	253.75	0.28
	94,012.39	6,267.49	87,328.58	5,821.91	67,033.22	4,468.88

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Peterborough Airport		Port Colborne	
	Storage Volume	Peak Discharge Rate	Storage Volume	Peak Discharge Rate
	(m ³)	(m ³ /s)	(m ³)	(m ³ /s)
	(gal)	(gal/min)	(gal)	(gal/min)
100	4.08	4.53E-03	3.50	3.89E-03
	1,078.19	71.88	924.51	61.63
200	8.16	0.01	7.00	0.01
	2,156.38	143.76	1,849.02	123.27
300	12.24	0.01	10.50	0.01
	3,234.57	215.64	2,773.54	184.90
400	16.33	0.02	14.00	0.02
	4,312.76	287.52	3,698.05	246.54
500	20.41	0.02	17.50	0.02
	5,390.95	359.40	4,622.56	308.17
600	24.49	0.03	21.00	0.02
	6,469.15	431.28	5,547.07	369.80
700	28.57	0.03	24.50	0.03
	7,547.34	503.16	6,471.58	431.44
800	32.65	0.04	28.00	0.03
	8,625.53	575.04	7,396.10	493.07
900	36.73	0.04	31.50	0.03
	9,703.72	646.91	8,320.61	554.71
1,000	40.81	0.05	35.00	0.04
	10,781.91	718.79	9,245.12	616.34
1,500	61.22	0.07	52.50	0.06
	16,172.86	1,078.19	13,867.68	924.51
2,000	81.63	0.09	69.99	0.08
	21,563.82	1,437.59	18,490.24	1,232.68
2,500	102.04	0.11	87.49	0.10
	26,954.77	1,796.98	23,112.80	1,540.85
3,000	122.44	0.14	104.99	0.12
	32,345.73	2,156.38	27,735.36	1,849.02
3,500	142.85	0.16	122.49	0.14
	37,736.68	2,515.78	32,357.92	2,157.19
4,000	163.26	0.18	139.99	0.16
	43,127.63	2,875.18	36,980.48	2,465.37
4,500	183.66	0.20	157.49	0.17
	48,518.59	3,234.57	41,603.04	2,773.54
5,000	204.07	0.23	174.98	0.19
	53,909.54	3,593.97	46,225.60	3,081.71
5,500	224.48	0.25	192.48	0.21
	59,300.50	3,953.37	50,848.16	3,389.88
6,000	244.89	0.27	209.98	0.23
	64,691.45	4,312.76	55,470.72	3,698.05
6,500	265.29	0.29	227.48	0.25
	70,082.40	4,672.16	60,093.28	4,006.22
7,000	285.70	0.32	244.98	0.27
	75,473.36	5,031.56	64,715.84	4,314.39
7,500	306.11	0.34	262.48	0.29
	80,864.31	5,390.95	69,338.40	4,622.56
8,000	326.51	0.36	279.97	0.31
	86,255.27	5,750.35	73,960.96	4,930.73

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."
- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Area of Runoff Collection Area (m ²)	Brockville PCC		Ottawa Int. Airport	
	Storage Volume	Peak Discharge Rate	Storage Volume	Peak Discharge Rate
	(m ³)	(m ³ /s)	(m ³)	(m ³ /s)
	(gal)	(gal/min)	(gal)	(gal/min)
100	4.24	4.71E-03	4.91	0.01
	1,119.05	74.60	1,297.67	86.51
200	8.47	0.01	9.82	0.01
	2,238.10	149.21	2,595.34	173.02
300	12.71	0.01	14.74	0.02
	3,357.15	223.81	3,893.01	259.53
400	16.94	0.02	19.65	0.02
	4,476.20	298.41	5,190.68	346.05
500	21.18	0.02	24.56	0.03
	5,595.25	373.02	6,488.35	432.56
600	25.42	0.03	29.47	0.03
	6,714.30	447.62	7,786.03	519.07
700	29.65	0.03	34.39	0.04
	7,833.35	522.22	9,083.70	605.58
800	33.89	0.04	39.30	0.04
	8,952.40	596.83	10,381.37	692.09
900	38.12	0.04	44.21	0.05
	10,071.45	671.43	11,679.04	778.60
1,000	42.36	0.05	49.12	0.05
	11,190.50	746.03	12,976.71	865.11
1,500	63.54	0.07	73.68	0.08
	16,785.75	1,119.05	19,465.06	1,297.67
2,000	84.72	0.09	98.25	0.11
	22,381.00	1,492.07	25,953.42	1,730.23
2,500	105.90	0.12	122.81	0.14
	27,976.25	1,865.08	32,441.77	2,162.78
3,000	127.08	0.14	147.37	0.16
	33,571.50	2,238.10	38,930.13	2,595.34
3,500	148.26	0.16	171.93	0.19
	39,166.75	2,611.12	45,418.48	3,027.90
4,000	169.44	0.19	196.49	0.22
	44,762.00	2,984.13	51,906.84	3,460.46
4,500	190.62	0.21	221.05	0.25
	50,357.24	3,357.15	58,395.19	3,893.01
5,000	211.80	0.24	245.61	0.27
	55,952.49	3,730.17	64,883.55	4,325.57
5,500	232.99	0.26	270.17	0.30
	61,547.74	4,103.18	71,371.90	4,758.13
6,000	254.17	0.28	294.74	0.33
	67,142.99	4,476.20	77,860.26	5,190.68
6,500	275.35	0.31	319.30	0.35
	72,738.24	4,849.22	84,348.61	5,623.24
7,000	296.53	0.33	343.86	0.38
	78,333.49	5,222.23	90,836.97	6,055.80
7,500	317.71	0.35	368.42	0.41
	83,928.74	5,595.25	97,325.32	6,488.35
8,000	338.89	0.38	392.98	0.44
	89,523.99	5,968.27	10,3813.68	6,920.91

* Storage/settling volume calculated using 25-year/5-minute storm event rainfall amounts over a 15-minute retention period for selected Ontario centres obtained from Atmospheric Environment Service, Environment Canada "Rainfall Intensity-Duration Frequency (IDF) Data."

- Runoff coefficient of 95 percent has been used, meaning that 95 per cent of the rainfall entering the runoff collection area can be expected to enter the VFS system.

Table 6.3, Infiltration Area Required Based on Saturated Hydraulic Conductivity of Soil Texture Classes

Discharge Rate to Infiltration Area		Infiltration Area Required Based on Saturated Hydraulic Conductivity of the Following Soil Texture Classes*					
		Sand		Loamy Sand		Sandy Loam	
m ³ /s	gal/min	m ²	ft ²	m ²	ft ²	m ²	ft ²
1.00E-04	1.59	1.71	18.45	5.89	63.44	13.90	149.63
2.00E-04	3.17	3.43	36.91	11.79	126.88	27.80	299.25
3.00E-04	4.76	5.14	55.36	17.68	190.33	41.70	448.88
4.00E-04	6.34	6.86	73.81	23.58	253.77	55.60	598.51
5.00E-04	7.93	8.57	92.27	29.47	317.21	69.50	748.14
6.00E-04	9.51	10.29	110.72	35.36	380.65	83.40	897.76
7.00E-04	11.10	12.00	129.17	41.26	444.09	97.30	1,047.39
8.00E-04	12.68	13.71	147.62	47.15	507.54	111.20	1,197.02
9.00E-04	14.27	15.43	166.08	53.04	570.98	125.10	1,346.65
1.00E-03	15.85	17.14	184.53	58.94	634.42	139.00	1,496.27
1.50E-03	23.78	25.71	276.80	88.41	951.63	208.51	2,244.41
2.00E-03	31.70	34.29	369.06	117.88	1,268.84	278.01	2,992.55
2.50E-03	39.63	42.86	461.33	147.34	1,586.05	347.51	3,740.69
3.00E-03	47.55	51.43	553.59	176.81	1,903.26	417.01	4,488.82
3.50E-03	55.48	60.00	645.86	206.28	2,220.47	486.52	5,236.96
4.00E-03	63.40	68.57	738.12	235.75	2,537.68	556.02	5,985.10
4.50E-03	71.33	77.14	830.39	265.22	2,854.89	625.52	6,733.24
5.00E-03	79.25	85.71	922.65	294.69	3,172.10	695.02	7,481.37
5.50E-03	87.18	94.29	1,014.92	324.16	3,489.31	764.53	8,229.51
6.00E-03	95.10	102.86	1,107.18	353.63	3,806.52	834.03	8,977.65
6.50E-03	103.03	111.43	1,199.45	383.10	4,123.73	903.53	9,725.79
7.00E-03	110.95	120.00	1,291.71	412.57	4,440.94	973.03	10,473.92
7.50E-03	118.88	128.57	1,383.98	442.03	4,758.15	1,042.54	11,222.06
8.00E-03	126.80	137.14	1,476.24	471.50	5,075.36	1,112.04	11,970.20
8.50E-03	134.73	145.72	1,568.51	500.97	5,392.57	1,181.54	12,718.33
9.00E-03	142.65	154.29	1,660.77	530.44	5,709.78	1,251.04	13,466.47
9.50E-03	150.58	162.86	1,753.04	559.91	6,026.99	1,320.54	14,214.61
0.01	158.50	171.43	1,845.30	589.38	6,344.20	1,390.05	14,962.75
0.02	237.75	257.14	2,767.95	884.07	9,516.30	2,085.07	22,444.12
0.02	317.00	342.86	3,690.60	1,178.76	12,688.40	2,780.09	29,925.49
0.03	396.26	428.57	4,613.25	1,473.45	15,860.49	3,475.12	37,406.87
0.03	475.51	514.29	5,535.91	1,768.14	19,032.59	4,170.14	44,888.24
0.04	554.76	600.00	6,458.56	2,062.83	22,204.69	4,865.17	52,369.61
0.04	634.01	685.72	7,381.21	2,357.52	25,376.79	5,560.19	59,850.99
0.05	713.26	771.43	8,303.86	2,652.21	28,548.89	6,255.21	67,332.36
0.05	792.51	857.15	9,226.51	2,946.90	31,720.99	6,950.24	74,813.73
0.06	871.76	942.86	10,149.16	3,241.59	34,893.09	7,645.26	82,295.11
0.06	951.01	1,028.58	11,071.81	3,536.28	38,065.19	8,340.28	89,776.48
0.07	1,030.26	1,114.29	11,994.46	3,830.97	41,237.28	9,035.31	97,257.85
0.07	1,109.51	1,200.01	12,917.11	4,125.66	44,409.38	9,730.33	104,739.23
0.08	1,188.77	1,285.72	13,839.76	4,420.35	47,581.48	10,425.35	112,220.60
0.08	1,268.02	1,371.44	14,762.42	4,715.04	50,753.58	11,120.38	119,701.97
0.09	1,347.27	1,457.15	15,685.07	5,009.72	53,925.68	11,815.40	127,183.35
0.09	1,426.52	1,542.87	16,607.72	5,304.41	57,097.78	12,510.43	134,664.72
0.10	1,505.77	1,628.58	17,530.37	5,599.10	60,269.88	13,205.45	142,146.09
0.10	1,585.02	1,714.30	18,453.02	5,893.79	63,441.98	13,900.47	149,627.47
0.15	2,377.53	2,571.44	27,679.53	8,840.69	95,162.96	20,850.71	224,441.20
0.20	3,170.04	3,428.59	36,906.04	11,787.59	126,883.95	27,800.95	299,254.93
0.25	3,962.55	4,285.74	46,132.55	14,734.48	158,604.94	34,751.18	374,068.67
0.30	4,755.06	5,142.89	55,359.06	17,681.38	190,325.93	41,701.42	448,882.40
0.35	5,547.57	6,000.03	64,585.57	20,628.28	222,046.91	48,651.65	523,696.14
0.40	6,340.08	6,857.18	73,812.08	23,575.18	253,767.90	55,601.89	598,509.87
0.45	7,132.59	7,714.33	83,038.59	26,522.07	285,488.89	62,552.13	673,323.60
0.50	7,925.10	8,571.48	92,265.10	29,468.97	317,209.88	69,502.36	748,137.34

Soil texture class and typical hydraulic conductivity values under saturated soil conditions derived from Rawls et al (1982) for all textures except silt, which is taken from Carsel & Parrish (1988).

Discharge Rate to Infiltration Area		Infiltration Area Required Based on Saturated Hydraulic Conductivity of the Following Soil Texture Classes*					
		Loam		Silt		Silt Loam	
m ³ /s	gal/min	m ²	ft ²	m ²	ft ²	m ²	ft ²
1.00E-04	1.59	27.28	293.62	144.09	1,551.04	52.97	570.14
2.00E-04	3.17	54.56	587.24	288.18	3,102.07	105.93	1,140.28
3.00E-04	4.76	81.83	880.87	432.28	4,653.11	158.90	1,710.41
4.00E-04	6.34	109.11	1,174.49	576.37	6,204.15	211.86	2,280.55
5.00E-04	7.93	136.39	1,468.11	720.46	7,755.19	264.83	2,850.69
6.00E-04	9.51	163.67	1,761.73	864.55	9,306.22	317.80	3,420.83
7.00E-04	11.10	190.94	2,055.36	1,008.65	10,857.26	370.76	3,990.96
8.00E-04	12.68	218.22	2,348.98	1,152.74	12,408.30	423.73	4,561.10
9.00E-04	14.27	245.50	2,642.60	1,296.83	13,959.34	476.69	5,131.24
1.00E-03	15.85	272.78	2,936.22	1,440.92	15,510.37	529.66	5,701.38
1.50E-03	23.78	409.17	4,404.34	2,161.38	23,265.56	794.49	8,552.07
2.00E-03	31.70	545.55	5,872.45	2,881.84	31,020.75	1,059.32	11,402.75
2.50E-03	39.63	681.94	7,340.56	3,602.31	38,775.94	1,324.15	14,253.44
3.00E-03	47.55	818.33	8,808.67	4,322.77	46,531.12	1,588.98	17,104.13
3.50E-03	55.48	954.72	10,276.79	5,043.23	54,286.31	1,853.81	19,954.82
4.00E-03	63.40	1,091.11	11,744.90	5,763.69	62,041.50	2,118.64	22,805.51
4.50E-03	71.33	1,227.50	13,213.01	6,484.15	69,796.69	2,383.47	25,656.20
5.00E-03	79.25	1,363.88	14,681.12	7,204.61	77,551.87	2,648.31	28,506.89
5.50E-03	87.18	1,500.27	16,149.24	7,925.07	85,307.06	2,913.14	31,357.57
6.00E-03	95.10	1,636.66	17,617.35	8,645.53	93,062.25	3,177.97	34,208.26
6.50E-03	103.03	1,773.05	19,085.46	9,365.99	100,817.44	3,442.80	37,058.95
7.00E-03	110.95	1,909.44	20,553.57	10,086.46	108,572.62	3,707.63	39,909.64
7.50E-03	118.88	2,045.83	22,021.69	10,806.92	116,327.81	3,972.46	42,760.33
8.00E-03	126.80	2,182.21	23,489.80	11,527.38	124,083.00	4,237.29	45,611.02
8.50E-03	134.73	2,318.60	24,957.91	12,247.84	131,838.18	4,502.12	48,461.71
9.00E-03	142.65	2,454.99	26,426.02	12,968.30	139,593.37	4,766.95	51,312.39
9.50E-03	150.58	2,591.38	27,894.14	13,688.76	147,348.56	5,031.78	54,163.08
0.01	158.50	2,727.77	29,362.25	14,409.22	155,103.75	5,296.61	57,013.77
0.02	237.75	4,091.65	44,043.37	21,613.83	232,655.62	7,944.92	85,520.66
0.02	317.00	5,455.54	58,724.50	28,818.44	310,207.49	10,593.22	114,027.54
0.03	396.26	6,819.42	73,405.62	36,023.05	387,759.37	13,241.53	142,534.43
0.03	475.51	8,183.31	88,086.74	43,227.67	465,311.24	15,889.83	171,041.31
0.04	554.76	9,547.19	102,767.87	50,432.28	542,863.11	18,538.14	199,548.20
0.04	634.01	10,911.07	117,448.99	57,636.89	620,414.99	21,186.44	228,055.08
0.05	713.26	12,274.96	132,130.11	64,841.50	697,966.86	23,834.75	256,561.97
0.05	792.51	13,638.84	146,811.24	72,046.11	775,518.73	26,483.05	285,068.86
0.06	871.76	15,002.73	161,492.36	79,250.72	853,070.61	29,131.36	313,575.74
0.06	951.01	16,366.61	176,173.49	86,455.33	930,622.48	31,779.66	342,082.63
0.07	1,030.26	17,730.50	190,854.61	93,659.94	1,008,174.35	34,427.97	370,589.51
0.07	1,109.51	19,094.38	205,535.73	100,864.55	1,085,726.22	37,076.27	399,096.40
0.08	1,188.77	20,458.27	220,216.86	108,069.16	1,163,278.10	39,724.58	427,603.28
0.08	1,268.02	21,822.15	234,897.98	115,273.78	1,240,829.97	42,372.88	456,110.17
0.09	1,347.27	23,186.03	249,579.11	122,478.39	1,318,381.84	45,021.19	484,617.06
0.09	1,426.52	24,549.92	264,260.23	129,683.00	1,395,933.72	47,669.49	513,123.94
0.10	1,505.77	25,913.80	278,941.35	136,887.61	1,473,485.59	50,317.80	541,630.83
0.10	1,585.02	27,277.69	293,622.48	144,092.22	1,551,037.46	52,966.10	570,137.71
0.15	2,377.53	40,916.53	440,433.72	216,138.33	2,326,556.20	79,449.15	855,206.57
0.20	3,170.04	54,555.37	587,244.95	288,184.44	3,102,074.93	105,932.20	1,140,275.42
0.25	3,962.55	68,194.22	734,056.19	360,230.55	3,877,593.66	132,415.25	1,425,344.28
0.30	4,755.06	81,833.06	880,867.43	432,276.66	4,653,112.39	158,898.31	1,710,413.14
0.35	5,547.57	95,471.90	1,027,678.67	504,322.77	5,428,631.12	185,381.36	1,995,481.99
0.40	6,340.08	109,110.75	1,174,489.91	576,368.88	6,204,149.86	211,864.41	2,280,550.85
0.45	7,132.59	122,749.59	1,321,301.15	648,414.99	6,979,668.59	238,347.46	2,565,619.70
0.50	7,925.10	136,388.43	1,468,112.38	720,461.10	7,755,187.32	264,830.51	2,850,688.56

Soil texture class and typical hydraulic conductivity values under saturated soil conditions derived from Rawls et al (1982) for all textures except silt, which is taken from Carsel & Parrish (1988).

Discharge Rate to Infiltration Area		Infiltration Area Required Based on Saturated Hydraulic Conductivity of the Following Soil Texture Classes*					
		Sandy Clay Loam		Clay Loam		Silty Clay Loam	
m ³ /s	gal/min	m ²	ft ²	m ²	ft ²	m ²	ft ²
1.00E-04	1.59	83.75	901.52	156.74	1,687.18	240.38	2,587.55
2.00E-04	3.17	167.50	1,803.05	313.48	3,374.36	480.77	5,175.10
3.00E-04	4.76	251.26	2,704.57	470.22	5,061.54	721.15	7,762.64
4.00E-04	6.34	335.01	3,606.10	626.96	6,748.71	961.54	10,350.19
5.00E-04	7.93	418.76	4,507.62	783.70	8,435.89	1,201.92	12,937.74
6.00E-04	9.51	502.51	5,409.15	940.44	10,123.07	1,442.31	15,525.29
7.00E-04	11.10	586.26	6,310.67	1,097.18	11,810.25	1,682.69	18,112.84
8.00E-04	12.68	670.02	7,212.19	1,253.92	13,497.43	1,923.08	20,700.38
9.00E-04	14.27	753.77	8,113.72	1,410.66	15,184.61	2,163.46	23,287.93
1.00E-03	15.85	837.52	9,015.24	1,567.40	16,871.79	2,403.85	25,875.48
1.50E-03	23.78	1,256.28	13,522.86	2,351.10	25,307.68	3,605.77	38,813.22
2.00E-03	31.70	1,675.04	18,030.49	3,134.80	33,743.57	4,807.69	51,750.96
2.50E-03	39.63	2,093.80	22,538.11	3,918.50	42,179.47	6,009.62	64,688.70
3.00E-03	47.55	2,512.56	27,045.73	4,702.19	50,615.36	7,211.54	77,626.44
3.50E-03	55.48	2,931.32	31,553.35	5,485.89	59,051.25	8,413.46	90,564.18
4.00E-03	63.40	3,350.08	36,060.97	6,269.59	67,487.15	9,615.38	103,501.92
4.50E-03	71.33	3,768.84	40,568.59	7,053.29	75,923.04	10,817.31	116,439.66
5.00E-03	79.25	4,187.60	45,076.21	7,836.99	84,358.93	12,019.23	129,377.40
5.50E-03	87.18	4,606.37	49,583.84	8,620.69	92,794.83	13,221.15	142,315.14
6.00E-03	95.10	5,025.13	54,091.46	9,404.39	101,230.72	14,423.08	155,252.88
6.50E-03	103.03	5,443.89	58,599.08	10,188.09	109,666.61	15,625.00	168,190.63
7.00E-03	110.95	5,862.65	63,106.70	10,971.79	118,102.51	16,826.92	181,128.37
7.50E-03	118.88	6,281.41	67,614.32	11,755.49	126,538.40	18,028.85	194,066.11
8.00E-03	126.80	6,700.17	72,121.94	12,539.18	134,974.29	19,230.77	207,003.85
8.50E-03	134.73	7,118.93	76,629.56	13,322.88	143,410.19	20,432.69	219,941.59
9.00E-03	142.65	7,537.69	81,137.19	14,106.58	151,846.08	21,634.62	232,879.33
9.50E-03	150.58	7,956.45	85,644.81	14,890.28	160,281.97	22,836.54	245,817.07
0.01	158.50	8,375.21	90,152.43	15,673.98	168,717.87	24,038.46	258,754.81
0.02	237.75	12,562.81	135,228.64	23,510.97	253,076.80	36,057.69	388,132.21
0.02	317.00	16,750.42	180,304.86	31,347.96	337,435.74	48,076.92	517,509.62
0.03	396.26	20,938.02	225,381.07	39,184.95	421,794.67	60,096.15	646,887.02
0.03	475.51	25,125.63	270,457.29	47,021.94	506,153.61	72,115.38	776,264.42
0.04	554.76	29,313.23	315,533.50	54,858.93	590,512.54	84,134.62	905,641.83
0.04	634.01	33,500.84	360,609.72	62,695.92	674,871.47	96,153.85	1,035,019.23
0.05	713.26	37,688.44	405,685.93	70,532.92	759,230.41	108,173.08	1,164,396.63
0.05	792.51	41,876.05	450,762.14	78,369.91	843,589.34	120,192.31	1,293,774.04
0.06	871.76	46,063.65	495,838.36	86,206.90	927,948.28	132,211.54	1,423,151.44
0.06	951.01	50,251.26	540,914.57	94,043.89	1,012,307.21	144,230.77	1,552,528.85
0.07	1,030.26	54,438.86	585,990.79	101,880.88	1,096,666.14	156,250.00	1,681,906.25
0.07	1,109.51	58,626.47	631,067.00	109,717.87	1,181,025.08	168,269.23	1,811,283.65
0.08	1,188.77	62,814.07	676,143.22	117,554.86	1,265,384.01	180,288.46	1,940,661.06
0.08	1,268.02	67,001.68	721,219.43	125,391.85	1,349,742.95	192,307.69	2,070,038.46
0.09	1,347.27	71,189.28	766,295.64	133,228.84	1,434,101.88	204,326.92	2,199,415.87
0.09	1,426.52	75,376.88	811,371.86	141,065.83	1,518,460.82	216,346.15	2,328,793.27
0.10	1,505.77	79,564.49	856,448.07	148,902.82	1,602,819.75	228,365.38	2,458,170.67
0.10	1,585.02	83,752.09	901,524.29	156,739.81	1,687,178.68	240,384.62	2,587,548.08
0.15	2,377.53	125,628.14	1,352,286.43	235,109.72	2,530,768.03	360,576.92	3,881,322.12
0.20	3,170.04	167,504.19	1,803,048.58	313,479.62	3,374,357.37	480,769.23	5,175,096.15
0.25	3,962.55	209,380.23	2,253,810.72	391,849.53	4,217,946.71	600,961.54	6,468,870.19
0.30	4,755.06	251,256.28	2,704,572.86	470,219.44	5,061,536.05	721,153.85	7,762,644.23
0.35	5,547.57	293,132.33	3,155,335.01	548,589.34	5,905,125.39	841,346.15	9,056,418.27
0.40	6,340.08	335,008.38	3,606,097.15	626,959.25	6,748,714.73	961,538.46	10,350,192.31
0.45	7,132.59	376,884.42	4,056,859.30	705,329.15	7,592,304.08	1,081,730.77	11,643,966.35
0.50	7,925.10	418,760.47	4,507,621.44	783,699.06	8,435,893.42	1,201,923.08	12,937,740.38

Soil texture class and typical hydraulic conductivity values under saturated soil conditions derived from Rawls et al (1982) for all textures except silt, which is taken from Carsel & Parrish (1988).

Discharge Rate to Infiltration Area		Infiltration Area Required Based on Saturated Hydraulic Conductivity of the Following Soil Texture Classes*					
		Sandy Clay		Silty Clay		Clay	
		m ³ /s	gal/min	m ²	ft ²	m ²	ft ²
1.00E-04	1.59	300.30	3,232.49	400.00	4,305.68	602.41	6,484.46
2.00E-04	3.17	600.60	6,464.98	800.00	8,611.36	1,204.82	12,968.92
3.00E-04	4.76	900.90	9,697.48	1,200.00	12,917.04	1,807.23	19,453.37
4.00E-04	6.34	1,201.20	12,929.97	1,600.00	17,222.72	2,409.64	25,937.83
5.00E-04	7.93	1,501.50	16,162.46	2,000.00	21,528.40	3,012.05	32,422.29
6.00E-04	9.51	1,801.80	19,394.95	2,400.00	25,834.08	3,614.46	38,906.75
7.00E-04	11.10	2,102.10	22,627.45	2,800.00	30,139.76	4,216.87	45,391.20
8.00E-04	12.68	2,402.40	25,859.94	3,200.00	34,445.44	4,819.28	51,875.66
9.00E-04	14.27	2,702.70	29,092.43	3,600.00	38,751.12	5,421.69	58,360.12
1.00E-03	15.85	3,003.00	32,324.92	4,000.00	43,056.80	6,024.10	64,844.58
1.50E-03	23.78	4,504.50	48,487.39	6,000.00	64,585.20	9,036.14	97,266.87
2.00E-03	31.70	6,006.01	64,649.85	8,000.00	86,113.60	12,048.19	129,689.16
2.50E-03	39.63	7,507.51	80,812.31	10,000.00	107,642.00	15,060.24	162,111.45
3.00E-03	47.55	9,009.01	96,974.77	12,000.00	129,170.40	18,072.29	194,533.73
3.50E-03	55.48	10,510.51	113,137.24	14,000.00	150,698.80	21,084.34	226,956.02
4.00E-03	63.40	12,012.01	129,299.70	16,000.00	172,227.20	24,096.39	259,378.31
4.50E-03	71.33	13,513.51	145,462.16	18,000.00	193,755.60	27,108.43	291,800.60
5.00E-03	79.25	15,015.02	161,624.62	20,000.00	215,284.00	30,120.48	324,222.89
5.50E-03	87.18	16,516.52	177,787.09	22,000.00	236,812.40	33,132.53	356,645.18
6.00E-03	95.10	18,018.02	193,949.55	24,000.00	258,340.80	36,144.58	389,067.47
6.50E-03	103.03	19,519.52	210,112.01	26,000.00	279,869.20	39,156.63	421,489.76
7.00E-03	110.95	21,021.02	226,274.47	28,000.00	301,397.60	42,168.67	453,912.05
7.50E-03	118.88	22,522.52	242,436.94	30,000.00	322,926.00	45,180.72	486,334.34
8.00E-03	126.80	24,024.02	258,599.40	32,000.00	344,454.40	48,192.77	518,756.63
8.50E-03	134.73	25,525.53	274,761.86	34,000.00	365,982.80	51,204.82	551,178.92
9.00E-03	142.65	27,027.03	290,924.32	36,000.00	387,511.20	54,216.87	583,601.20
9.50E-03	150.58	28,528.53	307,086.79	38,000.00	409,039.60	57,228.92	616,023.49
0.01	158.50	30,030.03	323,249.25	40,000.00	430,568.00	60,240.96	648,445.78
0.02	237.75	45,045.05	484,873.87	60,000.00	645,852.00	90,361.45	972,668.67
0.02	317.00	60,060.06	646,498.50	80,000.00	861,136.00	120,481.93	1,296,891.57
0.03	396.26	75,075.08	808,123.12	100,000.00	1,076,420.00	150,602.41	1,621,114.46
0.03	475.51	90,090.09	969,747.75	120,000.00	1,291,704.00	180,722.89	1,945,337.35
0.04	554.76	105,105.11	1,131,372.37	140,000.00	1,506,988.00	210,843.37	2,269,560.24
0.04	634.01	120,120.12	1,292,997.00	160,000.00	1,722,272.00	240,963.86	2,593,783.13
0.05	713.26	135,135.14	1,454,621.62	180,000.00	1,937,556.00	271,084.34	2,918,006.02
0.05	792.51	150,150.15	1,616,246.25	200,000.00	2,152,840.00	301,204.82	3,242,228.92
0.06	871.76	165,165.17	1,777,870.87	220,000.00	2,368,124.00	331,325.30	3,566,451.81
0.06	951.01	180,180.18	1,939,495.50	240,000.00	2,583,408.00	361,445.78	3,890,674.70
0.07	1,030.26	195,195.20	2,101,120.12	260,000.00	2,798,692.00	391,566.27	4,214,897.59
0.07	1,109.51	210,210.21	2,262,744.74	280,000.00	3,013,976.00	421,686.75	4,539,120.48
0.08	1,188.77	225,225.23	2,424,369.37	300,000.00	3,229,260.00	451,807.23	4,863,343.37
0.08	1,268.02	240,240.24	2,585,993.99	320,000.00	3,444,544.00	481,927.71	5,187,566.27
0.09	1,347.27	255,255.26	2,747,618.62	340,000.00	3,659,828.00	512,048.19	5,511,789.16
0.09	1,426.52	270,270.27	2,909,243.24	360,000.00	3,875,112.00	542,168.67	5,836,012.05
0.10	1,505.77	285,285.29	3,070,867.87	380,000.00	4,090,396.00	572,289.16	6,160,234.94
0.10	1,585.02	300,300.30	3,232,492.49	400,000.00	4,305,680.00	602,409.64	6,484,457.83
0.15	2,377.53	450,450.45	4,848,738.74	600,000.00	6,458,520.00	903,614.46	9,726,686.75
0.20	3,170.04	600,600.60	6,464,984.98	800,000.00	8,611,360.00	1,204,819.28	12,968,915.66
0.25	3,962.55	750,750.75	8,081,231.23	1,000,000.00	10,764,200.00	1,506,024.10	16,211,144.58
0.30	4,755.06	900,900.90	9,697,477.48	1,200,000.00	12,917,040.00	1,807,228.92	19,453,373.49
0.35	5,547.57	1,051,051.05	11,313,723.72	1,400,000.00	15,069,880.00	2,108,433.73	22,695,602.41
0.40	6,340.08	1,201,201.20	12,929,969.97	1,600,000.00	17,222,720.00	2,409,638.55	25,937,831.33
0.45	7,132.59	1,351,351.35	14,546,216.22	1,800,000.00	19,375,560.00	2,710,843.37	29,180,060.24
0.50	7,925.10	1,501,501.50	16,162,462.46	2,000,000.00	21,528,400.00	3,012,048.19	32,422,289.16

Soil texture class and typical hydraulic conductivity values under saturated soil conditions derived from Rawls et al (1982) for all textures except silt, which is taken from Carsel & Parrish (1988).