

Hydrograph for Reach Creek UN: Creek Undev

UN-2 +
OS-4

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	7.60	0.00		0.00
5.05	0.00		0.00	7.65	0.00		0.00
5.10	0.00		0.00	7.70	0.00		0.00
5.15	0.00		0.00	7.75	0.00		0.00
5.20	0.00		0.00	7.80	0.00		0.00
5.25	0.00		0.00	7.85	0.00		0.00
5.30	0.00		0.00	7.90	0.00		0.00
5.35	0.00		0.00	7.95	0.00		0.00
5.40	0.00		0.00	8.00	0.00		0.00
5.45	0.00		0.00	8.05	0.00		0.00
5.50	0.00		0.00	8.10	0.00		0.00
5.55	0.00		0.00	8.15	0.00		0.00
5.60	0.00		0.00	8.20	0.00		0.00
5.65	0.00		0.00	8.25	0.00		0.00
5.70	0.00		0.00	8.30	0.00		0.00
5.75	0.00		0.00	8.35	0.00		0.00
5.80	0.00		0.00	8.40	0.00		0.00
5.85	0.00		0.00	8.45	0.00		0.00
5.90	0.00		0.00	8.50	0.00		0.00
5.95	0.00		0.00	8.55	0.00		0.00
6.00	0.00		0.00	8.60	0.00		0.00
6.05	0.00		0.00	8.65	0.00		0.00
6.10	0.00		0.00	8.70	0.00		0.00
6.15	0.00		0.00	8.75	0.00		0.00
6.20	0.00		0.00	8.80	0.00		0.00
6.25	0.00		0.00	8.85	0.00		0.00
6.30	0.00		0.00	8.90	0.00		0.00
6.35	0.00		0.00	8.95	0.00		0.00
6.40	0.00		0.00	9.00	0.00		0.00
6.45	0.00		0.00	9.05	0.00		0.00
6.50	0.00		0.00	9.10	0.00		0.00
6.55	0.00		0.00	9.15	0.00		0.00
6.60	0.00		0.00	9.20	0.00		0.00
6.65	0.00		0.00	9.25	0.00		0.00
6.70	0.00		0.00	9.30	0.00		0.00
6.75	0.00		0.00	9.35	0.00		0.00
6.80	0.00		0.00	9.40	0.00		0.00
6.85	0.00		0.00	9.45	0.00		0.00
6.90	0.00		0.00	9.50	0.00		0.00
6.95	0.00		0.00	9.55	0.00		0.00
7.00	0.00		0.00	9.60	0.01		0.01
7.05	0.00		0.00	9.65	0.01		0.01
7.10	0.00		0.00	9.70	0.02		0.02
7.15	0.00		0.00	9.75	0.03		0.03
7.20	0.00		0.00	9.80	0.04		0.04
7.25	0.00		0.00	9.85	0.05		0.05
7.30	0.00		0.00	9.90	0.07		0.07
7.35	0.00		0.00	9.95	0.09		0.09
7.40	0.00		0.00	10.00	0.12		0.12
7.45	0.00		0.00	10.05	0.15		0.15
7.50	0.00		0.00	10.10	0.19		0.19
7.55	0.00		0.00	10.15	0.24		0.24

UNDEVELOPED

ACTUAL
ALLOWABLE
SLIGHTLY
HIGHER AS
OS-4 WOULD
BE 25 YR
STORM

Hydrograph for Reach Creek UN: Creek Undev (continued)

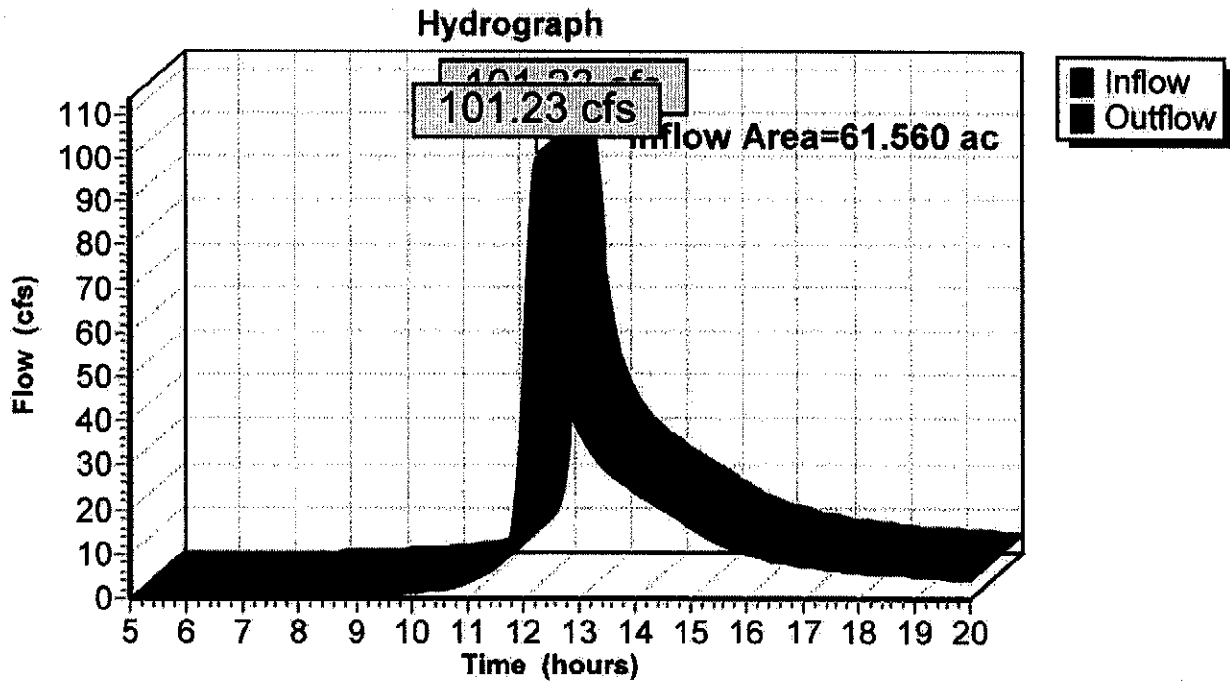
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
10.20	0.28		0.28	12.80	32.78		32.78
10.25	0.34		0.34	12.85	29.64		29.64
10.30	0.40		0.40	12.90	27.01		27.01
10.35	0.46		0.46	12.95	24.79		24.79
10.40	0.53		0.53	13.00	22.92		22.92
10.45	0.60		0.60	13.05	21.34		21.34
10.50	0.68		0.68	13.10	20.00		20.00
10.55	0.77		0.77	13.15	18.84		18.84
10.60	0.85		0.85	13.20	17.82		17.82
10.65	0.95		0.95	13.25	16.94		16.94
10.70	1.05		1.05	13.30	16.16		16.16
10.75	1.16		1.16	13.35	15.47		15.47
10.80	1.28		1.28	13.40	14.85		14.85
10.85	1.41		1.41	13.45	14.30		14.30
10.90	1.54		1.54	13.50	13.79		13.79
10.95	1.69		1.69	13.55	13.31		13.31
11.00	1.85		1.85	13.60	12.87		12.87
11.05	2.02		2.02	13.65	12.47		12.47
11.10	2.20		2.20	13.70	12.10		12.10
11.15	2.39		2.39	13.75	11.77		11.77
11.20	2.60		2.60	13.80	11.47		11.47
11.25	2.84		2.84	13.85	11.18		11.18
11.30	3.10		3.10	13.90	10.90		10.90
11.35	3.39		3.39	13.95	10.64		10.64
11.40	3.72		3.72	14.00	10.39		10.39
11.45	4.08		4.08	14.05	10.15		10.15
11.50	4.49		4.49	14.10	9.91		9.91
11.55	4.93		4.93	14.15	9.69		9.69
11.60	5.45		5.45	14.20	9.47		9.47
11.65	6.19		6.19	14.25	9.26		9.26
11.70	7.37		7.37	14.30	9.07		9.07
11.75	9.38		9.38	14.35	8.90		8.90
11.80	12.62		12.62	14.40	8.75		8.75
11.85	17.69		17.69	14.45	8.60		8.60
11.90	25.31		25.31	14.50	8.48		8.48
11.95	36.67		36.67	14.55	8.37		8.37
12.00	52.41		52.41	14.60	8.26		8.26
12.05	71.48		71.48	14.65	8.16		8.16
12.10	90.64		90.64	14.70	8.07		8.07
12.15	105.80		105.80	14.75	7.98		7.98
12.20	113.96		113.96	14.80	7.90		7.90
12.25	114.59		114.59	14.85	7.82		7.82
12.30	109.14		109.14	14.90	7.74		7.74
12.35	100.31		100.31	14.95	7.66		7.66
12.40	89.75		89.75	15.00	7.58		7.58
12.45	78.88		78.88	15.05	7.51		7.51
12.50	68.48		68.48	15.10	7.43		7.43
12.55	59.42		59.42	15.15	7.35		7.35
12.60	52.07		52.07	15.20	7.28		7.28
12.65	46.01		46.01	15.25	7.20		7.20
12.70	40.90		40.90	15.30	7.13		7.13
12.75	36.52		36.52	15.35	7.05		7.05

Hydrograph for Reach Creek UN: Creek Undev (continued)

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
15.40	6.98		6.98	18.00	4.54		4.54
15.45	6.90		6.90	18.05	4.51		4.51
15.50	6.83		6.83	18.10	4.48		4.48
15.55	6.75		6.75	18.15	4.46		4.46
15.60	6.68		6.68	18.20	4.43		4.43
15.65	6.60		6.60	18.25	4.40		4.40
15.70	6.53		6.53	18.30	4.37		4.37
15.75	6.45		6.45	18.35	4.35		4.35
15.80	6.37		6.37	18.40	4.32		4.32
15.85	6.30		6.30	18.45	4.29		4.29
15.90	6.22		6.22	18.50	4.26		4.26
15.95	6.14		6.14	18.55	4.23		4.23
16.00	6.07		6.07	18.60	4.20		4.20
16.05	5.99		5.99	18.65	4.18		4.18
16.10	5.91		5.91	18.70	4.15		4.15
16.15	5.84		5.84	18.75	4.12		4.12
16.20	5.76		5.76	18.80	4.09		4.09
16.25	5.69		5.69	18.85	4.06		4.06
16.30	5.62		5.62	18.90	4.04		4.04
16.35	5.56		5.56	18.95	4.01		4.01
16.40	5.51		5.51	19.00	3.98		3.98
16.45	5.46		5.46	19.05	3.95		3.95
16.50	5.41		5.41	19.10	3.92		3.92
16.55	5.37		5.37	19.15	3.89		3.89
16.60	5.33		5.33	19.20	3.86		3.86
16.65	5.30		5.30	19.25	3.84		3.84
16.70	5.27		5.27	19.30	3.81		3.81
16.75	5.23		5.23	19.35	3.78		3.78
16.80	5.20		5.20	19.40	3.75		3.75
16.85	5.17		5.17	19.45	3.72		3.72
16.90	5.14		5.14	19.50	3.69		3.69
16.95	5.11		5.11	19.55	3.66		3.66
17.00	5.09		5.09	19.60	3.64		3.64
17.05	5.06		5.06	19.65	3.61		3.61
17.10	5.03		5.03	19.70	3.58		3.58
17.15	5.00		5.00	19.75	3.55		3.55
17.20	4.98		4.98	19.80	3.52		3.52
17.25	4.95		4.95	19.85	3.49		3.49
17.30	4.92		4.92	19.90	3.46		3.46
17.35	4.89		4.89	19.95	3.43		3.43
17.40	4.87		4.87	20.00	3.40		3.40
17.45	4.84		4.84				
17.50	4.81		4.81				
17.55	4.78		4.78				
17.60	4.76		4.76				
17.65	4.73		4.73				
17.70	4.70		4.70				
17.75	4.68		4.68				
17.80	4.65		4.65				
17.85	4.62		4.62				
17.90	4.59		4.59				
17.95	4.57		4.57				

Reach Creek: Discharge Off-Site

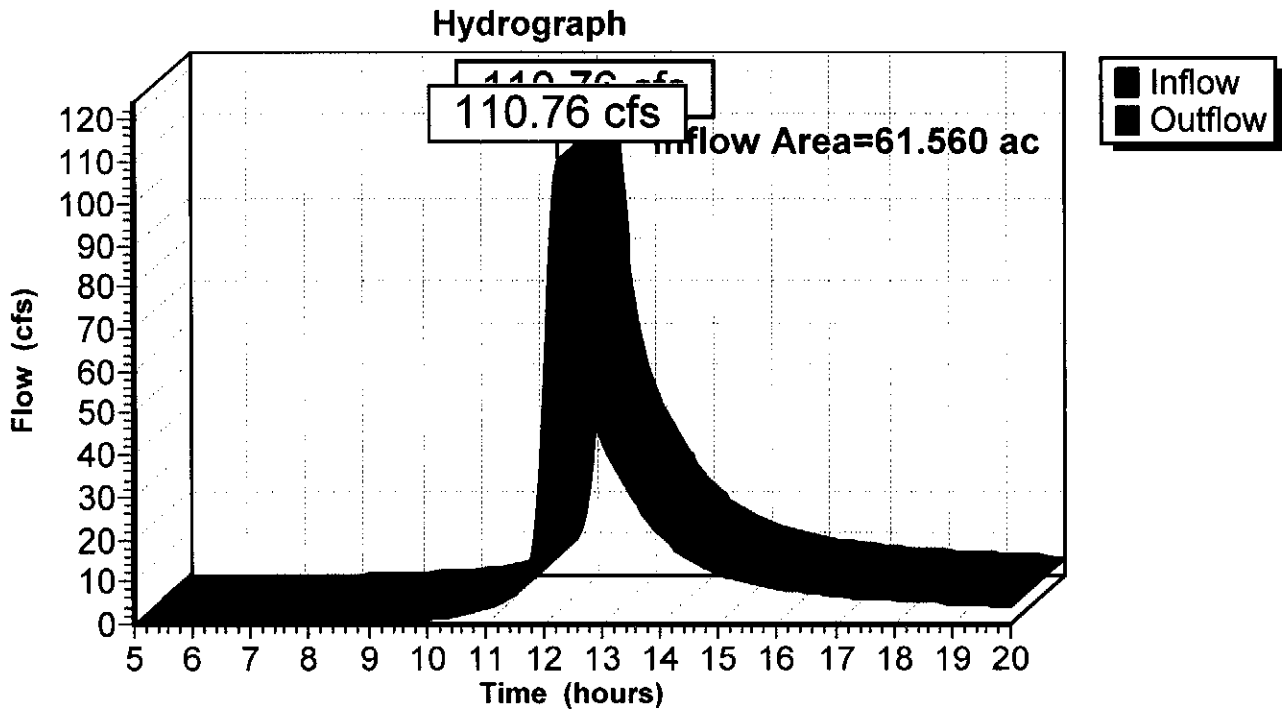
Basin #2 + #2 + #4 + #5
 | | |
 DEV DEV DEV



Reach Discharge: Discharge Off-Site

REVISED
BY 5/2

Basin #2 + #2 + #4 + #5



Summary for Reach Creek: Discharge Off-Site

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 61.560 ac, 23.73% Impervious, Inflow Depth > 2.80" for 25-Year event
Inflow = 101.23 cfs @ 12.26 hrs, Volume= 14.341 af
Outflow = 101.23 cfs @ 12.26 hrs, Volume= 14.341 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Hydrograph for Reach Creek: Discharge Off-Site

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
5.00	0.00		0.00	7.60	0.21		0.21
5.05	0.00		0.00	7.65	0.22		0.22
5.10	0.00		0.00	7.70	0.24		0.24
5.15	0.00		0.00	7.75	0.25		0.25
5.20	0.00		0.00	7.80	0.27		0.27
5.25	0.00		0.00	7.85	0.28		0.28
5.30	0.00		0.00	7.90	0.29		0.29
5.35	0.00		0.00	7.95	0.31		0.31
5.40	0.00		0.00	8.00	0.32		0.32
5.45	0.00		0.00	8.05	0.34		0.34
5.50	0.00		0.00	8.10	0.35		0.35
5.55	0.00		0.00	8.15	0.37		0.37
5.60	0.00		0.00	8.20	0.38		0.38
5.65	0.00		0.00	8.25	0.40		0.40
5.70	0.00		0.00	8.30	0.42		0.42
5.75	0.00		0.00	8.35	0.44		0.44
5.80	0.00		0.00	8.40	0.46		0.46
5.85	0.00		0.00	8.45	0.48		0.48
5.90	0.00		0.00	8.50	0.50		0.50
5.95	0.00		0.00	8.55	0.52		0.52
6.00	0.00		0.00	8.60	0.55		0.55
6.05	0.00		0.00	8.65	0.57		0.57
6.10	0.00		0.00	8.70	0.60		0.60
6.15	0.00		0.00	8.75	0.63		0.63
6.20	0.01		0.01	8.80	0.66		0.66
6.25	0.01		0.01	8.85	0.69		0.69
6.30	0.01		0.01	8.90	0.72		0.72
6.35	0.01		0.01	8.95	0.76		0.76
6.40	0.02		0.02	9.00	0.79		0.79
6.45	0.02		0.02	9.05	0.83		0.83
6.50	0.03		0.03	9.10	0.86		0.86
6.55	0.03		0.03	9.15	0.90		0.90
6.60	0.03		0.03	9.20	0.94		0.94
6.65	0.04		0.04	9.25	0.98		0.98
6.70	0.04		0.04	9.30	1.01		1.01
6.75	0.05		0.05	9.35	1.05		1.05
6.80	0.05		0.05	9.40	1.09		1.09
6.85	0.06		0.06	9.45	1.12		1.12
6.90	0.06		0.06	9.50	1.16		1.16
6.95	0.07		0.07	9.55	1.19		1.19
7.00	0.07		0.07	9.60	1.22		1.22
7.05	0.08		0.08	9.65	1.26		1.26
7.10	0.09		0.09	9.70	1.29		1.29
7.15	0.10		0.10	9.75	1.33		1.33
7.20	0.11		0.11	9.80	1.36		1.36
7.25	0.12		0.12	9.85	1.40		1.40
7.30	0.13		0.13	9.90	1.45		1.45
7.35	0.14		0.14	9.95	1.50		1.50
7.40	0.16		0.16	10.00	1.56		1.56
7.45	0.17		0.17	10.05	1.62		1.62
7.50	0.18		0.18	10.10	1.69		1.69
7.55	0.20		0.20	10.15	1.75		1.75

Hydrograph for Reach Creek: Discharge Off-Site (continued)

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
10.20	1.83		1.83	12.80	46.05		46.05
10.25	1.90		1.90	12.85	43.65		43.65
10.30	1.99		1.99	12.90	41.60		41.60
10.35	2.08		2.08	12.95	39.84		39.84
10.40	2.17		2.17	13.00	38.32		38.32
10.45	2.27		2.27	13.05	37.01		37.01
10.50	2.38		2.38	13.10	35.86		35.86
10.55	2.49		2.49	13.15	34.83		34.83
10.60	2.61		2.61	13.20	33.89		33.89
10.65	2.74		2.74	13.25	33.04		33.04
10.70	2.87		2.87	13.30	32.25		32.25
10.75	3.01		3.01	13.35	31.51		31.51
10.80	3.16		3.16	13.40	30.83		30.83
10.85	3.32		3.32	13.45	30.18		30.18
10.90	3.50		3.50	13.50	29.57		29.57
10.95	3.69		3.69	13.55	28.98		28.98
11.00	3.89		3.89	13.60	28.42		28.42
11.05	4.10		4.10	13.65	27.88		27.88
11.10	4.33		4.33	13.70	27.37		27.37
11.15	4.57		4.57	13.75	26.88		26.88
11.20	4.82		4.82	13.80	26.39		26.39
11.25	5.11		5.11	13.85	25.92		25.92
11.30	5.42		5.42	13.90	25.44		25.44
11.35	5.77		5.77	13.95	24.98		24.98
11.40	6.16		6.16	14.00	24.52		24.52
11.45	6.59		6.59	14.05	24.06		24.06
11.50	7.06		7.06	14.10	23.60		23.60
11.55	7.58		7.58	14.15	23.15		23.15
11.60	8.17		8.17	14.20	22.70		22.70
11.65	8.93		8.93	14.25	22.25		22.25
11.70	10.05		10.05	14.30	21.81		21.81
11.75	11.84		11.84	14.35	21.38		21.38
11.80	14.67		14.67	14.40	20.96		20.96
11.85	19.02		19.02	14.45	20.54		20.54
11.90	25.43		25.43	14.50	20.14		20.14
11.95	34.66		34.66	14.55	19.79		19.79
12.00	47.15		47.15	14.60	19.45		19.45
12.05	62.12		62.12	14.65	19.07		19.07
12.10	76.94		76.94	14.70	18.68		18.68
12.15	89.76		89.76	14.75	18.28		18.28
12.20	98.19		98.19	14.80	17.87		17.87
12.25	101.18		101.18	14.85	17.47		17.47
12.30	99.45		99.45	14.90	17.07		17.07
12.35	94.41		94.41	14.95	16.67		16.67
12.40	87.28		87.28	15.00	16.28		16.28
12.45	79.42		79.42	15.05	15.90		15.90
12.50	71.89		71.89	15.10	15.53		15.53
12.55	65.43		65.43	15.15	15.17		15.17
12.60	60.19		60.19	15.20	14.82		14.82
12.65	55.83		55.83	15.25	14.48		14.48
12.70	52.09		52.09	15.30	14.15		14.15
12.75	48.85		48.85	15.35	13.83		13.83

Hydrograph for Reach Creek: Discharge Off-Site (continued)

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
15.40	13.53		13.53	18.00	6.34		6.34
15.45	13.23		13.23	18.05	6.28		6.28
15.50	12.94		12.94	18.10	6.23		6.23
15.55	12.66		12.66	18.15	6.18		6.18
15.60	12.39		12.39	18.20	6.13		6.13
15.65	12.13		12.13	18.25	6.08		6.08
15.70	11.88		11.88	18.30	6.03		6.03
15.75	11.63		11.63	18.35	5.98		5.98
15.80	11.40		11.40	18.40	5.93		5.93
15.85	11.17		11.17	18.45	5.88		5.88
15.90	10.94		10.94	18.50	5.84		5.84
15.95	10.73		10.73	18.55	5.79		5.79
16.00	10.52		10.52	18.60	5.74		5.74
16.05	10.32		10.32	18.65	5.70		5.70
16.10	10.12		10.12	18.70	5.65		5.65
16.15	9.93		9.93	18.75	5.61		5.61
16.20	9.74		9.74	18.80	5.56		5.56
16.25	9.56		9.56	18.85	5.52		5.52
16.30	9.39		9.39	18.90	5.48		5.48
16.35	9.23		9.23	18.95	5.43		5.43
16.40	9.08		9.08	19.00	5.39		5.39
16.45	8.93		8.93	19.05	5.35		5.35
16.50	8.79		8.79	19.10	5.31		5.31
16.55	8.66		8.66	19.15	5.27		5.27
16.60	8.53		8.53	19.20	5.23		5.23
16.65	8.41		8.41	19.25	5.19		5.19
16.70	8.30		8.30	19.30	5.14		5.14
16.75	8.19		8.19	19.35	5.10		5.10
16.80	8.09		8.09	19.40	5.06		5.06
16.85	7.99		7.99	19.45	5.02		5.02
16.90	7.89		7.89	19.50	4.98		4.98
16.95	7.79		7.79	19.55	4.94		4.94
17.00	7.70		7.70	19.60	4.91		4.91
17.05	7.62		7.62	19.65	4.87		4.87
17.10	7.53		7.53	19.70	4.83		4.83
17.15	7.45		7.45	19.75	4.79		4.79
17.20	7.37		7.37	19.80	4.75		4.75
17.25	7.29		7.29	19.85	4.71		4.71
17.30	7.22		7.22	19.90	4.68		4.68
17.35	7.14		7.14	19.95	4.64		4.64
17.40	7.07		7.07	20.00	4.60		4.60
17.45	7.01		7.01				
17.50	6.94		6.94				
17.55	6.87		6.87				
17.60	6.81		6.81				
17.65	6.74		6.74				
17.70	6.68		6.68				
17.75	6.62		6.62				
17.80	6.56		6.56				
17.85	6.50		6.50				
17.90	6.45		6.45				
17.95	6.39		6.39				

2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.70"

Printed 4/27/2016

Summary for Subcatchment UN-2: UN-2

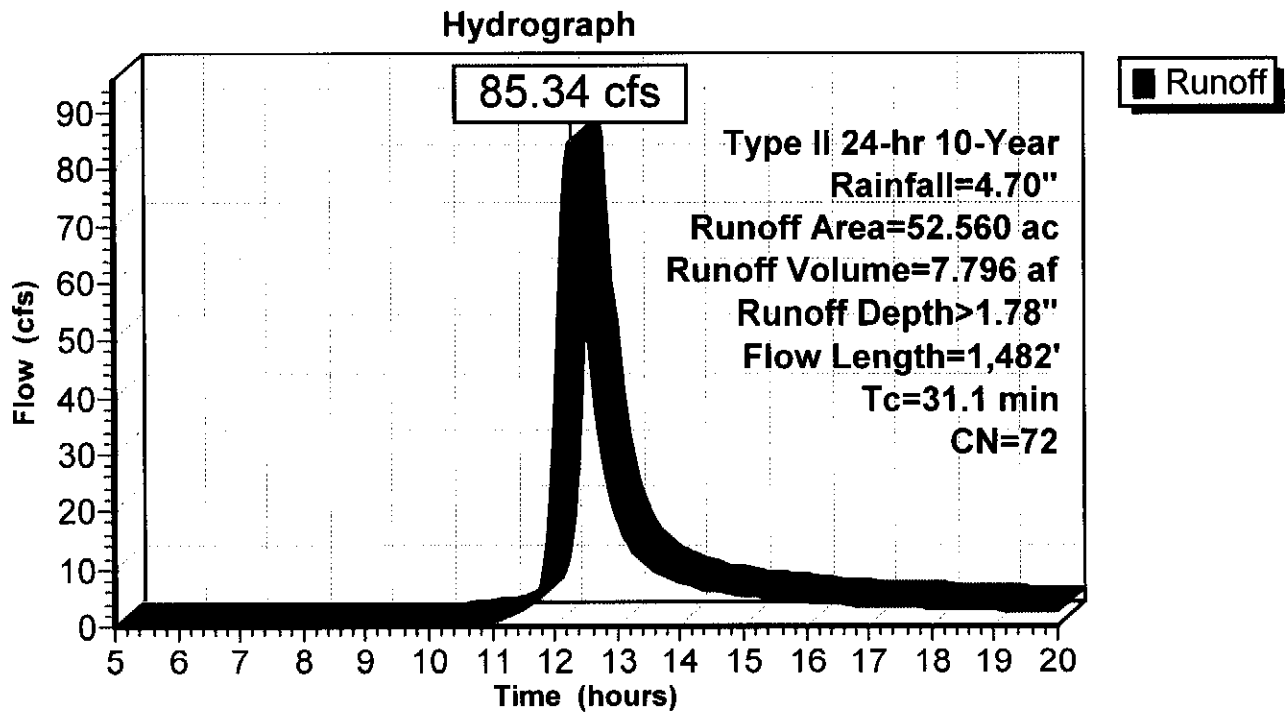
Runoff = 85.34 cfs @ 12.27 hrs, Volume= 7.796 af, Depth> 1.78"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=4.70"

Area (ac)	CN	Description
7.940	85	Row crops, straight row, Good, HSG C
44.620	70	Woods, Good, HSG C
52.560	72	Weighted Average
52.560		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.6	300	0.1367	0.21		Sheet Flow, Sheet Flow
					Woods: Light underbrush n= 0.400 P2= 3.30"
5.5	300	0.0333	0.91		Shallow Concentrated Flow, Shallow Concentrated
					Woodland Kv= 5.0 fps
2.0	882	0.0215	7.26	72.63	Channel Flow,
					Area= 10.0 sf Perim= 10.0' r= 1.00'
					n= 0.030 Earth, clean & winding
31.1	1,482	Total			

Subcatchment UN-2: UN-2



2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.70"

Printed 4/28/2016

Hydrograph for Subcatchment UN-2: UN-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.30	0.00	0.00	7.60	0.52	0.00	0.00
5.05	0.30	0.00	0.00	7.65	0.53	0.00	0.00
5.10	0.30	0.00	0.00	7.70	0.53	0.00	0.00
5.15	0.31	0.00	0.00	7.75	0.54	0.00	0.00
5.20	0.31	0.00	0.00	7.80	0.54	0.00	0.00
5.25	0.32	0.00	0.00	7.85	0.55	0.00	0.00
5.30	0.32	0.00	0.00	7.90	0.55	0.00	0.00
5.35	0.32	0.00	0.00	7.95	0.56	0.00	0.00
5.40	0.33	0.00	0.00	8.00	0.56	0.00	0.00
5.45	0.33	0.00	0.00	8.05	0.57	0.00	0.00
5.50	0.33	0.00	0.00	8.10	0.57	0.00	0.00
5.55	0.34	0.00	0.00	8.15	0.58	0.00	0.00
5.60	0.34	0.00	0.00	8.20	0.59	0.00	0.00
5.65	0.35	0.00	0.00	8.25	0.59	0.00	0.00
5.70	0.35	0.00	0.00	8.30	0.60	0.00	0.00
5.75	0.36	0.00	0.00	8.35	0.60	0.00	0.00
5.80	0.36	0.00	0.00	8.40	0.61	0.00	0.00
5.85	0.36	0.00	0.00	8.45	0.62	0.00	0.00
5.90	0.37	0.00	0.00	8.50	0.62	0.00	0.00
5.95	0.37	0.00	0.00	8.55	0.63	0.00	0.00
6.00	0.38	0.00	0.00	8.60	0.63	0.00	0.00
6.05	0.38	0.00	0.00	8.65	0.64	0.00	0.00
6.10	0.38	0.00	0.00	8.70	0.65	0.00	0.00
6.15	0.39	0.00	0.00	8.75	0.65	0.00	0.00
6.20	0.39	0.00	0.00	8.80	0.66	0.00	0.00
6.25	0.40	0.00	0.00	8.85	0.67	0.00	0.00
6.30	0.40	0.00	0.00	8.90	0.68	0.00	0.00
6.35	0.41	0.00	0.00	8.95	0.68	0.00	0.00
6.40	0.41	0.00	0.00	9.00	0.69	0.00	0.00
6.45	0.42	0.00	0.00	9.05	0.70	0.00	0.00
6.50	0.42	0.00	0.00	9.10	0.71	0.00	0.00
6.55	0.42	0.00	0.00	9.15	0.71	0.00	0.00
6.60	0.43	0.00	0.00	9.20	0.72	0.00	0.00
6.65	0.43	0.00	0.00	9.25	0.73	0.00	0.00
6.70	0.44	0.00	0.00	9.30	0.74	0.00	0.00
6.75	0.44	0.00	0.00	9.35	0.74	0.00	0.00
6.80	0.45	0.00	0.00	9.40	0.75	0.00	0.00
6.85	0.45	0.00	0.00	9.45	0.76	0.00	0.00
6.90	0.46	0.00	0.00	9.50	0.77	0.00	0.00
6.95	0.46	0.00	0.00	9.55	0.77	0.00	0.00
7.00	0.47	0.00	0.00	9.60	0.78	0.00	0.00
7.05	0.47	0.00	0.00	9.65	0.79	0.00	0.00
7.10	0.47	0.00	0.00	9.70	0.80	0.00	0.00
7.15	0.48	0.00	0.00	9.75	0.81	0.00	0.00
7.20	0.48	0.00	0.00	9.80	0.81	0.00	0.00
7.25	0.49	0.00	0.00	9.85	0.82	0.00	0.01
7.30	0.49	0.00	0.00	9.90	0.83	0.00	0.02
7.35	0.50	0.00	0.00	9.95	0.84	0.00	0.03
7.40	0.50	0.00	0.00	10.00	0.85	0.00	0.04
7.45	0.51	0.00	0.00	10.05	0.86	0.00	0.06
7.50	0.51	0.00	0.00	10.10	0.87	0.00	0.09
7.55	0.52	0.00	0.00	10.15	0.88	0.00	0.12

2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.70"

Printed 4/28/2016

Hydrograph for Subcatchment UN-2: UN-2 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
10.20	0.89	0.00	0.15	12.80	3.57	1.16	26.96
10.25	0.90	0.00	0.19	12.85	3.58	1.18	24.29
10.30	0.91	0.00	0.23	12.90	3.60	1.19	22.04
10.35	0.92	0.01	0.27	12.95	3.61	1.20	20.13
10.40	0.93	0.01	0.32	13.00	3.63	1.21	18.51
10.45	0.95	0.01	0.37	13.05	3.64	1.22	17.17
10.50	0.96	0.01	0.43	13.10	3.66	1.22	16.03
10.55	0.97	0.01	0.49	13.15	3.67	1.23	15.05
10.60	0.98	0.01	0.55	13.20	3.68	1.24	14.18
10.65	1.00	0.01	0.62	13.25	3.70	1.25	13.43
10.70	1.01	0.01	0.69	13.30	3.71	1.26	12.77
10.75	1.03	0.01	0.77	13.35	3.72	1.27	12.17
10.80	1.04	0.02	0.85	13.40	3.73	1.28	11.65
10.85	1.06	0.02	0.94	13.45	3.74	1.28	11.19
10.90	1.07	0.02	1.04	13.50	3.76	1.29	10.76
10.95	1.09	0.02	1.15	13.55	3.77	1.30	10.35
11.00	1.10	0.03	1.26	13.60	3.78	1.31	9.99
11.05	1.12	0.03	1.38	13.65	3.79	1.31	9.66
11.10	1.14	0.03	1.51	13.70	3.80	1.32	9.36
11.15	1.16	0.03	1.65	13.75	3.81	1.33	9.10
11.20	1.18	0.04	1.80	13.80	3.82	1.33	8.86
11.25	1.20	0.04	1.96	13.85	3.83	1.34	8.64
11.30	1.23	0.05	2.15	13.90	3.84	1.35	8.42
11.35	1.25	0.05	2.35	13.95	3.85	1.35	8.21
11.40	1.28	0.06	2.58	14.00	3.85	1.36	8.02
11.45	1.30	0.06	2.83	14.05	3.86	1.36	7.83
11.50	1.33	0.07	3.12	14.10	3.87	1.37	7.65
11.55	1.37	0.08	3.43	14.15	3.88	1.38	7.47
11.60	1.44	0.10	3.79	14.20	3.89	1.38	7.30
11.65	1.54	0.12	4.27	14.25	3.90	1.39	7.14
11.70	1.67	0.16	4.98	14.30	3.90	1.39	6.99
11.75	1.82	0.22	6.13	14.35	3.91	1.40	6.85
11.80	2.02	0.30	8.01	14.40	3.92	1.40	6.72
11.85	2.31	0.43	11.02	14.45	3.93	1.41	6.61
11.90	2.67	0.62	15.61	14.50	3.94	1.42	6.50
11.95	2.98	0.80	22.55	14.55	3.94	1.42	6.41
12.00	3.12	0.88	32.29	14.60	3.95	1.43	6.33
12.05	3.16	0.91	44.69	14.65	3.96	1.43	6.25
12.10	3.21	0.93	58.40	14.70	3.97	1.44	6.18
12.15	3.25	0.96	71.28	14.75	3.98	1.44	6.11
12.20	3.28	0.98	80.69	14.80	3.98	1.45	6.04
12.25	3.32	1.00	85.02	14.85	3.99	1.45	5.98
12.30	3.35	1.02	84.29	14.90	4.00	1.46	5.92
12.35	3.38	1.04	80.01	14.95	4.00	1.46	5.86
12.40	3.41	1.06	73.03	15.00	4.01	1.47	5.79
12.45	3.43	1.08	64.81	15.05	4.02	1.47	5.74
12.50	3.45	1.09	56.43	15.10	4.03	1.48	5.68
12.55	3.47	1.10	48.99	15.15	4.03	1.48	5.62
12.60	3.49	1.12	42.95	15.20	4.04	1.49	5.56
12.65	3.51	1.13	37.97	15.25	4.05	1.49	5.51
12.70	3.53	1.14	33.76	15.30	4.05	1.50	5.45
12.75	3.55	1.15	30.11	15.35	4.06	1.50	5.39

2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 10-Year Rainfall=4.70"

Printed 4/28/2016

Hydrograph for Subcatchment UN-2: UN-2 (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
15.40	4.07	1.51	5.34	18.00	4.33	1.69	3.46
15.45	4.07	1.51	5.28	18.05	4.33	1.70	3.44
15.50	4.08	1.51	5.22	18.10	4.34	1.70	3.42
15.55	4.08	1.52	5.16	18.15	4.34	1.70	3.40
15.60	4.09	1.52	5.11	18.20	4.35	1.71	3.38
15.65	4.10	1.53	5.05	18.25	4.35	1.71	3.36
15.70	4.10	1.53	4.99	18.30	4.35	1.71	3.33
15.75	4.11	1.54	4.93	18.35	4.36	1.72	3.31
15.80	4.11	1.54	4.88	18.40	4.36	1.72	3.29
15.85	4.12	1.54	4.82	18.45	4.37	1.72	3.27
15.90	4.13	1.55	4.76	18.50	4.37	1.72	3.25
15.95	4.13	1.55	4.70	18.55	4.37	1.73	3.23
16.00	4.14	1.56	4.65	18.60	4.38	1.73	3.21
16.05	4.14	1.56	4.59	18.65	4.38	1.73	3.19
16.10	4.15	1.56	4.53	18.70	4.39	1.74	3.17
16.15	4.15	1.57	4.47	18.75	4.39	1.74	3.14
16.20	4.16	1.57	4.41	18.80	4.39	1.74	3.12
16.25	4.16	1.58	4.36	18.85	4.40	1.74	3.10
16.30	4.17	1.58	4.30	18.90	4.40	1.75	3.08
16.35	4.17	1.58	4.26	18.95	4.40	1.75	3.06
16.40	4.18	1.59	4.21	19.00	4.41	1.75	3.04
16.45	4.18	1.59	4.17	19.05	4.41	1.75	3.01
16.50	4.19	1.59	4.13	19.10	4.41	1.76	2.99
16.55	4.19	1.60	4.10	19.15	4.42	1.76	2.97
16.60	4.20	1.60	4.07	19.20	4.42	1.76	2.95
16.65	4.20	1.60	4.04	19.25	4.43	1.77	2.93
16.70	4.21	1.61	4.02	19.30	4.43	1.77	2.91
16.75	4.21	1.61	3.99	19.35	4.43	1.77	2.88
16.80	4.22	1.62	3.97	19.40	4.44	1.77	2.86
16.85	4.22	1.62	3.94	19.45	4.44	1.78	2.84
16.90	4.23	1.62	3.92	19.50	4.44	1.78	2.82
16.95	4.23	1.63	3.90	19.55	4.45	1.78	2.80
17.00	4.24	1.63	3.88	19.60	4.45	1.78	2.78
17.05	4.24	1.63	3.86	19.65	4.45	1.79	2.75
17.10	4.25	1.64	3.84	19.70	4.46	1.79	2.73
17.15	4.25	1.64	3.81	19.75	4.46	1.79	2.71
17.20	4.26	1.64	3.79	19.80	4.46	1.79	2.69
17.25	4.26	1.65	3.77	19.85	4.47	1.79	2.67
17.30	4.27	1.65	3.75	19.90	4.47	1.80	2.64
17.35	4.27	1.65	3.73	19.95	4.47	1.80	2.62
17.40	4.28	1.66	3.71	20.00	4.47	1.80	2.60
17.45	4.28	1.66	3.69				
17.50	4.28	1.66	3.67				
17.55	4.29	1.67	3.65				
17.60	4.29	1.67	3.63				
17.65	4.30	1.67	3.61				
17.70	4.30	1.68	3.59				
17.75	4.31	1.68	3.56				
17.80	4.31	1.68	3.55				
17.85	4.32	1.69	3.52				
17.90	4.32	1.69	3.50				
17.95	4.32	1.69	3.48				

Summary for Pond DB #2: Det. Basin #2

Inflow Area = 34.210 ac, 19.10% Impervious, Inflow Depth > 2.75" for 25-Year event
 Inflow = 111.33 cfs @ 12.13 hrs, Volume= 7.840 af
 Outflow = 25.23 cfs @ 12.58 hrs, Volume= 7.306 af, Atten= 77%, Lag= 27.3 min
 Primary = 25.23 cfs @ 12.58 hrs, Volume= 7.306 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 409.78' @ 12.58 hrs Surf.Area= 48,563 sf Storage= 152,398 cf

Plug-Flow detention time= 92.5 min calculated for 7.282 af (93% of inflow)
 Center-of-Mass det. time= 68.7 min (860.5 - 791.7)

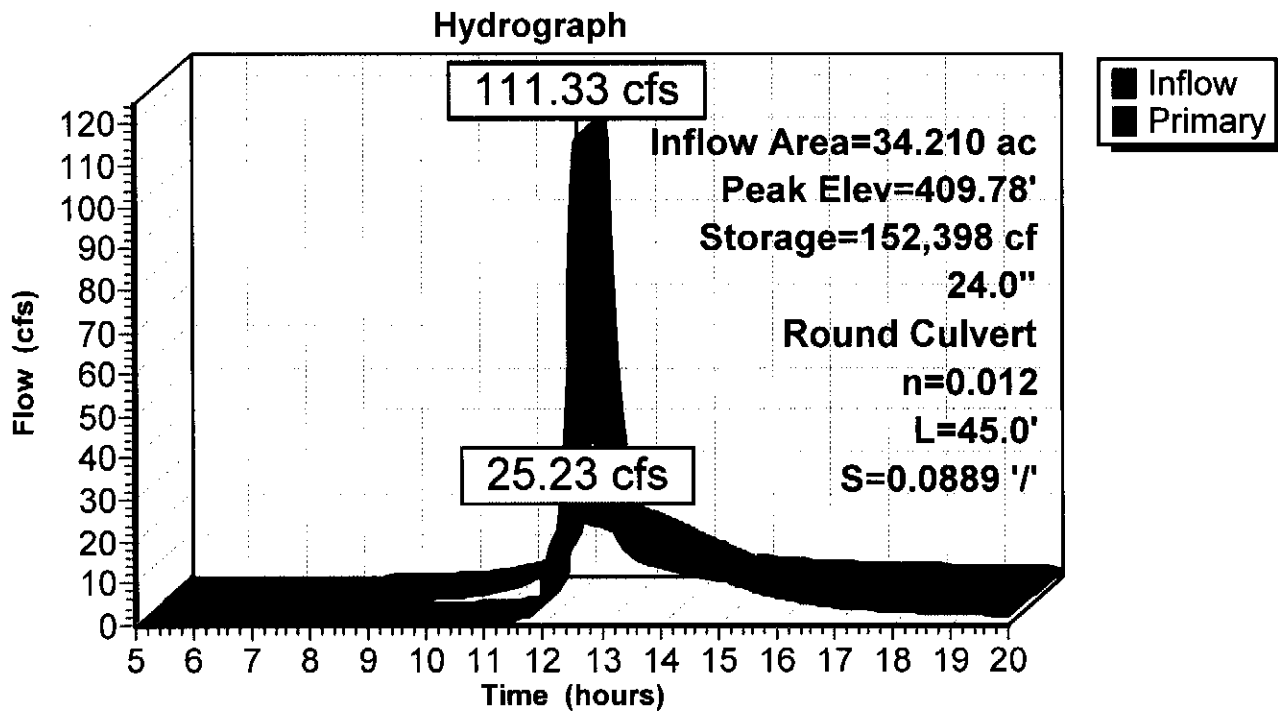
Volume	Invert	Avail.Storage	Storage Description
#1	406.00'	188,459 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
406.00	32,268	0	0
407.00	36,437	34,353	34,353
408.00	40,706	38,572	72,924
409.00	45,075	42,891	115,815
409.50	47,297	23,093	138,908
410.00	49,545	24,211	163,118
410.50	51,818	25,341	188,459

Device	Routing	Invert	Outlet Devices
#1	Primary	406.00'	24.0" Round Culvert L= 45.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 406.00' / 402.00' S= 0.0889 ' / Cc= 0.900 n= 0.012

Primary OutFlow Max=25.22 cfs @ 12.58 hrs HW=409.78' (Free Discharge)
 ↑1=Culvert (Inlet Controls 25.22 cfs @ 8.03 fps)

Pond DB #2: Det. Basin #2



Stage-Discharge for Pond DB #2: Det. Basin #2

Elevation (feet)	Primary (cfs)
406.00	0.00
406.10	0.06
406.20	0.25
406.30	0.55
406.40	0.96
406.50	1.48
406.60	2.09
406.70	2.79
406.80	3.57
406.90	4.43
407.00	5.35
407.10	6.32
407.20	7.34
407.30	8.39
407.40	9.46
407.50	10.54
407.60	11.60
407.70	12.63
407.80	13.60
407.90	14.47
408.00	15.13
408.10	15.87
408.20	16.57
408.30	17.25
408.40	17.90
408.50	18.53
408.60	19.13
408.70	19.72
408.80	20.29
408.90	20.85
409.00	21.39
409.10	21.92
409.20	22.44
409.30	22.94
409.40	23.43
409.50	23.92
409.60	24.39
409.70	24.86
409.80	25.31
409.90	25.76
410.00	26.20
410.10	26.63
410.20	27.06
410.30	27.48
410.40	27.89
410.50	28.30

Stage-Area-Storage for Pond DB #2: Det. Basin #2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
406.00	32,268	0
406.10	32,685	3,248
406.20	33,102	6,537
406.30	33,519	9,868
406.40	33,936	13,241
406.50	34,353	16,655
406.60	34,769	20,111
406.70	35,186	23,609
406.80	35,603	27,148
406.90	36,020	30,730
407.00	36,437	34,353
407.10	36,864	38,018
407.20	37,291	41,725
407.30	37,718	45,476
407.40	38,145	49,269
407.50	38,572	53,105
407.60	38,998	56,983
407.70	39,425	60,904
407.80	39,852	64,868
407.90	40,279	68,875
408.00	40,706	72,924
408.10	41,143	77,016
408.20	41,580	81,153
408.30	42,017	85,332
408.40	42,454	89,556
408.50	42,891	93,823
408.60	43,327	98,134
408.70	43,764	102,489
408.80	44,201	106,887
408.90	44,638	111,329
409.00	45,075	115,815
409.10	45,519	120,344
409.20	45,964	124,918
409.30	46,408	129,537
409.40	46,853	134,200
409.50	47,297	138,908
409.60	47,747	143,660
409.70	48,196	148,457
409.80	48,646	153,299
409.90	49,095	158,186
410.00	49,545	163,118
410.10	50,000	168,095
410.20	50,454	173,118
410.30	50,909	178,186
410.40	51,363	183,300
410.50	51,818	188,459

Hydrograph for Pond DB #2: Det. Basin #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	406.00	0.00
5.05	0.00	0	406.00	0.00
5.10	0.00	0	406.00	0.00
5.15	0.00	0	406.00	0.00
5.20	0.00	0	406.00	0.00
5.25	0.00	0	406.00	0.00
5.30	0.00	0	406.00	0.00
5.35	0.00	0	406.00	0.00
5.40	0.00	0	406.00	0.00
5.45	0.00	0	406.00	0.00
5.50	0.00	0	406.00	0.00
5.55	0.00	0	406.00	0.00
5.60	0.00	0	406.00	0.00
5.65	0.00	0	406.00	0.00
5.70	0.00	0	406.00	0.00
5.75	0.00	0	406.00	0.00
5.80	0.00	0	406.00	0.00
5.85	0.00	0	406.00	0.00
5.90	0.00	0	406.00	0.00
5.95	0.00	0	406.00	0.00
6.00	0.00	0	406.00	0.00
6.05	0.00	0	406.00	0.00
6.10	0.00	0	406.00	0.00
6.15	0.00	0	406.00	0.00
6.20	0.00	0	406.00	0.00
6.25	0.00	0	406.00	0.00
6.30	0.00	0	406.00	0.00
6.35	0.00	0	406.00	0.00
6.40	0.00	0	406.00	0.00
6.45	0.00	0	406.00	0.00
6.50	0.00	0	406.00	0.00
6.55	0.00	0	406.00	0.00
6.60	0.00	1	406.00	0.00
6.65	0.01	2	406.00	0.00
6.70	0.01	3	406.00	0.00
6.75	0.02	6	406.00	0.00
6.80	0.02	10	406.00	0.00
6.85	0.03	15	406.00	0.00
6.90	0.04	21	406.00	0.00
6.95	0.05	29	406.00	0.00
7.00	0.06	38	406.00	0.00
7.05	0.06	49	406.00	0.00
7.10	0.07	61	406.00	0.00
7.15	0.08	75	406.00	0.00
7.20	0.09	90	406.00	0.00
7.25	0.10	107	406.00	0.00
7.30	0.11	125	406.00	0.00
7.35	0.12	145	406.00	0.00
7.40	0.12	166	406.01	0.00
7.45	0.13	189	406.01	0.00
7.50	0.14	214	406.01	0.00
7.55	0.15	240	406.01	0.00

Hydrograph for Pond DB #2: Det. Basin #2 (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
7.60	0.16	267	406.01	0.00
7.65	0.17	297	406.01	0.00
7.70	0.18	328	406.01	0.00
7.75	0.19	360	406.01	0.00
7.80	0.20	394	406.01	0.00
7.85	0.21	430	406.01	0.00
7.90	0.22	468	406.01	0.00
7.95	0.23	507	406.02	0.00
8.00	0.24	548	406.02	0.00
8.05	0.25	590	406.02	0.01
8.10	0.26	634	406.02	0.01
8.15	0.27	680	406.02	0.01
8.20	0.28	728	406.02	0.01
8.25	0.29	778	406.02	0.01
8.30	0.30	830	406.03	0.01
8.35	0.32	884	406.03	0.01
8.40	0.33	941	406.03	0.01
8.45	0.35	1,001	406.03	0.01
8.50	0.37	1,064	406.03	0.01
8.55	0.38	1,130	406.03	0.01
8.60	0.40	1,198	406.04	0.01
8.65	0.42	1,271	406.04	0.01
8.70	0.44	1,346	406.04	0.01
8.75	0.46	1,425	406.04	0.01
8.80	0.48	1,507	406.05	0.01
8.85	0.50	1,593	406.05	0.02
8.90	0.53	1,683	406.05	0.02
8.95	0.55	1,777	406.05	0.02
9.00	0.58	1,875	406.06	0.02
9.05	0.61	1,978	406.06	0.03
9.10	0.65	2,087	406.06	0.03
9.15	0.68	2,200	406.07	0.03
9.20	0.71	2,320	406.07	0.04
9.25	0.75	2,445	406.08	0.04
9.30	0.78	2,575	406.08	0.04
9.35	0.81	2,710	406.08	0.05
9.40	0.84	2,850	406.09	0.05
9.45	0.87	2,994	406.09	0.05
9.50	0.90	3,143	406.10	0.06
9.55	0.92	3,295	406.10	0.07
9.60	0.95	3,451	406.11	0.07
9.65	0.98	3,611	406.11	0.08
9.70	1.01	3,775	406.12	0.09
9.75	1.05	3,944	406.12	0.10
9.80	1.09	4,119	406.13	0.10
9.85	1.14	4,300	406.13	0.11
9.90	1.19	4,488	406.14	0.12
9.95	1.24	4,684	406.14	0.13
10.00	1.30	4,887	406.15	0.14
10.05	1.35	5,099	406.16	0.16
10.10	1.42	5,319	406.16	0.17
10.15	1.48	5,548	406.17	0.18

Hydrograph for Pond DB #2: Det. Basin #2 (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
10.20	1.55	5,786	406.18	0.20
10.25	1.62	6,034	406.18	0.21
10.30	1.70	6,293	406.19	0.23
10.35	1.78	6,562	406.20	0.25
10.40	1.87	6,844	406.21	0.27
10.45	1.96	7,138	406.22	0.30
10.50	2.06	7,444	406.23	0.32
10.55	2.16	7,763	406.24	0.35
10.60	2.26	8,096	406.25	0.38
10.65	2.37	8,442	406.26	0.41
10.70	2.49	8,802	406.27	0.44
10.75	2.62	9,179	406.28	0.48
10.80	2.76	9,572	406.29	0.52
10.85	2.91	9,983	406.30	0.57
10.90	3.06	10,415	406.32	0.61
10.95	3.23	10,867	406.33	0.66
11.00	3.41	11,339	406.34	0.72
11.05	3.59	11,834	406.36	0.78
11.10	3.78	12,352	406.37	0.85
11.15	3.99	12,893	406.39	0.92
11.20	4.23	13,461	406.41	0.99
11.25	4.50	14,059	406.42	1.08
11.30	4.81	14,695	406.44	1.17
11.35	5.17	15,373	406.46	1.28
11.40	5.55	16,097	406.48	1.39
11.45	5.97	16,872	406.51	1.52
11.50	6.41	17,701	406.53	1.66
11.55	6.89	18,586	406.56	1.81
11.60	7.51	19,540	406.58	1.98
11.65	8.62	20,616	406.61	2.19
11.70	10.82	21,949	406.65	2.45
11.75	14.67	23,768	406.70	2.83
11.80	20.51	26,374	406.78	3.40
11.85	28.74	30,115	406.88	4.28
11.90	40.22	35,430	407.03	5.63
11.95	56.28	42,918	407.23	7.67
12.00	76.76	53,249	407.50	10.58
12.05	97.20	66,691	407.85	14.01
12.10	109.94	82,561	408.23	16.80
12.15	110.00	99,109	408.62	19.27
12.20	99.21	114,295	408.97	21.21
12.25	83.16	126,762	409.24	22.64
12.30	67.01	136,112	409.44	23.63
12.35	53.83	142,674	409.58	24.29
12.40	44.09	147,075	409.67	24.72
12.45	36.95	149,894	409.73	24.99
12.50	31.52	151,543	409.76	25.15
12.55	27.24	152,299	409.78	25.22
12.60	23.79	152,352	409.78	25.22
12.65	20.96	151,845	409.77	25.18
12.70	18.65	150,887	409.75	25.09
12.75	16.80	149,573	409.72	24.96

2184 HydroCAD BASE

Type II 24-hr 25-Year Rainfall=5.40"

Prepared by HP

Printed 4/28/2016

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Hydrograph for Pond DB #2: Det. Basin #2 (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
12.80	15.33	147,984	409.69	24.81
12.85	14.16	146,188	409.65	24.64
12.90	13.22	144,235	409.61	24.45
12.95	12.45	142,164	409.57	24.24
13.00	11.82	140,004	409.52	24.03
13.05	11.27	137,777	409.48	23.80
13.10	10.78	135,499	409.43	23.57
13.15	10.33	133,178	409.38	23.33
13.20	9.94	130,827	409.33	23.08
13.25	9.60	128,455	409.28	22.82
13.30	9.30	126,071	409.23	22.56
13.35	9.02	123,682	409.17	22.30
13.40	8.77	121,295	409.12	22.03
13.45	8.54	118,912	409.07	21.76
13.50	8.32	116,538	409.02	21.48
13.55	8.10	114,175	408.96	21.20
13.60	7.89	111,824	408.91	20.91
13.65	7.68	109,488	408.86	20.62
13.70	7.49	107,168	408.81	20.33
13.75	7.30	104,866	408.75	20.03
13.80	7.13	102,586	408.70	19.74
13.85	6.96	100,328	408.65	19.43
13.90	6.80	98,096	408.60	19.13
13.95	6.64	95,890	408.55	18.82
14.00	6.49	93,713	408.50	18.51
14.05	6.34	91,564	408.45	18.20
14.10	6.19	89,445	408.40	17.88
14.15	6.05	87,357	408.35	17.56
14.20	5.92	85,302	408.30	17.24
14.25	5.80	83,283	408.25	16.92
14.30	5.70	81,302	408.20	16.60
14.35	5.62	79,363	408.16	16.27
14.40	5.54	77,468	408.11	15.94
14.45	5.47	75,619	408.07	15.62
14.50	5.41	73,817	408.02	15.29
14.55	5.35	72,058	407.98	15.02
14.60	5.30	70,338	407.94	14.74
14.65	5.24	68,662	407.89	14.42
14.70	5.19	67,035	407.85	14.09
14.75	5.14	65,461	407.81	13.74
14.80	5.09	63,940	407.78	13.38
14.85	5.04	62,475	407.74	13.03
14.90	4.99	61,064	407.70	12.67
14.95	4.94	59,707	407.67	12.33
15.00	4.89	58,403	407.64	11.98
15.05	4.83	57,151	407.60	11.65
15.10	4.78	55,949	407.57	11.32
15.15	4.73	54,796	407.54	11.01
15.20	4.68	53,690	407.52	10.70
15.25	4.63	52,628	407.49	10.41
15.30	4.58	51,610	407.46	10.12
15.35	4.53	50,633	407.44	9.85

2184 HydroCAD BASE

Type II 24-hr 25-Year Rainfall=5.40"

Prepared by HP

Printed 4/28/2016

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Hydrograph for Pond DB #2: Det. Basin #2 (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
15.40	4.48	49,695	407.41	9.58
15.45	4.43	48,794	407.39	9.33
15.50	4.38	47,930	407.36	9.08
15.55	4.32	47,099	407.34	8.85
15.60	4.27	46,300	407.32	8.62
15.65	4.22	45,531	407.30	8.41
15.70	4.17	44,792	407.28	8.20
15.75	4.12	44,080	407.26	8.00
15.80	4.07	43,395	407.24	7.81
15.85	4.01	42,733	407.23	7.62
15.90	3.96	42,095	407.21	7.44
15.95	3.91	41,480	407.19	7.27
16.00	3.86	40,885	407.18	7.11
16.05	3.81	40,310	407.16	6.95
16.10	3.76	39,753	407.15	6.80
16.15	3.71	39,215	407.13	6.65
16.20	3.66	38,694	407.12	6.51
16.25	3.62	38,190	407.10	6.37
16.30	3.58	37,703	407.09	6.24
16.35	3.55	37,233	407.08	6.11
16.40	3.52	36,780	407.07	5.99
16.45	3.50	36,345	407.05	5.87
16.50	3.48	35,925	407.04	5.76
16.55	3.45	35,521	407.03	5.65
16.60	3.43	35,133	407.02	5.55
16.65	3.41	34,758	407.01	5.45
16.70	3.40	34,398	407.00	5.36
16.75	3.38	34,051	406.99	5.27
16.80	3.36	33,716	406.98	5.18
16.85	3.34	33,393	406.97	5.10
16.90	3.32	33,082	406.97	5.02
16.95	3.30	32,781	406.96	4.94
17.00	3.28	32,491	406.95	4.87
17.05	3.27	32,210	406.94	4.80
17.10	3.25	31,939	406.93	4.73
17.15	3.23	31,676	406.93	4.67
17.20	3.21	31,422	406.92	4.60
17.25	3.19	31,175	406.91	4.54
17.30	3.17	30,937	406.91	4.48
17.35	3.16	30,705	406.90	4.42
17.40	3.14	30,481	406.89	4.37
17.45	3.12	30,262	406.89	4.32
17.50	3.10	30,050	406.88	4.26
17.55	3.08	29,844	406.88	4.21
17.60	3.06	29,643	406.87	4.16
17.65	3.05	29,448	406.86	4.12
17.70	3.03	29,257	406.86	4.07
17.75	3.01	29,072	406.85	4.03
17.80	2.99	28,891	406.85	3.98
17.85	2.97	28,714	406.84	3.94
17.90	2.95	28,542	406.84	3.90
17.95	2.93	28,373	406.83	3.86

2184 HydroCAD BASE

Type II 24-hr 25-Year Rainfall=5.40"

Prepared by HP

Printed 4/28/2016

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Hydrograph for Pond DB #2: Det. Basin #2 (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
18.00	2.92	28,208	406.83	3.82
18.05	2.90	28,047	406.83	3.78
18.10	2.88	27,889	406.82	3.75
18.15	2.86	27,735	406.82	3.71
18.20	2.84	27,583	406.81	3.67
18.25	2.82	27,435	406.81	3.64
18.30	2.80	27,289	406.80	3.61
18.35	2.79	27,146	406.80	3.57
18.40	2.77	27,005	406.80	3.54
18.45	2.75	26,866	406.79	3.51
18.50	2.73	26,730	406.79	3.48
18.55	2.71	26,596	406.78	3.45
18.60	2.69	26,464	406.78	3.42
18.65	2.67	26,334	406.78	3.39
18.70	2.65	26,206	406.77	3.36
18.75	2.63	26,080	406.77	3.33
18.80	2.62	25,956	406.77	3.30
18.85	2.60	25,833	406.76	3.28
18.90	2.58	25,711	406.76	3.25
18.95	2.56	25,591	406.76	3.22
19.00	2.54	25,473	406.75	3.20
19.05	2.52	25,355	406.75	3.17
19.10	2.50	25,239	406.75	3.14
19.15	2.48	25,124	406.74	3.12
19.20	2.46	25,010	406.74	3.09
19.25	2.45	24,897	406.74	3.07
19.30	2.43	24,785	406.73	3.05
19.35	2.41	24,675	406.73	3.02
19.40	2.39	24,565	406.73	3.00
19.45	2.37	24,456	406.72	2.97
19.50	2.35	24,347	406.72	2.95
19.55	2.33	24,240	406.72	2.93
19.60	2.31	24,133	406.71	2.90
19.65	2.29	24,027	406.71	2.88
19.70	2.27	23,922	406.71	2.86
19.75	2.25	23,817	406.71	2.84
19.80	2.24	23,712	406.70	2.81
19.85	2.22	23,608	406.70	2.79
19.90	2.20	23,504	406.70	2.77
19.95	2.18	23,401	406.69	2.75
20.00	2.16	23,299	406.69	2.73

2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 25-Year Rainfall=5.40"

Printed 4/28/2016

Summary for Subcatchment 1: #1 Dev

Runoff = 68.59 cfs @ 12.11 hrs, Volume= 4.616 af, Depth> 3.09"

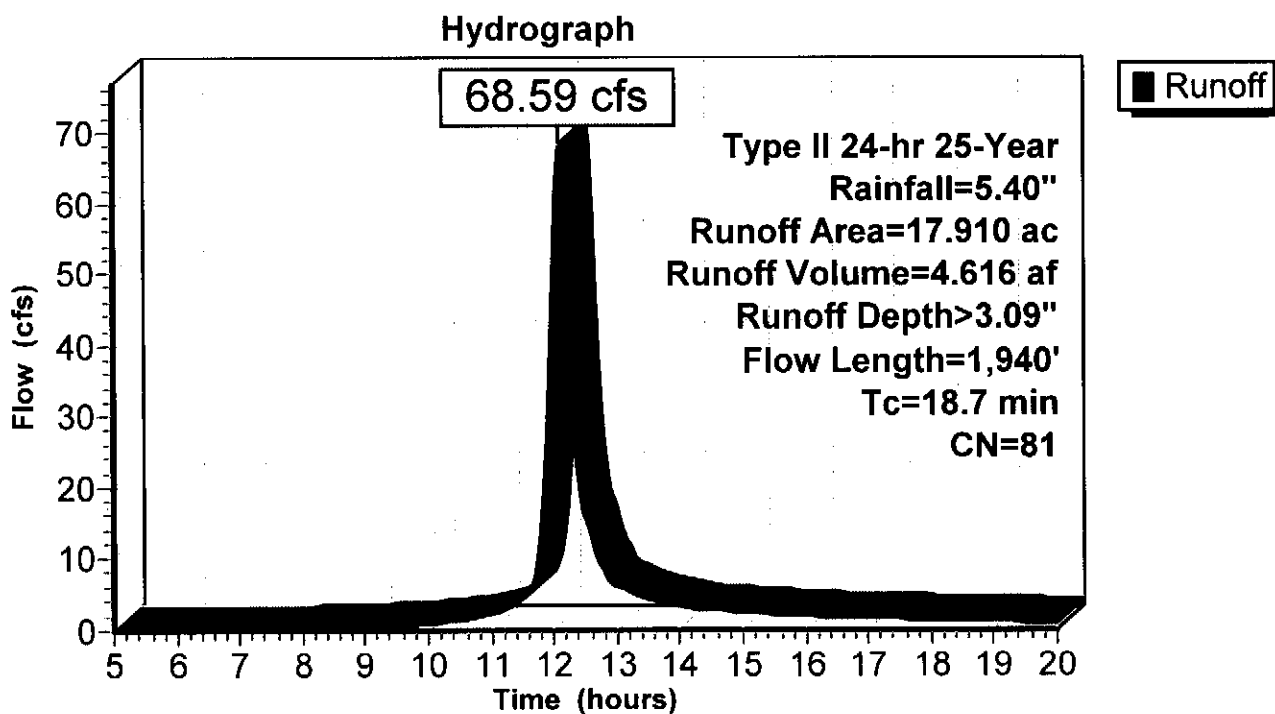
Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Type II 24-hr 25-Year Rainfall=5.40"

Area (ac)	CN	Description
17.910	81	1/3 acre lots, 30% imp, HSG C
12.537		70.00% Pervious Area
5.373		30.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.1118	0.16		Sheet Flow, Sheet Flow Woods: Light underbrush n= 0.400 P2= 3.30"
5.3	112	0.1118	0.35		Sheet Flow, Sheet Flow Grass: Short n= 0.150 P2= 3.30"
0.4	97	0.0433	4.22		Shallow Concentrated Flow, Shallow Concentrated Flow Paved Kv= 20.3 fps
2.4	1,631	0.0303	11.21	19.81	Pipe Channel, Storm Sewer 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012
18.7	1,940	Total			

Subcatchment 1: #1 Dev



2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 25-Year Rainfall=5.40"

Printed 4/28/2016

Summary for Subcatchment OS-4: OS-4

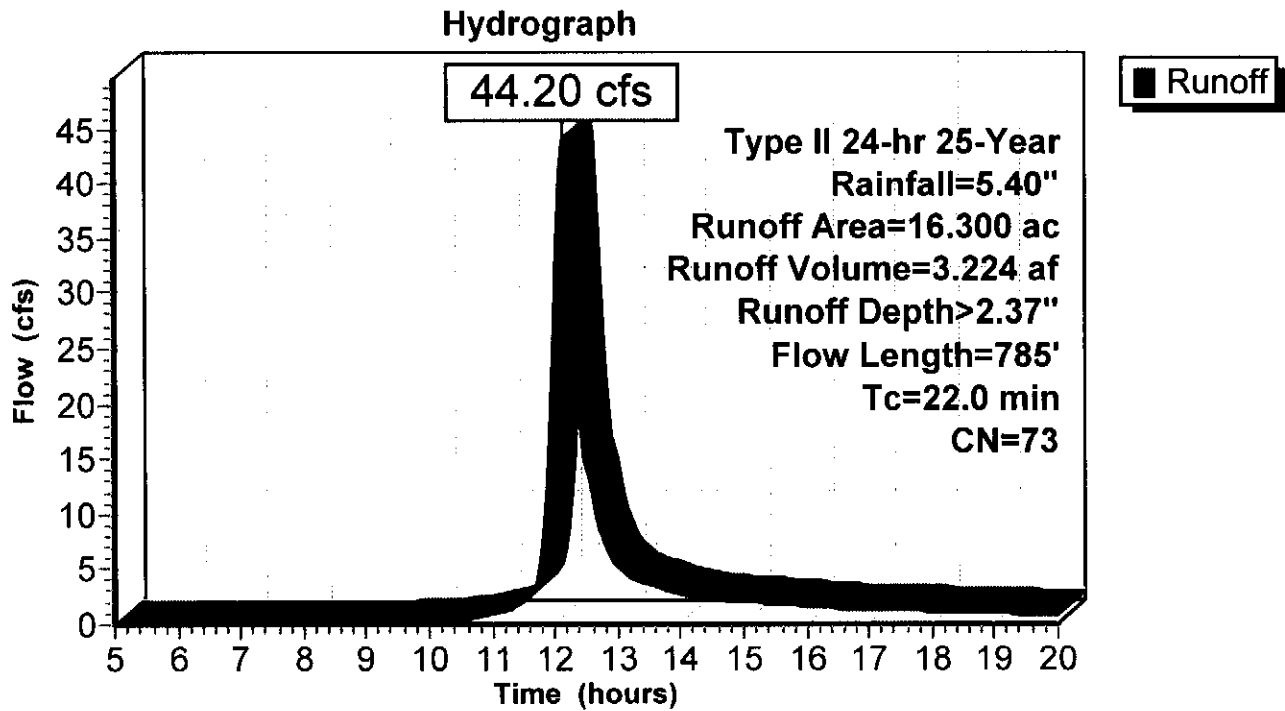
Runoff = 44.20 cfs @ 12.15 hrs, Volume= 3.224 af, Depth> 2.37"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type II 24-hr 25-Year Rainfall=5.40"

Area (ac)	CN	Description
15.140	71	Meadow, non-grazed, HSG C
0.660	98	Paved parking, HSG C
0.500	98	Water Surface, HSG C
16.300	73	Weighted Average
15.140		92.88% Pervious Area
1.160		7.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.3	300	0.0933	0.27		Sheet Flow, Sheet Flow Grass: Dense n= 0.240 P2= 3.30"
3.2	300	0.0500	1.57		Shallow Concentrated Flow, Shallow Concentrated Short Grass Pasture Kv= 7.0 fps
0.5	185	0.0378	5.87	17.62	Channel Flow, Area= 3.0 sf Perim= 5.0' r= 0.60' n= 0.035 Earth, dense weeds
22.0	785	Total			

Subcatchment OS-4: OS-4



2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 25-Year Rainfall=5.40"

Printed 4/28/2016

Summary for Subcatchment 2: #2 Dev

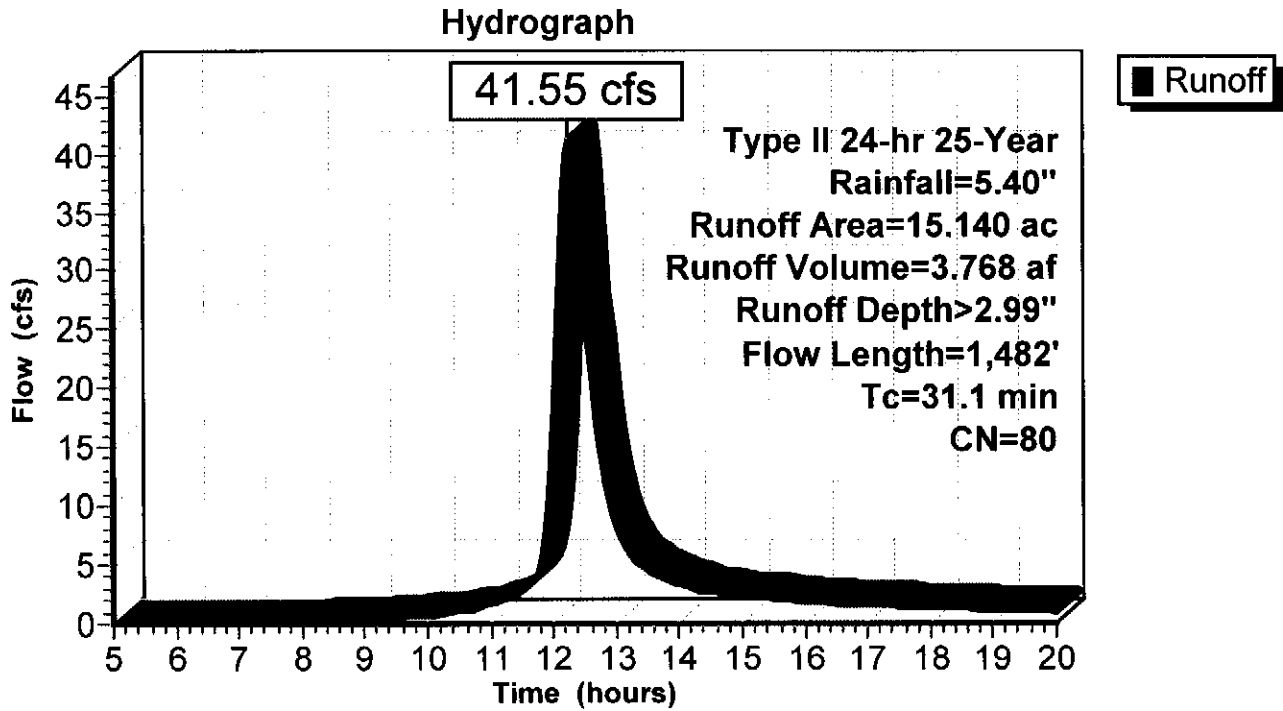
Runoff = 41.55 cfs @ 12.26 hrs, Volume= 3.768 af, Depth> 2.99"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=5.40"

Area (ac)	CN	Description
15.140	80	1/2 acre lots, 25% imp, HSG C
11.355		75.00% Pervious Area
3.785		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.6	300	0.1367	0.21		Sheet Flow, Sheet Flow Woods: Light underbrush n= 0.400 P2= 3.30"
5.5	300	0.0333	0.91		Shallow Concentrated Flow, Shallow Concentrated Flow Woodland Kv= 5.0 fps
2.0	882	0.0215	7.26	72.63	Channel Flow, Ditch Flow Area= 10.0 sf Perim= 10.0' r= 1.00' n= 0.030
31.1	1,482	Total			

Subcatchment 2: #2 Dev



Hydrograph for Subcatchment 2: #2 Dev

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.34	0.00	0.00	7.60	0.60	0.00	0.06
5.05	0.34	0.00	0.00	7.65	0.61	0.00	0.07
5.10	0.35	0.00	0.00	7.70	0.61	0.00	0.08
5.15	0.35	0.00	0.00	7.75	0.62	0.01	0.08
5.20	0.36	0.00	0.00	7.80	0.62	0.01	0.09
5.25	0.36	0.00	0.00	7.85	0.63	0.01	0.10
5.30	0.37	0.00	0.00	7.90	0.64	0.01	0.11
5.35	0.37	0.00	0.00	7.95	0.64	0.01	0.11
5.40	0.38	0.00	0.00	8.00	0.65	0.01	0.12
5.45	0.38	0.00	0.00	8.05	0.65	0.01	0.13
5.50	0.38	0.00	0.00	8.10	0.66	0.01	0.14
5.55	0.39	0.00	0.00	8.15	0.67	0.01	0.14
5.60	0.39	0.00	0.00	8.20	0.67	0.01	0.15
5.65	0.40	0.00	0.00	8.25	0.68	0.01	0.16
5.70	0.40	0.00	0.00	8.30	0.69	0.01	0.17
5.75	0.41	0.00	0.00	8.35	0.69	0.01	0.18
5.80	0.41	0.00	0.00	8.40	0.70	0.01	0.19
5.85	0.42	0.00	0.00	8.45	0.71	0.02	0.20
5.90	0.42	0.00	0.00	8.50	0.71	0.02	0.21
5.95	0.43	0.00	0.00	8.55	0.72	0.02	0.22
6.00	0.43	0.00	0.00	8.60	0.73	0.02	0.23
6.05	0.44	0.00	0.00	8.65	0.74	0.02	0.25
6.10	0.44	0.00	0.00	8.70	0.74	0.02	0.26
6.15	0.45	0.00	0.00	8.75	0.75	0.02	0.27
6.20	0.45	0.00	0.00	8.80	0.76	0.02	0.29
6.25	0.46	0.00	0.00	8.85	0.77	0.03	0.30
6.30	0.46	0.00	0.00	8.90	0.78	0.03	0.32
6.35	0.47	0.00	0.00	8.95	0.79	0.03	0.33
6.40	0.47	0.00	0.00	9.00	0.79	0.03	0.35
6.45	0.48	0.00	0.00	9.05	0.80	0.03	0.37
6.50	0.48	0.00	0.00	9.10	0.81	0.03	0.38
6.55	0.49	0.00	0.00	9.15	0.82	0.04	0.40
6.60	0.49	0.00	0.00	9.20	0.83	0.04	0.42
6.65	0.50	0.00	0.00	9.25	0.84	0.04	0.44
6.70	0.50	0.00	0.00	9.30	0.85	0.04	0.45
6.75	0.51	0.00	0.00	9.35	0.85	0.04	0.47
6.80	0.51	0.00	0.00	9.40	0.86	0.05	0.49
6.85	0.52	0.00	0.00	9.45	0.87	0.05	0.50
6.90	0.52	0.00	0.00	9.50	0.88	0.05	0.52
6.95	0.53	0.00	0.00	9.55	0.89	0.05	0.54
7.00	0.53	0.00	0.00	9.60	0.90	0.05	0.55
7.05	0.54	0.00	0.01	9.65	0.91	0.06	0.56
7.10	0.55	0.00	0.01	9.70	0.92	0.06	0.58
7.15	0.55	0.00	0.01	9.75	0.93	0.06	0.59
7.20	0.56	0.00	0.02	9.80	0.94	0.06	0.61
7.25	0.56	0.00	0.02	9.85	0.95	0.07	0.63
7.30	0.57	0.00	0.03	9.90	0.96	0.07	0.65
7.35	0.57	0.00	0.03	9.95	0.97	0.07	0.67
7.40	0.58	0.00	0.04	10.00	0.98	0.08	0.69
7.45	0.58	0.00	0.04	10.05	0.99	0.08	0.71
7.50	0.59	0.00	0.05	10.10	1.00	0.08	0.74
7.55	0.60	0.00	0.06	10.15	1.01	0.09	0.77

2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 25-Year Rainfall=5.40"

Printed 4/28/2016

Hydrograph for Subcatchment 2: #2 Dev (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
10.20	1.02	0.09	0.80	12.80	4.10	2.12	11.95
10.25	1.04	0.09	0.83	12.85	4.12	2.14	10.69
10.30	1.05	0.10	0.86	12.90	4.13	2.15	9.64
10.35	1.06	0.10	0.90	12.95	4.15	2.17	8.75
10.40	1.07	0.11	0.94	13.00	4.17	2.18	8.01
10.45	1.09	0.11	0.98	13.05	4.19	2.20	7.39
10.50	1.10	0.12	1.02	13.10	4.20	2.21	6.86
10.55	1.12	0.12	1.06	13.15	4.22	2.22	6.41
10.60	1.13	0.13	1.11	13.20	4.23	2.23	6.02
10.65	1.15	0.13	1.16	13.25	4.25	2.25	5.68
10.70	1.16	0.14	1.21	13.30	4.26	2.26	5.38
10.75	1.18	0.14	1.26	13.35	4.27	2.27	5.11
10.80	1.20	0.15	1.32	13.40	4.29	2.28	4.88
10.85	1.21	0.16	1.38	13.45	4.30	2.29	4.67
10.90	1.23	0.17	1.45	13.50	4.31	2.30	4.48
10.95	1.25	0.17	1.52	13.55	4.33	2.31	4.30
11.00	1.27	0.18	1.59	13.60	4.34	2.33	4.14
11.05	1.29	0.19	1.67	13.65	4.35	2.34	4.00
11.10	1.31	0.20	1.75	13.70	4.36	2.35	3.87
11.15	1.33	0.21	1.84	13.75	4.37	2.36	3.76
11.20	1.36	0.22	1.94	13.80	4.39	2.36	3.66
11.25	1.38	0.23	2.04	13.85	4.40	2.37	3.56
11.30	1.41	0.24	2.15	13.90	4.41	2.38	3.47
11.35	1.44	0.26	2.28	13.95	4.42	2.39	3.38
11.40	1.47	0.27	2.42	14.00	4.43	2.40	3.30
11.45	1.50	0.28	2.58	14.05	4.44	2.41	3.22
11.50	1.53	0.30	2.75	14.10	4.45	2.42	3.14
11.55	1.58	0.32	2.94	14.15	4.46	2.43	3.06
11.60	1.66	0.37	3.15	14.20	4.47	2.43	2.99
11.65	1.77	0.43	3.44	14.25	4.48	2.44	2.92
11.70	1.91	0.51	3.87	14.30	4.49	2.45	2.86
11.75	2.09	0.62	4.56	14.35	4.50	2.46	2.80
11.80	2.33	0.77	5.67	14.40	4.50	2.47	2.75
11.85	2.65	1.00	7.40	14.45	4.51	2.47	2.70
11.90	3.07	1.30	9.92	14.50	4.52	2.48	2.65
11.95	3.42	1.58	13.54	14.55	4.53	2.49	2.62
12.00	3.58	1.70	18.38	14.60	4.54	2.50	2.58
12.05	3.63	1.74	24.30	14.65	4.55	2.50	2.55
12.10	3.68	1.78	30.59	14.70	4.56	2.51	2.52
12.15	3.73	1.82	36.26	14.75	4.57	2.52	2.49
12.20	3.77	1.86	40.12	14.80	4.58	2.53	2.46
12.25	3.81	1.89	41.54	14.85	4.58	2.53	2.43
12.30	3.85	1.92	40.62	14.90	4.59	2.54	2.40
12.35	3.88	1.95	38.09	14.95	4.60	2.55	2.38
12.40	3.92	1.97	34.41	15.00	4.61	2.55	2.35
12.45	3.94	2.00	30.25	15.05	4.62	2.56	2.33
12.50	3.97	2.02	26.12	15.10	4.62	2.57	2.30
12.55	3.99	2.04	22.51	15.15	4.63	2.58	2.28
12.60	4.01	2.05	19.58	15.20	4.64	2.58	2.25
12.65	4.04	2.07	17.18	15.25	4.65	2.59	2.23
12.70	4.06	2.09	15.16	15.30	4.66	2.59	2.21
12.75	4.08	2.11	13.43	15.35	4.66	2.60	2.18

Hydrograph for Subcatchment 2: #2 Dev (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
15.40	4.67	2.61	2.16	18.00	4.97	2.87	1.38
15.45	4.68	2.61	2.13	18.05	4.98	2.87	1.37
15.50	4.69	2.62	2.11	18.10	4.98	2.88	1.36
15.55	4.69	2.63	2.09	18.15	4.99	2.88	1.35
15.60	4.70	2.63	2.06	18.20	4.99	2.89	1.34
15.65	4.71	2.64	2.04	18.25	5.00	2.89	1.33
15.70	4.71	2.64	2.01	18.30	5.00	2.89	1.32
15.75	4.72	2.65	1.99	18.35	5.01	2.90	1.32
15.80	4.73	2.66	1.97	18.40	5.01	2.90	1.31
15.85	4.73	2.66	1.94	18.45	5.02	2.91	1.30
15.90	4.74	2.67	1.92	18.50	5.02	2.91	1.29
15.95	4.75	2.67	1.89	18.55	5.02	2.91	1.28
16.00	4.75	2.68	1.87	18.60	5.03	2.92	1.27
16.05	4.76	2.68	1.85	18.65	5.03	2.92	1.26
16.10	4.76	2.69	1.82	18.70	5.04	2.93	1.26
16.15	4.77	2.69	1.80	18.75	5.04	2.93	1.25
16.20	4.78	2.70	1.77	18.80	5.05	2.93	1.24
16.25	4.78	2.70	1.75	18.85	5.05	2.94	1.23
16.30	4.79	2.71	1.73	18.90	5.06	2.94	1.22
16.35	4.79	2.71	1.71	18.95	5.06	2.94	1.21
16.40	4.80	2.72	1.69	19.00	5.06	2.95	1.20
16.45	4.81	2.72	1.67	19.05	5.07	2.95	1.19
16.50	4.81	2.73	1.66	19.10	5.07	2.96	1.18
16.55	4.82	2.73	1.64	19.15	5.08	2.96	1.18
16.60	4.82	2.74	1.63	19.20	5.08	2.96	1.17
16.65	4.83	2.74	1.62	19.25	5.08	2.97	1.16
16.70	4.84	2.75	1.61	19.30	5.09	2.97	1.15
16.75	4.84	2.75	1.60	19.35	5.09	2.97	1.14
16.80	4.85	2.76	1.59	19.40	5.10	2.98	1.13
16.85	4.85	2.76	1.58	19.45	5.10	2.98	1.12
16.90	4.86	2.77	1.57	19.50	5.10	2.98	1.11
16.95	4.86	2.77	1.56	19.55	5.11	2.99	1.11
17.00	4.87	2.78	1.55	19.60	5.11	2.99	1.10
17.05	4.87	2.78	1.54	19.65	5.12	2.99	1.09
17.10	4.88	2.79	1.53	19.70	5.12	3.00	1.08
17.15	4.89	2.79	1.52	19.75	5.12	3.00	1.07
17.20	4.89	2.80	1.51	19.80	5.13	3.00	1.06
17.25	4.90	2.80	1.51	19.85	5.13	3.01	1.05
17.30	4.90	2.81	1.50	19.90	5.13	3.01	1.04
17.35	4.91	2.81	1.49	19.95	5.14	3.01	1.03
17.40	4.91	2.82	1.48	20.00	5.14	3.02	1.03
17.45	4.92	2.82	1.47				
17.50	4.92	2.83	1.46				
17.55	4.93	2.83	1.45				
17.60	4.93	2.83	1.45				
17.65	4.94	2.84	1.44				
17.70	4.94	2.84	1.43				
17.75	4.95	2.85	1.42				
17.80	4.95	2.85	1.41				
17.85	4.96	2.86	1.40				
17.90	4.96	2.86	1.39				
17.95	4.97	2.87	1.39				

2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 25-Year Rainfall=5.40"

Printed 4/28/2016

Summary for Subcatchment 4: #4 Dev

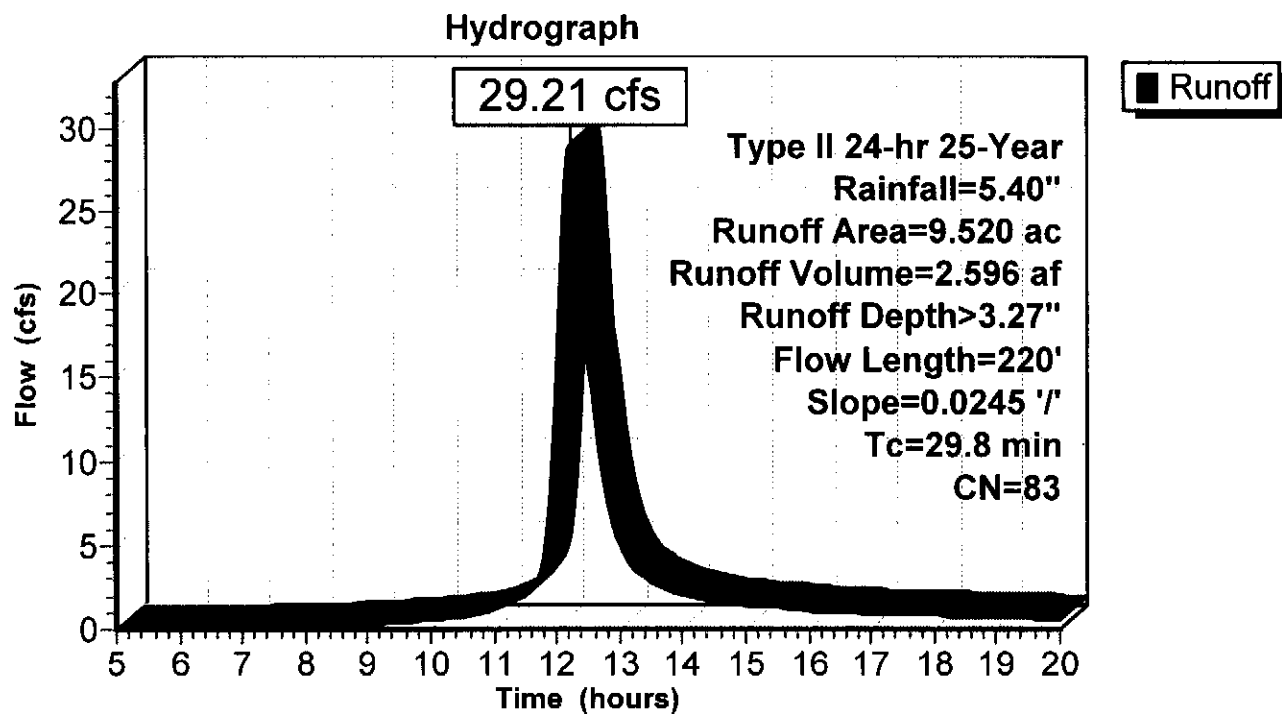
Runoff = 29.21 cfs @ 12.24 hrs, Volume= 2.596 af, Depth> 3.27"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=5.40"

Area (ac)	CN	Description
9.520	83	1/4 acre lots, 38% imp, HSG C
5.902		62.00% Pervious Area
3.618		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.5	100	0.0245	0.09		Sheet Flow, Sheet Flow
					Woods: Light underbrush n= 0.400 P2= 3.30"
10.3	120	0.0245	0.19		Sheet Flow,
					Grass: Short n= 0.150 P2= 3.30"
29.8	220	Total			

Subcatchment 4: #4 Dev



Hydrograph for Subcatchment 4: #4 Dev

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.34	0.00	0.00	7.60	0.60	0.02	0.13
5.05	0.34	0.00	0.00	7.65	0.61	0.02	0.14
5.10	0.35	0.00	0.00	7.70	0.61	0.02	0.14
5.15	0.35	0.00	0.00	7.75	0.62	0.02	0.15
5.20	0.36	0.00	0.00	7.80	0.62	0.02	0.15
5.25	0.36	0.00	0.00	7.85	0.63	0.02	0.16
5.30	0.37	0.00	0.00	7.90	0.64	0.02	0.16
5.35	0.37	0.00	0.00	7.95	0.64	0.02	0.17
5.40	0.38	0.00	0.00	8.00	0.65	0.02	0.17
5.45	0.38	0.00	0.00	8.05	0.65	0.03	0.18
5.50	0.38	0.00	0.00	8.10	0.66	0.03	0.18
5.55	0.39	0.00	0.00	8.15	0.67	0.03	0.19
5.60	0.39	0.00	0.00	8.20	0.67	0.03	0.20
5.65	0.40	0.00	0.00	8.25	0.68	0.03	0.20
5.70	0.40	0.00	0.00	8.30	0.69	0.03	0.21
5.75	0.41	0.00	0.00	8.35	0.69	0.03	0.22
5.80	0.41	0.00	0.00	8.40	0.70	0.04	0.22
5.85	0.42	0.00	0.00	8.45	0.71	0.04	0.23
5.90	0.42	0.00	0.00	8.50	0.71	0.04	0.24
5.95	0.43	0.00	0.00	8.55	0.72	0.04	0.25
6.00	0.43	0.00	0.00	8.60	0.73	0.04	0.26
6.05	0.44	0.00	0.00	8.65	0.74	0.05	0.27
6.10	0.44	0.00	0.00	8.70	0.74	0.05	0.28
6.15	0.45	0.00	0.00	8.75	0.75	0.05	0.29
6.20	0.45	0.00	0.01	8.80	0.76	0.05	0.30
6.25	0.46	0.00	0.01	8.85	0.77	0.05	0.31
6.30	0.46	0.00	0.01	8.90	0.78	0.06	0.33
6.35	0.47	0.00	0.01	8.95	0.79	0.06	0.34
6.40	0.47	0.00	0.02	9.00	0.79	0.06	0.35
6.45	0.48	0.00	0.02	9.05	0.80	0.06	0.37
6.50	0.48	0.00	0.03	9.10	0.81	0.07	0.38
6.55	0.49	0.00	0.03	9.15	0.82	0.07	0.39
6.60	0.49	0.00	0.03	9.20	0.83	0.07	0.41
6.65	0.50	0.00	0.04	9.25	0.84	0.07	0.42
6.70	0.50	0.00	0.04	9.30	0.85	0.08	0.43
6.75	0.51	0.00	0.05	9.35	0.85	0.08	0.45
6.80	0.51	0.00	0.05	9.40	0.86	0.08	0.46
6.85	0.52	0.01	0.06	9.45	0.87	0.09	0.47
6.90	0.52	0.01	0.06	9.50	0.88	0.09	0.48
6.95	0.53	0.01	0.07	9.55	0.89	0.09	0.49
7.00	0.53	0.01	0.07	9.60	0.90	0.09	0.50
7.05	0.54	0.01	0.08	9.65	0.91	0.10	0.51
7.10	0.55	0.01	0.08	9.70	0.92	0.10	0.52
7.15	0.55	0.01	0.08	9.75	0.93	0.10	0.53
7.20	0.56	0.01	0.09	9.80	0.94	0.11	0.54
7.25	0.56	0.01	0.09	9.85	0.95	0.11	0.55
7.30	0.57	0.01	0.10	9.90	0.96	0.12	0.57
7.35	0.57	0.01	0.10	9.95	0.97	0.12	0.58
7.40	0.58	0.01	0.11	10.00	0.98	0.12	0.60
7.45	0.58	0.01	0.12	10.05	0.99	0.13	0.62
7.50	0.59	0.01	0.12	10.10	1.00	0.13	0.64
7.55	0.60	0.02	0.13	10.15	1.01	0.14	0.66

2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 25-Year Rainfall=5.40"

Printed 4/28/2016

Hydrograph for Subcatchment 4: #4 Dev (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
10.20	1.02	0.14	0.68	12.80	4.10	2.37	7.52
10.25	1.04	0.15	0.71	12.85	4.12	2.39	6.73
10.30	1.05	0.15	0.73	12.90	4.13	2.40	6.07
10.35	1.06	0.16	0.76	12.95	4.15	2.42	5.52
10.40	1.07	0.16	0.79	13.00	4.17	2.43	5.06
10.45	1.09	0.17	0.82	13.05	4.19	2.45	4.68
10.50	1.10	0.17	0.85	13.10	4.20	2.46	4.35
10.55	1.12	0.18	0.88	13.15	4.22	2.48	4.08
10.60	1.13	0.19	0.92	13.20	4.23	2.49	3.83
10.65	1.15	0.19	0.95	13.25	4.25	2.50	3.62
10.70	1.16	0.20	0.99	13.30	4.26	2.51	3.44
10.75	1.18	0.21	1.03	13.35	4.27	2.53	3.27
10.80	1.20	0.22	1.07	13.40	4.29	2.54	3.13
10.85	1.21	0.23	1.12	13.45	4.30	2.55	2.99
10.90	1.23	0.24	1.17	13.50	4.31	2.56	2.87
10.95	1.25	0.24	1.22	13.55	4.33	2.57	2.76
11.00	1.27	0.25	1.28	13.60	4.34	2.58	2.67
11.05	1.29	0.26	1.33	13.65	4.35	2.59	2.58
11.10	1.31	0.28	1.40	13.70	4.36	2.60	2.51
11.15	1.33	0.29	1.46	13.75	4.37	2.61	2.44
11.20	1.36	0.30	1.53	13.80	4.39	2.62	2.38
11.25	1.38	0.31	1.60	13.85	4.40	2.63	2.31
11.30	1.41	0.33	1.69	13.90	4.41	2.64	2.25
11.35	1.44	0.34	1.78	13.95	4.42	2.65	2.20
11.40	1.47	0.36	1.89	14.00	4.43	2.66	2.14
11.45	1.50	0.38	2.00	14.05	4.44	2.67	2.09
11.50	1.53	0.40	2.13	14.10	4.45	2.68	2.04
11.55	1.58	0.42	2.27	14.15	4.46	2.69	1.99
11.60	1.66	0.47	2.43	14.20	4.47	2.70	1.95
11.65	1.77	0.54	2.64	14.25	4.48	2.70	1.90
11.70	1.91	0.64	2.97	14.30	4.49	2.71	1.86
11.75	2.09	0.76	3.52	14.35	4.50	2.72	1.82
11.80	2.33	0.93	4.40	14.40	4.50	2.73	1.79
11.85	2.65	1.17	5.74	14.45	4.51	2.74	1.76
11.90	3.07	1.50	7.68	14.50	4.52	2.75	1.73
11.95	3.42	1.80	10.41	14.55	4.53	2.75	1.70
12.00	3.58	1.93	14.03	14.60	4.54	2.76	1.68
12.05	3.63	1.97	18.36	14.65	4.55	2.77	1.66
12.10	3.68	2.01	22.83	14.70	4.56	2.78	1.64
12.15	3.73	2.05	26.58	14.75	4.57	2.79	1.62
12.20	3.77	2.09	28.82	14.80	4.58	2.79	1.60
12.25	3.81	2.12	29.15	14.85	4.58	2.80	1.59
12.30	3.85	2.16	27.95	14.90	4.59	2.81	1.57
12.35	3.88	2.19	25.62	14.95	4.60	2.82	1.55
12.40	3.92	2.21	22.68	15.00	4.61	2.82	1.54
12.45	3.94	2.24	19.56	15.05	4.62	2.83	1.52
12.50	3.97	2.26	16.70	15.10	4.62	2.84	1.50
12.55	3.99	2.28	14.34	15.15	4.63	2.84	1.49
12.60	4.01	2.30	12.46	15.20	4.64	2.85	1.47
12.65	4.04	2.32	10.91	15.25	4.65	2.86	1.45
12.70	4.06	2.34	9.59	15.30	4.66	2.86	1.44
12.75	4.08	2.35	8.47	15.35	4.66	2.87	1.42

2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 25-Year Rainfall=5.40"

Printed 4/28/2016

Hydrograph for Subcatchment 4: #4 Dev (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
15.40	4.67	2.88	1.41	18.00	4.97	3.15	0.90
15.45	4.68	2.88	1.39	18.05	4.98	3.15	0.89
15.50	4.69	2.89	1.38	18.10	4.98	3.16	0.88
15.55	4.69	2.90	1.36	18.15	4.99	3.16	0.88
15.60	4.70	2.90	1.34	18.20	4.99	3.17	0.87
15.65	4.71	2.91	1.33	18.25	5.00	3.17	0.87
15.70	4.71	2.92	1.31	18.30	5.00	3.18	0.86
15.75	4.72	2.92	1.30	18.35	5.01	3.18	0.86
15.80	4.73	2.93	1.28	18.40	5.01	3.18	0.85
15.85	4.73	2.93	1.26	18.45	5.02	3.19	0.84
15.90	4.74	2.94	1.25	18.50	5.02	3.19	0.84
15.95	4.75	2.95	1.23	18.55	5.02	3.20	0.83
16.00	4.75	2.95	1.22	18.60	5.03	3.20	0.83
16.05	4.76	2.96	1.20	18.65	5.03	3.20	0.82
16.10	4.76	2.96	1.18	18.70	5.04	3.21	0.82
16.15	4.77	2.97	1.17	18.75	5.04	3.21	0.81
16.20	4.78	2.97	1.15	18.80	5.05	3.22	0.80
16.25	4.78	2.98	1.14	18.85	5.05	3.22	0.80
16.30	4.79	2.98	1.12	18.90	5.06	3.22	0.79
16.35	4.79	2.99	1.11	18.95	5.06	3.23	0.79
16.40	4.80	2.99	1.10	19.00	5.06	3.23	0.78
16.45	4.81	3.00	1.09	19.05	5.07	3.24	0.78
16.50	4.81	3.00	1.08	19.10	5.07	3.24	0.77
16.55	4.82	3.01	1.07	19.15	5.08	3.24	0.76
16.60	4.82	3.02	1.06	19.20	5.08	3.25	0.76
16.65	4.83	3.02	1.06	19.25	5.08	3.25	0.75
16.70	4.84	3.03	1.05	19.30	5.09	3.25	0.75
16.75	4.84	3.03	1.04	19.35	5.09	3.26	0.74
16.80	4.85	3.04	1.03	19.40	5.10	3.26	0.74
16.85	4.85	3.04	1.03	19.45	5.10	3.26	0.73
16.90	4.86	3.05	1.02	19.50	5.10	3.27	0.72
16.95	4.86	3.05	1.02	19.55	5.11	3.27	0.72
17.00	4.87	3.06	1.01	19.60	5.11	3.28	0.71
17.05	4.87	3.06	1.00	19.65	5.12	3.28	0.71
17.10	4.88	3.07	1.00	19.70	5.12	3.28	0.70
17.15	4.89	3.07	0.99	19.75	5.12	3.29	0.69
17.20	4.89	3.08	0.99	19.80	5.13	3.29	0.69
17.25	4.90	3.08	0.98	19.85	5.13	3.29	0.68
17.30	4.90	3.09	0.98	19.90	5.13	3.30	0.68
17.35	4.91	3.09	0.97	19.95	5.14	3.30	0.67
17.40	4.91	3.10	0.96	20.00	5.14	3.30	0.67
17.45	4.92	3.10	0.96				
17.50	4.92	3.10	0.95				
17.55	4.93	3.11	0.95				
17.60	4.93	3.11	0.94				
17.65	4.94	3.12	0.94				
17.70	4.94	3.12	0.93				
17.75	4.95	3.13	0.92				
17.80	4.95	3.13	0.92				
17.85	4.96	3.14	0.91				
17.90	4.96	3.14	0.91				
17.95	4.97	3.15	0.90				

2184 HydroCAD BASE

Type II 24-hr 25-Year Rainfall=5.40"

Prepared by HP

Printed 4/28/2016

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Summary for Subcatchment 5: #5 Dev

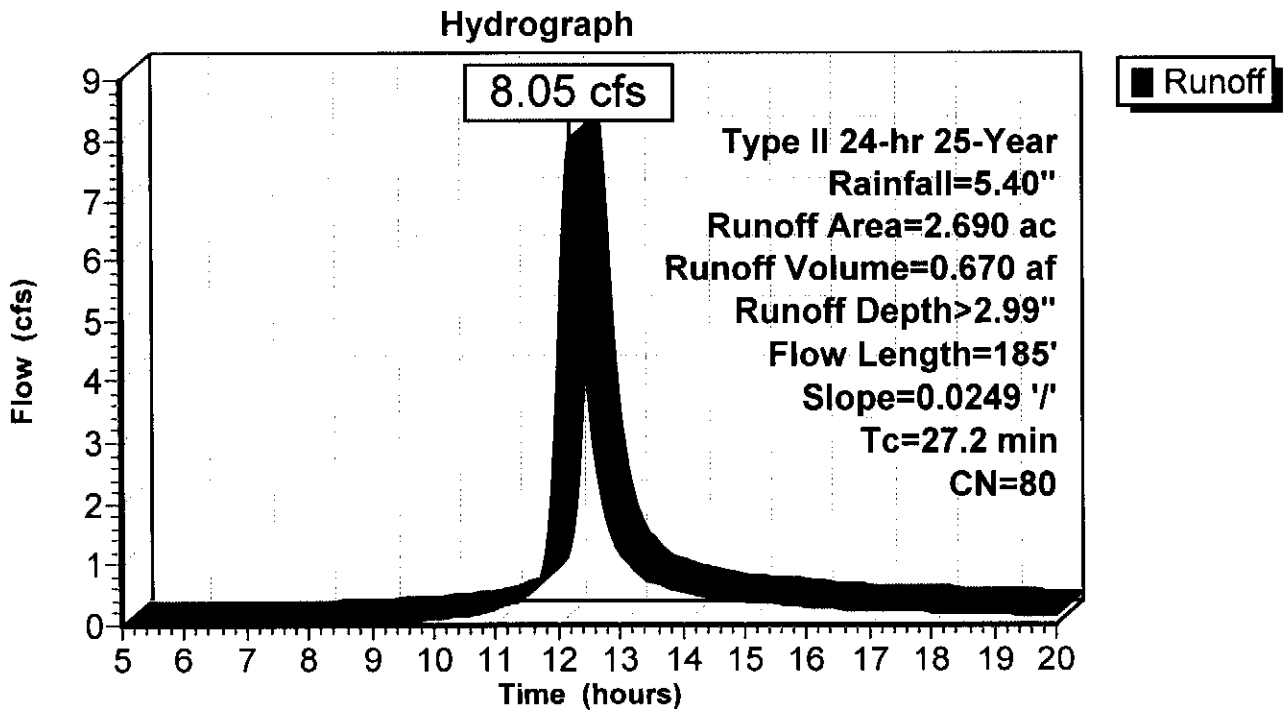
Runoff = 8.05 cfs @ 12.21 hrs, Volume= 0.670 af, Depth> 2.99"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-Year Rainfall=5.40"

Area (ac)	CN	Description
2.690	80	1/2 acre lots, 25% imp, HSG C
2.017		75.00% Pervious Area
0.672		25.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	85	0.0249	0.18		Sheet Flow, Sheet Flow Grass: Short n= 0.150 P2= 3.30"
19.4	100	0.0249	0.09		Sheet Flow, Sheet Flow Woods: Light underbrush n= 0.400 P2= 3.30"
27.2	185	Total			

Subcatchment 5: #5 Dev



Hydrograph for Subcatchment 5: #5 Dev

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.34	0.00	0.00	7.60	0.60	0.00	0.01
5.05	0.34	0.00	0.00	7.65	0.61	0.00	0.01
5.10	0.35	0.00	0.00	7.70	0.61	0.00	0.02
5.15	0.35	0.00	0.00	7.75	0.62	0.01	0.02
5.20	0.36	0.00	0.00	7.80	0.62	0.01	0.02
5.25	0.36	0.00	0.00	7.85	0.63	0.01	0.02
5.30	0.37	0.00	0.00	7.90	0.64	0.01	0.02
5.35	0.37	0.00	0.00	7.95	0.64	0.01	0.02
5.40	0.38	0.00	0.00	8.00	0.65	0.01	0.02
5.45	0.38	0.00	0.00	8.05	0.65	0.01	0.02
5.50	0.38	0.00	0.00	8.10	0.66	0.01	0.03
5.55	0.39	0.00	0.00	8.15	0.67	0.01	0.03
5.60	0.39	0.00	0.00	8.20	0.67	0.01	0.03
5.65	0.40	0.00	0.00	8.25	0.68	0.01	0.03
5.70	0.40	0.00	0.00	8.30	0.69	0.01	0.03
5.75	0.41	0.00	0.00	8.35	0.69	0.01	0.03
5.80	0.41	0.00	0.00	8.40	0.70	0.01	0.04
5.85	0.42	0.00	0.00	8.45	0.71	0.02	0.04
5.90	0.42	0.00	0.00	8.50	0.71	0.02	0.04
5.95	0.43	0.00	0.00	8.55	0.72	0.02	0.04
6.00	0.43	0.00	0.00	8.60	0.73	0.02	0.04
6.05	0.44	0.00	0.00	8.65	0.74	0.02	0.05
6.10	0.44	0.00	0.00	8.70	0.74	0.02	0.05
6.15	0.45	0.00	0.00	8.75	0.75	0.02	0.05
6.20	0.45	0.00	0.00	8.80	0.76	0.02	0.05
6.25	0.46	0.00	0.00	8.85	0.77	0.03	0.06
6.30	0.46	0.00	0.00	8.90	0.78	0.03	0.06
6.35	0.47	0.00	0.00	8.95	0.79	0.03	0.06
6.40	0.47	0.00	0.00	9.00	0.79	0.03	0.07
6.45	0.48	0.00	0.00	9.05	0.80	0.03	0.07
6.50	0.48	0.00	0.00	9.10	0.81	0.03	0.07
6.55	0.49	0.00	0.00	9.15	0.82	0.04	0.07
6.60	0.49	0.00	0.00	9.20	0.83	0.04	0.08
6.65	0.50	0.00	0.00	9.25	0.84	0.04	0.08
6.70	0.50	0.00	0.00	9.30	0.85	0.04	0.08
6.75	0.51	0.00	0.00	9.35	0.85	0.04	0.09
6.80	0.51	0.00	0.00	9.40	0.86	0.05	0.09
6.85	0.52	0.00	0.00	9.45	0.87	0.05	0.09
6.90	0.52	0.00	0.00	9.50	0.88	0.05	0.10
6.95	0.53	0.00	0.00	9.55	0.89	0.05	0.10
7.00	0.53	0.00	0.00	9.60	0.90	0.05	0.10
7.05	0.54	0.00	0.00	9.65	0.91	0.06	0.10
7.10	0.55	0.00	0.00	9.70	0.92	0.06	0.11
7.15	0.55	0.00	0.00	9.75	0.93	0.06	0.11
7.20	0.56	0.00	0.00	9.80	0.94	0.06	0.11
7.25	0.56	0.00	0.00	9.85	0.95	0.07	0.11
7.30	0.57	0.00	0.01	9.90	0.96	0.07	0.12
7.35	0.57	0.00	0.01	9.95	0.97	0.07	0.12
7.40	0.58	0.00	0.01	10.00	0.98	0.08	0.13
7.45	0.58	0.00	0.01	10.05	0.99	0.08	0.13
7.50	0.59	0.00	0.01	10.10	1.00	0.08	0.14
7.55	0.60	0.00	0.01	10.15	1.01	0.09	0.14

Hydrograph for Subcatchment 5: #5 Dev (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
10.20	1.02	0.09	0.15	12.80	4.10	2.12	1.77
10.25	1.04	0.09	0.15	12.85	4.12	2.14	1.59
10.30	1.05	0.10	0.16	12.90	4.13	2.15	1.45
10.35	1.06	0.10	0.17	12.95	4.15	2.17	1.33
10.40	1.07	0.11	0.17	13.00	4.17	2.18	1.23
10.45	1.09	0.11	0.18	13.05	4.19	2.20	1.14
10.50	1.10	0.12	0.19	13.10	4.20	2.21	1.07
10.55	1.12	0.12	0.20	13.15	4.22	2.22	1.01
10.60	1.13	0.13	0.21	13.20	4.23	2.23	0.96
10.65	1.15	0.13	0.22	13.25	4.25	2.25	0.91
10.70	1.16	0.14	0.23	13.30	4.26	2.26	0.87
10.75	1.18	0.14	0.24	13.35	4.27	2.27	0.83
10.80	1.20	0.15	0.25	13.40	4.29	2.28	0.79
10.85	1.21	0.16	0.26	13.45	4.30	2.29	0.76
10.90	1.23	0.17	0.27	13.50	4.31	2.30	0.74
10.95	1.25	0.17	0.28	13.55	4.33	2.31	0.72
11.00	1.27	0.18	0.30	13.60	4.34	2.33	0.70
11.05	1.29	0.19	0.31	13.65	4.35	2.34	0.68
11.10	1.31	0.20	0.33	13.70	4.36	2.35	0.66
11.15	1.33	0.21	0.35	13.75	4.37	2.36	0.64
11.20	1.36	0.22	0.36	13.80	4.39	2.36	0.63
11.25	1.38	0.23	0.38	13.85	4.40	2.37	0.61
11.30	1.41	0.24	0.41	13.90	4.41	2.38	0.59
11.35	1.44	0.26	0.43	13.95	4.42	2.39	0.58
11.40	1.47	0.27	0.46	14.00	4.43	2.40	0.57
11.45	1.50	0.28	0.49	14.05	4.44	2.41	0.55
11.50	1.53	0.30	0.52	14.10	4.45	2.42	0.54
11.55	1.58	0.32	0.56	14.15	4.46	2.43	0.53
11.60	1.66	0.37	0.60	14.20	4.47	2.43	0.52
11.65	1.77	0.43	0.66	14.25	4.48	2.44	0.50
11.70	1.91	0.51	0.76	14.30	4.49	2.45	0.49
11.75	2.09	0.62	0.93	14.35	4.50	2.46	0.48
11.80	2.33	0.77	1.20	14.40	4.50	2.47	0.48
11.85	2.65	1.00	1.61	14.45	4.51	2.47	0.47
11.90	3.07	1.30	2.20	14.50	4.52	2.48	0.46
11.95	3.42	1.58	3.04	14.55	4.53	2.49	0.46
12.00	3.58	1.70	4.15	14.60	4.54	2.50	0.45
12.05	3.63	1.74	5.45	14.65	4.55	2.50	0.44
12.10	3.68	1.78	6.72	14.70	4.56	2.51	0.44
12.15	3.73	1.82	7.65	14.75	4.57	2.52	0.43
12.20	3.77	1.86	8.04	14.80	4.58	2.53	0.43
12.25	3.81	1.89	7.86	14.85	4.58	2.53	0.43
12.30	3.85	1.92	7.25	14.90	4.59	2.54	0.42
12.35	3.88	1.95	6.40	14.95	4.60	2.55	0.42
12.40	3.92	1.97	5.47	15.00	4.61	2.55	0.41
12.45	3.94	2.00	4.62	15.05	4.62	2.56	0.41
12.50	3.97	2.02	3.92	15.10	4.62	2.57	0.40
12.55	3.99	2.04	3.37	15.15	4.63	2.58	0.40
12.60	4.01	2.05	2.93	15.20	4.64	2.58	0.40
12.65	4.04	2.07	2.56	15.25	4.65	2.59	0.39
12.70	4.06	2.09	2.25	15.30	4.66	2.59	0.39
12.75	4.08	2.11	1.99	15.35	4.66	2.60	0.38

2184 HydroCAD BASE

Prepared by HP

HydroCAD® 9.10 s/n 06648 © 2010 HydroCAD Software Solutions LLC

Type II 24-hr 25-Year Rainfall=5.40"

Printed 4/28/2016

Hydrograph for Subcatchment 5: #5 Dev (continued)

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
15.40	4.67	2.61	0.38	18.00	4.97	2.87	0.24
15.45	4.68	2.61	0.37	18.05	4.98	2.87	0.24
15.50	4.69	2.62	0.37	18.10	4.98	2.88	0.24
15.55	4.69	2.63	0.37	18.15	4.99	2.88	0.24
15.60	4.70	2.63	0.36	18.20	4.99	2.89	0.24
15.65	4.71	2.64	0.36	18.25	5.00	2.89	0.23
15.70	4.71	2.64	0.35	18.30	5.00	2.89	0.23
15.75	4.72	2.65	0.35	18.35	5.01	2.90	0.23
15.80	4.73	2.66	0.34	18.40	5.01	2.90	0.23
15.85	4.73	2.66	0.34	18.45	5.02	2.91	0.23
15.90	4.74	2.67	0.34	18.50	5.02	2.91	0.23
15.95	4.75	2.67	0.33	18.55	5.02	2.91	0.23
16.00	4.75	2.68	0.33	18.60	5.03	2.92	0.22
16.05	4.76	2.68	0.32	18.65	5.03	2.92	0.22
16.10	4.76	2.69	0.32	18.70	5.04	2.93	0.22
16.15	4.77	2.69	0.31	18.75	5.04	2.93	0.22
16.20	4.78	2.70	0.31	18.80	5.05	2.93	0.22
16.25	4.78	2.70	0.31	18.85	5.05	2.94	0.22
16.30	4.79	2.71	0.30	18.90	5.06	2.94	0.21
16.35	4.79	2.71	0.30	18.95	5.06	2.94	0.21
16.40	4.80	2.72	0.30	19.00	5.06	2.95	0.21
16.45	4.81	2.72	0.29	19.05	5.07	2.95	0.21
16.50	4.81	2.73	0.29	19.10	5.07	2.96	0.21
16.55	4.82	2.73	0.29	19.15	5.08	2.96	0.21
16.60	4.82	2.74	0.29	19.20	5.08	2.96	0.21
16.65	4.83	2.74	0.29	19.25	5.08	2.97	0.20
16.70	4.84	2.75	0.28	19.30	5.09	2.97	0.20
16.75	4.84	2.75	0.28	19.35	5.09	2.97	0.20
16.80	4.85	2.76	0.28	19.40	5.10	2.98	0.20
16.85	4.85	2.76	0.28	19.45	5.10	2.98	0.20
16.90	4.86	2.77	0.28	19.50	5.10	2.98	0.20
16.95	4.86	2.77	0.27	19.55	5.11	2.99	0.19
17.00	4.87	2.78	0.27	19.60	5.11	2.99	0.19
17.05	4.87	2.78	0.27	19.65	5.12	2.99	0.19
17.10	4.88	2.79	0.27	19.70	5.12	3.00	0.19
17.15	4.89	2.79	0.27	19.75	5.12	3.00	0.19
17.20	4.89	2.80	0.27	19.80	5.13	3.00	0.19
17.25	4.90	2.80	0.27	19.85	5.13	3.01	0.19
17.30	4.90	2.81	0.26	19.90	5.13	3.01	0.18
17.35	4.91	2.81	0.26	19.95	5.14	3.01	0.18
17.40	4.91	2.82	0.26	20.00	5.14	3.02	0.18
17.45	4.92	2.82	0.26				
17.50	4.92	2.83	0.26				
17.55	4.93	2.83	0.26				
17.60	4.93	2.83	0.25				
17.65	4.94	2.84	0.25				
17.70	4.94	2.84	0.25				
17.75	4.95	2.85	0.25				
17.80	4.95	2.85	0.25				
17.85	4.96	2.86	0.25				
17.90	4.96	2.86	0.25				
17.95	4.97	2.87	0.24				