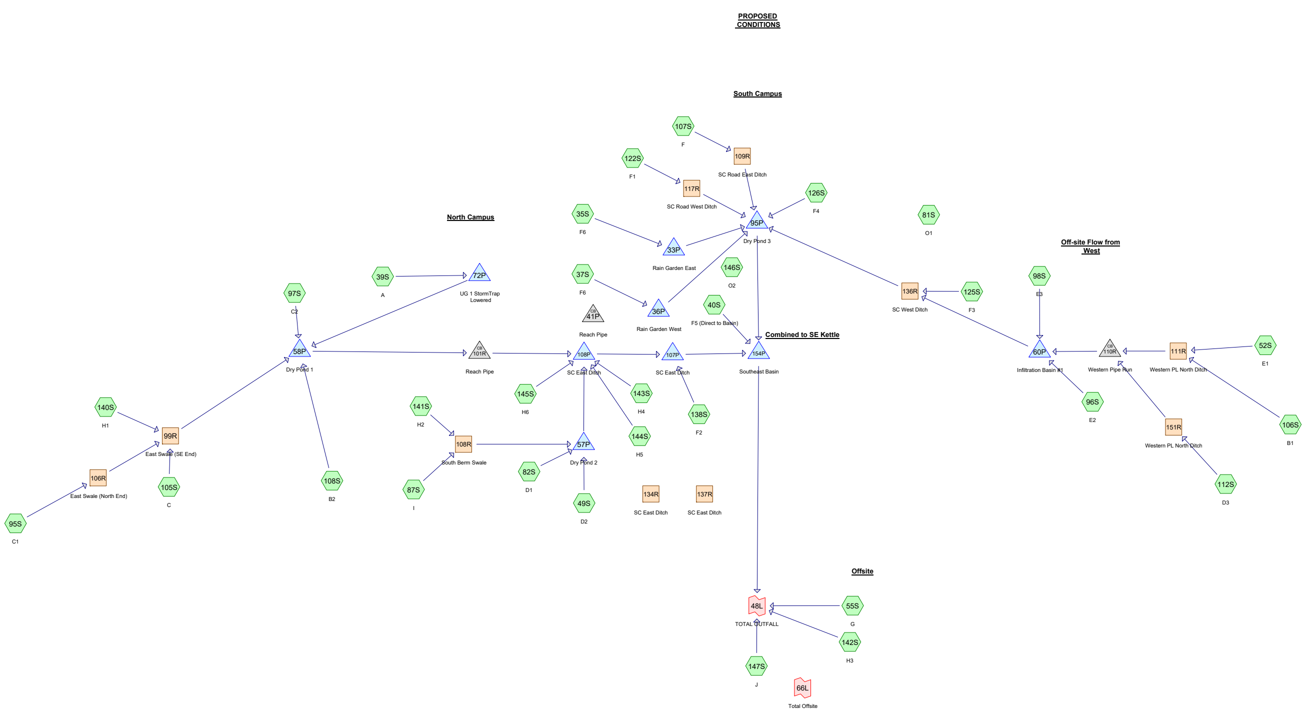

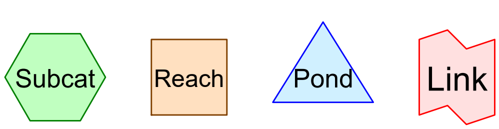

Routing Diagram for 20210428 - Existing and Proposed Conditions Model_AS

Prepared by Microsoft, Printed 4/29/2021

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Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
134,369	74	>75% Grass cover, Good, HSG C (39S, 52S)
3,040	98	IMPERV (146S)
18,888	74	Landscape (138S)
141,335	74	PERV (81S, 146S)
8,300	98	Roads (98S)
2,161	98	Walks (52S)
38,734	98	bldg 1 and 2 roof falling onto courtyard (39S)
45,317	98	drives within courtyard (39S)
751,823	74	landscape (35S, 37S, 40S, 49S, 55S, 82S, 87S, 95S, 96S, 97S, 98S, 105S, 106S, 107S, 112S, 122S, 125S, 126S, 140S, 141S, 142S, 143S, 144S, 145S, 147S)
50,946	98	roads (95S, 107S, 122S, 140S, 141S, 142S)
91,392	98	roof (49S, 107S, 108S, 122S, 125S, 140S, 141S)
60,155	98	roofs (96S, 97S, 105S)
20,985	98	walks (95S, 98S, 106S, 112S, 122S, 147S)
18,376	98	walks and patios (97S, 105S)
46,354	98	walks/patio within courtyard and north (39S)
1,432,175	**80**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
134,369	HSG C	39S, 52S
0	HSG D	
1,297,806	Other	35S, 37S, 39S, 40S, 49S, 52S, 55S, 81S, 82S, 87S, 95S, 96S, 97S, 98S, 105S, 106S, 107S, 108S, 112S, 122S, 125S, 126S, 138S, 140S, 141S, 142S, 143S, 144S, 145S, 146S, 147S
1,432,175		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
0	0	134,369	0	0	134,369	>75% Grass cover, Good
0	0	0	0	3,040	3,040	IMPERV
0	0	0	0	18,888	18,888	Landscape
0	0	0	0	141,335	141,335	PERV
0	0	0	0	8,300	8,300	Roads
0	0	0	0	2,161	2,161	Walks
0	0	0	0	38,734	38,734	bldg 1 and 2 roof falling onto courtyard
0	0	0	0	45,317	45,317	drives within courtyard
0	0	0	0	751,823	751,823	landscape
0	0	0	0	50,946	50,946	roads
0	0	0	0	91,392	91,392	roof
0	0	0	0	60,155	60,155	roofs
0	0	0	0	20,985	20,985	walks
0	0	0	0	18,376	18,376	walks and patios
0	0	0	0	46,354	46,354	walks/patio within courtyard and north
0	**0**	**134,369**	**0**	**1,297,806**	**1,432,175**	**TOTAL AREA**

Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	41P	747.50	747.00	105.0	0.0048	0.011	24.0	0.0	0.0
2	57P	750.00	749.00	75.0	0.0133	0.011	12.0	0.0	0.0
3	58P	753.00	752.00	48.0	0.0208	0.011	12.0	0.0	0.0
4	72P	753.00	752.52	189.0	0.0025	0.011	12.0	0.0	0.0
5	95P	740.00	738.00	130.0	0.0154	0.013	6.0	0.0	0.0
6	101R	751.00	750.00	442.0	0.0023	0.011	24.0	0.0	0.0
7	107P	746.00	745.90	10.0	0.0100	0.022	4.0	0.0	0.0
8	108P	747.50	747.00	105.0	0.0048	0.018	24.0	0.0	0.0
9	110R	749.10	745.00	345.0	0.0119	0.011	24.0	0.0	0.0

Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 35S: F6 Runoff Area=3,249 sf 0.00% Impervious Runoff Depth=0.55"
Tc=6.0 min CN=74 Runoff=0.07 cfs 150 cf

Subcatchment 37S: F6 Runoff Area=3,393 sf 0.00% Impervious Runoff Depth=0.55"
Tc=6.0 min CN=74 Runoff=0.07 cfs 156 cf

Subcatchment 39S: A Runoff Area=227,383 sf 57.35% Impervious Runoff Depth=1.30"
Tc=6.0 min CN=88 Runoff=12.08 cfs 24,563 cf

Subcatchment 40S: F5 (Direct to Basin) Runoff Area=31,282 sf 0.00% Impervious Runoff Depth=0.55"
Tc=6.0 min CN=74 Runoff=0.67 cfs 1,441 cf

Subcatchment 49S: D2 Runoff Area=16,636 sf 25.34% Impervious Runoff Depth=0.82"
Flow Length=393' Slope=0.0076 '/' Tc=10.7 min CN=80 Runoff=0.46 cfs 1,137 cf

Subcatchment 52S: E1 Runoff Area=39,552 sf 5.46% Impervious Runoff Depth=0.59"
Flow Length=100' Slope=0.0300 '/' Tc=9.6 min CN=75 Runoff=0.77 cfs 1,954 cf

Subcatchment 55S: G Runoff Area=4,482 sf 0.00% Impervious Runoff Depth=0.55"
Tc=6.0 min CN=74 Runoff=0.10 cfs 206 cf

Subcatchment 81S: O1 Runoff Area=11,697 sf 0.00% Impervious Runoff Depth=0.55"
Tc=6.0 min CN=74 Runoff=0.25 cfs 539 cf

Subcatchment 82S: D1 Runoff Area=20,886 sf 0.00% Impervious Runoff Depth=0.55"
Flow Length=400' Slope=0.0100 '/' Tc=22.0 min CN=74 Runoff=0.25 cfs 962 cf

Subcatchment 87S: I Runoff Area=56,129 sf 0.00% Impervious Runoff Depth=0.55"
Flow Length=750' Slope=0.0100 '/' Tc=30.4 min CN=74 Runoff=0.55 cfs 2,586 cf

Subcatchment 95S: C1 Runoff Area=18,274 sf 21.80% Impervious Runoff Depth=0.77"
Tc=6.0 min CN=79 Runoff=0.57 cfs 1,174 cf

Subcatchment 96S: E2 Runoff Area=18,887 sf 18.55% Impervious Runoff Depth=0.72"
Flow Length=400' Slope=0.0300 '/' Tc=13.7 min CN=78 Runoff=0.40 cfs 1,139 cf

Subcatchment 97S: C2 Runoff Area=77,290 sf 43.30% Impervious Runoff Depth=1.04"
Tc=6.0 min CN=84 Runoff=3.31 cfs 6,692 cf

Subcatchment 98S: E3 Runoff Area=109,219 sf 13.58% Impervious Runoff Depth=0.68"
Flow Length=200' Tc=16.3 min CN=77 Runoff=1.97 cfs 6,175 cf

Subcatchment 105S: C Runoff Area=122,933 sf 33.81% Impervious Runoff Depth=0.93"
Tc=6.0 min CN=82 Runoff=4.68 cfs 9,479 cf

Subcatchment 106S: B1 Runoff Area=85,559 sf 10.89% Impervious Runoff Depth=0.68"
Tc=6.0 min CN=77 Runoff=2.32 cfs 4,837 cf

Subcatchment 107S: F Runoff Area=43,646 sf 58.34% Impervious Runoff Depth=1.30"
Tc=6.0 min CN=88 Runoff=2.32 cfs 4,715 cf

Subcatchment 108S: B2 Runoff Area=42,864 sf 100.00% Impervious Runoff Depth=2.17"
Tc=6.0 min CN=98 Runoff=3.34 cfs 7,756 cf

Subcatchment 112S: D3 Runoff Area=8,234 sf 12.90% Impervious Runoff Depth=0.68"
Tc=6.0 min CN=77 Runoff=0.22 cfs 466 cf

Subcatchment 122S: F1 Runoff Area=54,287 sf 55.18% Impervious Runoff Depth=1.23"
Tc=6.0 min CN=87 Runoff=2.74 cfs 5,555 cf

Subcatchment 125S: F3 Runoff Area=20,215 sf 10.32% Impervious Runoff Depth=0.63"
Tc=6.0 min CN=76 Runoff=0.51 cfs 1,069 cf

Subcatchment 126S: F4 Runoff Area=26,797 sf 0.00% Impervious Runoff Depth=0.55"
Tc=6.0 min CN=74 Runoff=0.57 cfs 1,235 cf

Subcatchment 138S: F2 Runoff Area=18,888 sf 0.00% Impervious Runoff Depth=0.55"
Tc=10.0 min CN=74 Runoff=0.33 cfs 870 cf

Subcatchment 140S: H1 Runoff Area=114,743 sf 19.79% Impervious Runoff Depth=0.77"
Tc=6.0 min CN=79 Runoff=3.60 cfs 7,374 cf

Subcatchment 141S: H2 Runoff Area=65,303 sf 19.50% Impervious Runoff Depth=0.77"
Tc=6.0 min CN=79 Runoff=2.05 cfs 4,197 cf

Subcatchment 142S: H3 Runoff Area=7,424 sf 14.02% Impervious Runoff Depth=0.68"
Tc=6.0 min CN=77 Runoff=0.20 cfs 420 cf

Subcatchment 143S: H4 Runoff Area=13,718 sf 0.00% Impervious Runoff Depth=0.55"
Tc=6.0 min CN=74 Runoff=0.29 cfs 632 cf

Subcatchment 144S: H5 Runoff Area=14,502 sf 0.00% Impervious Runoff Depth=0.55"
Tc=6.0 min CN=74 Runoff=0.31 cfs 668 cf

Subcatchment 145S: H6 Runoff Area=6,674 sf 0.00% Impervious Runoff Depth=0.55"
Tc=6.0 min CN=74 Runoff=0.14 cfs 307 cf

Subcatchment 146S: O2 Runoff Area=132,678 sf 2.29% Impervious Runoff Depth=0.59"
Flow Length=377' Tc=12.2 min CN=75 Runoff=2.33 cfs 6,556 cf

Subcatchment 147S: J Runoff Area=15,351 sf 8.86% Impervious Runoff Depth=0.63"
Tc=6.0 min CN=76 Runoff=0.39 cfs 812 cf

Reach 99R: East Swale (SE End) Avg. Flow Depth=0.39' Max Vel=3.24 fps Inflow=8.81 cfs 18,027 cf
n=0.018 L=570.0' S=0.0070 '/' Capacity=43.88 cfs Outflow=7.92 cfs 18,027 cf

Reach 106R: East Swale (North End) Avg. Flow Depth=0.08' Max Vel=3.18 fps Inflow=0.57 cfs 1,174 cf
n=0.018 L=140.0' S=0.0500 '/' Capacity=65.71 cfs Outflow=0.54 cfs 1,174 cf

Reach 108R: South Berm Swale Avg. Flow Depth=0.42' Max Vel=2.09 fps Inflow=2.14 cfs 6,783 cf
n=0.025 L=265.0' S=0.0075 '/' Capacity=13.80 cfs Outflow=1.93 cfs 6,783 cf

Reach 109R: SC Road East Ditch Avg. Flow Depth=0.28' Max Vel=1.70 fps Inflow=2.32 cfs 4,715 cf
n=0.022 L=415.0' S=0.0048 '/' Capacity=23.93 cfs Outflow=1.93 cfs 4,715 cf

Reach 111R: Western PL North Ditch Avg. Flow Depth=0.56' Max Vel=2.84 fps Inflow=3.02 cfs 6,792 cf
n=0.025 L=480.0' S=0.0133 '/' Capacity=26.79 cfs Outflow=2.67 cfs 6,792 cf

Reach 117R: SC Road West Ditch Avg. Flow Depth=0.32' Max Vel=1.68 fps Inflow=2.74 cfs 5,555 cf
n=0.022 L=475.0' S=0.0042 '/' Capacity=22.37 cfs Outflow=2.23 cfs 5,555 cf

Reach 134R: SC East Ditch Avg. Flow Depth=0.00' Max Vel=0.00 fps
n=0.018 L=141.0' S=0.0071 '/' Capacity=749.10 cfs Outflow=0.00 cfs 0 cf

Reach 136R: SC West Ditch Avg. Flow Depth=0.25' Max Vel=1.41 fps Inflow=0.51 cfs 1,069 cf
n=0.025 L=218.0' S=0.0092 '/' Capacity=17.70 cfs Outflow=0.45 cfs 1,069 cf

Reach 137R: SC East Ditch Avg. Flow Depth=0.00' Max Vel=0.00 fps
n=0.022 L=255.0' S=0.0157 '/' Capacity=911.51 cfs Outflow=0.00 cfs 0 cf

Reach 151R: Western PL North Ditch Avg. Flow Depth=0.22' Max Vel=1.36 fps Inflow=0.22 cfs 466 cf
n=0.025 L=227.0' S=0.0107 '/' Capacity=24.06 cfs Outflow=0.20 cfs 466 cf

Pond 33P: Rain Garden East Peak Elev=744.06' Storage=80 cf Inflow=0.07 cfs 150 cf
Outflow=0.01 cfs 81 cf

Pond 36P: Rain Garden West Peak Elev=743.56' Storage=80 cf Inflow=0.07 cfs 156 cf
Outflow=0.01 cfs 88 cf

Pond 41P: Reach Pipe Peak Elev=0.00'
24.0" Round Culvert n=0.011 L=105.0' S=0.0048 '/' Primary=0.00 cfs 0 cf

Pond 57P: Dry Pond 2 Peak Elev=749.50' Storage=5,370 cf Inflow=2.53 cfs 8,882 cf
Discarded=0.13 cfs 8,882 cf Primary=0.00 cfs 0 cf Outflow=0.13 cfs 8,882 cf

Pond 58P: Dry Pond 1 Peak Elev=750.30' Storage=8,208 cf Inflow=12.51 cfs 54,011 cf
Discarded=3.89 cfs 54,005 cf Primary=0.00 cfs 0 cf Outflow=3.89 cfs 54,005 cf

Pond 60P: Infiltration Basin #1 Peak Elev=738.16' Storage=0.147 af Inflow=5.17 cfs 14,571 cf
Outflow=0.65 cfs 14,571 cf

Pond 72P: UG 1 StormTrap Lowered Peak Elev=753.50' Storage=15,858 cf Inflow=12.08 cfs 24,563 cf
12.0" Round Culvert n=0.011 L=189.0' S=0.0025 '/' Outflow=0.61 cfs 21,537 cf

Pond 95P: Dry Pond 3 Peak Elev=739.72' Storage=0.168 af Inflow=4.87 cfs 12,743 cf
Discarded=0.26 cfs 12,743 cf Primary=0.00 cfs 0 cf Outflow=0.26 cfs 12,743 cf

Pond 101R: Reach Pipe Peak Elev=751.00' Inflow=0.00 cfs 0 cf
24.0" Round Culvert n=0.011 L=442.0' S=0.0023 '/' Outflow=0.00 cfs 0 cf

Pond 107P: SC East Ditch Peak Elev=744.01' Storage=1,293 cf Inflow=0.84 cfs 2,014 cf
Discarded=0.04 cfs 2,014 cf Primary=0.00 cfs 0 cf Outflow=0.04 cfs 2,014 cf

Pond 108P: SC East Ditch Peak Elev=747.89' Storage=239 cf Inflow=0.74 cfs 1,608 cf
Discarded=0.02 cfs 464 cf Primary=0.51 cfs 1,144 cf Outflow=0.53 cfs 1,608 cf

Pond 110R: Western Pipe Run Peak Elev=749.81' Inflow=2.86 cfs 7,257 cf
24.0" Round Culvert n=0.011 L=345.0' S=0.0119 '/' Outflow=2.86 cfs 7,257 cf

Pond 154P: Southeast Basin Peak Elev=730.09' Storage=257 cf Inflow=0.67 cfs 1,441 cf
Outflow=0.33 cfs 1,441 cf

Link 48L: TOTAL OUTFALL Inflow=0.68 cfs 1,438 cf
Primary=0.68 cfs 1,438 cf

Link 66L: Total Offsite
Primary=0.00 cfs 0 cf

Total Runoff Area = 1,432,175 sf Runoff Volume = 105,823 cf Average Runoff Depth = 0.89"
73.06% Pervious = 1,046,415 sf 26.94% Impervious = 385,760 sf

Summary for Subcatchment 35S: F6

3/3/21
Undetained portion of SE corner of SC that goes direct to SE low area (back yards of 3 home lots SE corner)

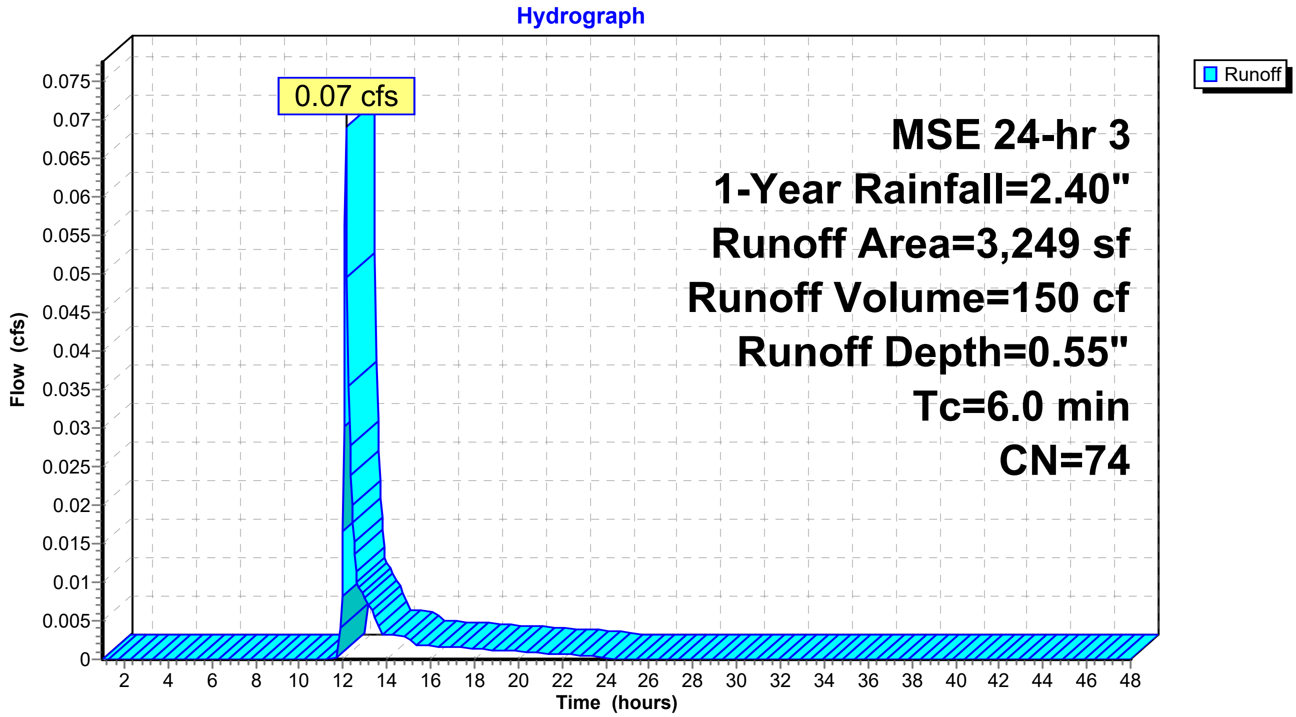
Runoff = 0.07 cfs @ 12.14 hrs, Volume= 150 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	3,249	74	landscape
	3,249		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 35S: F6



Summary for Subcatchment 37S: F6

3/3/21
Undetained portion of SE corner of SC that goes direct to SE low area (back yards of 3 home lots SE corner)

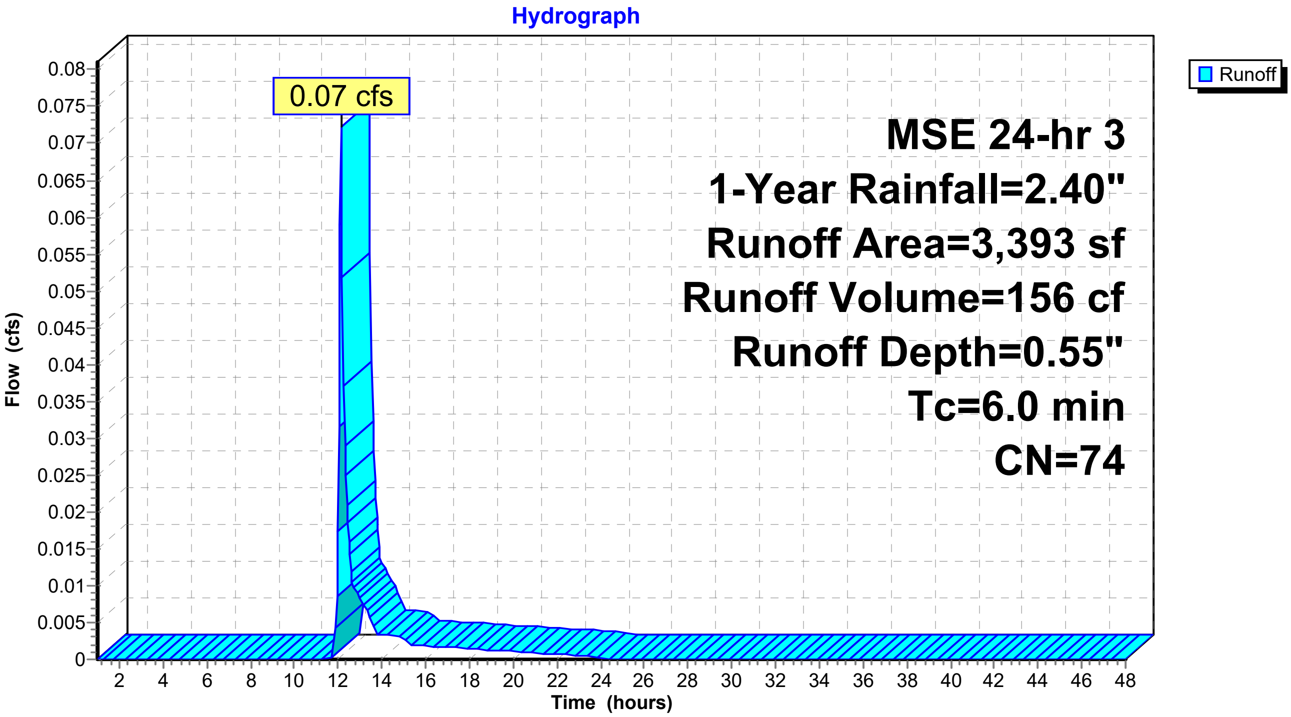
Runoff = 0.07 cfs @ 12.14 hrs, Volume= 156 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	3,393	74	landscape
	3,393		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 37S: F6



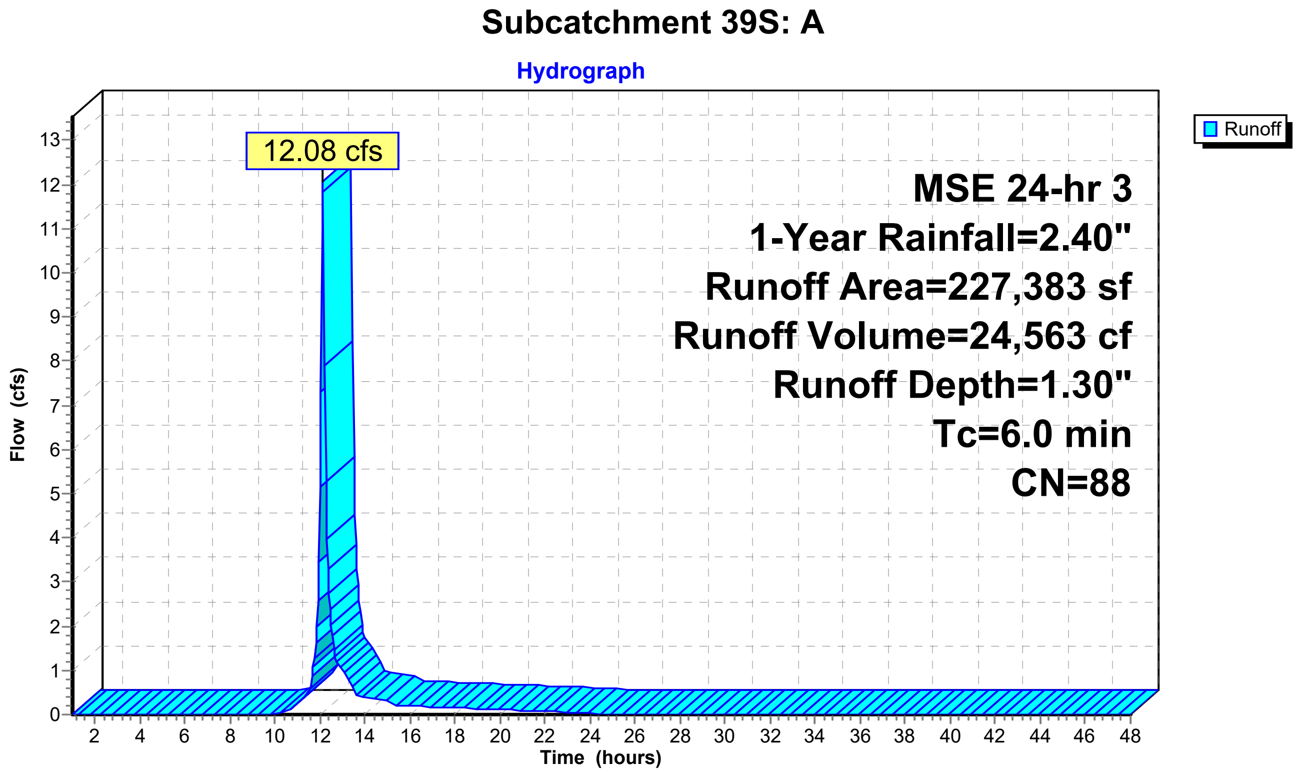
Summary for Subcatchment 39S: A

Runoff = 12.08 cfs @ 12.13 hrs, Volume= 24,563 cf, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	46,354	98	walks/patio within courtyard and north
*	45,317	98	drives within courtyard
	96,978	74	>75% Grass cover, Good, HSG C
*	38,734	98	bldg 1 and 2 roof falling onto courtyard
	227,383	88	Weighted Average
	96,978		42.65% Pervious Area
	130,405		57.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**



Summary for Subcatchment 40S: F5 (Direct to Basin)

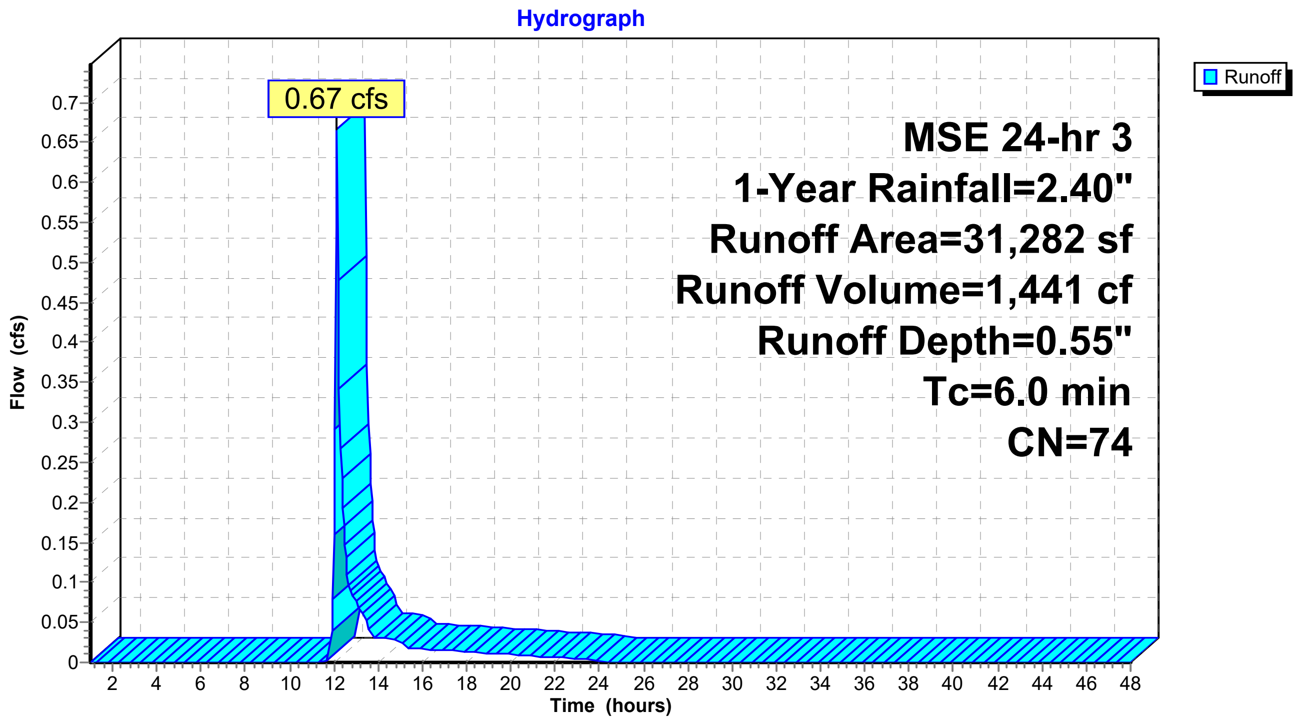
Runoff = 0.67 cfs @ 12.14 hrs, Volume= 1,441 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	31,282	74	landscape
	31,282		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, minimum**

Subcatchment 40S: F5 (Direct to Basin)



Summary for Subcatchment 49S: D2

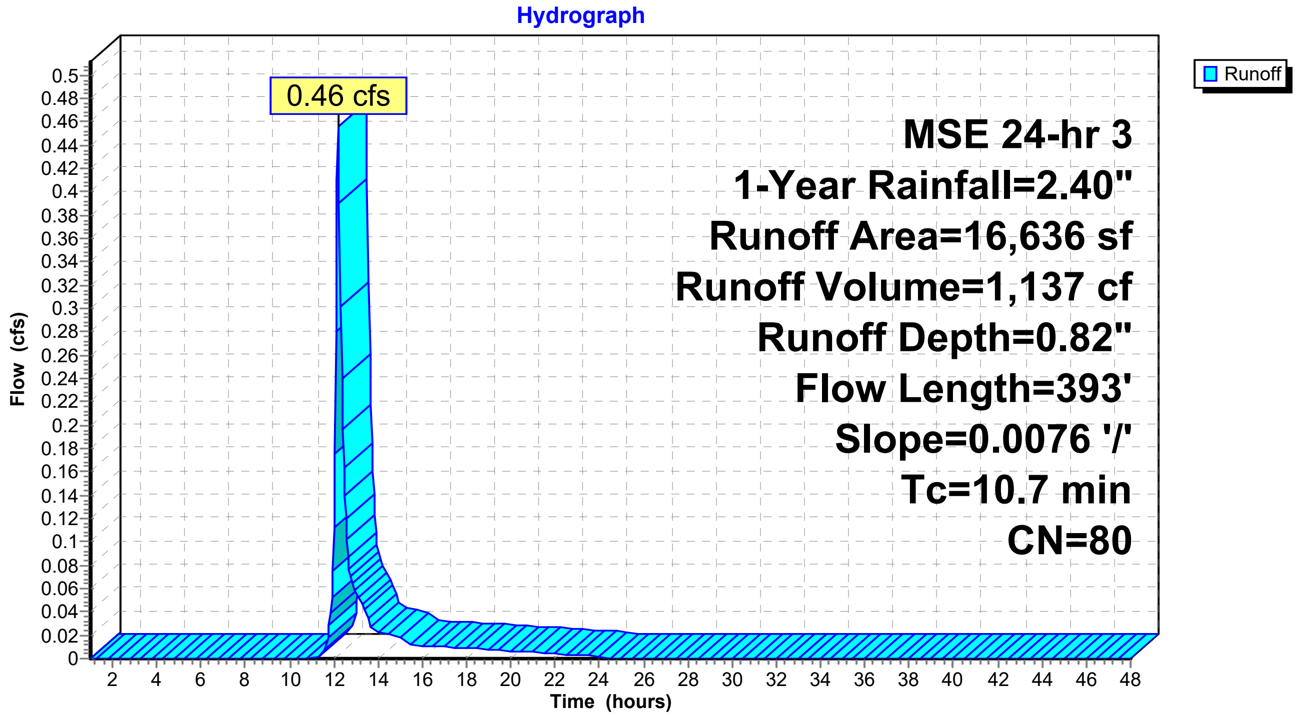
Runoff = 0.46 cfs @ 12.20 hrs, Volume= 1,137 cf, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	4,215	98	roof
*	12,421	74	landscape
	16,636	80	Weighted Average
	12,421		74.66% Pervious Area
	4,215		25.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	393	0.0076	0.61		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps

Subcatchment 49S: D2



Summary for Subcatchment 52S: E1

3/3/21
Delineation NOT updated based on Justin's waterdrops, needs finalization, it routes to western property ditch that goes ultimately to IB. We are using Joe's SWMP2 Figure from December 2020.

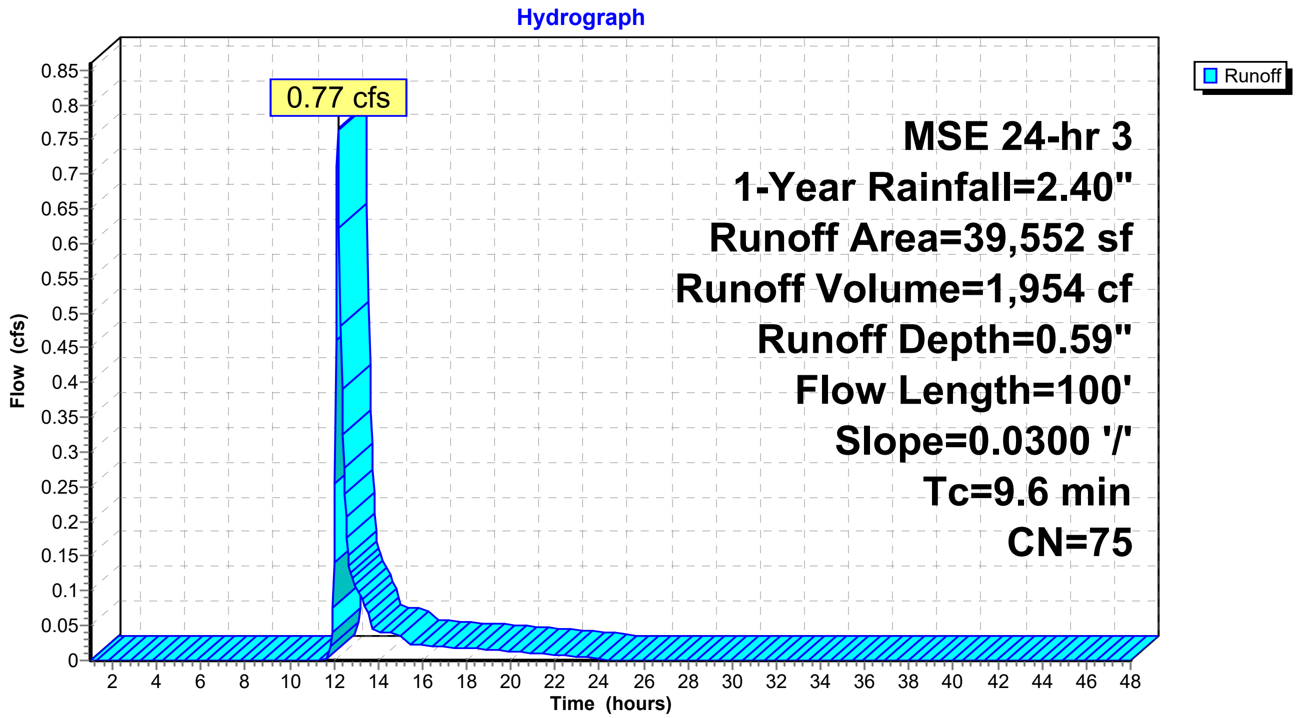
Runoff = 0.77 cfs @ 12.19 hrs, Volume= 1,954 cf, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	2,161	98	Walks
	37,391	74	>75% Grass cover, Good, HSG C
	39,552	75	Weighted Average
	37,391		94.54% Pervious Area
	2,161		5.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0300	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"

Subcatchment 52S: E1



Summary for Subcatchment 55S: G

3/3/21
Needs to be delineated, this is from Joe's SWMP2

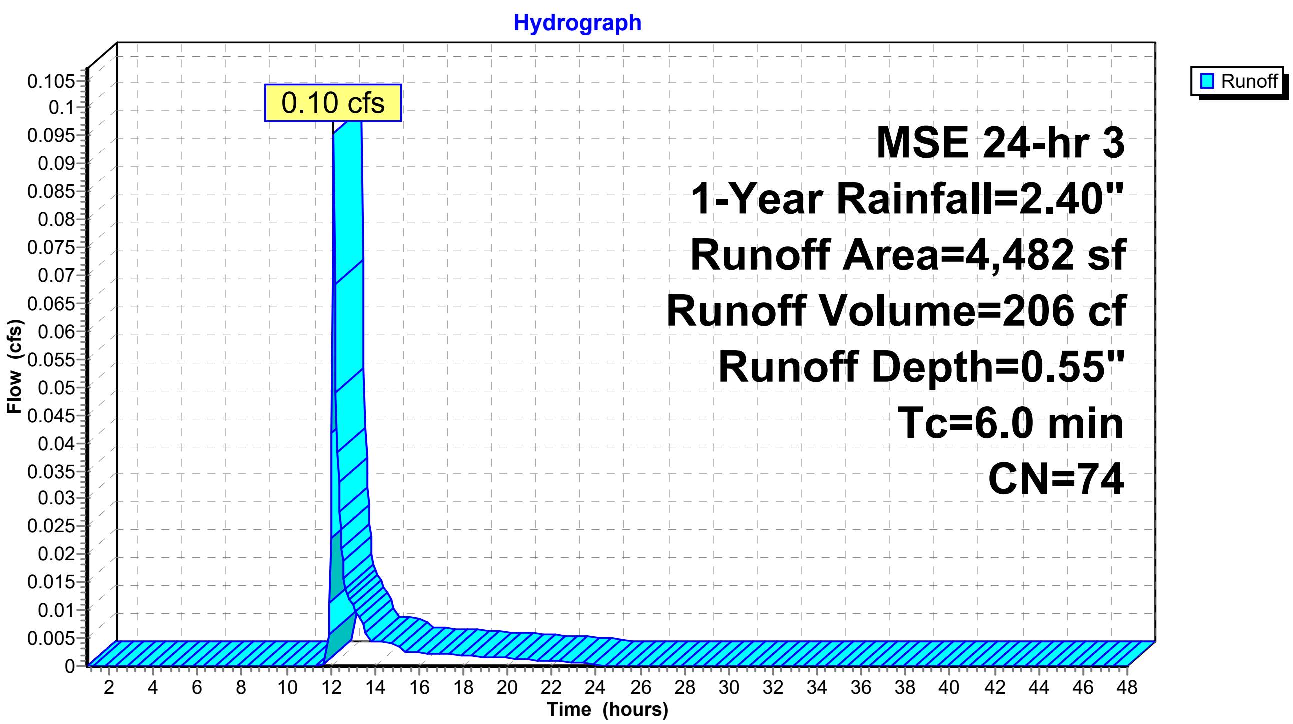
Runoff = 0.10 cfs @ 12.14 hrs, Volume= 206 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	4,482	74	landscape
	4,482		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 55S: G



Summary for Subcatchment 81S: O1

3/3/21
SW portion off-site flowing into IB

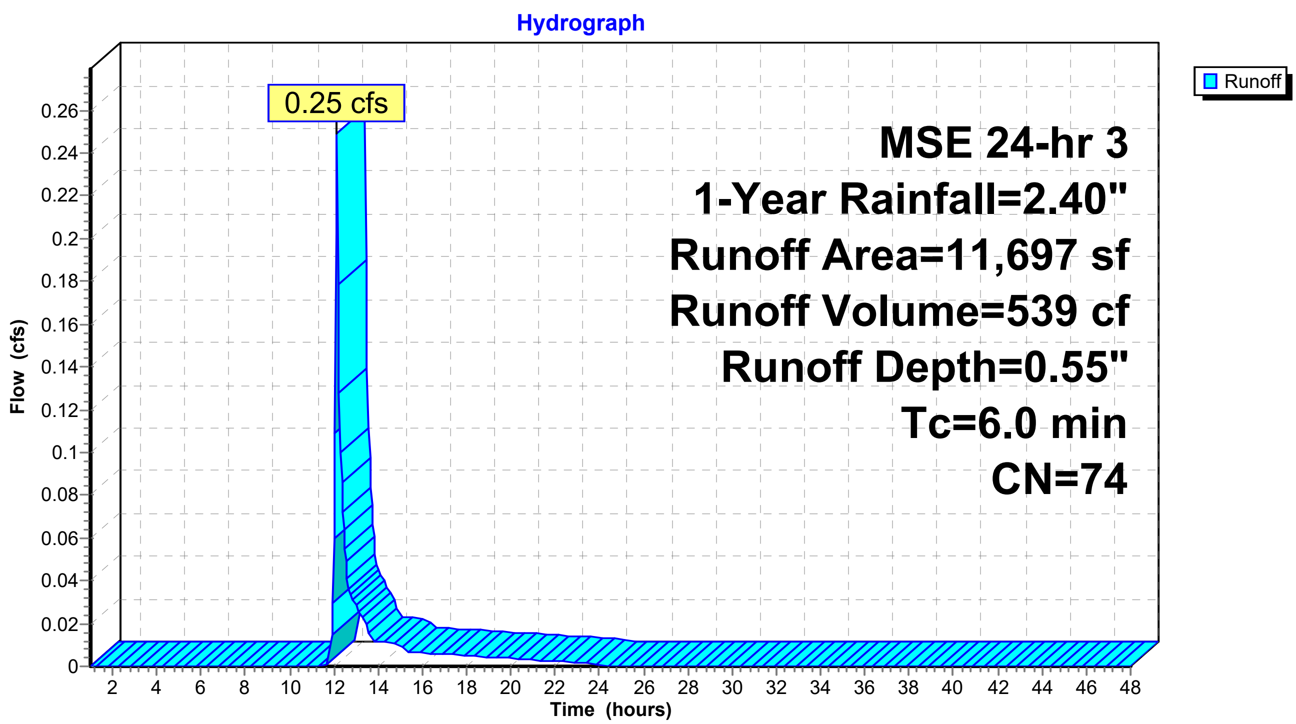
Runoff = 0.25 cfs @ 12.14 hrs, Volume= 539 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	11,697	74	PERV
	11,697		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 81S: O1



Summary for Subcatchment 82S: D1

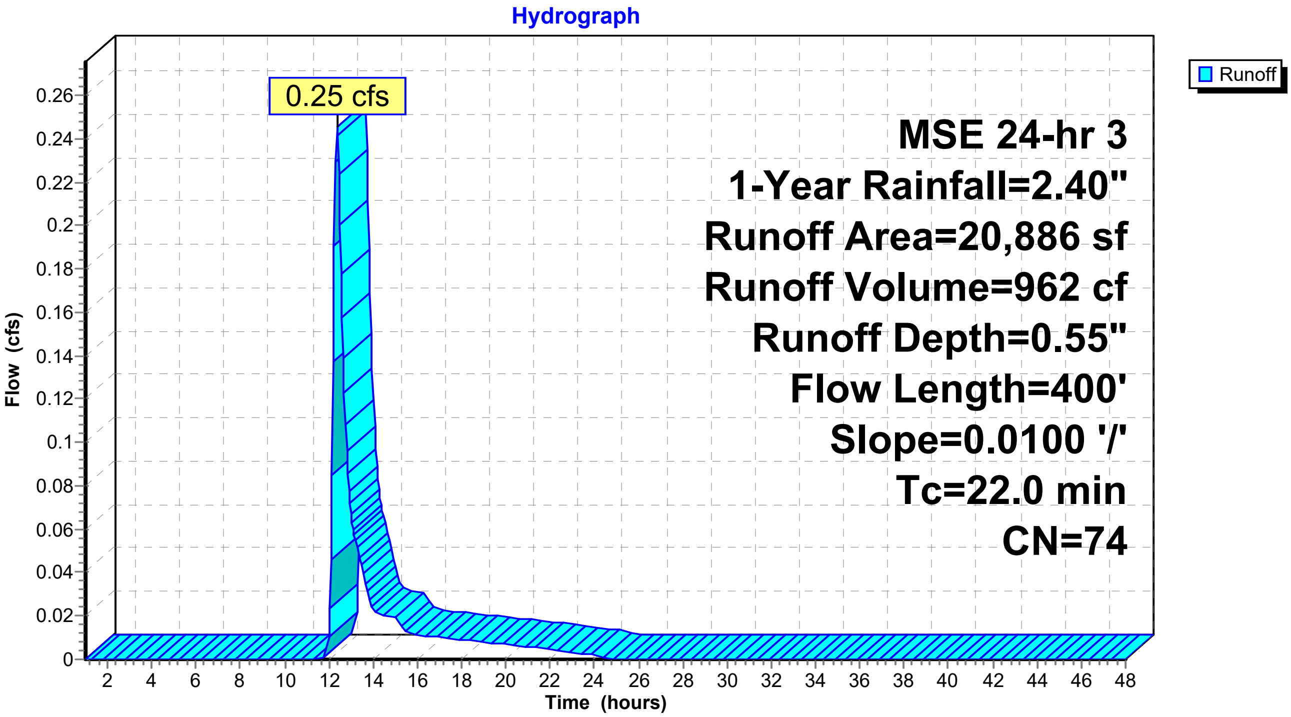
Runoff = 0.25 cfs @ 12.37 hrs, Volume= 962 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	20,886	74	landscape
	20,886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow, BUILDING TO SWALE** Grass: Short n= 0.150 P2= 2.42"
7.1	300	0.0100	0.70		**Shallow Concentrated Flow, SWALE ALONG BACK** Short Grass Pasture Kv= 7.0 fps
22.0	400	Total			

Subcatchment 82S: D1



Summary for Subcatchment 87S: I

3/3/21
Wooded area

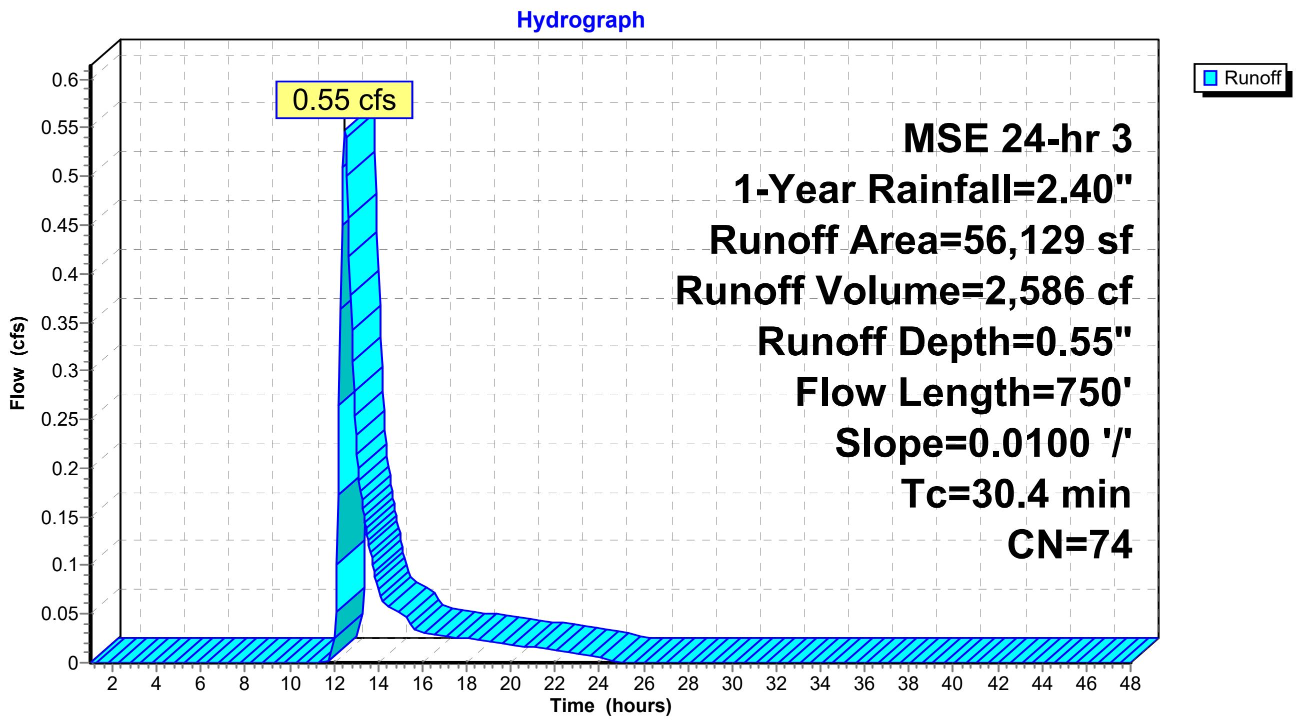
Runoff = 0.55 cfs @ 12.49 hrs, Volume= 2,586 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	56,129	74	landscape
	56,129		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
15.5	650	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
30.4	750	Total			

Subcatchment 87S: I



Summary for Subcatchment 95S: C1

Area actually draining to east swale
3/3/21
Northern portion of East Roof, exterior east courtyard, 7 home lots

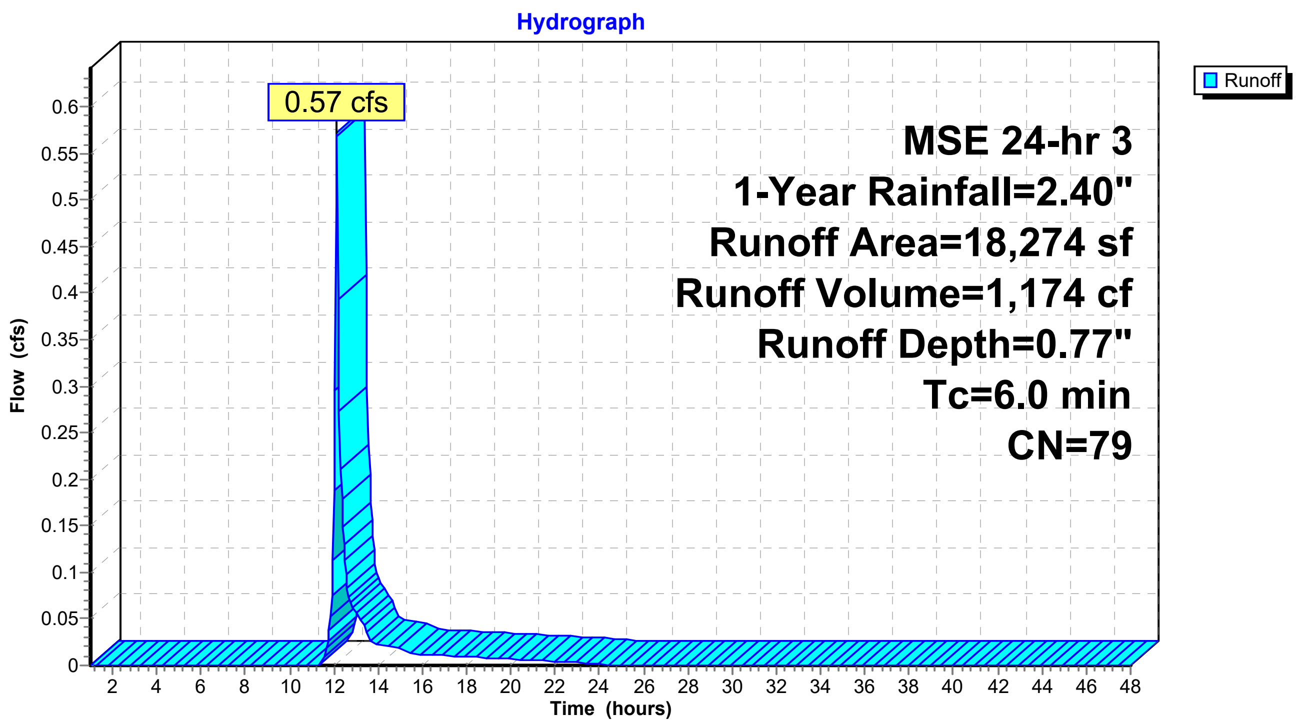
Runoff = 0.57 cfs @ 12.14 hrs, Volume= 1,174 cf, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	2,210	98	walks
*	1,774	98	roads
*	14,290	74	landscape
	18,274	79	Weighted Average
	14,290		78.20% Pervious Area
	3,984		21.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 95S: C1



Summary for Subcatchment 96S: E2

3/3/21
Delineation needs updating, but it does route to IB
Portion of cemetary site that flows from north to south into IB

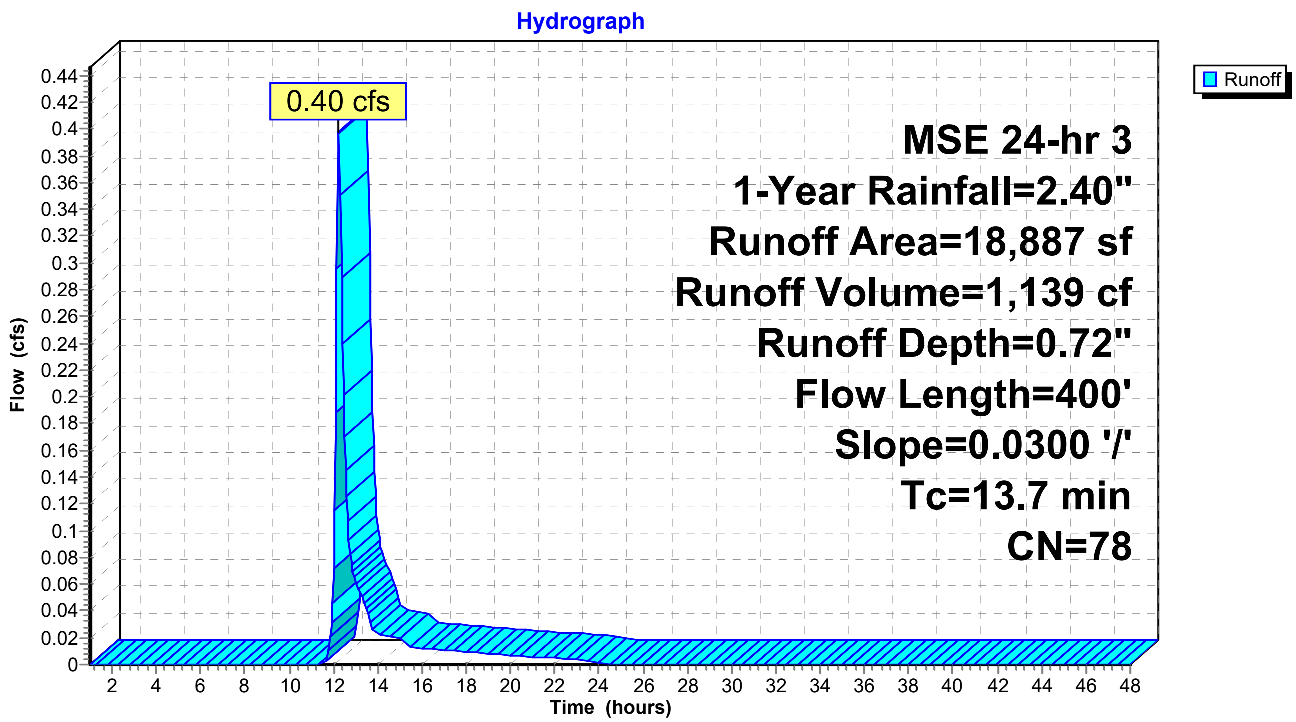
Runoff = 0.40 cfs @ 12.24 hrs, Volume= 1,139 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	15,384	74	landscape
*	3,503	98	roofs
	18,887	78	Weighted Average
	15,384		81.45% Pervious Area
	3,503		18.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0300	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
4.1	300	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.7	400	Total			

Subcatchment 96S: E2



Summary for Subcatchment 97S: C2

Subset C - C1
3/3/21
Southern portion of East Building Roof, Southern Building (Middle one) roof, pond area
pipe from roofs not sized yet

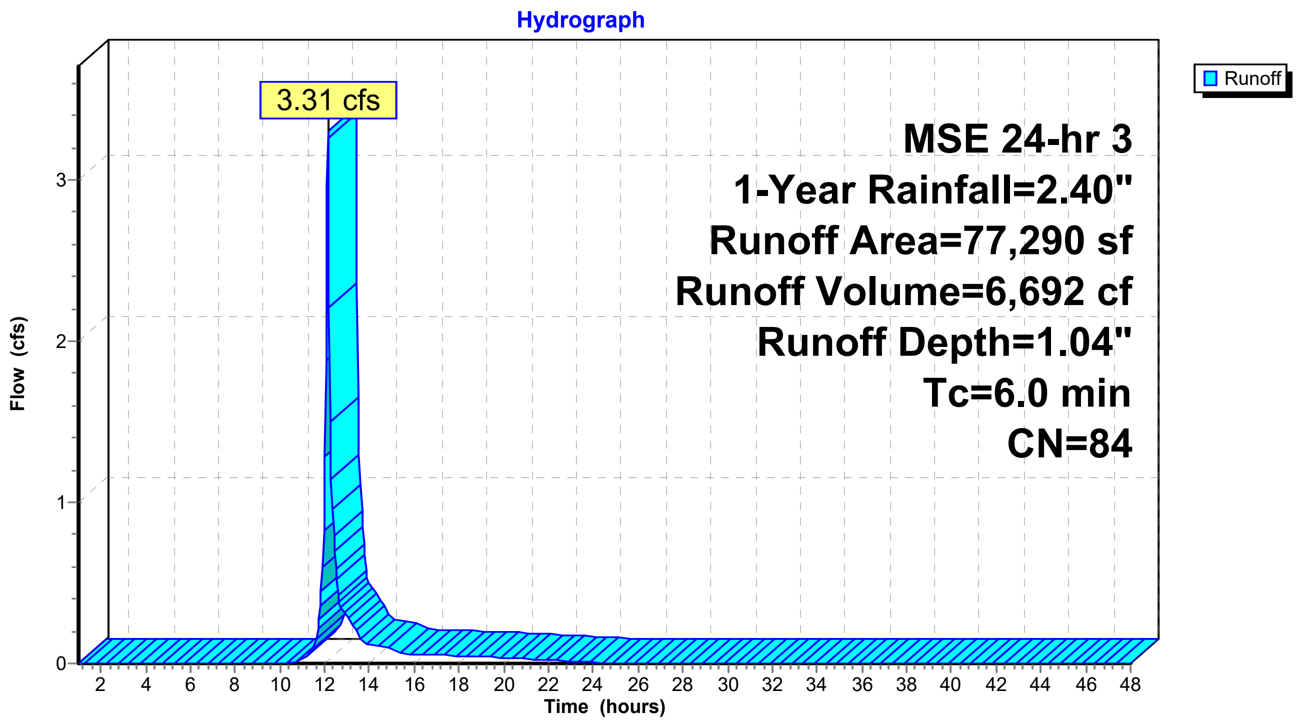
Runoff = 3.31 cfs @ 12.14 hrs, Volume= 6,692 cf, Depth= 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	9,728	98	walks and patios
*	23,739	98	roofs
*	43,823	74	landscape
	77,290	84	Weighted Average
	43,823		56.70% Pervious Area
	33,467		43.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 97S: C2



Summary for Subcatchment 98S: E3

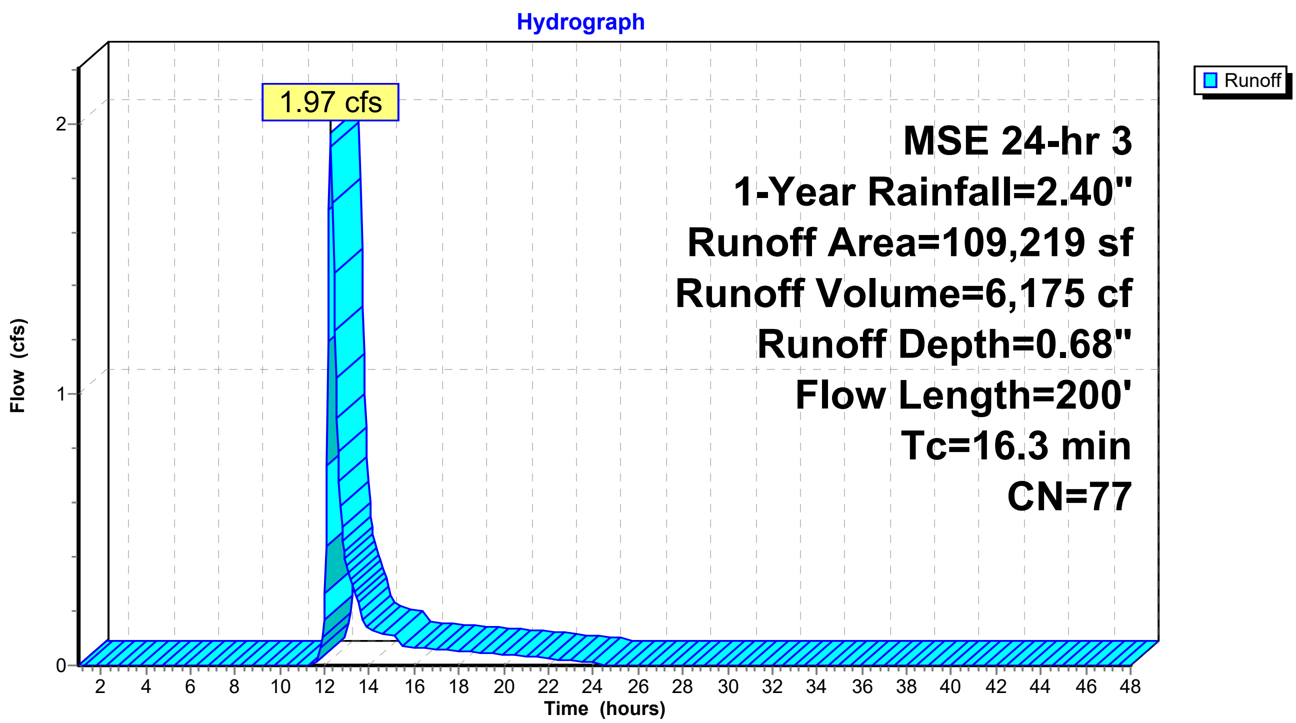
Runoff = 1.97 cfs @ 12.27 hrs, Volume= 6,175 cf, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	6,532	98	walks
*	8,300	98	Roads
*	94,387	74	landscape
	109,219	77	Weighted Average
	94,387		86.42% Pervious Area
	14,832		13.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
1.4	100	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.3	200	Total			

Subcatchment 98S: E3



Summary for Subcatchment 105S: C

Subset C - C1
3/3/21
Southern portion of East Building Roof, Southern Building (Middle one) roof, pond area
pipe from roofs not sized yet

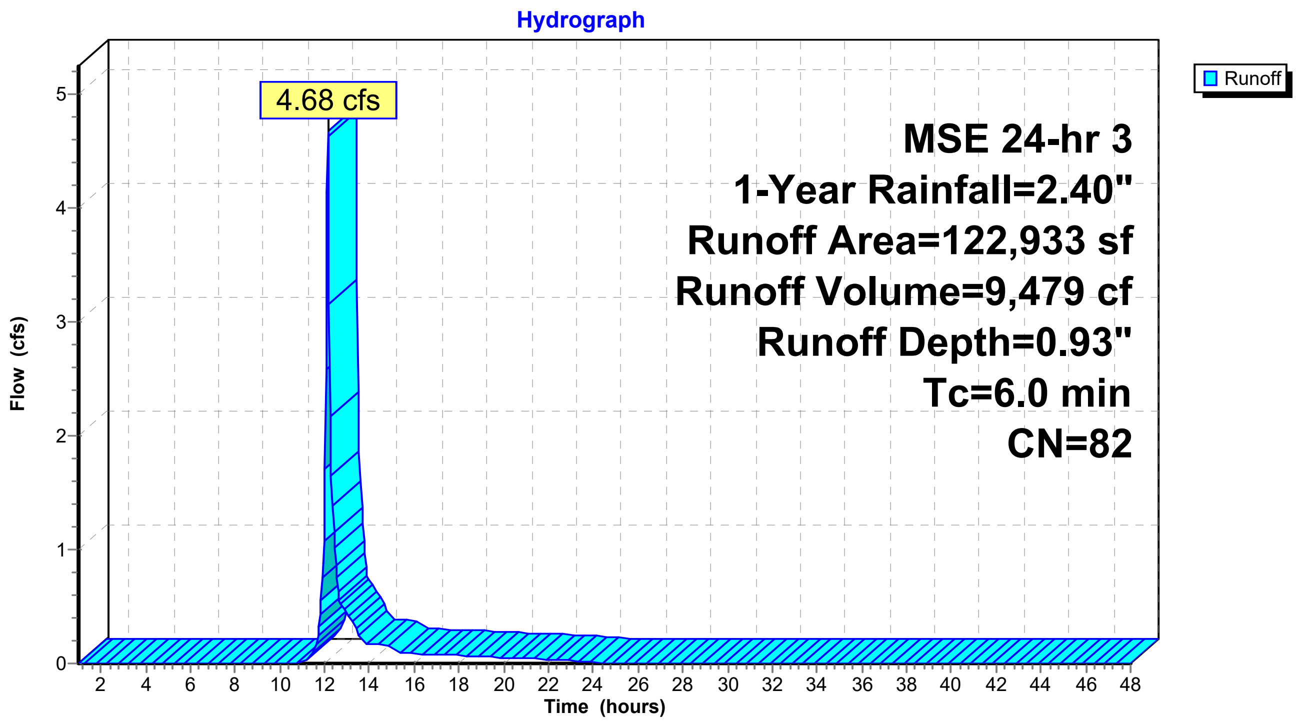
Runoff = 4.68 cfs @ 12.14 hrs, Volume= 9,479 cf, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	8,648	98	walks and patios
*	32,913	98	roofs
*	81,372	74	landscape
	122,933	82	Weighted Average
	81,372		66.19% Pervious Area
	41,561		33.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 105S: C



Summary for Subcatchment 106S: B1

3/3/21
North face of West Building, Lawn Area south of WTP, Patios

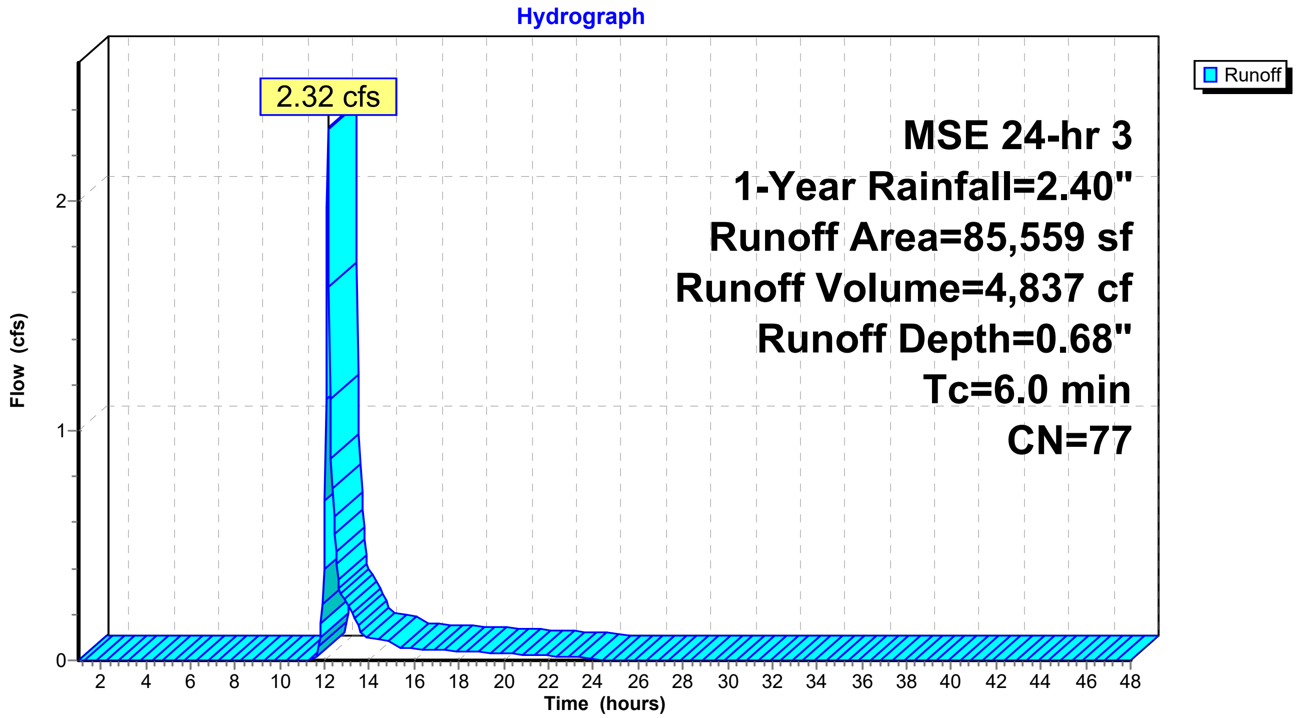
Runoff = 2.32 cfs @ 12.14 hrs, Volume= 4,837 cf, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	76,242	74	landscape
*	9,317	98	walks
	85,559	77	Weighted Average
	76,242		89.11% Pervious Area
	9,317		10.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Check Later**

Subcatchment 106S: B1



Summary for Subcatchment 107S: F

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

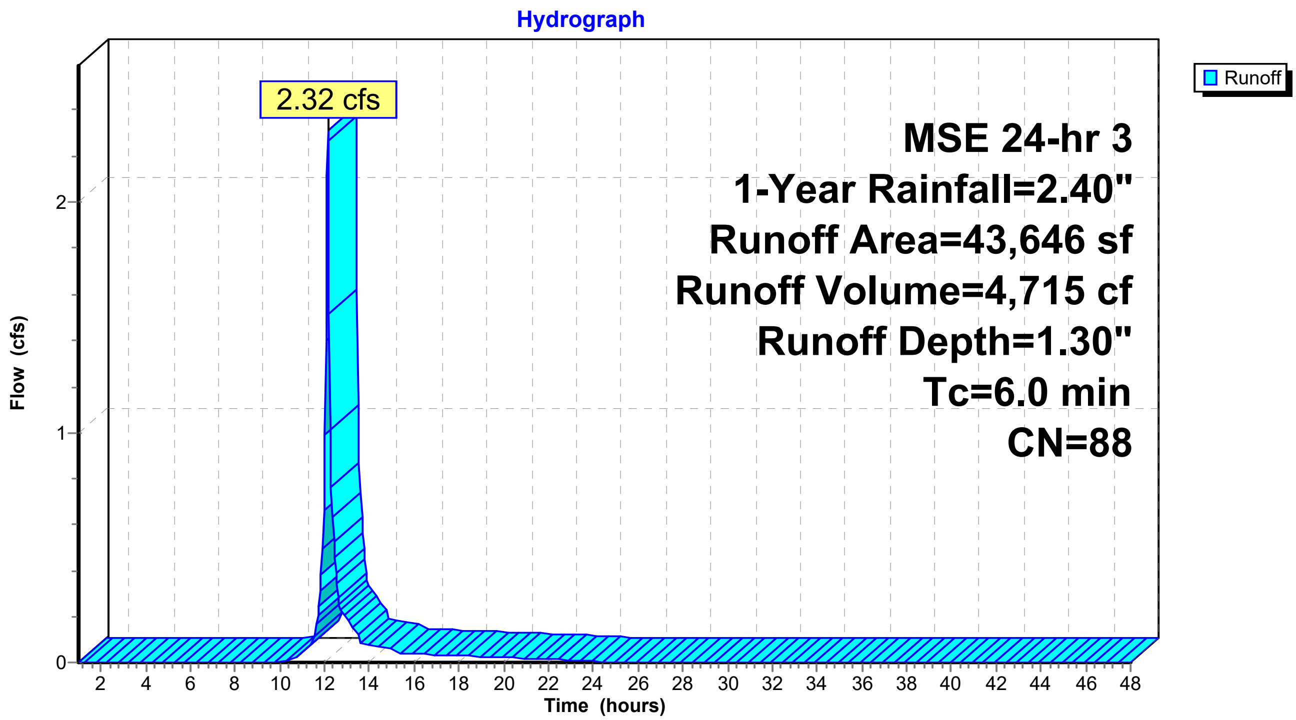
Runoff = 2.32 cfs @ 12.13 hrs, Volume= 4,715 cf, Depth= 1.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	14,227	98	roads
*	11,236	98	roof
*	18,183	74	landscape
	43,646	88	Weighted Average
	18,183		41.66% Pervious Area
	25,463		58.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 107S: F



Summary for Subcatchment 108S: B2

3/3/21
Northern portion of W building roof

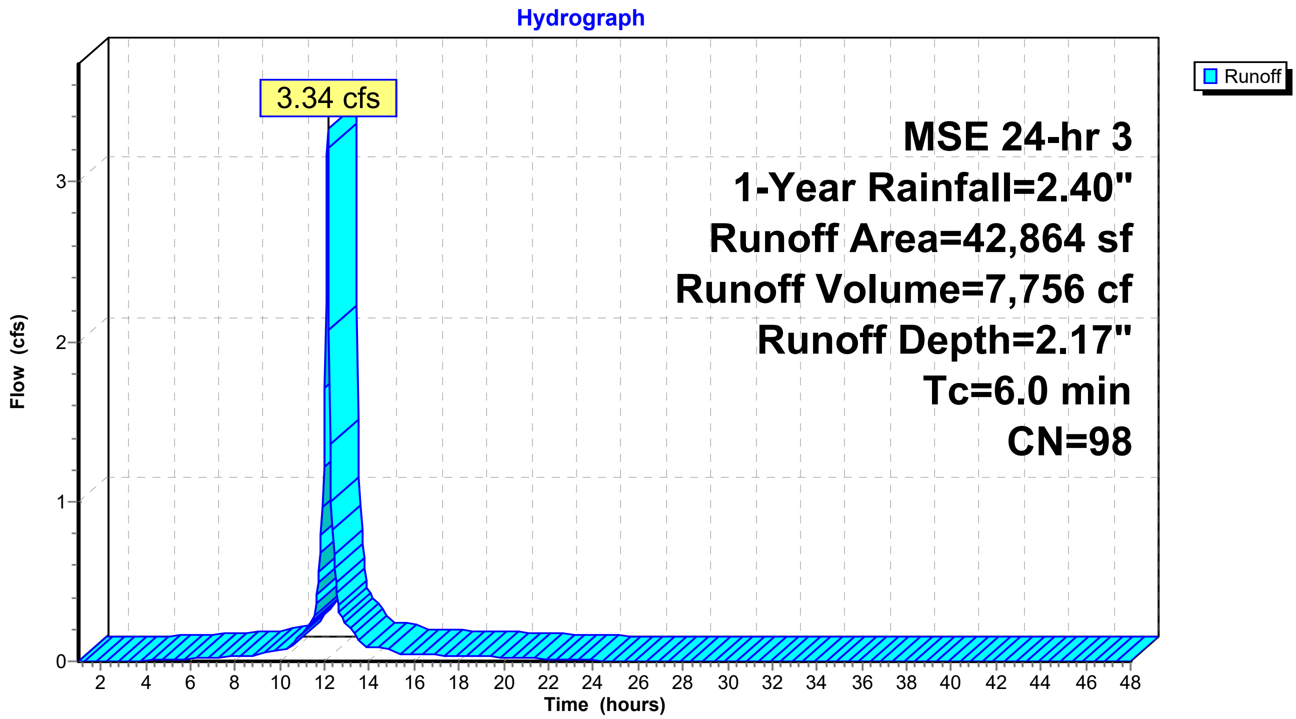
Runoff = 3.34 cfs @ 12.13 hrs, Volume= 7,756 cf, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	42,864	98	roof
	42,864		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 108S: B2



Summary for Subcatchment 112S: D3

3/3/21
Western Building Courtyard (need to check that Joe's overall B works with B1-B4 in our update

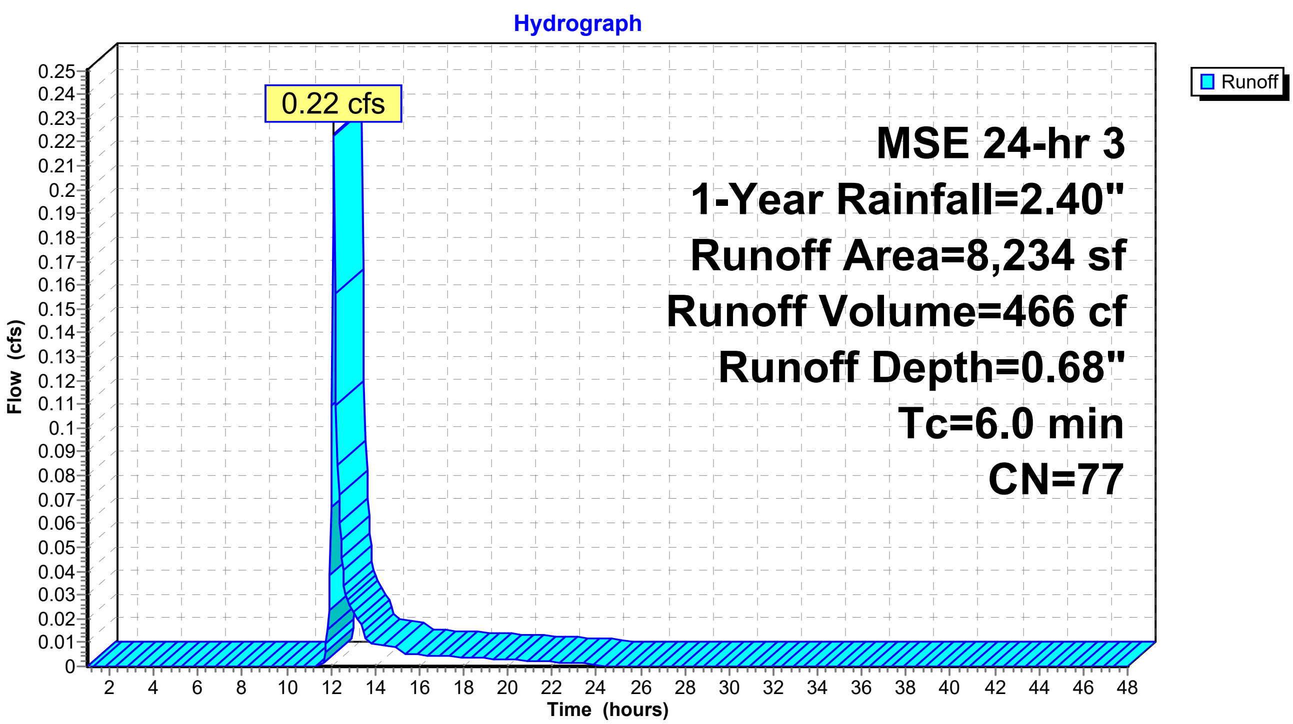
Runoff = 0.22 cfs @ 12.14 hrs, Volume= 466 cf, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	1,062	98	walks
*	7,172	74	landscape
	8,234	77	Weighted Average
	7,172		87.10% Pervious Area
	1,062		12.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 112S: D3



Summary for Subcatchment 122S: F1

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

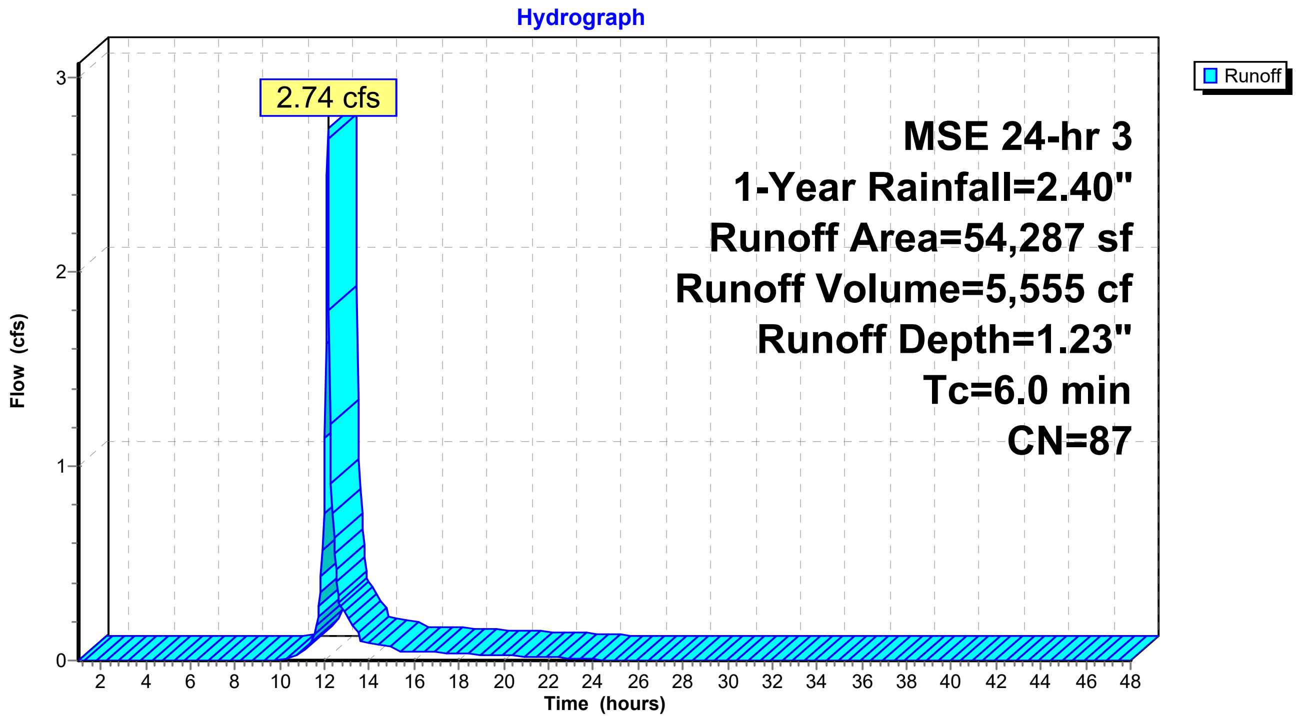
Runoff = 2.74 cfs @ 12.13 hrs, Volume= 5,555 cf, Depth= 1.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	504	98	walks
*	19,590	98	roads
*	9,863	98	roof
*	24,330	74	landscape
	54,287	87	Weighted Average
	24,330		44.82% Pervious Area
	29,957		55.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 122S: F1



Summary for Subcatchment 125S: F3

3/3/21
SW Lot that drains direct to SC Pond

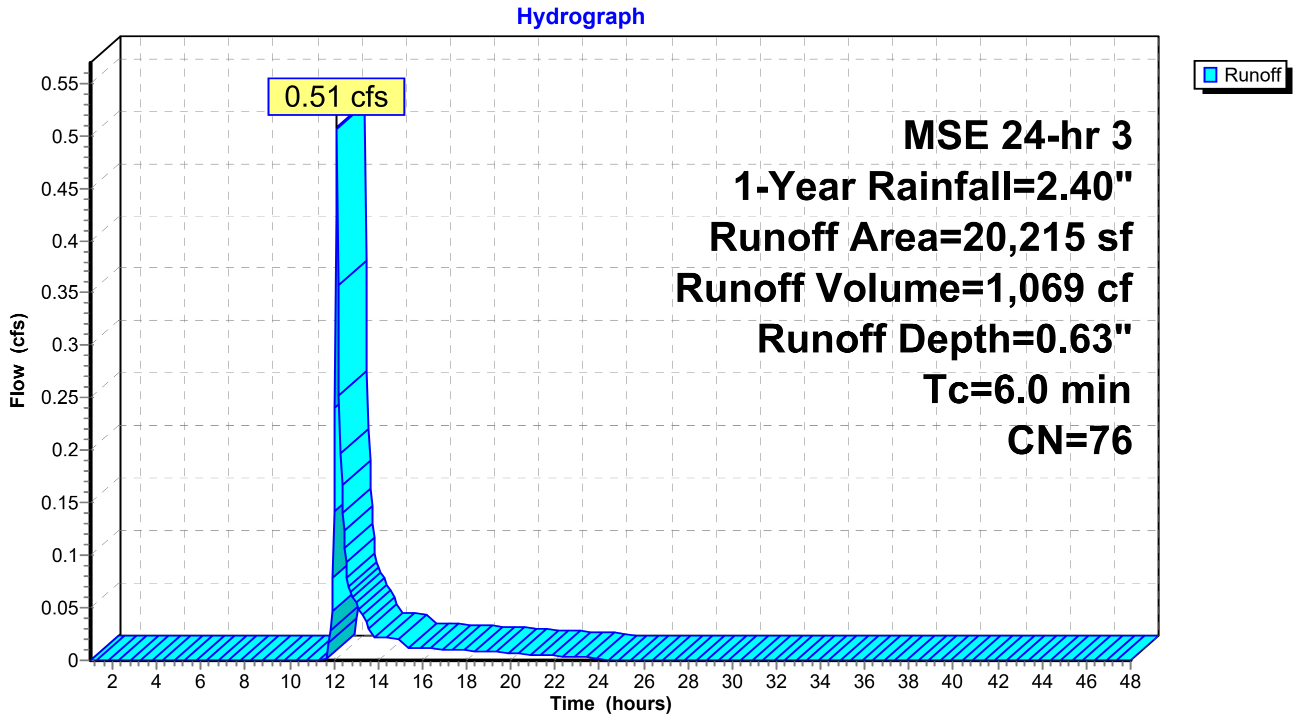
Runoff = 0.51 cfs @ 12.14 hrs, Volume= 1,069 cf, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	2,087	98	roof
*	18,128	74	landscape
	20,215	76	Weighted Average
	18,128		89.68% Pervious Area
	2,087		10.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 125S: F3



Summary for Subcatchment 126S: F4

3/3/21
SC Pond itself

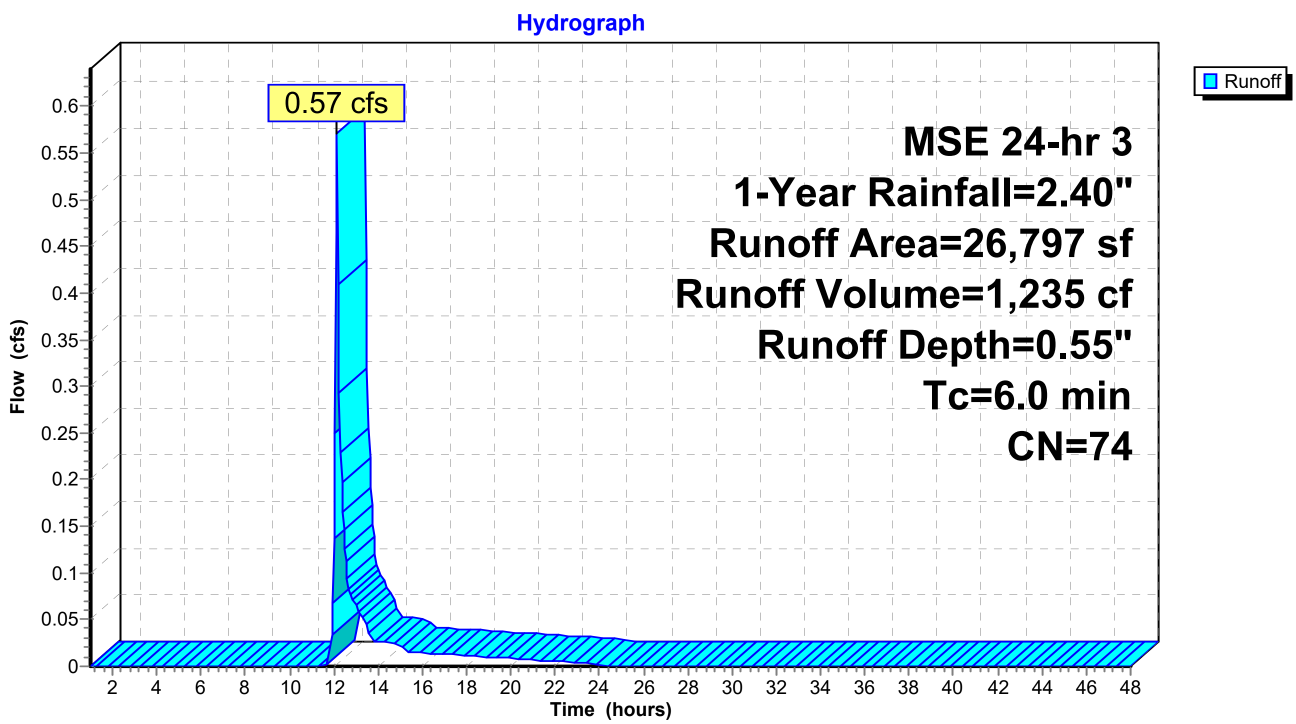
Runoff = 0.57 cfs @ 12.14 hrs, Volume= 1,235 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	26,797	74	landscape
	26,797		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 126S: F4



Summary for Subcatchment 138S: F2

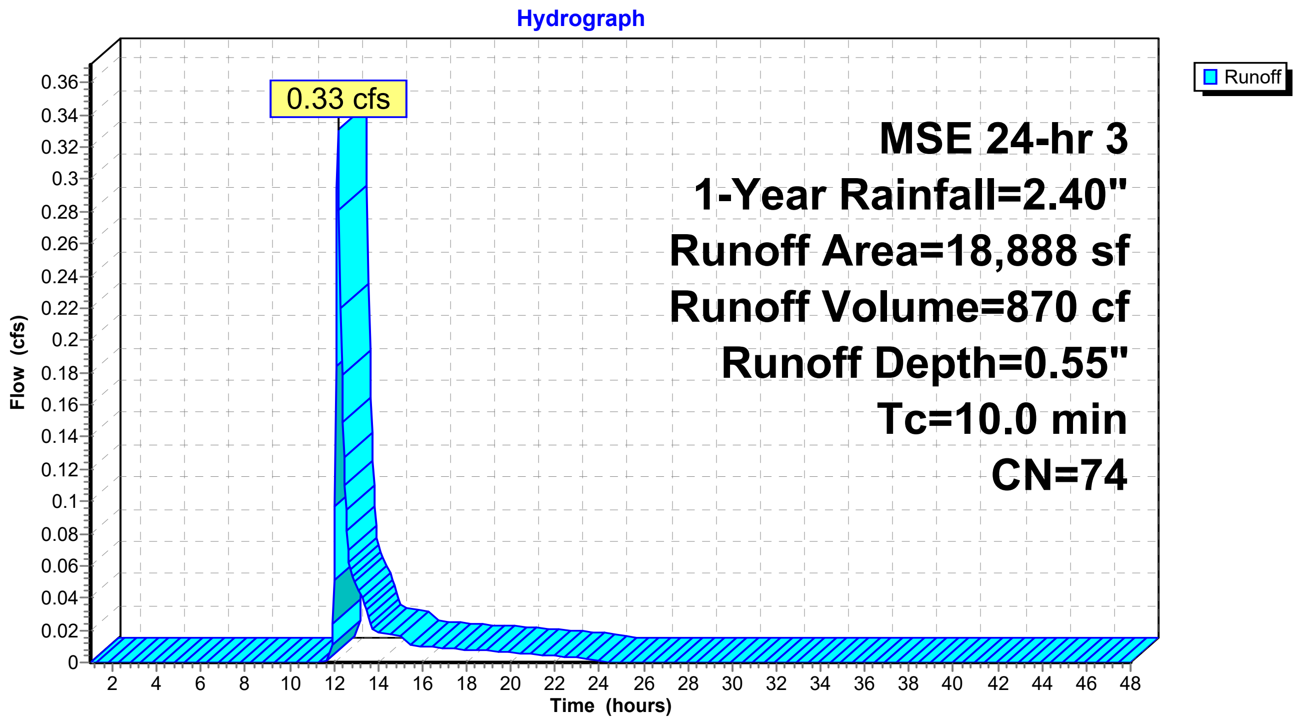
Runoff = 0.33 cfs @ 12.20 hrs, Volume= 870 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	18,888	74	Landscape
	18,888		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, minimum**

Subcatchment 138S: F2



Summary for Subcatchment 140S: H1

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

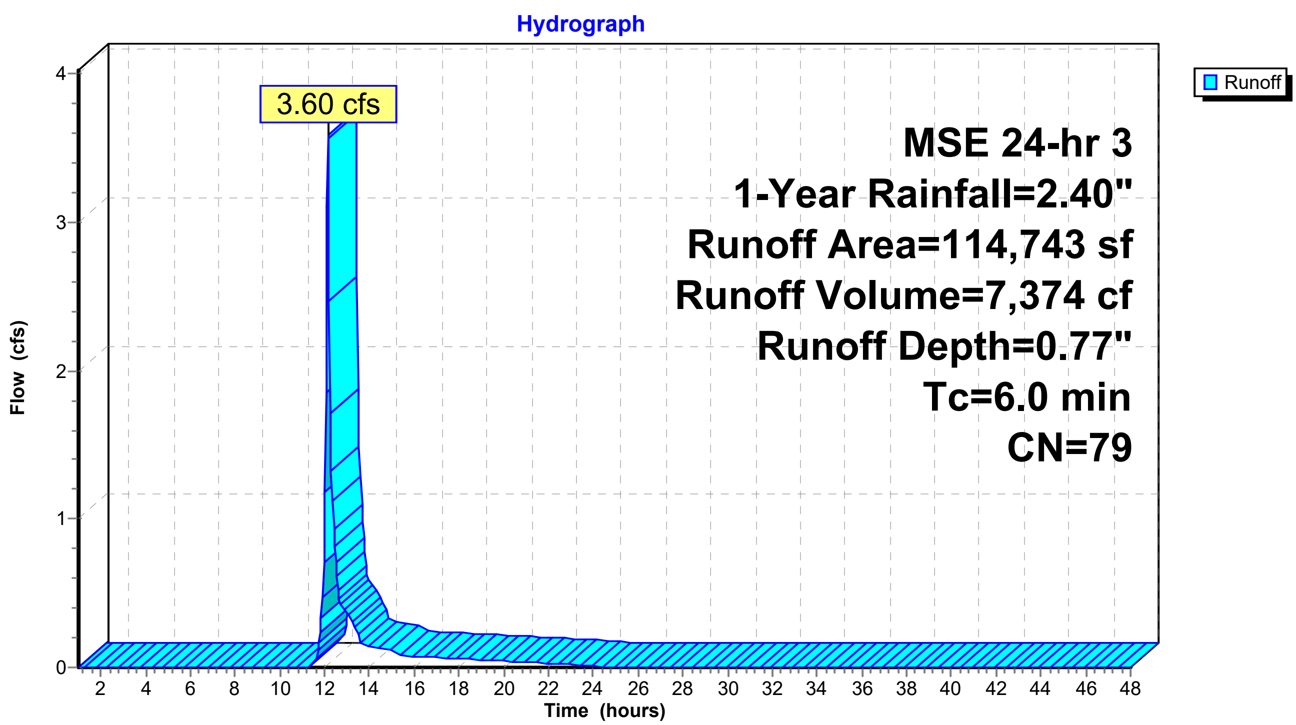
Runoff = 3.60 cfs @ 12.14 hrs, Volume= 7,374 cf, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	9,481	98	roads
*	13,229	98	roof
*	92,033	74	landscape
	114,743	79	Weighted Average
	92,033		80.21% Pervious Area
	22,710		19.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 140S: H1



Summary for Subcatchment 141S: H2

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

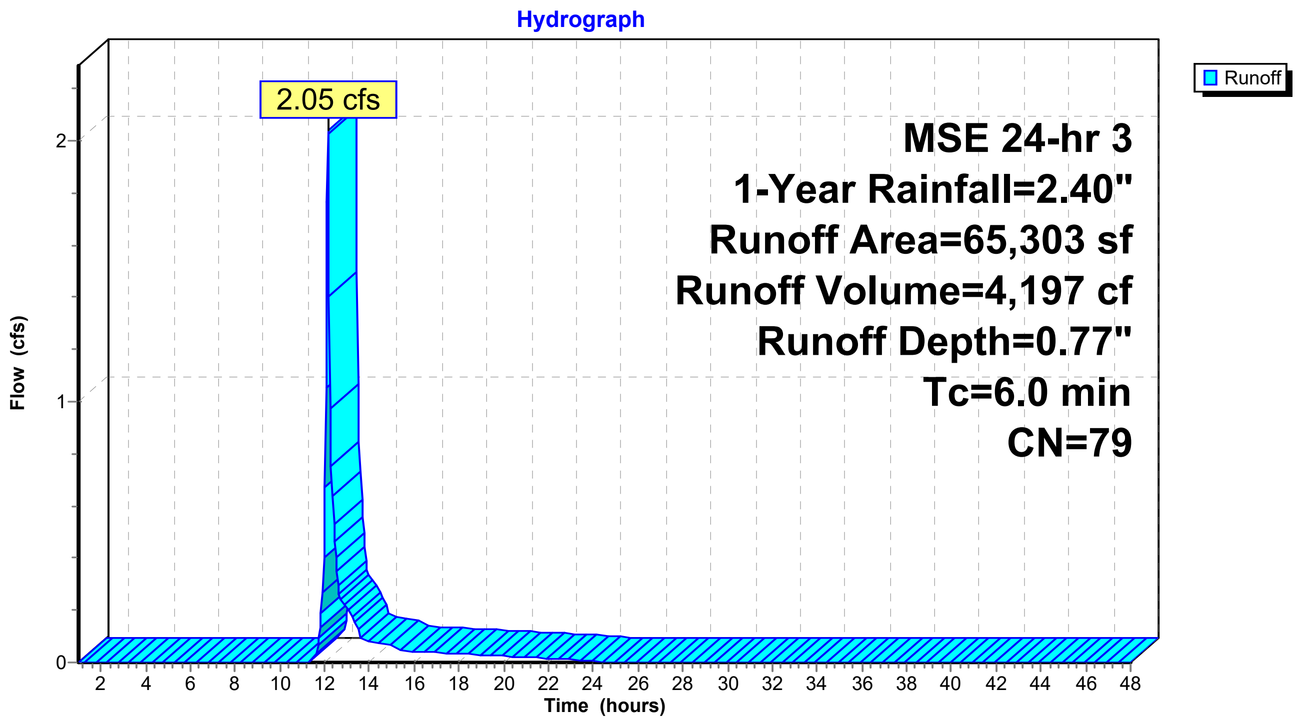
Runoff = 2.05 cfs @ 12.14 hrs, Volume= 4,197 cf, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	4,833	98	roads
*	7,898	98	roof
*	52,572	74	landscape
	65,303	79	Weighted Average
	52,572		80.50% Pervious Area
	12,731		19.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 141S: H2



Summary for Subcatchment 142S: H3

3/3/21
Needs to be delineated, this is from Joe's SWMP2

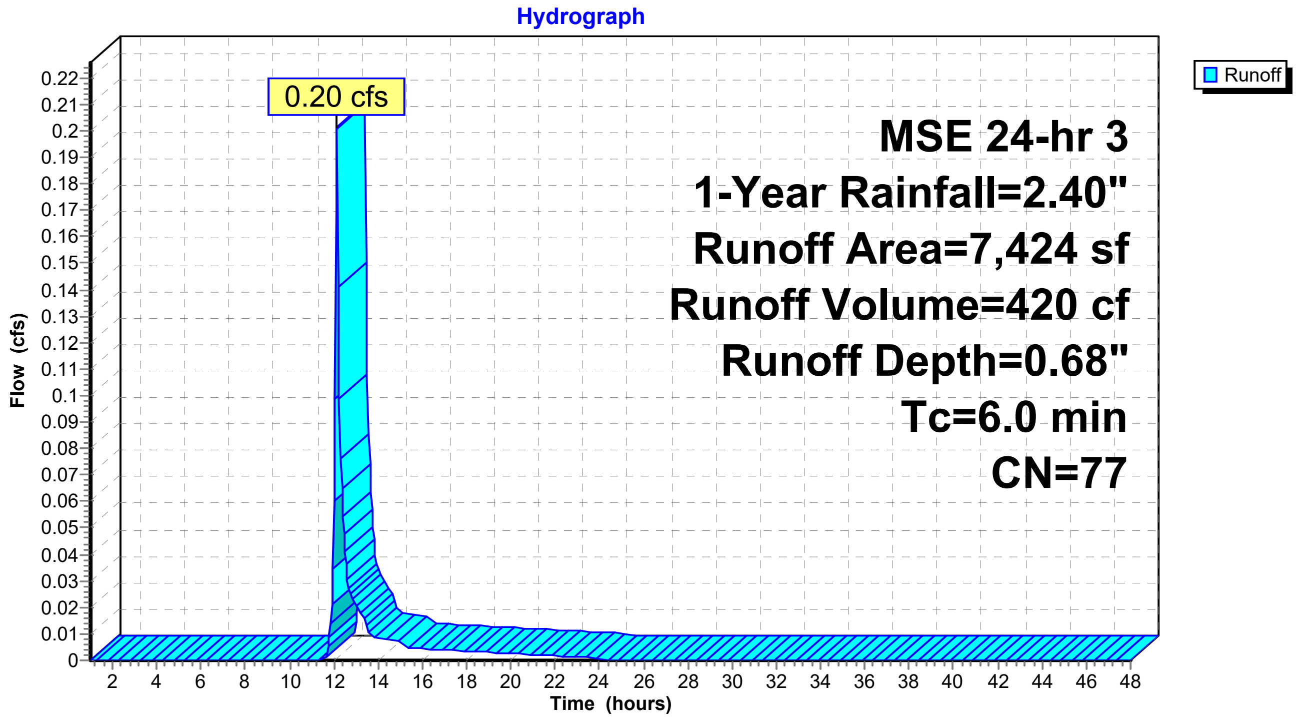
Runoff = 0.20 cfs @ 12.14 hrs, Volume= 420 cf, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	1,041	98	roads
*	6,383	74	landscape
	7,424	77	Weighted Average
	6,383		85.98% Pervious Area
	1,041		14.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 142S: H3



Summary for Subcatchment 143S: H4

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

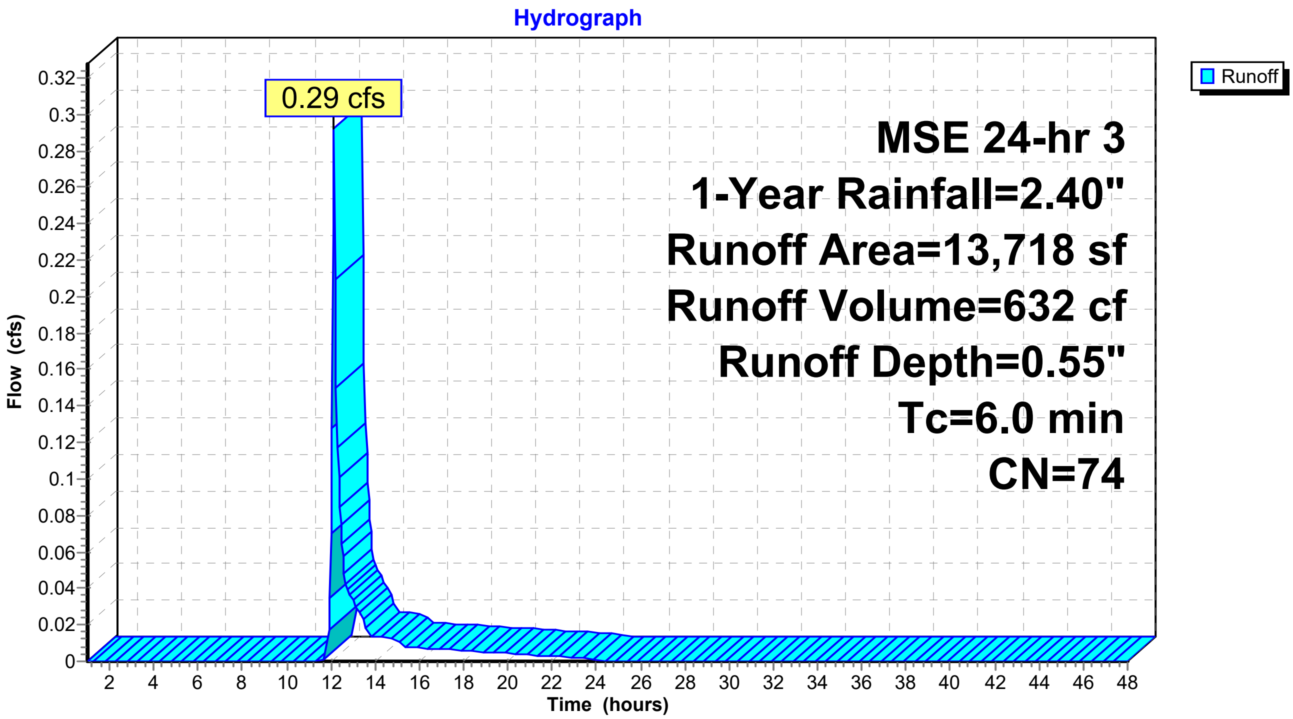
Runoff = 0.29 cfs @ 12.14 hrs, Volume= 632 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	13,718	74	landscape
	13,718		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 143S: H4



Summary for Subcatchment 144S: H5

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

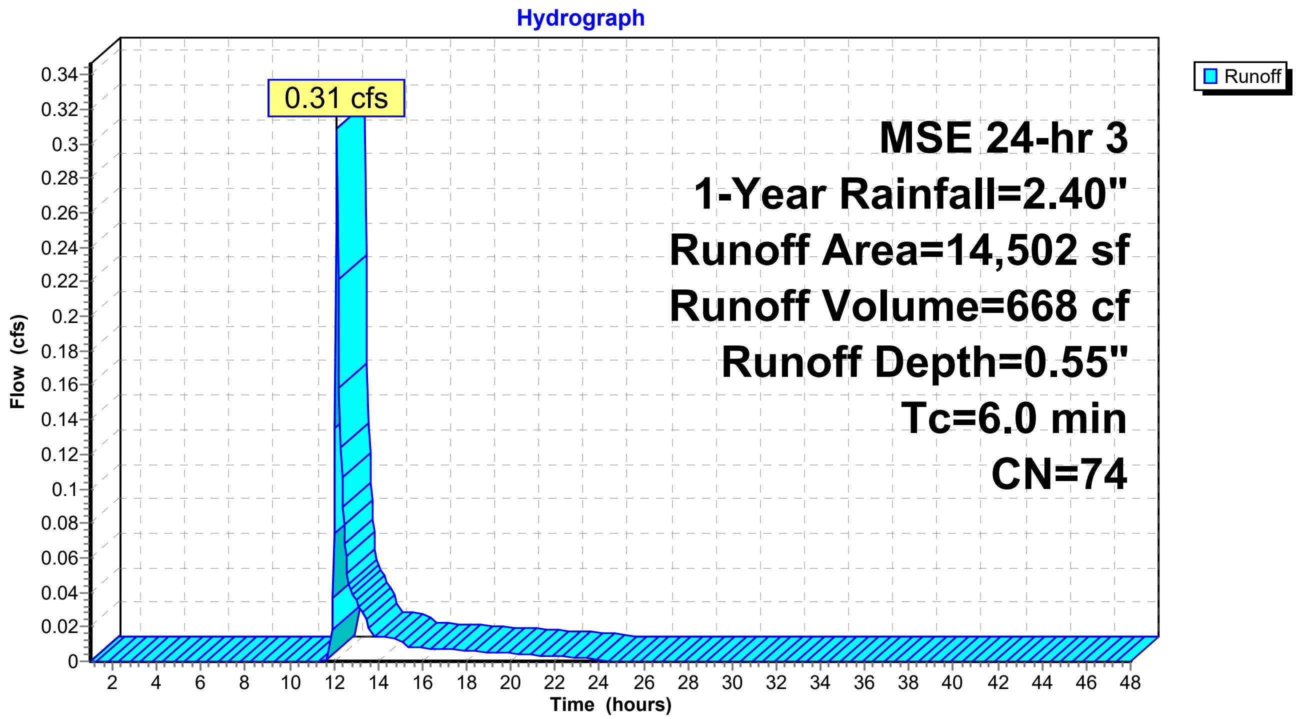
Runoff = 0.31 cfs @ 12.14 hrs, Volume= 668 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	14,502	74	landscape
	14,502		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 144S: H5



Summary for Subcatchment 145S: H6

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

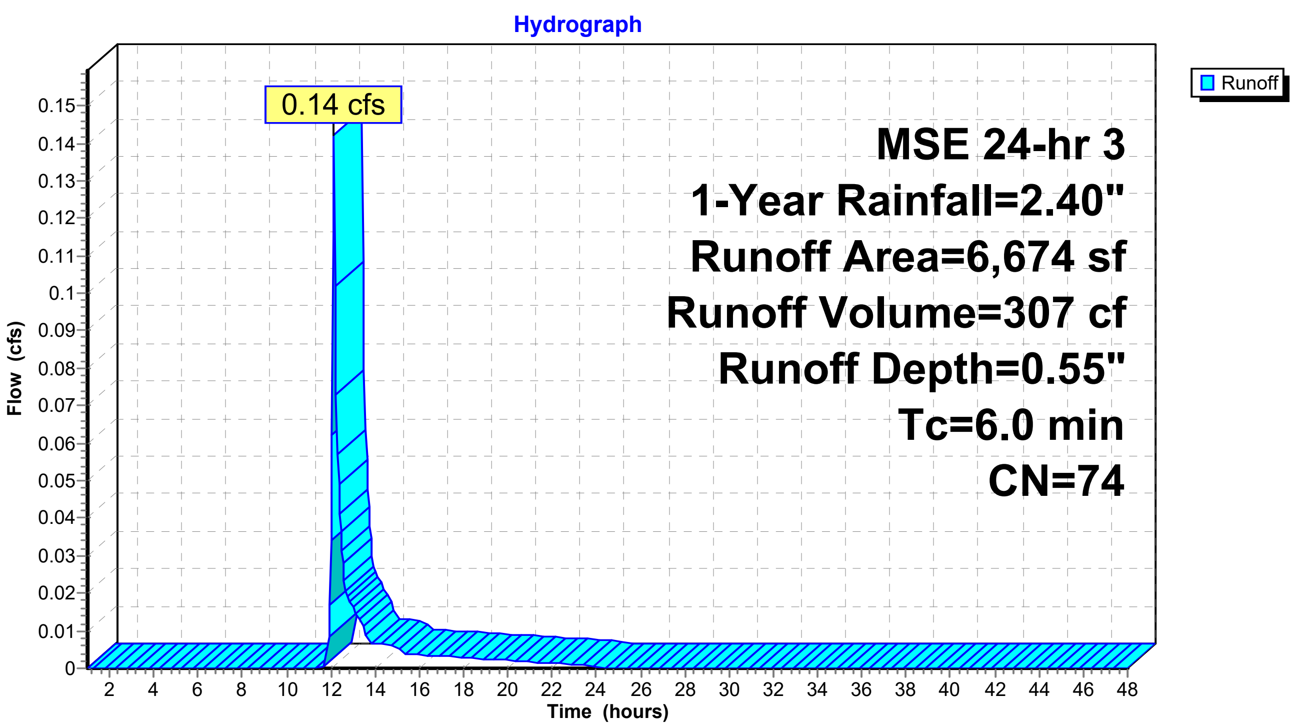
Runoff = 0.14 cfs @ 12.14 hrs, Volume= 307 cf, Depth= 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	6,674	74	landscape
	6,674		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 145S: H6



Summary for Subcatchment 146S: O2

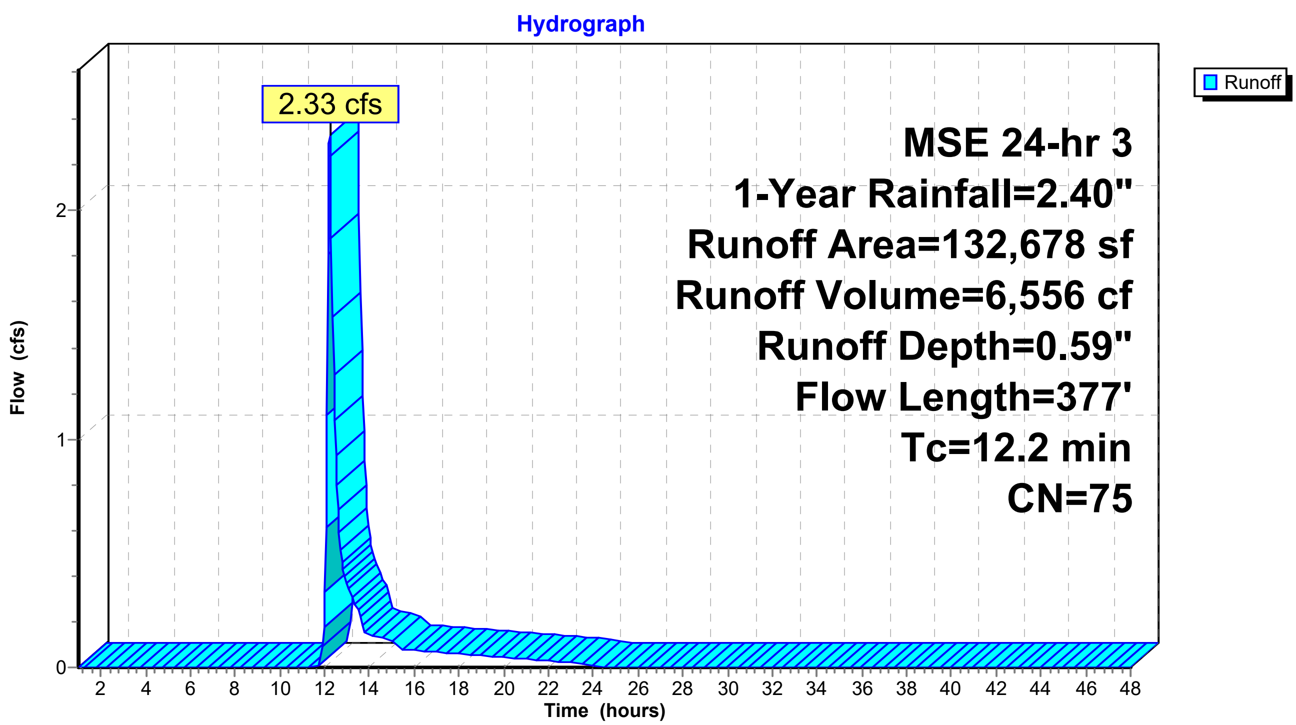
Runoff = 2.33 cfs @ 12.22 hrs, Volume= 6,556 cf, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	129,638	74	PERV
*	3,040	98	IMPERV
	132,678	75	Weighted Average
	129,638		97.71% Pervious Area
	3,040		2.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	77	0.0288	0.16		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.42"
4.3	300	0.0135	1.16		**Shallow Concentrated Flow, SHALLOW CONC** Nearly Bare & Untilled Kv= 10.0 fps
12.2	377	Total			

Subcatchment 146S: O2



Summary for Subcatchment 147S: J

3/3/21
Needs to be delineated, this is from Joe's SWMP2

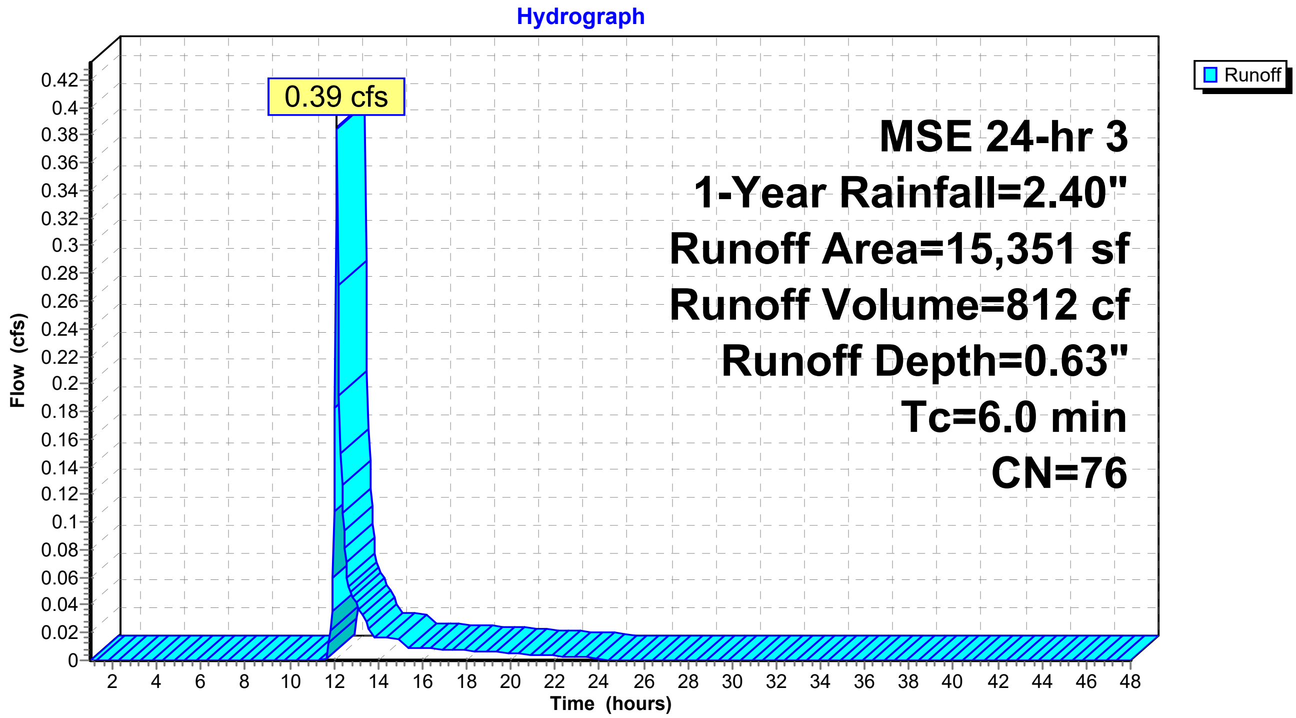
Runoff = 0.39 cfs @ 12.14 hrs, Volume= 812 cf, Depth= 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 1-Year Rainfall=2.40"

	Area (sf)	CN	Description
*	1,360	98	walks
*	13,991	74	landscape
	15,351	76	Weighted Average
	13,991		91.14% Pervious Area
	1,360		8.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 147S: J



Summary for Reach 99R: East Swale (SE End)

[62] Hint: Exceeded Reach 106R OUTLET depth by 0.31' @ 12.20 hrs

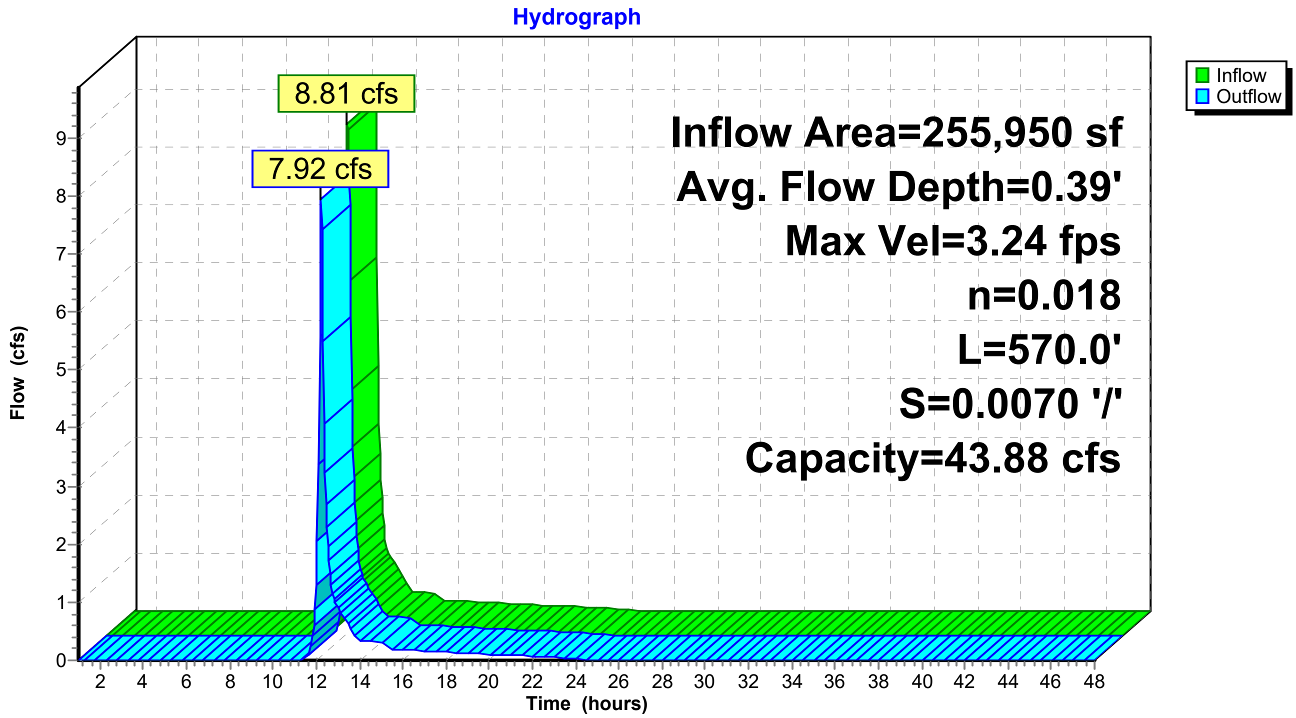
Inflow Area = 255,950 sf, 26.67% Impervious, Inflow Depth = 0.85" for 1-Year event
Inflow = 8.81 cfs @ 12.14 hrs, Volume= 18,027 cf
Outflow = 7.92 cfs @ 12.22 hrs, Volume= 18,027 cf, Atten= 10%, Lag= 4.7 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.24 fps, Min. Travel Time= 2.9 min
Avg. Velocity = 0.76 fps, Avg. Travel Time= 12.5 min

Peak Storage= 1,387 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.39'
Bank-Full Depth= 1.00' Flow Area= 8.0 sf, Capacity= 43.88 cfs

5.00' x 1.00' deep channel, n= 0.018
Side Slope Z-value= 3.0 '/' Top Width= 11.00'
Length= 570.0' Slope= 0.0070 '/'
Inlet Invert= 757.00', Outlet Invert= 753.00'

Reach 99R: East Swale (SE End)



Summary for Reach 106R: East Swale (North End)

3/2/21
Slope Calc - (140' x 4.64%)

Inflow Area = 18,274 sf, 21.80% Impervious, Inflow Depth = 0.77" for 1-Year event
Inflow = 0.57 cfs @ 12.14 hrs, Volume= 1,174 cf
Outflow = 0.54 cfs @ 12.16 hrs, Volume= 1,174 cf, Atten= 5%, Lag= 1.0 min

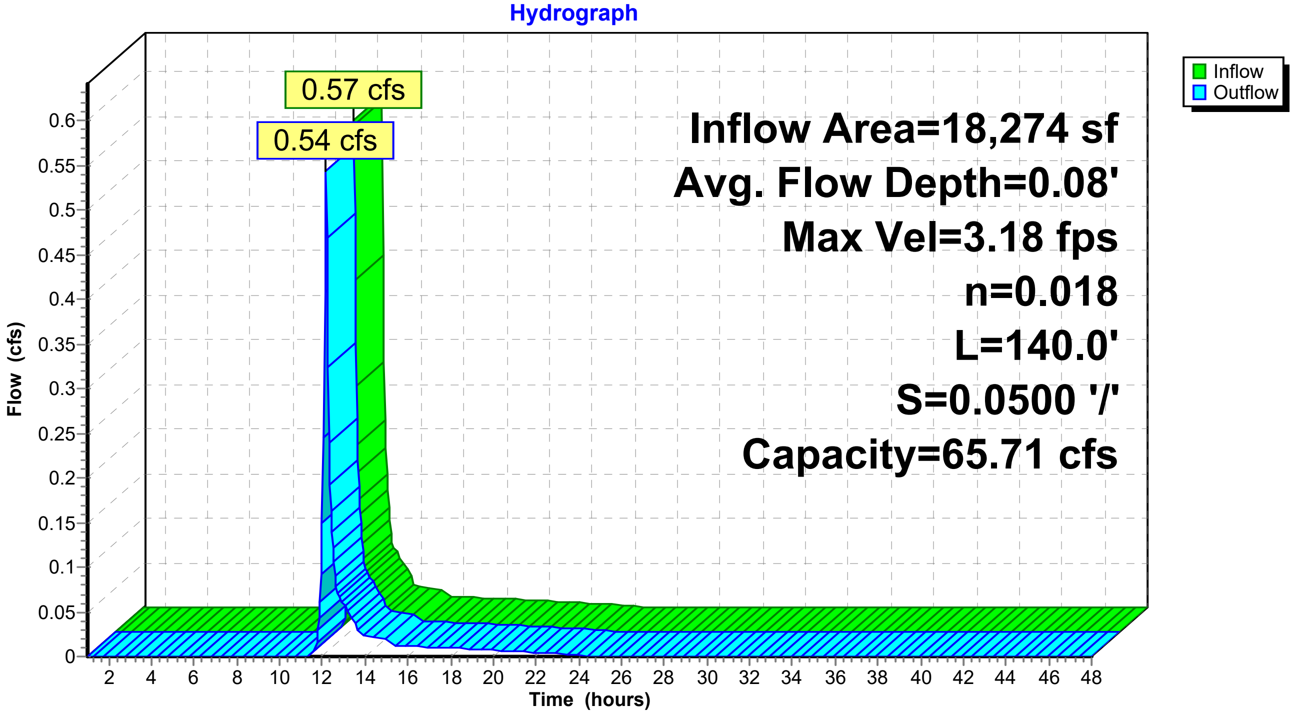
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.18 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 0.98 fps, Avg. Travel Time= 2.4 min

Peak Storage= 25 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.08'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 65.71 cfs

2.00' x 1.00' deep channel, n= 0.018 Earth, clean & straight
Side Slope Z-value= 3.0 '/' Top Width= 8.00'
Length= 140.0' Slope= 0.0500 '/'
Inlet Invert= 764.00', Outlet Invert= 757.00'

‡

Reach 106R: East Swale (North End)



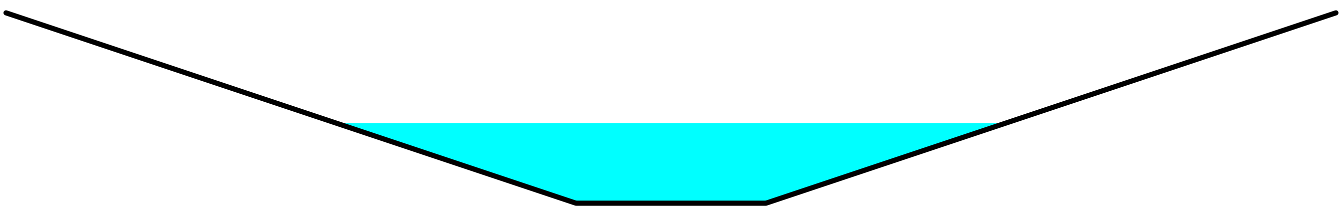
Summary for Reach 108R: South Berm Swale

Inflow Area = 121,432 sf, 10.48% Impervious, Inflow Depth = 0.67" for 1-Year event
Inflow = 2.14 cfs @ 12.14 hrs, Volume= 6,783 cf
Outflow = 1.93 cfs @ 12.21 hrs, Volume= 6,783 cf, Atten= 10%, Lag= 3.9 min

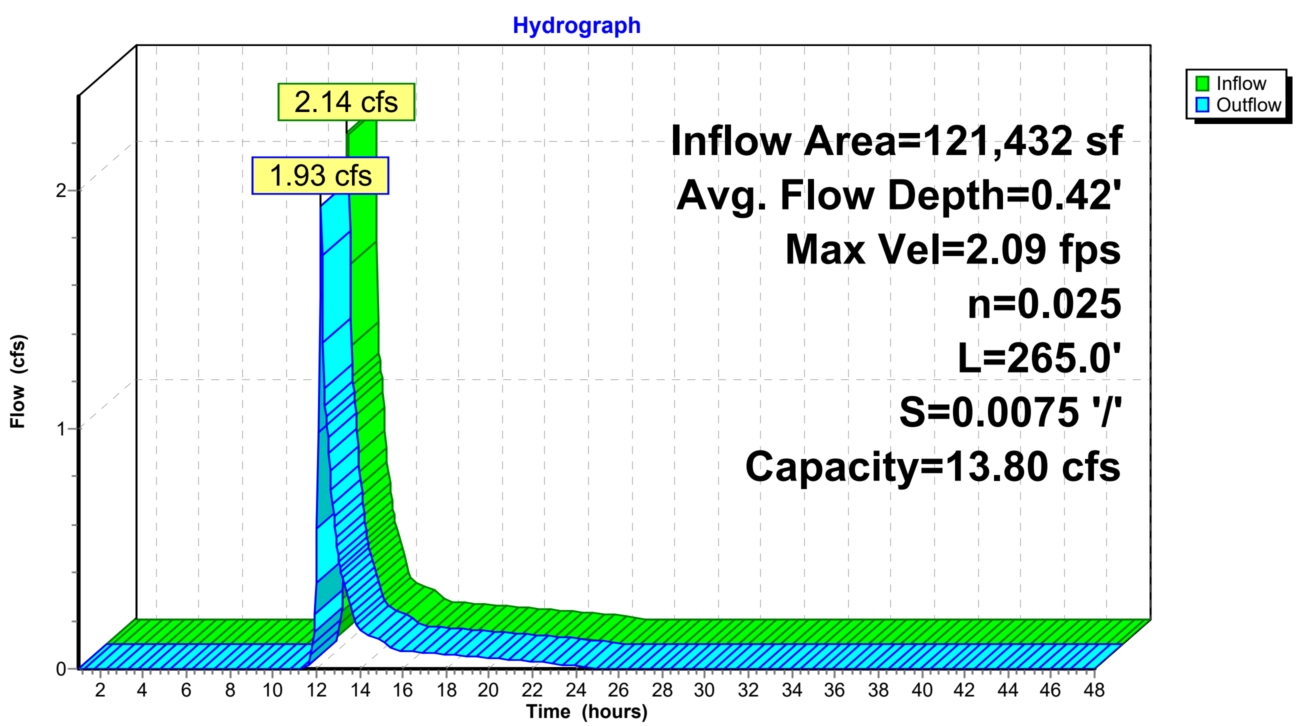
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.09 fps, Min. Travel Time= 2.1 min
Avg. Velocity = 0.75 fps, Avg. Travel Time= 5.9 min

Peak Storage= 252 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.42'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 13.80 cfs

1.00' x 1.00' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.00'
Length= 265.0' Slope= 0.0075 '/'
Inlet Invert= 754.00', Outlet Invert= 752.00'



Reach 108R: South Berm Swale



Summary for Reach 109R: SC Road East Ditch

3/3/21
Ditch on north and west side of cul-de-sac road

Inflow Area = 43,646 sf, 58.34% Impervious, Inflow Depth = 1.30" for 1-Year event
Inflow = 2.32 cfs @ 12.13 hrs, Volume= 4,715 cf
Outflow = 1.93 cfs @ 12.24 hrs, Volume= 4,715 cf, Atten= 17%, Lag= 6.5 min

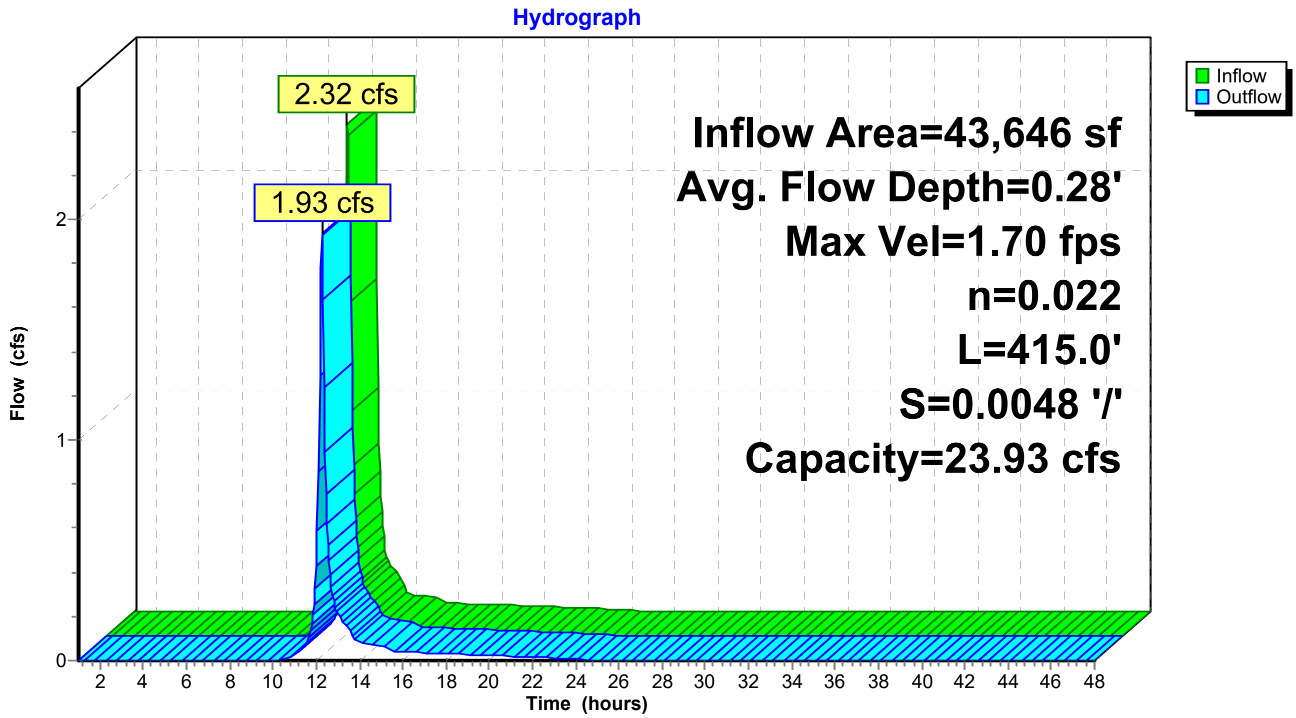
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.70 fps, Min. Travel Time= 4.1 min
Avg. Velocity = 0.41 fps, Avg. Travel Time= 16.8 min

Peak Storage= 487 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 7.0 sf, Capacity= 23.93 cfs

3.00' x 1.00' deep channel, n= 0.022
Side Slope Z-value= 4.0 '/' Top Width= 11.00'
Length= 415.0' Slope= 0.0048 '/'
Inlet Invert= 747.00', Outlet Invert= 745.00'

‡

Reach 109R: SC Road East Ditch



Summary for Reach 111R: Western PL North Ditch

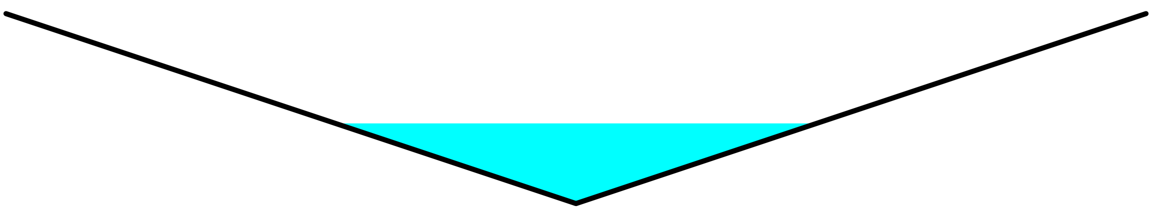
3/3/21
This is the western property line ditch that takes offsite flow and western building courtyard flow to IB
update length we shortened in screen share

Inflow Area = 125,111 sf, 9.17% Impervious, Inflow Depth = 0.65" for 1-Year event
Inflow = 3.02 cfs @ 12.15 hrs, Volume= 6,792 cf
Outflow = 2.67 cfs @ 12.24 hrs, Volume= 6,792 cf, Atten= 12%, Lag= 5.2 min

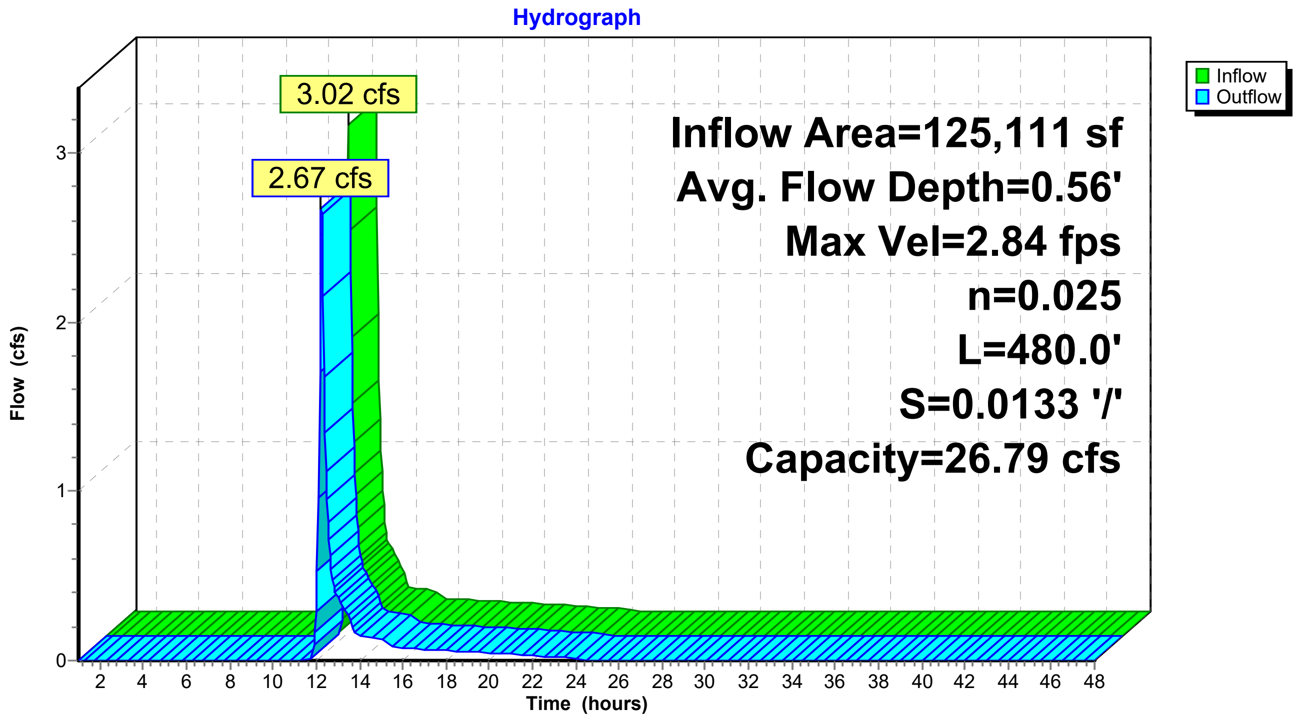
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.84 fps, Min. Travel Time= 2.8 min
Avg. Velocity = 1.05 fps, Avg. Travel Time= 7.6 min

Peak Storage= 454 cf @ 12.19 hrs
Average Depth at Peak Storage= 0.56'
Bank-Full Depth= 1.33' Flow Area= 5.3 sf, Capacity= 26.79 cfs

0.00' x 1.33' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.98'
Length= 480.0' Slope= 0.0133 '/'
Inlet Invert= 755.50', Outlet Invert= 749.10'



Reach 111R: Western PL North Ditch



Summary for Reach 117R: SC Road West Ditch

3/3/21
Ditch on north and west side of cul-de-sac road

Inflow Area = 54,287 sf, 55.18% Impervious, Inflow Depth = 1.23" for 1-Year event
Inflow = 2.74 cfs @ 12.13 hrs, Volume= 5,555 cf
Outflow = 2.23 cfs @ 12.26 hrs, Volume= 5,555 cf, Atten= 19%, Lag= 7.4 min

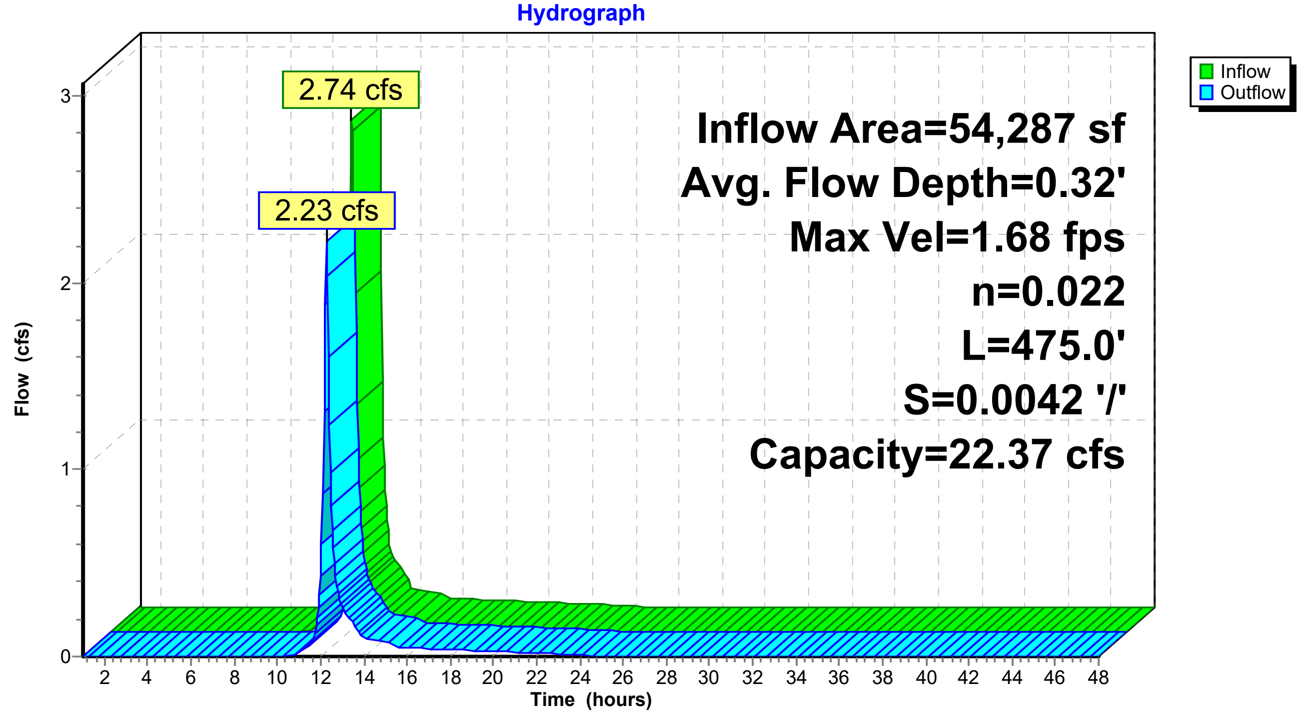
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.68 fps, Min. Travel Time= 4.7 min
Avg. Velocity = 0.41 fps, Avg. Travel Time= 19.3 min

Peak Storage= 640 cf @ 12.18 hrs
Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 1.00' Flow Area= 7.0 sf, Capacity= 22.37 cfs

3.00' x 1.00' deep channel, n= 0.022
Side Slope Z-value= 4.0 '/' Top Width= 11.00'
Length= 475.0' Slope= 0.0042 '/'
Inlet Invert= 747.00', Outlet Invert= 745.00'

‡

Reach 117R: SC Road West Ditch

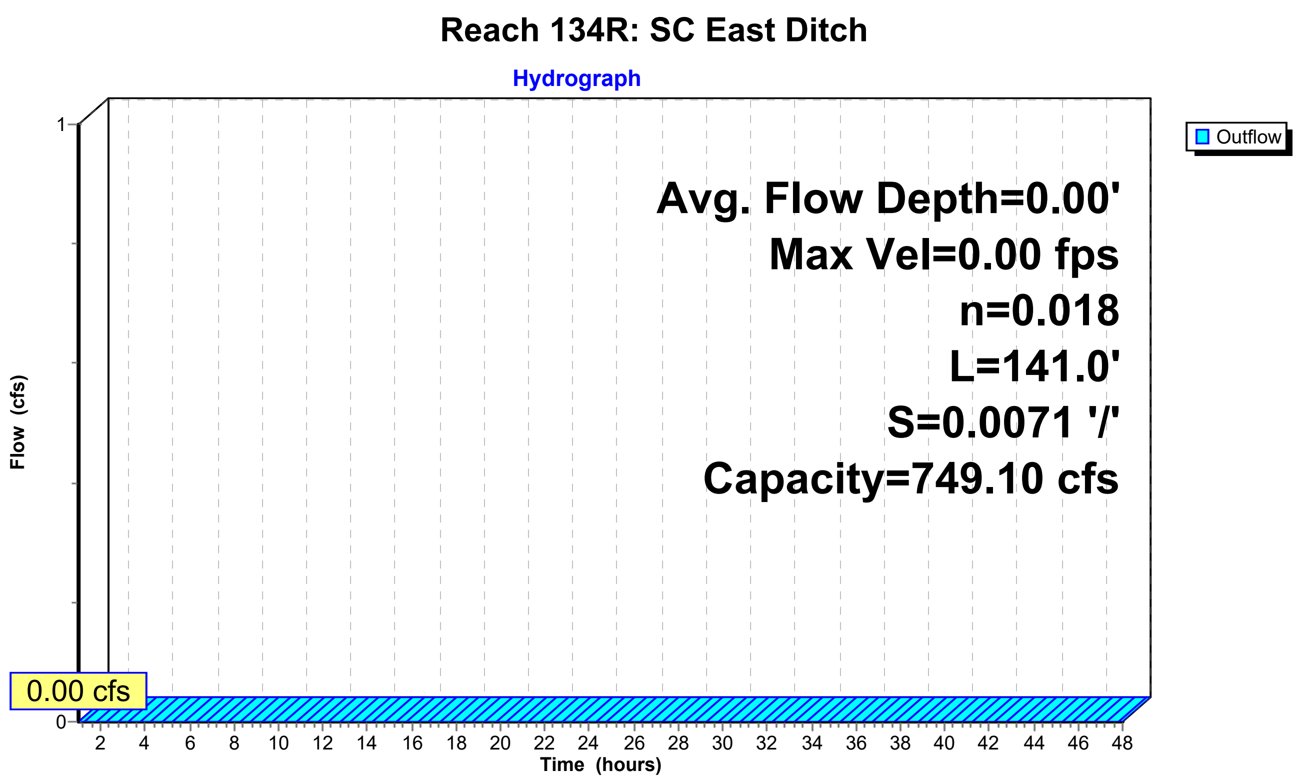


Summary for Reach 134R: SC East Ditch

[43] Hint: Has no inflow (Outflow=Zero)

Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 749.10 cfs

4.00' x 4.00' deep channel, n= 0.018
Side Slope Z-value= 3.0 '/' Top Width= 28.00'
Length= 141.0' Slope= 0.0071 '/'
Inlet Invert= 748.50', Outlet Invert= 747.50'



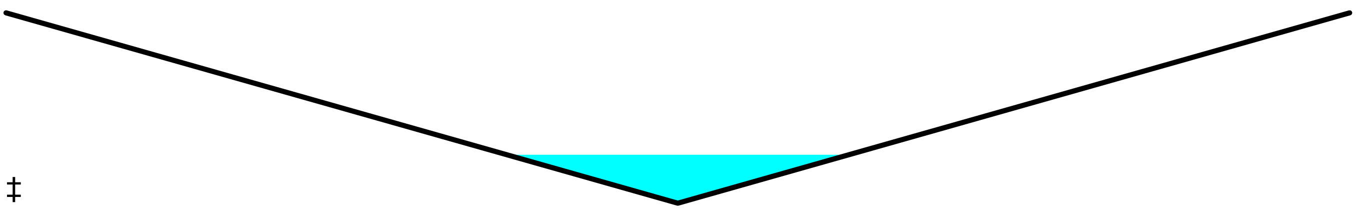
Summary for Reach 136R: SC West Ditch

Inflow Area = 281,666 sf, 11.70% Impervious, Inflow Depth = 0.05" for 1-Year event
Inflow = 0.51 cfs @ 12.14 hrs, Volume= 1,069 cf
Outflow = 0.45 cfs @ 12.22 hrs, Volume= 1,069 cf, Atten= 12%, Lag= 4.5 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.41 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 0.55 fps, Avg. Travel Time= 6.7 min

Peak Storage= 70 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.25'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 17.70 cfs

0.00' x 1.00' deep channel, n= 0.025
Side Slope Z-value= 5.0 '/' Top Width= 10.00'
Length= 218.0' Slope= 0.0092 '/'
Inlet Invert= 745.00', Outlet Invert= 743.00'



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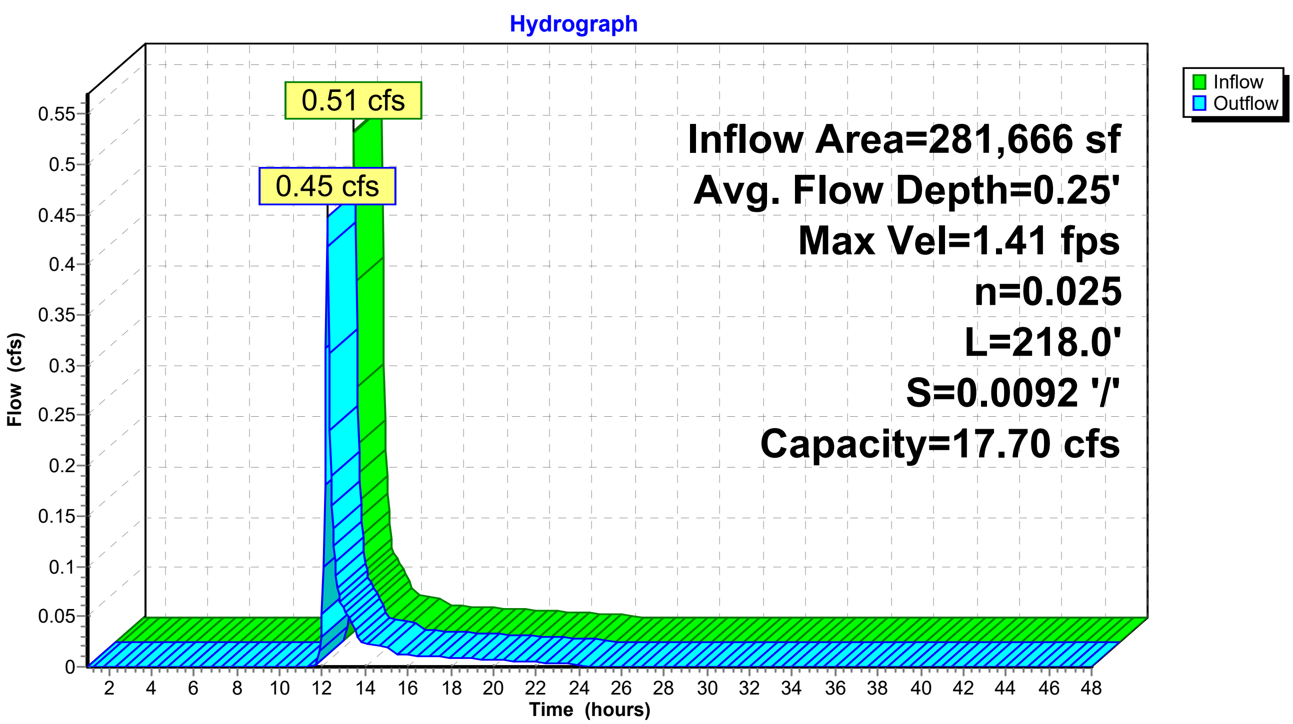
Reach 136R: SC West Ditch

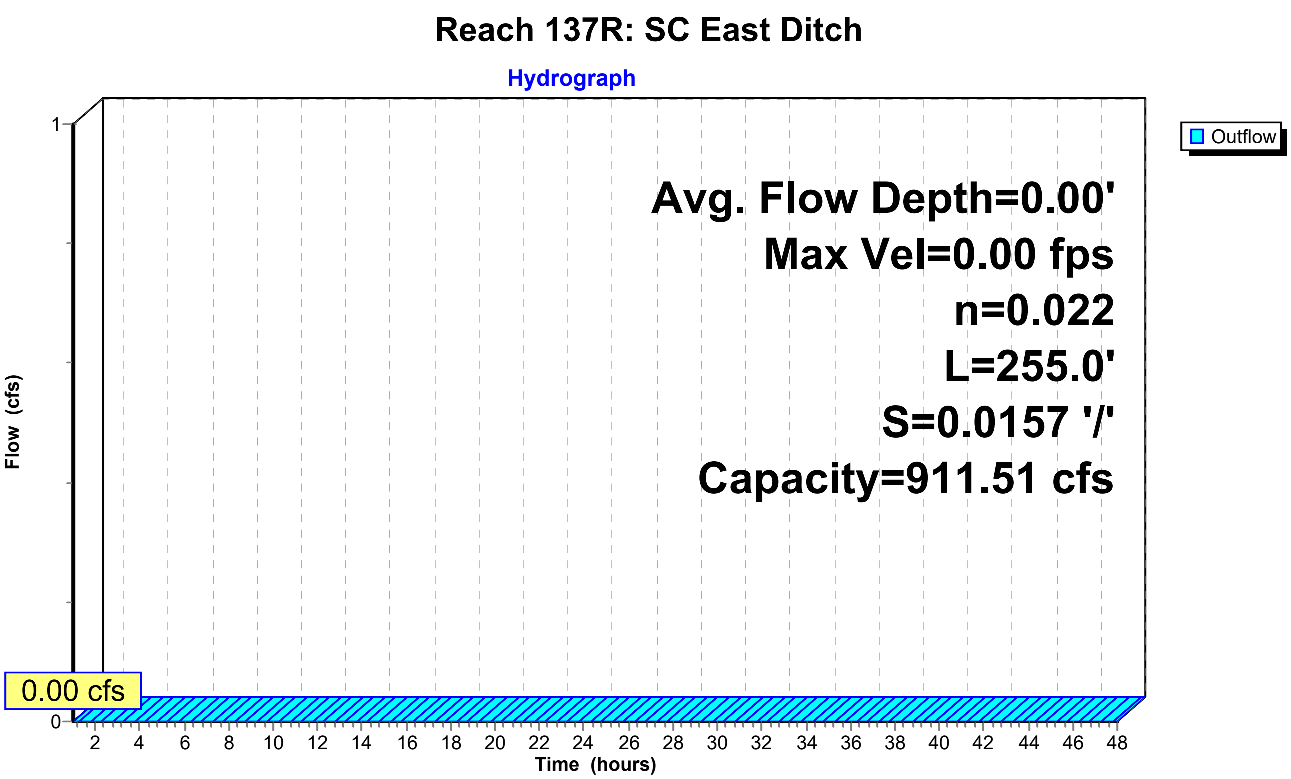


Summary for Reach 137R: SC East Ditch

[43] Hint: Has no inflow (Outflow=Zero)

Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 911.51 cfs

4.00' x 4.00' deep channel, n= 0.022
Side Slope Z-value= 3.0 '/' Top Width= 28.00'
Length= 255.0' Slope= 0.0157 '/'
Inlet Invert= 747.00', Outlet Invert= 743.00'



Summary for Reach 151R: Western PL North Ditch

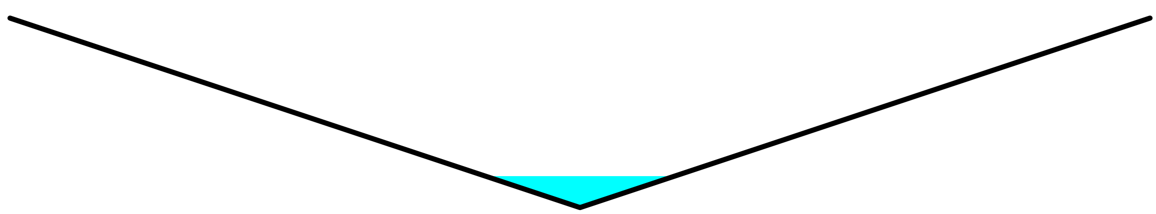
3/3/21
This is the western property line ditch that takes offsite flow and western building courtyard flow to IB
update length we shortened in screen share

Inflow Area = 8,234 sf, 12.90% Impervious, Inflow Depth = 0.68" for 1-Year event
Inflow = 0.22 cfs @ 12.14 hrs, Volume= 466 cf
Outflow = 0.20 cfs @ 12.22 hrs, Volume= 466 cf, Atten= 12%, Lag= 4.7 min

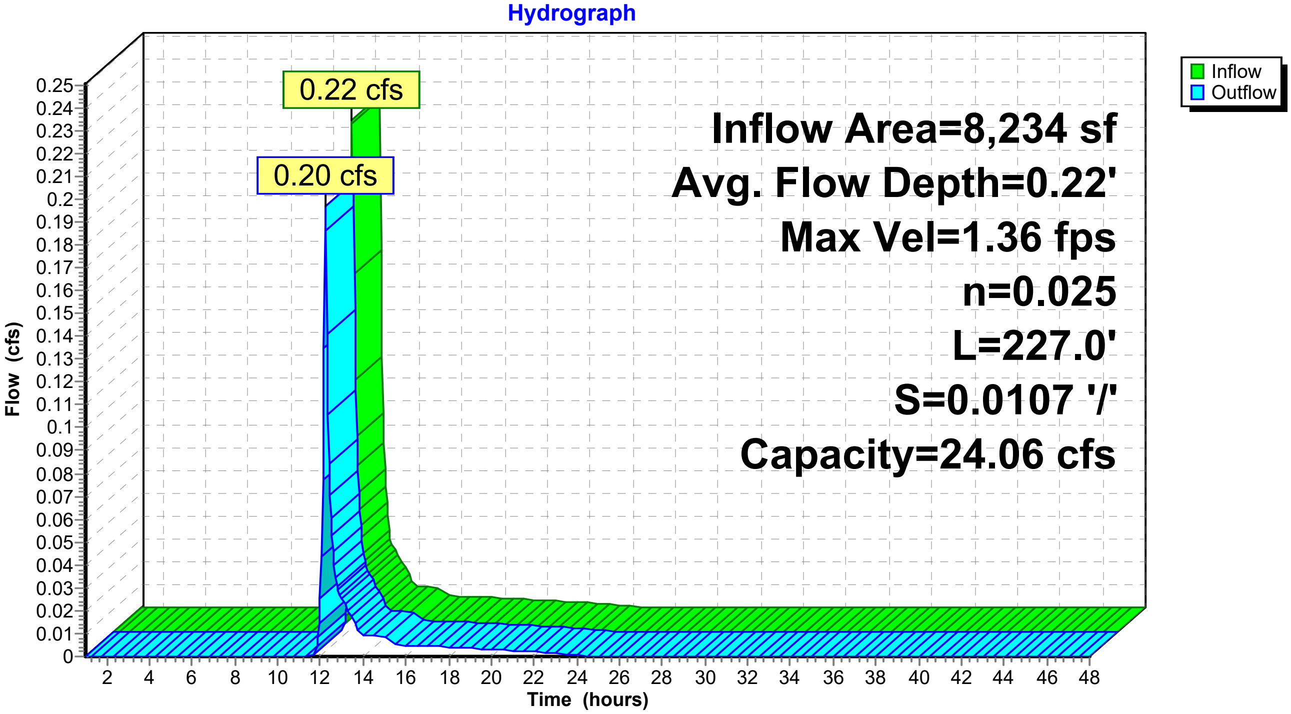
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.36 fps, Min. Travel Time= 2.8 min
Avg. Velocity = 0.54 fps, Avg. Travel Time= 7.0 min

Peak Storage= 33 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.22'
Bank-Full Depth= 1.33' Flow Area= 5.3 sf, Capacity= 24.06 cfs

0.00' x 1.33' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.98'
Length= 227.0' Slope= 0.0107 '/'
Inlet Invert= 751.54', Outlet Invert= 749.10'



Reach 151R: Western PL North Ditch



Summary for Pond 33P: Rain Garden East

Inflow Area = 3,249 sf, 0.00% Impervious, Inflow Depth = 0.55" for 1-Year event
Inflow = 0.07 cfs @ 12.14 hrs, Volume= 150 cf
Outflow = 0.01 cfs @ 13.22 hrs, Volume= 81 cf, Atten= 90%, Lag= 64.3 min
Primary = 0.01 cfs @ 13.22 hrs, Volume= 81 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 744.06' @ 13.22 hrs Surf.Area= 220 sf Storage= 80 cf

Plug-Flow detention time= 249.8 min calculated for 81 cf (54% of inflow)
Center-of-Mass det. time= 142.5 min (986.5 - 844.0)

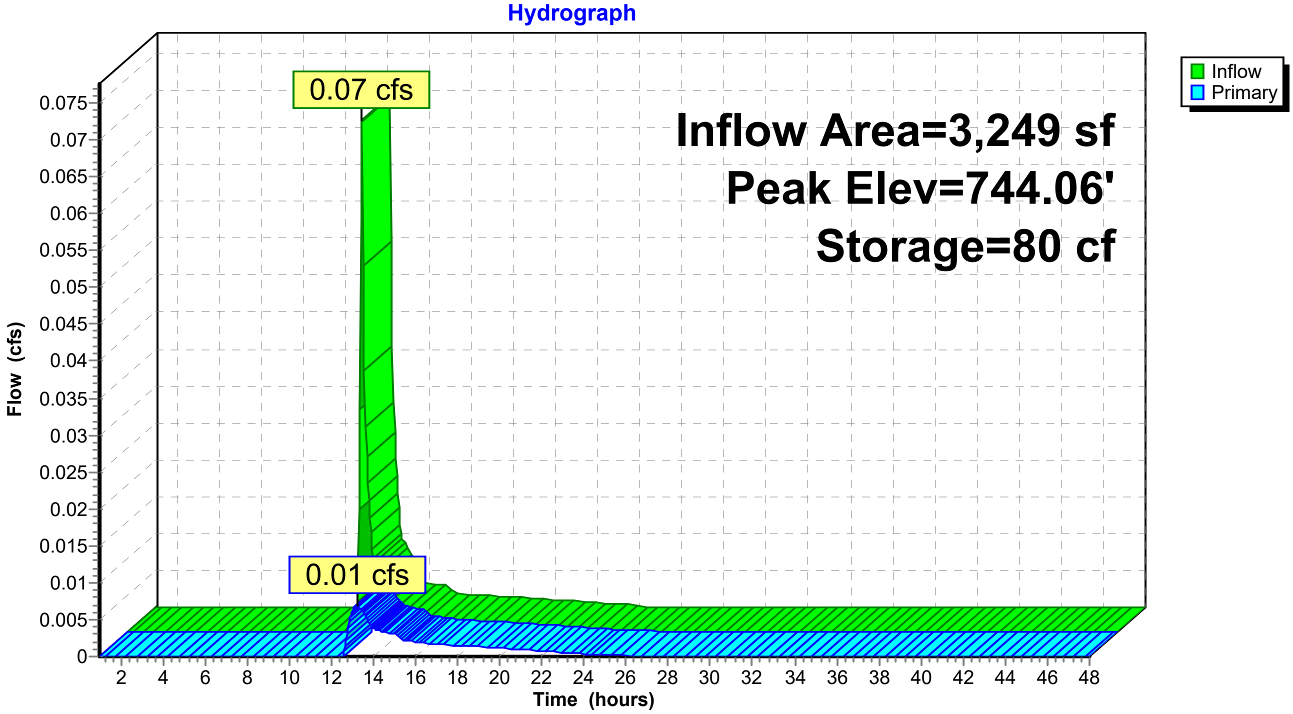
Volume	Invert	Avail.Storage	Storage Description
#1	743.00'	286 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
743.00	220	0.0	0	0
743.01	220	27.0	1	1
743.50	220	27.0	29	30
743.51	220	33.0	1	30
744.00	220	33.0	36	66
744.01	220	100.0	2	68
745.00	220	100.0	218	286

Device	Routing	Invert	Outlet Devices
#1	Primary	744.01'	**4.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	744.99'	**20.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.01 cfs @ 13.22 hrs HW=744.06' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.01 cfs @ 0.78 fps)
└—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 33P: Rain Garden East



Summary for Pond 36P: Rain Garden West

Inflow Area = 3,393 sf, 0.00% Impervious, Inflow Depth = 0.55" for 1-Year event
Inflow = 0.07 cfs @ 12.14 hrs, Volume= 156 cf
Outflow = 0.01 cfs @ 13.12 hrs, Volume= 88 cf, Atten= 89%, Lag= 58.7 min
Primary = 0.01 cfs @ 13.12 hrs, Volume= 88 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 743.56' @ 13.12 hrs Surf.Area= 220 sf Storage= 80 cf

Plug-Flow detention time= 238.7 min calculated for 88 cf (56% of inflow)
Center-of-Mass det. time= 134.2 min (978.2 - 844.0)

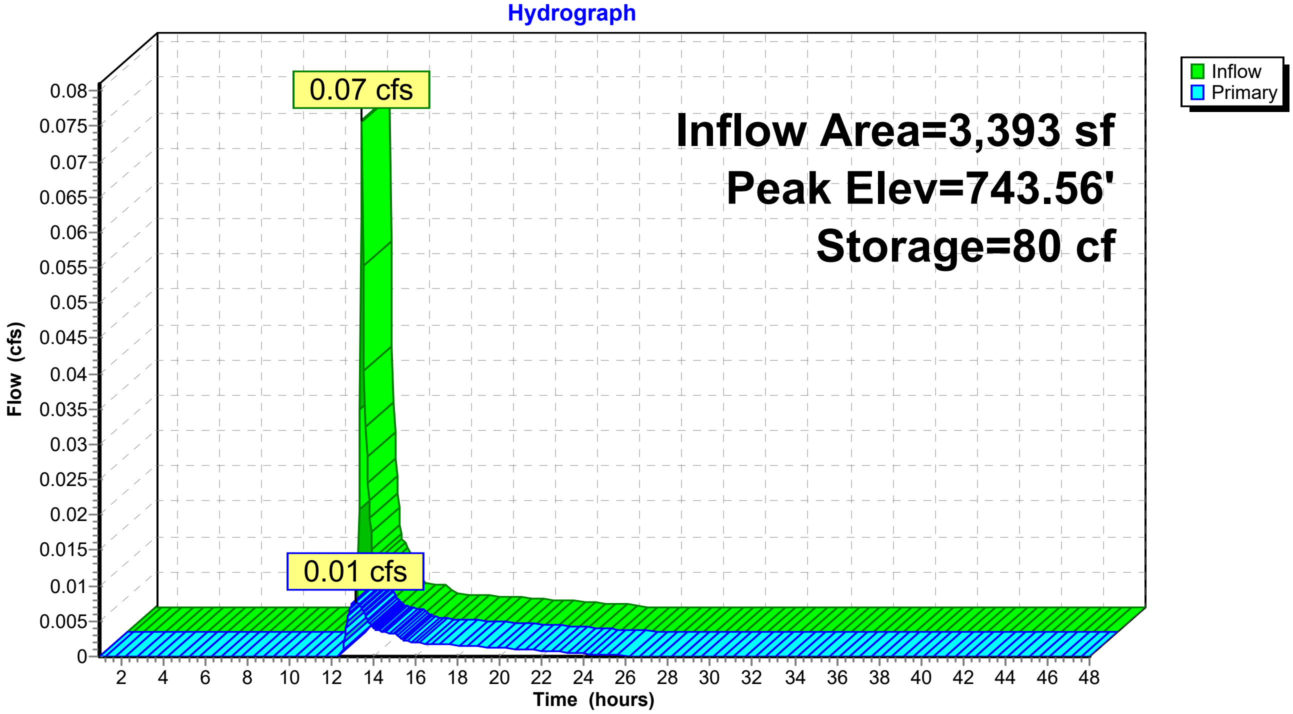
Volume	Invert	Avail.Storage	Storage Description
#1	742.50'	286 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
742.50	220	0.0	0	0
742.51	220	27.0	1	1
743.00	220	27.0	29	30
743.01	220	33.0	1	30
743.50	220	33.0	36	66
743.51	220	100.0	2	68
744.50	220	100.0	218	286

Device	Routing	Invert	Outlet Devices
#1	Primary	743.51'	**4.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	744.49'	**10.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.01 cfs @ 13.12 hrs HW=743.56' (Free Discharge)
1=Orifice/Grate (Orifice Controls 0.01 cfs @ 0.80 fps)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 36P: Rain Garden West

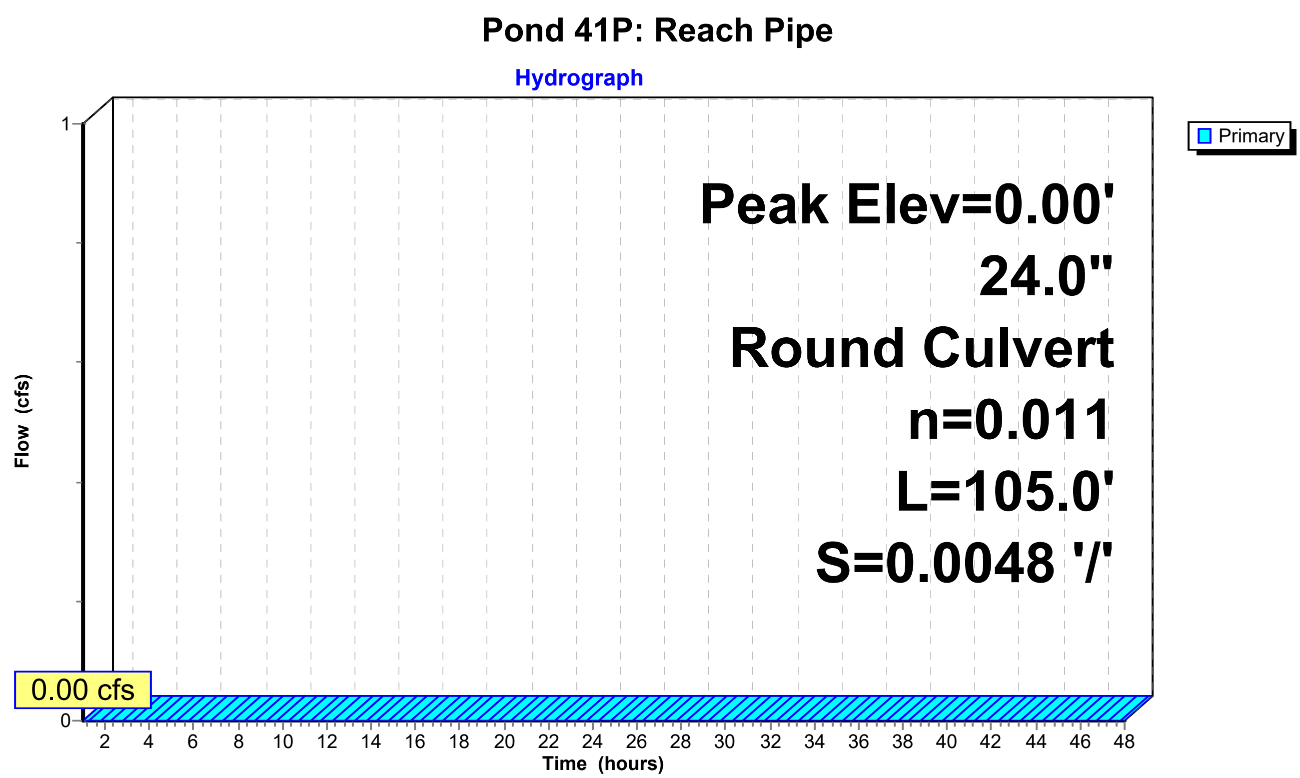


Summary for Pond 41P: Reach Pipe

[43] Hint: Has no inflow (Outflow=Zero)

Device	Routing	Invert	Outlet Devices
#1	Primary	747.50'	**24.0" Round Culvert** L= 105.0' Ke= 0.500 Inlet / Outlet Invert= 747.50' / 747.00' S= 0.0048 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 57P: Dry Pond 2

Inflow Area = 158,954 sf, 10.66% Impervious, Inflow Depth = 0.67" for 1-Year event
Inflow = 2.53 cfs @ 12.21 hrs, Volume= 8,882 cf
Outflow = 0.13 cfs @ 15.24 hrs, Volume= 8,882 cf, Atten= 95%, Lag= 181.6 min
Discarded = 0.13 cfs @ 15.24 hrs, Volume= 8,882 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 749.50' @ 15.24 hrs Surf.Area= 11,135 sf Storage= 5,370 cf

Plug-Flow detention time= 441.9 min calculated for 8,873 cf (100% of inflow)
Center-of-Mass det. time= 442.0 min (1,289.7 - 847.7)

Volume	Invert	Avail.Storage	Storage Description
#1	749.00'	38,350 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

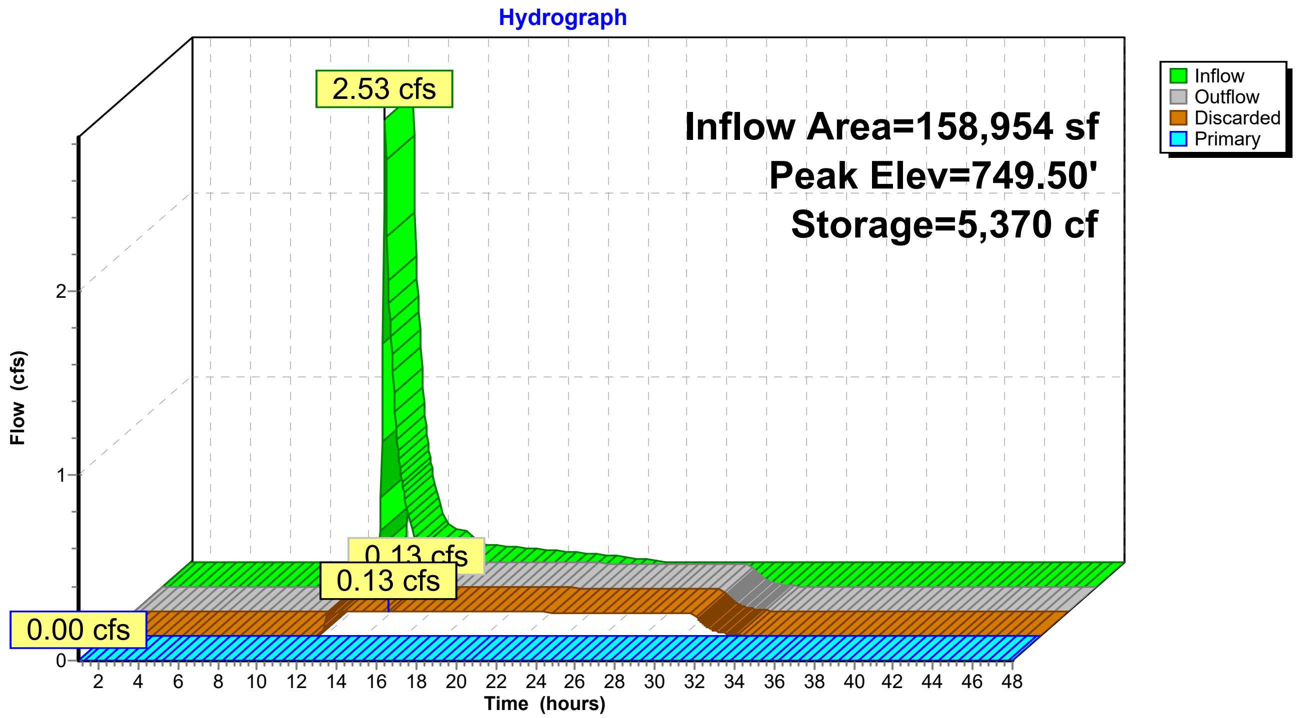
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
749.00	10,334	0	0
750.00	11,935	11,135	11,135
751.00	13,594	12,765	23,899
752.00	15,308	14,451	38,350

Device	Routing	Invert	Outlet Devices
#1	Primary	750.00'	**12.0" Round Culvert X 2.00** L= 75.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 750.00' / 749.00' S= 0.0133 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	751.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Discarded	749.00'	**0.500 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.13 cfs @ 15.24 hrs HW=749.50' (Free Discharge)
└─**3=Exfiltration** (Controls 0.13 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=749.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)
  └─**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 57P: Dry Pond 2



Summary for Pond 58P: Dry Pond 1

Inflow Area = 603,487 sf, 45.57% Impervious, Inflow Depth > 1.07" for 1-Year event
Inflow = 12.51 cfs @ 12.18 hrs, Volume= 54,011 cf
Outflow = 3.89 cfs @ 12.50 hrs, Volume= 54,005 cf, Atten= 69%, Lag= 19.4 min
Discarded = 3.89 cfs @ 12.50 hrs, Volume= 54,005 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 750.30' @ 12.50 hrs Surf.Area= 27,756 sf Storage= 8,208 cf

Plug-Flow detention time= 12.2 min calculated for 54,005 cf (100% of inflow)
Center-of-Mass det. time= 12.0 min (994.9 - 982.9)

Volume	Invert	Avail.Storage	Storage Description
#1	750.00'	131,829 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

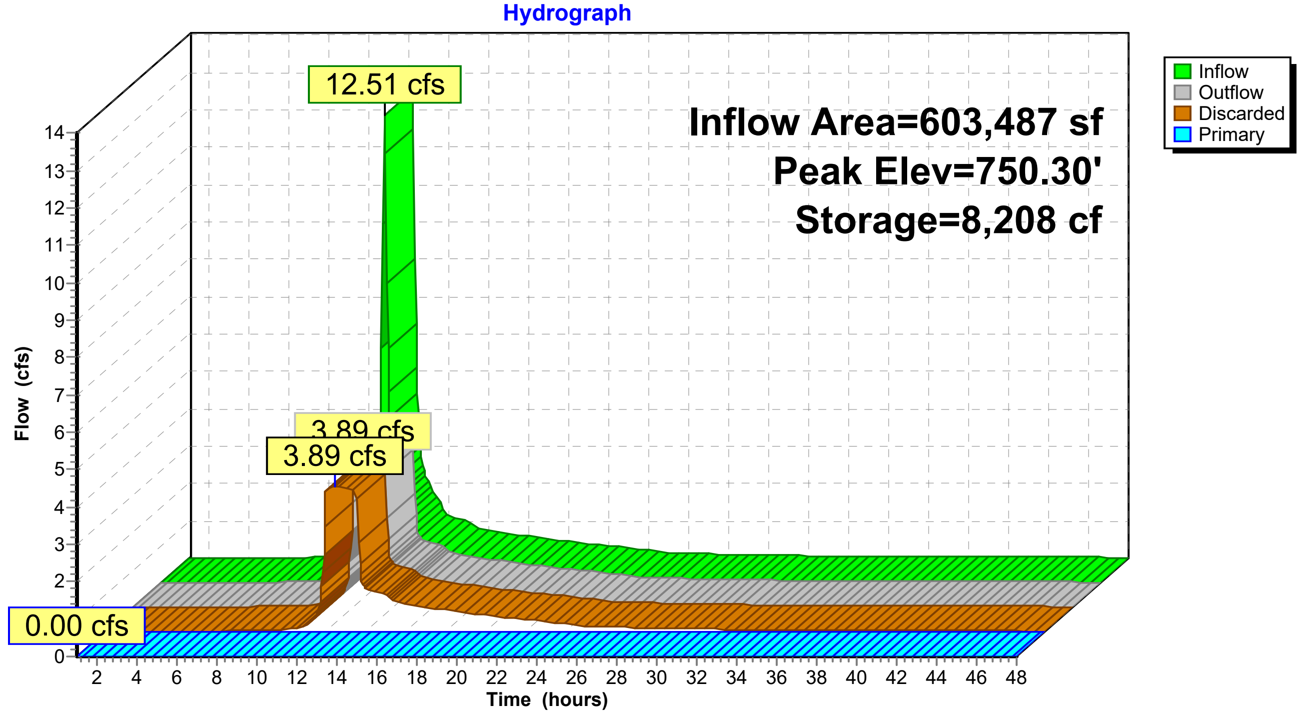
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
750.00	26,853	0	0
751.00	29,856	28,355	28,355
752.00	32,915	31,386	59,740
753.00	36,030	34,473	94,213
754.00	39,203	37,617	131,829

Device	Routing	Invert	Outlet Devices
#1	Primary	753.00'	**12.0" Round Culvert** L= 48.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 753.00' / 752.00' S= 0.0208 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	753.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	753.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Discarded	750.00'	**6.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=3.89 cfs @ 12.50 hrs HW=750.30' (Free Discharge)
└─**4=Exfiltration** (Controls 3.89 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=750.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)
  ├─**2=Orifice/Grate** (Controls 0.00 cfs)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 58P: Dry Pond 1



Summary for Pond 60P: Infiltration Basin #1

Inflow Area = 261,451 sf, 11.81% Impervious, Inflow Depth = 0.67" for 1-Year event
Inflow = 5.17 cfs @ 12.24 hrs, Volume= 14,571 cf
Outflow = 0.65 cfs @ 13.31 hrs, Volume= 14,571 cf, Atten= 87%, Lag= 64.0 min
Discarded = 0.65 cfs @ 13.31 hrs, Volume= 14,571 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 738.16' @ 13.31 hrs Surf.Area= 0.071 ac Storage= 0.147 af

Plug-Flow detention time= 114.7 min calculated for 14,556 cf (100% of inflow)
Center-of-Mass det. time= 114.5 min (958.6 - 844.1)

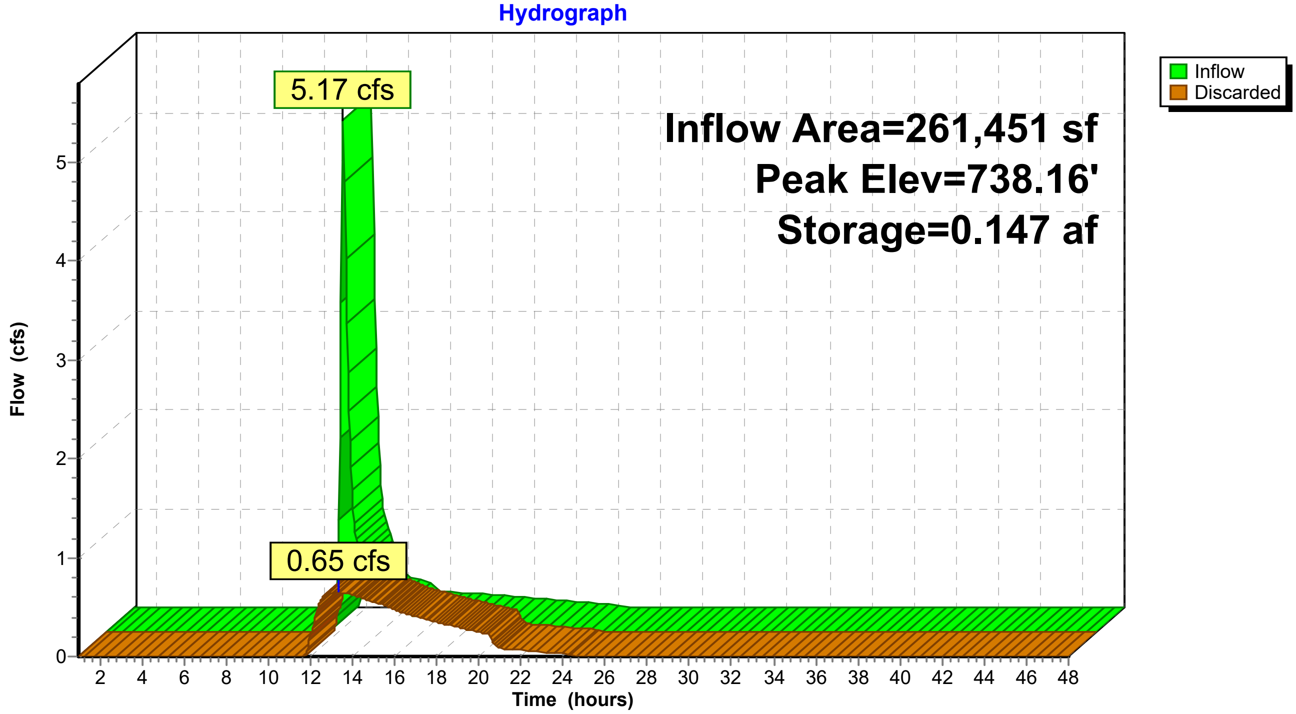
Volume	Invert	Avail.Storage	Storage Description
#1	735.00'	1.145 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
735.00	0.026	0.000	0.000
736.00	0.038	0.032	0.032
737.00	0.051	0.044	0.077
738.00	0.068	0.059	0.136
739.00	0.086	0.077	0.213
740.00	0.100	0.093	0.306
741.00	0.129	0.114	0.420
742.00	0.153	0.141	0.561
743.00	0.180	0.166	0.728
744.00	0.208	0.194	0.922
745.00	0.238	0.223	1.145

Device	Routing	Invert	Outlet Devices
#1	Discarded	735.00'	**8.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=0.65 cfs @ 13.31 hrs HW=738.16' (Free Discharge)
└─**1=Exfiltration** (Controls 0.65 cfs)

Pond 60P: Infiltration Basin #1



Summary for Pond 72P: UG 1 StormTrap Lowered

Inflow Area = 227,383 sf, 57.35% Impervious, Inflow Depth = 1.30" for 1-Year event
Inflow = 12.08 cfs @ 12.13 hrs, Volume= 24,563 cf
Outflow = 0.61 cfs @ 13.51 hrs, Volume= 21,537 cf, Atten= 95%, Lag= 82.6 min
Primary = 0.61 cfs @ 13.51 hrs, Volume= 21,537 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 753.50' @ 13.51 hrs Surf.Area= 36,225 sf Storage= 15,858 cf

Plug-Flow detention time= 485.3 min calculated for 21,514 cf (88% of inflow)
Center-of-Mass det. time= 437.4 min (1,240.9 - 803.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	753.00'	0 cf	**182.90'W x 198.06'L x 2.50'H Field A** 90,562 cf Overall - 90,562 cf Embedded = 0 cf
#2A	753.00'	63,969 cf	**StormTrap ST2 SingleTrap 2-0** x 240 Inside #1 Inside= 101.7"W x 24.0"H => 15.05 sf x 15.40'L = 231.7 cf Outside= 101.7"W x 30.0"H => 21.20 sf x 15.40'L = 326.4 cf 20 Rows of 12 Chambers 169.58' x 184.75' Core + 6.66' Border = 182.90' x 198.06' System
		63,969 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	753.00'	**12.0" Round Culvert** L= 189.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 753.00' / 752.52' S= 0.0025 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf

Primary OutFlow Max=0.60 cfs @ 13.51 hrs HW=753.50' (Free Discharge)
└─**1=Culvert** (Barrel Controls 0.60 cfs @ 2.27 fps)

Pond 72P: UG 1 StormTrap Lowered - Chamber Wizard Field A

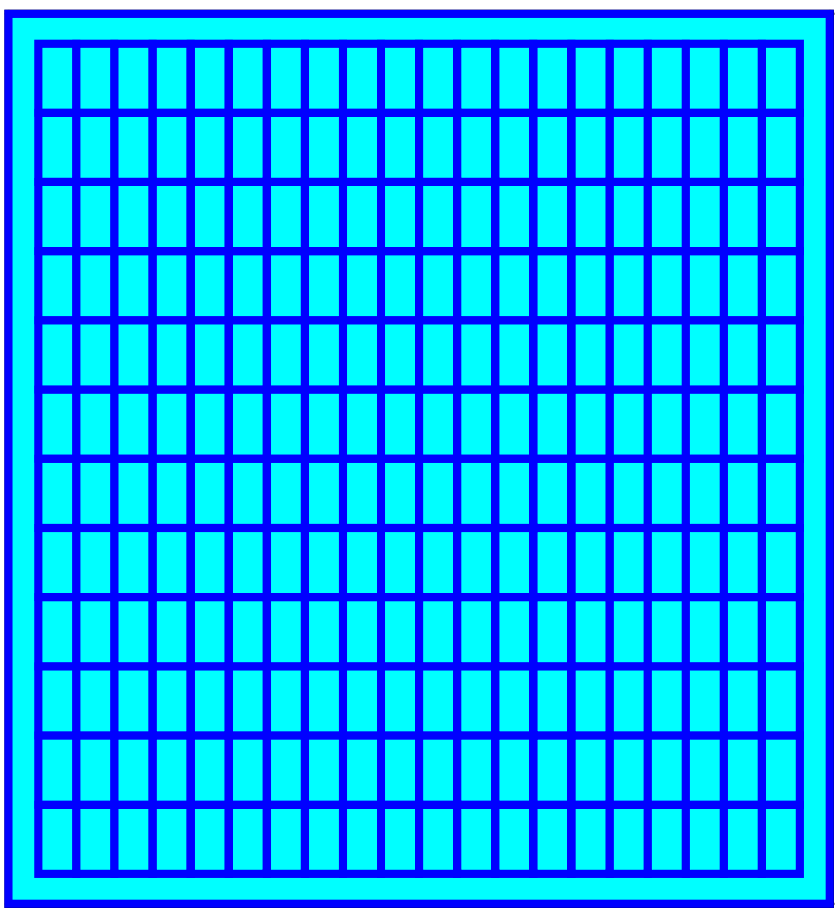
Chamber Model = StormTrap ST2 SingleTrap 2-0 (StormTrap ST2 SingleTrap® Type II+IV)
Inside= 101.7"W x 24.0"H => 15.05 sf x 15.40'L = 231.7 cf
Outside= 101.7"W x 30.0"H => 21.20 sf x 15.40'L = 326.4 cf

12 Chambers/Row x 15.40' Long = 184.75' Row Length +79.9" Border x 2 = 198.06' Base Length
20 Rows x 101.7" Wide + 79.9" Side Border x 2 = 182.90' Base Width
30.0" Chamber Height = 2.50' Field Height

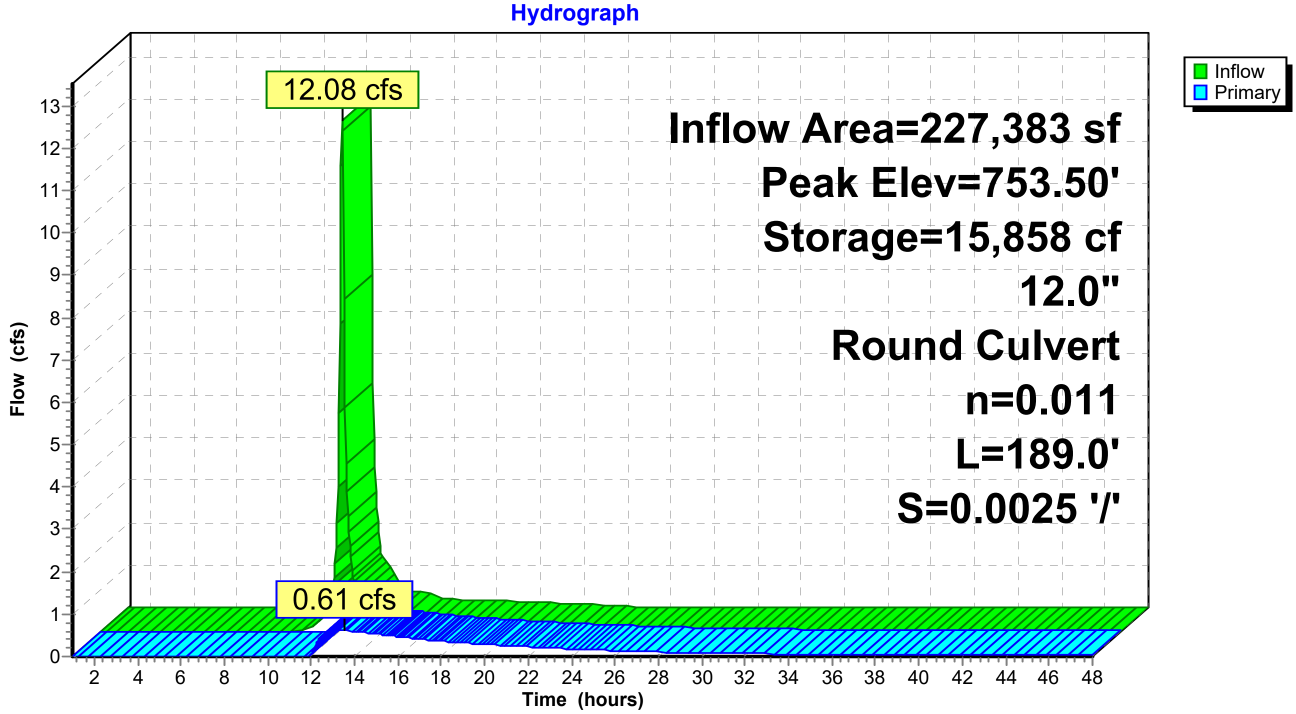
240 Chambers x 231.7 cf + 8,367.8 cf Border = 63,968.8 cf Chamber Storage
240 Chambers x 326.4 cf + 12,235.7 cf Border = 90,562.0 cf Displacement

Chamber Storage = 63,968.8 cf = 1.469 af
Overall Storage Efficiency = 70.6%
Overall System Size = 198.06' x 182.90' x 2.50'

240 Chambers (plus border)
3,354.1 cy Field



Pond 72P: UG 1 StormTrap Lowered



Summary for Pond 95P: Dry Pond 3

Inflow Area = 413,038 sf, 21.40% Impervious, Inflow Depth = 0.37" for 1-Year event
Inflow = 4.87 cfs @ 12.24 hrs, Volume= 12,743 cf
Outflow = 0.26 cfs @ 13.82 hrs, Volume= 12,743 cf, Atten= 95%, Lag= 94.9 min
Discarded = 0.26 cfs @ 13.82 hrs, Volume= 12,743 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 739.72' @ 13.82 hrs Surf.Area= 0.249 ac Storage= 0.168 af

Plug-Flow detention time= 295.4 min calculated for 12,743 cf (100% of inflow)
Center-of-Mass det. time= 295.4 min (1,121.3 - 825.9)

Volume	Invert	Avail.Storage	Storage Description
#1	739.00'	1.214 af	**Custom Stage Data (Prismatic)**Listed below (Recalc)

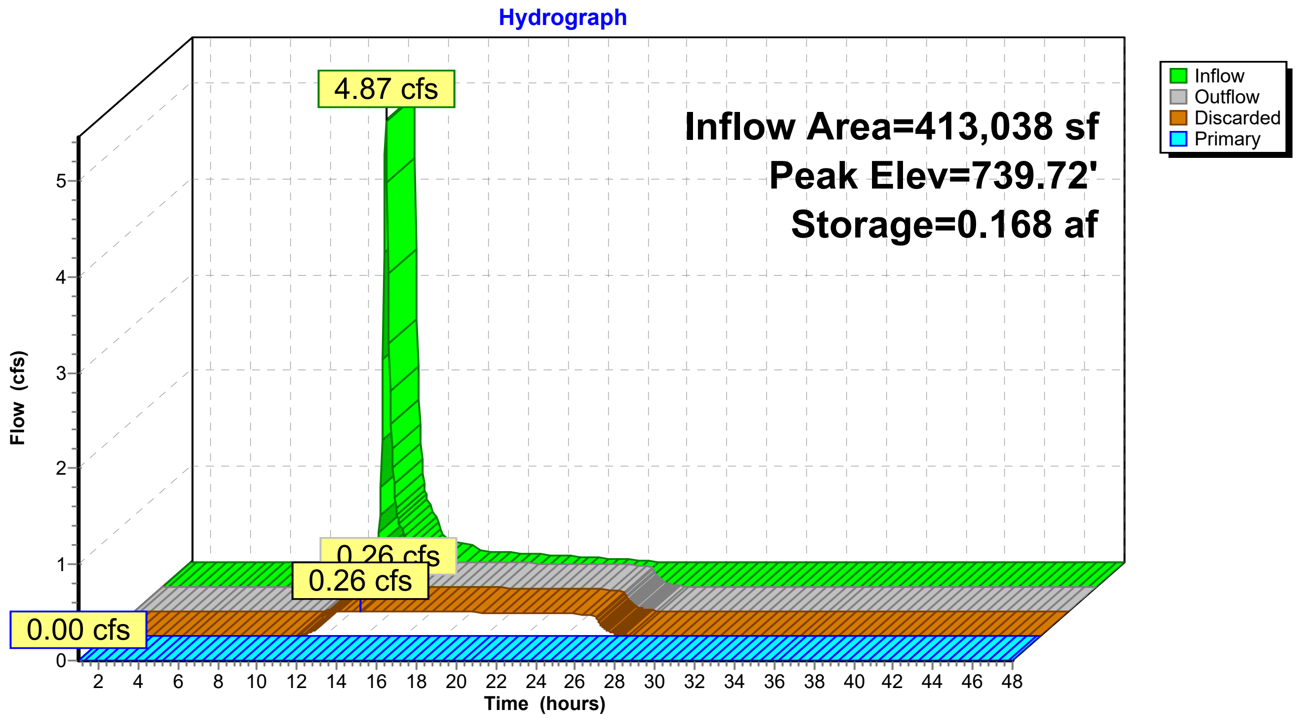
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
739.00	0.220	0.000	0.000
740.00	0.260	0.240	0.240
741.00	0.302	0.281	0.521
742.00	0.346	0.324	0.845
743.00	0.392	0.369	1.214

Device	Routing	Invert	Outlet Devices
#1	Primary	740.00'	**6.0" Round Culvert** L= 130.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 740.00' / 738.00' S= 0.0154 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf
#2	Primary	742.75'	**20.0' long x 20.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#3	Discarded	739.00'	**1.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=0.26 cfs @ 13.82 hrs HW=739.72' (Free Discharge)
└─**3=Exfiltration** (Controls 0.26 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=739.00' (Free Discharge)
├─**1=Culvert** (Controls 0.00 cfs)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 95P: Dry Pond 3



Summary for Pond 101R: Reach Pipe

3/2/21
Reach Pipe 4

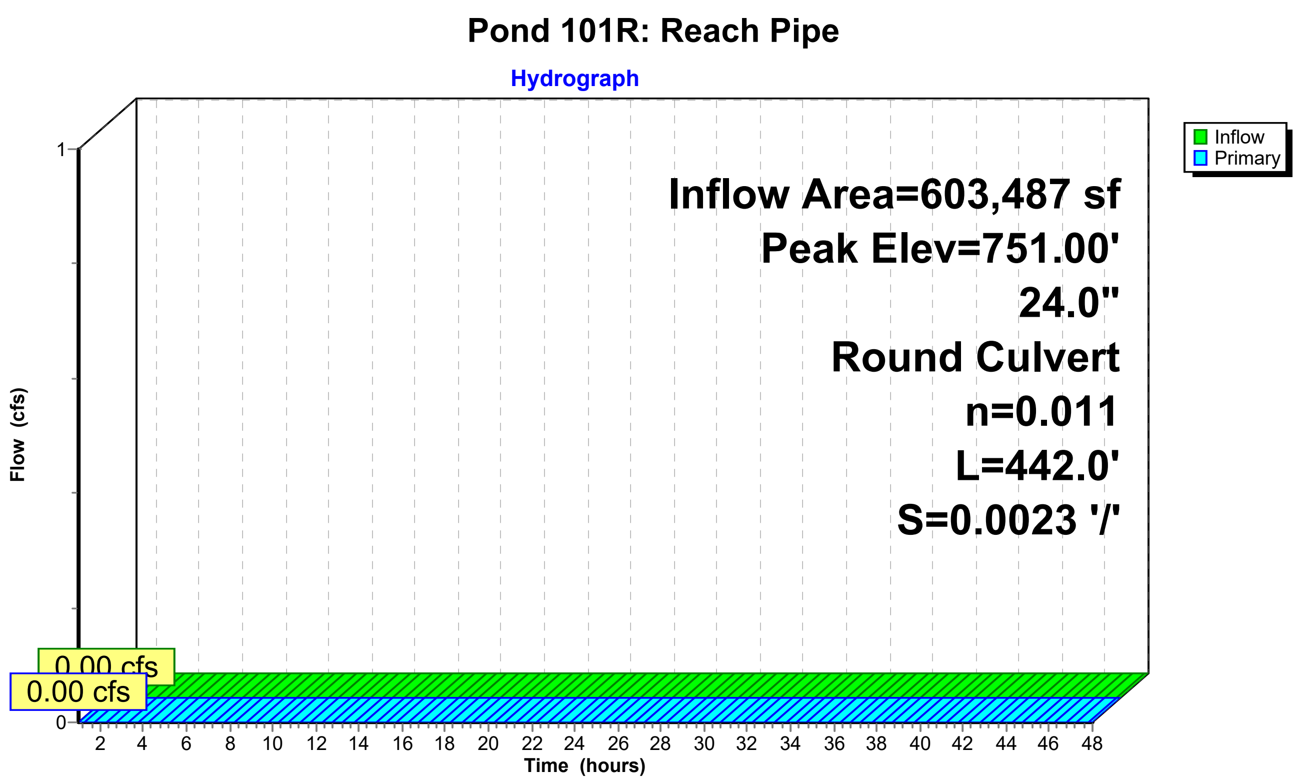
[57] Hint: Peaked at 751.00' (Flood elevation advised)

Inflow Area =	603,487 sf,	45.57% Impervious,	Inflow Depth = 0.00"	for 1-Year event
Inflow =	0.00 cfs @	1.00 hrs, Volume=	0 cf	
Outflow =	0.00 cfs @	1.00 hrs, Volume=	0 cf, Atten= 0%, Lag= 0.0 min	
Primary =	0.00 cfs @	1.00 hrs, Volume=	0 cf	

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 751.00' @ 1.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	751.00'	**24.0" Round Culvert** L= 442.0' Ke= 0.500 Inlet / Outlet Invert= 751.00' / 750.00' S= 0.0023 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=751.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 107P: SC East Ditch

Inflow Area = 816,223 sf, 35.77% Impervious, Inflow Depth = 0.03" for 1-Year event
Inflow = 0.84 cfs @ 12.21 hrs, Volume= 2,014 cf
Outflow = 0.04 cfs @ 14.64 hrs, Volume= 2,014 cf, Atten= 95%, Lag= 146.2 min
Discarded = 0.04 cfs @ 14.64 hrs, Volume= 2,014 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 744.01' @ 14.64 hrs Surf.Area= 1,536 sf Storage= 1,293 cf

Plug-Flow detention time= 387.2 min calculated for 2,012 cf (100% of inflow)
Center-of-Mass det. time= 387.2 min (1,206.8 - 819.6)

Volume	Invert	Avail.Storage	Storage Description
#1	743.00'	8,160 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

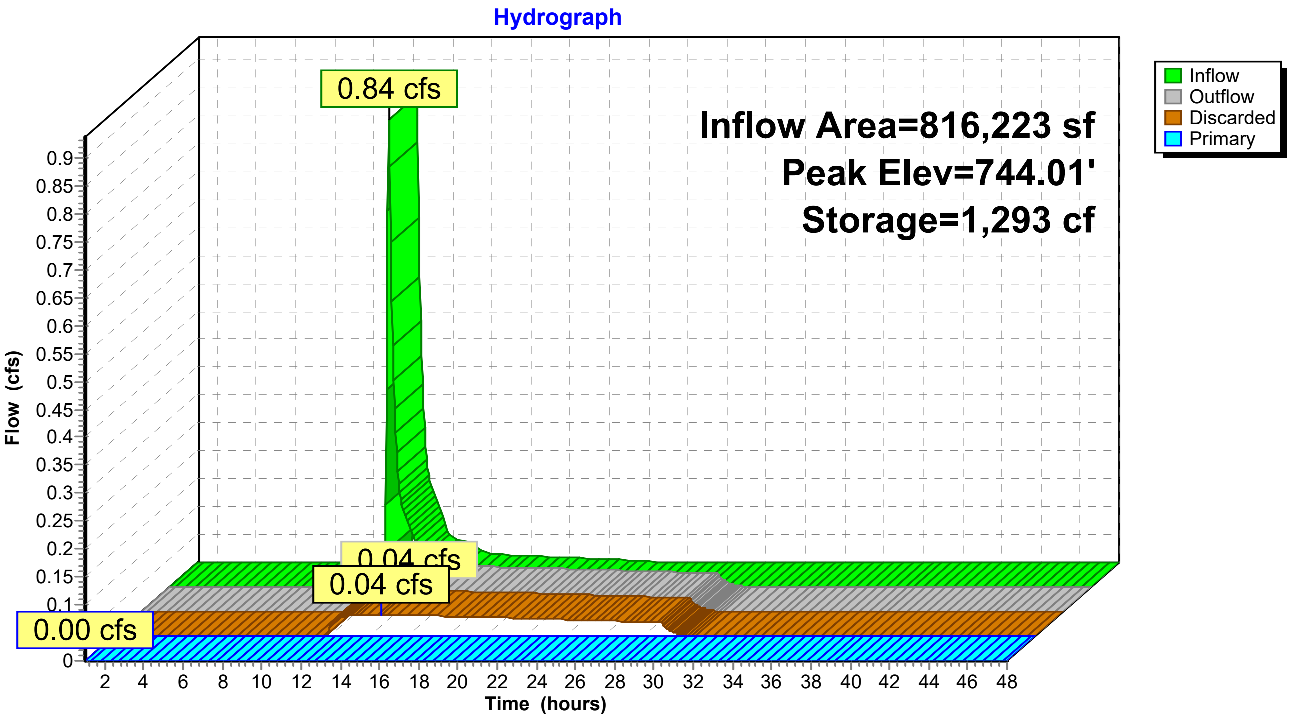
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
743.00	1,020	0	0
744.00	1,530	1,275	1,275
745.00	2,040	1,785	3,060
746.00	2,550	2,295	5,355
747.00	3,060	2,805	8,160

Device	Routing	Invert	Outlet Devices
#1	Primary	746.00'	**4.0" Round Culvert** L= 10.0' Ke= 0.900 Inlet / Outlet Invert= 746.00' / 745.90' S= 0.0100 '/' Cc= 0.900 n= 0.022, Flow Area= 0.09 sf
#2	Primary	746.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	746.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Discarded	743.00'	**1.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.04 cfs @ 14.64 hrs HW=744.01' (Free Discharge)
└─**4=Exfiltration** (Controls 0.04 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=743.00' (Free Discharge)
├─**1=Culvert** (Controls 0.00 cfs)
├─**2=Orifice/Grate** (Controls 0.00 cfs)
└─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 107P: SC East Ditch



Summary for Pond 108P: SC East Ditch

Inflow Area = 797,335 sf, 36.61% Impervious, Inflow Depth = 0.02" for 1-Year event
Inflow = 0.74 cfs @ 12.14 hrs, Volume= 1,608 cf
Outflow = 0.53 cfs @ 12.21 hrs, Volume= 1,608 cf, Atten= 29%, Lag= 4.2 min
Discarded = 0.02 cfs @ 12.21 hrs, Volume= 464 cf
Primary = 0.51 cfs @ 12.21 hrs, Volume= 1,144 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 747.89' @ 12.21 hrs Surf.Area= 673 sf Storage= 239 cf

Plug-Flow detention time= 15.9 min calculated for 1,606 cf (100% of inflow)
Center-of-Mass det. time= 16.0 min (860.0 - 844.0)

Volume	Invert	Avail.Storage	Storage Description
#1	747.50'	4,512 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

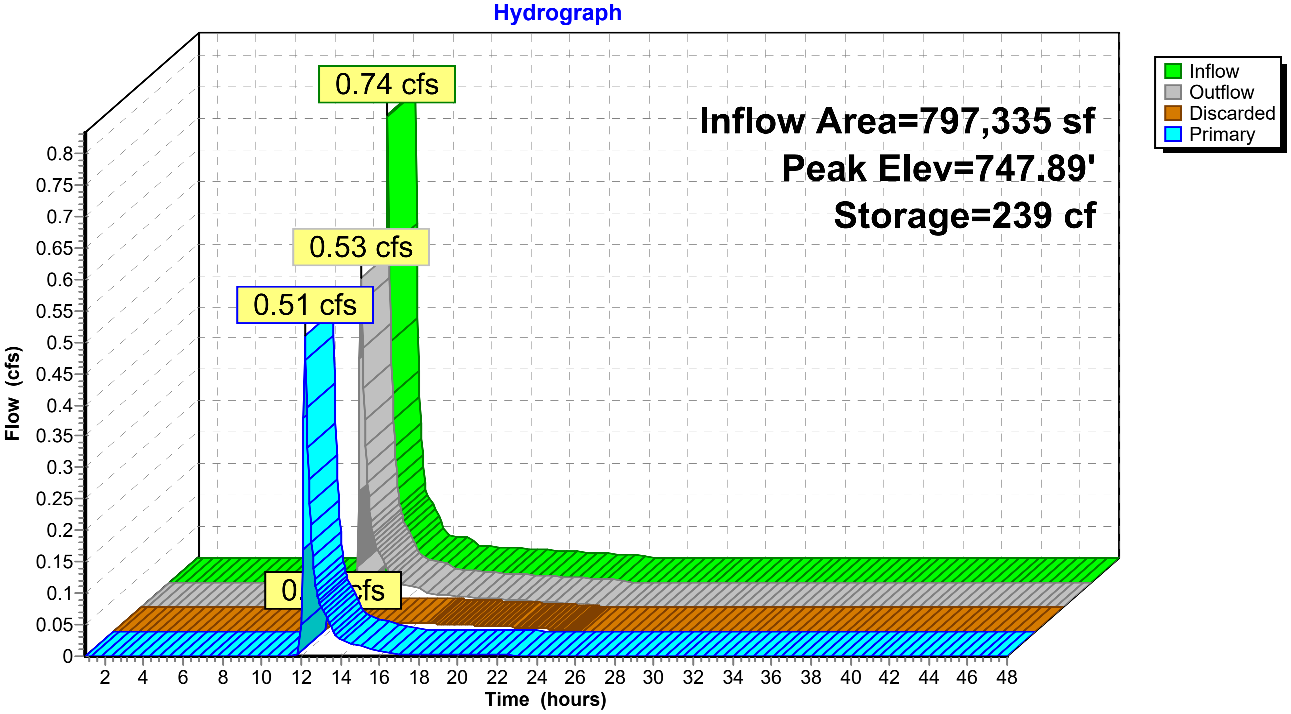
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
747.50	564	0	0
748.50	846	705	705
749.50	1,128	987	1,692
750.50	1,410	1,269	2,961
751.50	1,692	1,551	4,512

Device	Routing	Invert	Outlet Devices
#1	Primary	747.50'	**24.0" Round Culvert** L= 105.0' Ke= 0.900 Inlet / Outlet Invert= 747.50' / 747.00' S= 0.0048 '/' Cc= 0.900 n= 0.018 Corrugated PE, corrugated interior, Flow Area= 3.14 sf
#2	Discarded	747.50'	**1.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.02 cfs @ 12.21 hrs HW=747.88' (Free Discharge)
└─**2=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.49 cfs @ 12.21 hrs HW=747.88' (Free Discharge)
└─**1=Culvert** (Barrel Controls 0.49 cfs @ 1.79 fps)

Pond 108P: SC East Ditch



Summary for Pond 110R: Western Pipe Run

3/3/21
Pipe that cuts through western exterior courtyard to collect ditch north of west building and northern portion of west building roof and conveys to DP1

[57] Hint: Peaked at 749.81' (Flood elevation advised)
[62] Hint: Exceeded Reach 111R OUTLET depth by 0.19' @ 12.25 hrs
[62] Hint: Exceeded Reach 151R OUTLET depth by 0.51' @ 12.25 hrs

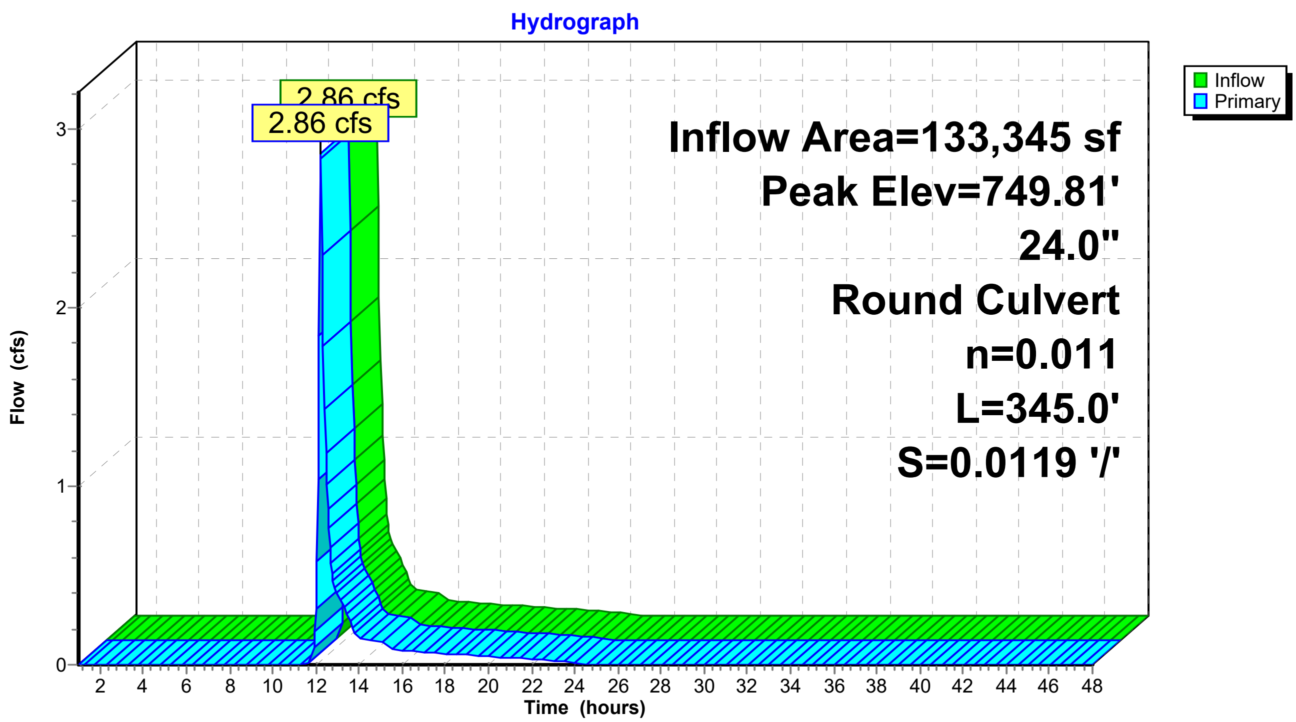
Inflow Area = 133,345 sf, 9.40% Impervious, Inflow Depth = 0.65" for 1-Year event
Inflow = 2.86 cfs @ 12.23 hrs, Volume= 7,257 cf
Outflow = 2.86 cfs @ 12.23 hrs, Volume= 7,257 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.86 cfs @ 12.23 hrs, Volume= 7,257 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 749.81' @ 12.23 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	749.10'	**24.0" Round Culvert** L= 345.0' Ke= 0.500 Inlet / Outlet Invert= 749.10' / 745.00' S= 0.0119 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=2.79 cfs @ 12.23 hrs HW=749.80' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.79 cfs @ 2.85 fps)

Pond 110R: Western Pipe Run



Summary for Pond 154P: Southeast Basin

Inflow Area = 1,260,543 sf, 30.17% Impervious, Inflow Depth = 0.01" for 1-Year event
Inflow = 0.67 cfs @ 12.14 hrs, Volume= 1,441 cf
Outflow = 0.33 cfs @ 12.27 hrs, Volume= 1,441 cf, Atten= 50%, Lag= 7.2 min
Discarded = 0.33 cfs @ 12.27 hrs, Volume= 1,441 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 730.09' @ 12.27 hrs Surf.Area= 3,223 sf Storage= 257 cf

Plug-Flow detention time= 13.1 min calculated for 1,440 cf (100% of inflow)
Center-of-Mass det. time= 13.1 min (857.1 - 844.0)

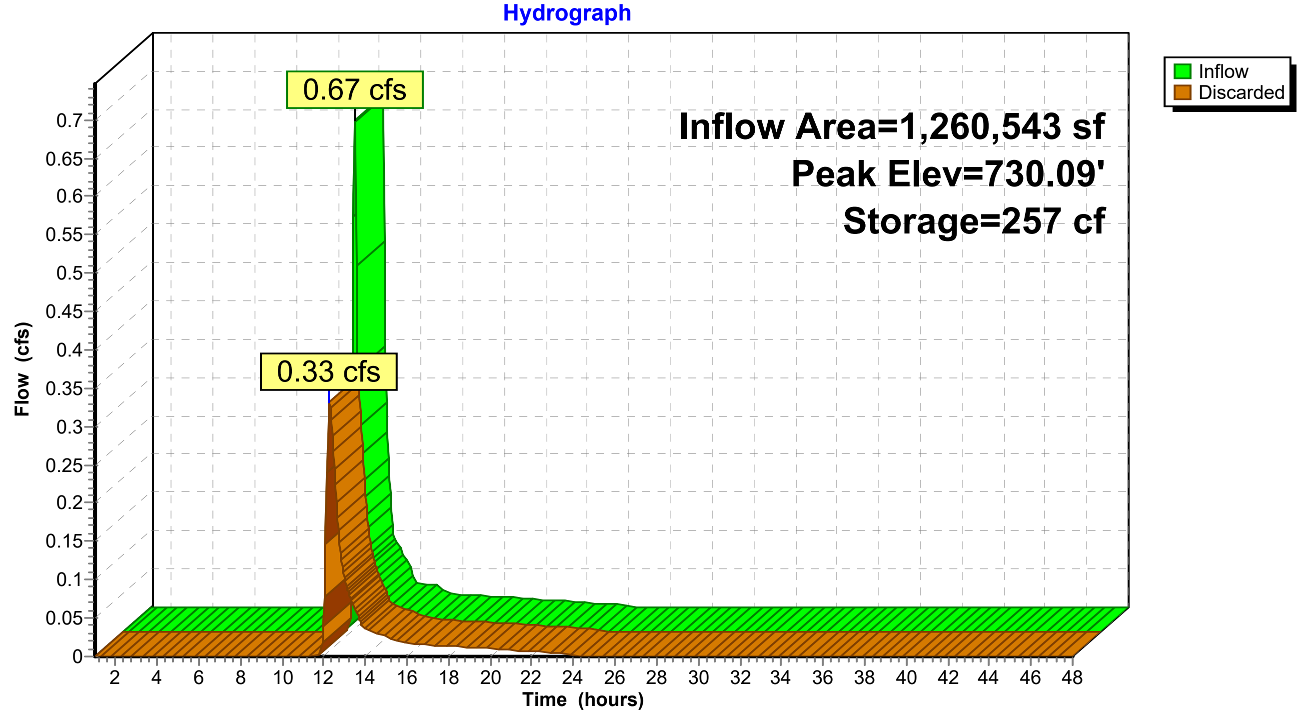
Volume	Invert	Avail.Storage	Storage Description
#1	730.00'	273,743 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
730.00	2,768	0	0
731.00	8,073	5,421	5,421
732.00	12,399	10,236	15,657
733.00	17,056	14,728	30,384
734.00	21,328	19,192	49,576
735.00	25,607	23,468	73,044
736.00	29,845	27,726	100,770
737.00	35,145	32,495	133,265
738.00	42,680	38,913	172,177
739.00	51,064	46,872	219,049
740.00	58,323	54,694	273,743

Device	Routing	Invert	Outlet Devices
#1	Discarded	730.00'	**5.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=0.38 cfs @ 12.27 hrs HW=730.09' (Free Discharge)
└─**1=Exfiltration** (Controls 0.38 cfs)

Pond 154P: Southeast Basin

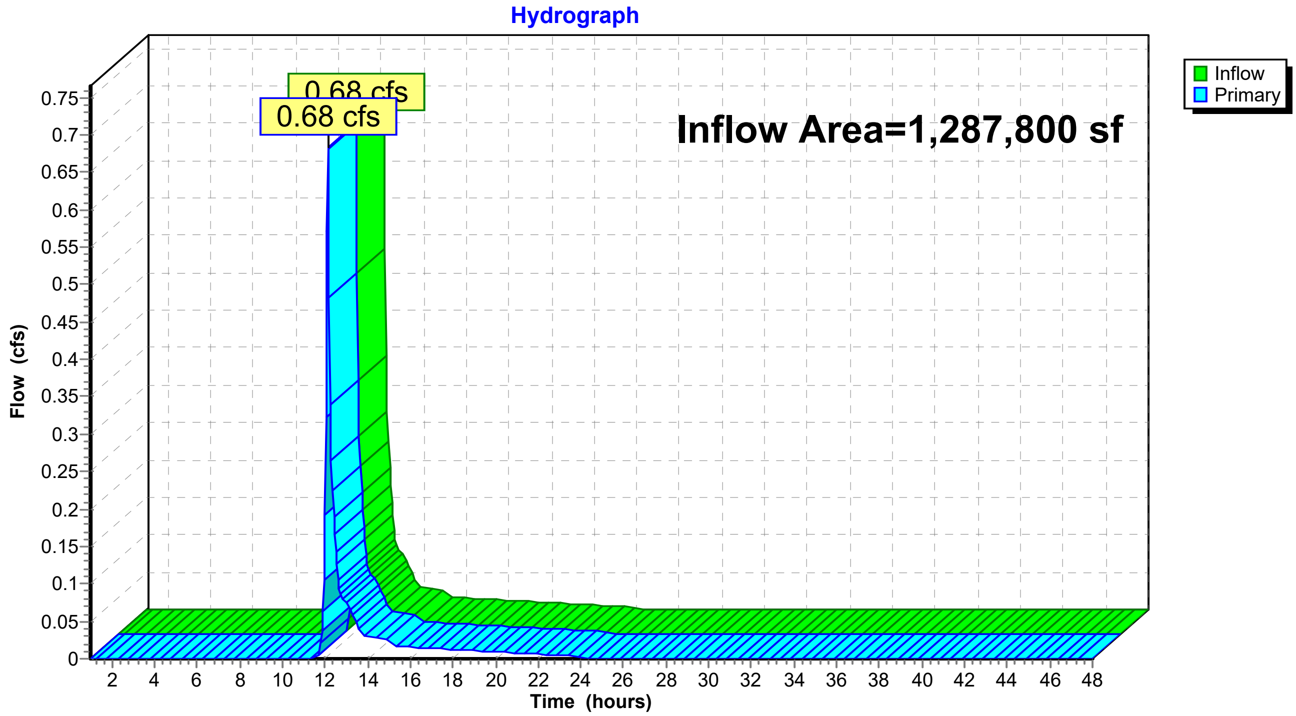


Summary for Link 48L: TOTAL OUTFALL

Inflow Area = 1,287,800 sf, 29.72% Impervious, Inflow Depth = 0.01" for 1-Year event
Inflow = 0.68 cfs @ 12.14 hrs, Volume= 1,438 cf
Primary = 0.68 cfs @ 12.14 hrs, Volume= 1,438 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Link 48L: TOTAL OUTFALL

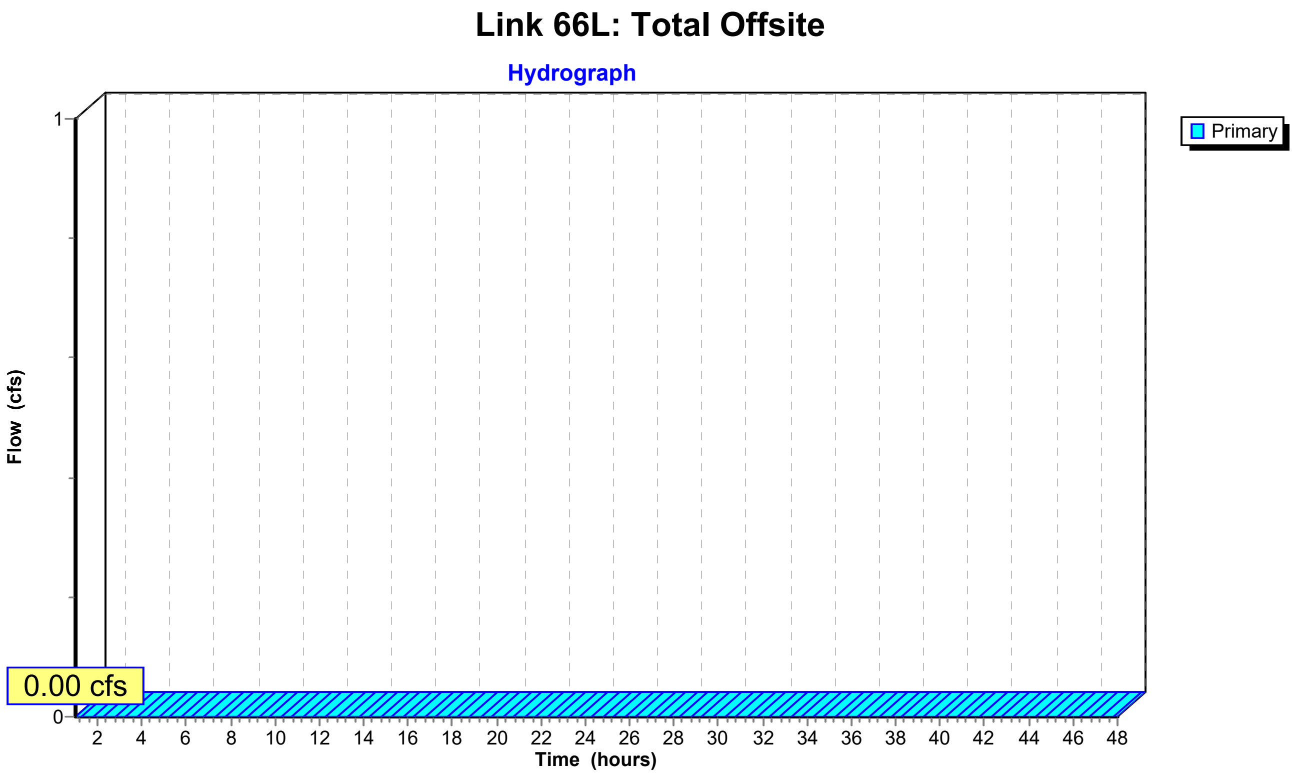


Summary for Link 66L: Total Offsite

[43] Hint: Has no inflow (Outflow=Zero)

Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Primary outflow = Inflow, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs



Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 35S: F6 Runoff Area=3,249 sf 0.00% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=74 Runoff=0.09 cfs 196 cf

Subcatchment 37S: F6 Runoff Area=3,393 sf 0.00% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=74 Runoff=0.10 cfs 205 cf

Subcatchment 39S: A Runoff Area=227,383 sf 57.35% Impervious Runoff Depth=1.55"
Tc=6.0 min CN=88 Runoff=14.41 cfs 29,449 cf

Subcatchment 40S: F5 (Direct to Basin) Runoff Area=31,282 sf 0.00% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=74 Runoff=0.90 cfs 1,887 cf

Subcatchment 49S: D2 Runoff Area=16,636 sf 25.34% Impervious Runoff Depth=1.03"
Flow Length=393' Slope=0.0076 '/' Tc=10.7 min CN=80 Runoff=0.58 cfs 1,428 cf

Subcatchment 52S: E1 Runoff Area=39,552 sf 5.46% Impervious Runoff Depth=0.77"
Flow Length=100' Slope=0.0300 '/' Tc=9.6 min CN=75 Runoff=1.03 cfs 2,539 cf

Subcatchment 55S: G Runoff Area=4,482 sf 0.00% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=74 Runoff=0.13 cfs 270 cf

Subcatchment 81S: O1 Runoff Area=11,697 sf 0.00% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=74 Runoff=0.34 cfs 706 cf

Subcatchment 82S: D1 Runoff Area=20,886 sf 0.00% Impervious Runoff Depth=0.72"
Flow Length=400' Slope=0.0100 '/' Tc=22.0 min CN=74 Runoff=0.34 cfs 1,260 cf

Subcatchment 87S: I Runoff Area=56,129 sf 0.00% Impervious Runoff Depth=0.72"
Flow Length=750' Slope=0.0100 '/' Tc=30.4 min CN=74 Runoff=0.75 cfs 3,386 cf

Subcatchment 95S: C1 Runoff Area=18,274 sf 21.80% Impervious Runoff Depth=0.97"
Tc=6.0 min CN=79 Runoff=0.73 cfs 1,483 cf

Subcatchment 96S: E2 Runoff Area=18,887 sf 18.55% Impervious Runoff Depth=0.92"
Flow Length=400' Slope=0.0300 '/' Tc=13.7 min CN=78 Runoff=0.52 cfs 1,449 cf

Subcatchment 97S: C2 Runoff Area=77,290 sf 43.30% Impervious Runoff Depth=1.27"
Tc=6.0 min CN=84 Runoff=4.06 cfs 8,201 cf

Subcatchment 98S: E3 Runoff Area=109,219 sf 13.58% Impervious Runoff Depth=0.87"
Flow Length=200' Tc=16.3 min CN=77 Runoff=2.59 cfs 7,906 cf

Subcatchment 105S: C Runoff Area=122,933 sf 33.81% Impervious Runoff Depth=1.15"
Tc=6.0 min CN=82 Runoff=5.82 cfs 11,752 cf

Subcatchment 106S: B1 Runoff Area=85,559 sf 10.89% Impervious Runoff Depth=0.87"
Tc=6.0 min CN=77 Runoff=3.02 cfs 6,193 cf

Subcatchment 107S: F Runoff Area=43,646 sf 58.34% Impervious Runoff Depth=1.55"
Tc=6.0 min CN=88 Runoff=2.77 cfs 5,653 cf

Subcatchment 108S: B2 Runoff Area=42,864 sf 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=3.77 cfs 8,822 cf

Subcatchment 112S: D3 Runoff Area=8,234 sf 12.90% Impervious Runoff Depth=0.87"
Tc=6.0 min CN=77 Runoff=0.29 cfs 596 cf

Subcatchment 122S: F1 Runoff Area=54,287 sf 55.18% Impervious Runoff Depth=1.48"
Tc=6.0 min CN=87 Runoff=3.29 cfs 6,696 cf

Subcatchment 125S: F3 Runoff Area=20,215 sf 10.32% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=76 Runoff=0.67 cfs 1,379 cf

Subcatchment 126S: F4 Runoff Area=26,797 sf 0.00% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=74 Runoff=0.77 cfs 1,616 cf

Subcatchment 138S: F2 Runoff Area=18,888 sf 0.00% Impervious Runoff Depth=0.72"
Tc=10.0 min CN=74 Runoff=0.45 cfs 1,139 cf

Subcatchment 140S: H1 Runoff Area=114,743 sf 19.79% Impervious Runoff Depth=0.97"
Tc=6.0 min CN=79 Runoff=4.58 cfs 9,315 cf

Subcatchment 141S: H2 Runoff Area=65,303 sf 19.50% Impervious Runoff Depth=0.97"
Tc=6.0 min CN=79 Runoff=2.61 cfs 5,301 cf

Subcatchment 142S: H3 Runoff Area=7,424 sf 14.02% Impervious Runoff Depth=0.87"
Tc=6.0 min CN=77 Runoff=0.26 cfs 537 cf

Subcatchment 143S: H4 Runoff Area=13,718 sf 0.00% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=74 Runoff=0.39 cfs 828 cf

Subcatchment 144S: H5 Runoff Area=14,502 sf 0.00% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=74 Runoff=0.42 cfs 875 cf

Subcatchment 145S: H6 Runoff Area=6,674 sf 0.00% Impervious Runoff Depth=0.72"
Tc=6.0 min CN=74 Runoff=0.19 cfs 403 cf

Subcatchment 146S: O2 Runoff Area=132,678 sf 2.29% Impervious Runoff Depth=0.77"
Flow Length=377' Tc=12.2 min CN=75 Runoff=3.13 cfs 8,518 cf

Subcatchment 147S: J Runoff Area=15,351 sf 8.86% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=76 Runoff=0.51 cfs 1,047 cf

Reach 99R: East Swale (SE End) Avg. Flow Depth=0.45' Max Vel=3.52 fps Inflow=11.08 cfs 22,550 cf
n=0.018 L=570.0' S=0.0070 '/' Capacity=43.88 cfs Outflow=10.01 cfs 22,550 cf

Reach 106R: East Swale (North End) Avg. Flow Depth=0.09' Max Vel=3.47 fps Inflow=0.73 cfs 1,483 cf
n=0.018 L=140.0' S=0.0500 '/' Capacity=65.71 cfs Outflow=0.70 cfs 1,483 cf

Reach 108R: South Berm Swale Avg. Flow Depth=0.48' Max Vel=2.24 fps Inflow=2.77 cfs 8,687 cf
n=0.025 L=265.0' S=0.0075 '/' Capacity=13.80 cfs Outflow=2.51 cfs 8,687 cf

Reach 109R: SC Road East Ditch Avg. Flow Depth=0.31' Max Vel=1.80 fps Inflow=2.77 cfs 5,653 cf
n=0.022 L=415.0' S=0.0048 '/' Capacity=23.93 cfs Outflow=2.34 cfs 5,653 cf

Reach 111R: Western PL North Ditch Avg. Flow Depth=0.62' Max Vel=3.04 fps Inflow=3.96 cfs 8,732 cf
n=0.025 L=480.0' S=0.0133 '/' Capacity=26.79 cfs Outflow=3.51 cfs 8,732 cf

Reach 117R: SC Road West Ditch Avg. Flow Depth=0.35' Max Vel=1.78 fps Inflow=3.29 cfs 6,696 cf
n=0.022 L=475.0' S=0.0042 '/' Capacity=22.37 cfs Outflow=2.70 cfs 6,696 cf

Reach 134R: SC East Ditch Avg. Flow Depth=0.00' Max Vel=0.00 fps
n=0.018 L=141.0' S=0.0071 '/' Capacity=749.10 cfs Outflow=0.00 cfs 0 cf

Reach 136R: SC West Ditch Avg. Flow Depth=0.28' Max Vel=1.52 fps Inflow=0.67 cfs 1,379 cf
n=0.025 L=218.0' S=0.0092 '/' Capacity=17.70 cfs Outflow=0.59 cfs 1,379 cf

Reach 137R: SC East Ditch Avg. Flow Depth=0.00' Max Vel=0.00 fps
n=0.022 L=255.0' S=0.0157 '/' Capacity=911.51 cfs Outflow=0.00 cfs 0 cf

Reach 151R: Western PL North Ditch Avg. Flow Depth=0.24' Max Vel=1.46 fps Inflow=0.29 cfs 596 cf
n=0.025 L=227.0' S=0.0107 '/' Capacity=24.06 cfs Outflow=0.26 cfs 596 cf

Pond 33P: Rain Garden East Peak Elev=744.09' Storage=86 cf Inflow=0.09 cfs 196 cf
Outflow=0.02 cfs 128 cf

Pond 36P: Rain Garden West Peak Elev=743.60' Storage=87 cf Inflow=0.10 cfs 205 cf
Outflow=0.02 cfs 136 cf

Pond 41P: Reach Pipe Peak Elev=0.00'
24.0" Round Culvert n=0.011 L=105.0' S=0.0048 '/' Primary=0.00 cfs 0 cf

Pond 57P: Dry Pond 2 Peak Elev=749.68' Storage=7,364 cf Inflow=3.30 cfs 11,375 cf
Discarded=0.14 cfs 11,375 cf Primary=0.00 cfs 0 cf Outflow=0.14 cfs 11,375 cf

Pond 58P: Dry Pond 1 Peak Elev=750.43' Storage=11,823 cf Inflow=15.86 cfs 65,926 cf
Discarded=3.96 cfs 65,919 cf Primary=0.00 cfs 0 cf Outflow=3.96 cfs 65,919 cf

Pond 60P: Infiltration Basin #1 Peak Elev=738.85' Storage=0.201 af Inflow=6.78 cfs 18,683 cf
Outflow=0.77 cfs 18,683 cf

Pond 72P: UG 1 StormTrap Lowered Peak Elev=753.59' Storage=18,736 cf Inflow=14.41 cfs 29,449 cf
12.0" Round Culvert n=0.011 L=189.0' S=0.0025 '/' Outflow=0.82 cfs 26,353 cf

Pond 95P: Dry Pond 3 Peak Elev=739.91' Storage=0.216 af Inflow=5.99 cfs 15,608 cf
Discarded=0.27 cfs 15,608 cf Primary=0.00 cfs 0 cf Outflow=0.27 cfs 15,608 cf

Pond 101R: Reach Pipe Peak Elev=751.00' Inflow=0.00 cfs 0 cf
24.0" Round Culvert n=0.011 L=442.0' S=0.0023 '/' Outflow=0.00 cfs 0 cf

Pond 107P: SC East Ditch Peak Elev=744.36' Storage=1,855 cf Inflow=1.20 cfs 2,734 cf
Discarded=0.04 cfs 2,734 cf Primary=0.00 cfs 0 cf Outflow=0.04 cfs 2,734 cf

Pond 108P: SC East Ditch Peak Elev=747.97' Storage=295 cf Inflow=1.00 cfs 2,105 cf
Discarded=0.02 cfs 510 cf Primary=0.75 cfs 1,595 cf Outflow=0.77 cfs 2,105 cf

Pond 110R: Western Pipe Run Peak Elev=749.93' Inflow=3.79 cfs 9,328 cf
24.0" Round Culvert n=0.011 L=345.0' S=0.0119 '/' Outflow=3.79 cfs 9,328 cf

Pond 154P: Southeast Basin Peak Elev=730.12' Storage=369 cf Inflow=0.90 cfs 1,887 cf
Outflow=0.40 cfs 1,887 cf

Link 48L: TOTAL OUTFALL Inflow=0.90 cfs 1,855 cf
Primary=0.90 cfs 1,855 cf

Link 66L: Total Offsite
Primary=0.00 cfs 0 cf

Total Runoff Area = 1,432,175 sf Runoff Volume = 131,034 cf Average Runoff Depth = 1.10"
73.06% Pervious = 1,046,415 sf 26.94% Impervious = 385,760 sf

Summary for Subcatchment 35S: F6

3/3/21
Undetained portion of SE corner of SC that goes direct to SE low area (back yards of 3 home lots SE corner)

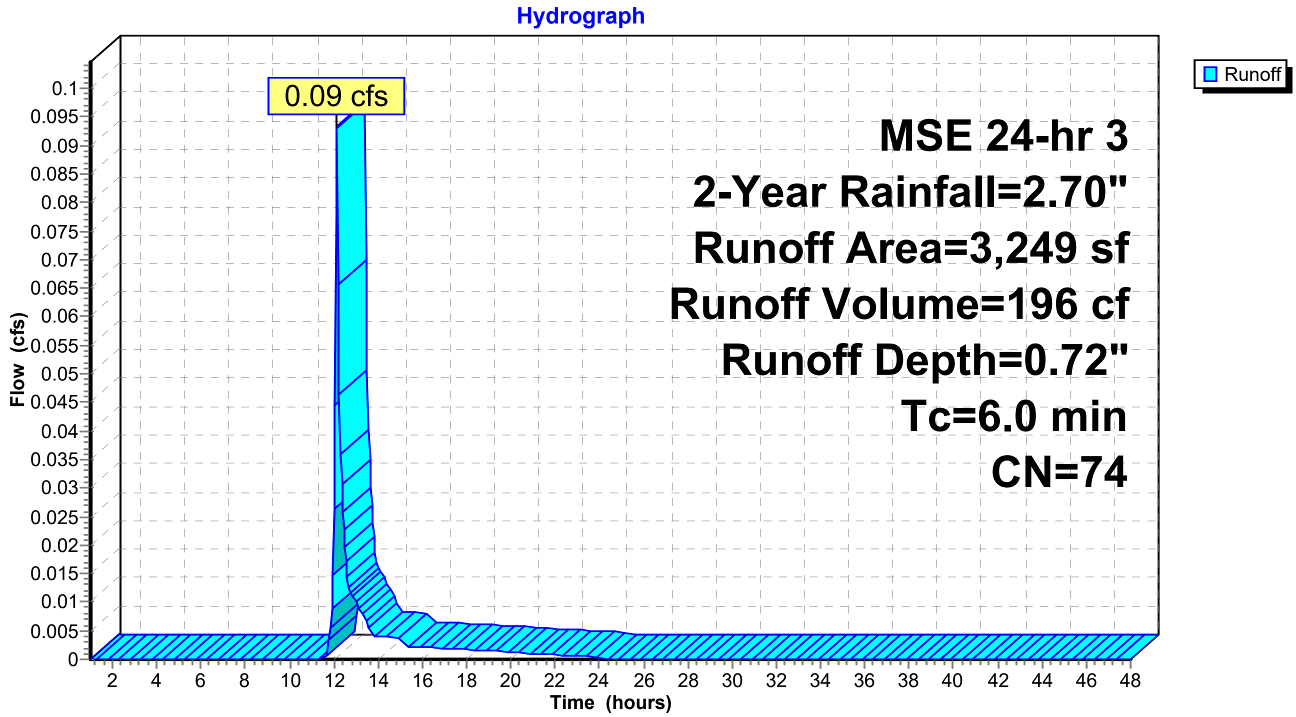
Runoff = 0.09 cfs @ 12.14 hrs, Volume= 196 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	3,249	74	landscape
	3,249		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 35S: F6



Summary for Subcatchment 37S: F6

3/3/21
Undetained portion of SE corner of SC that goes direct to SE low area (back yards of 3 home lots SE corner)

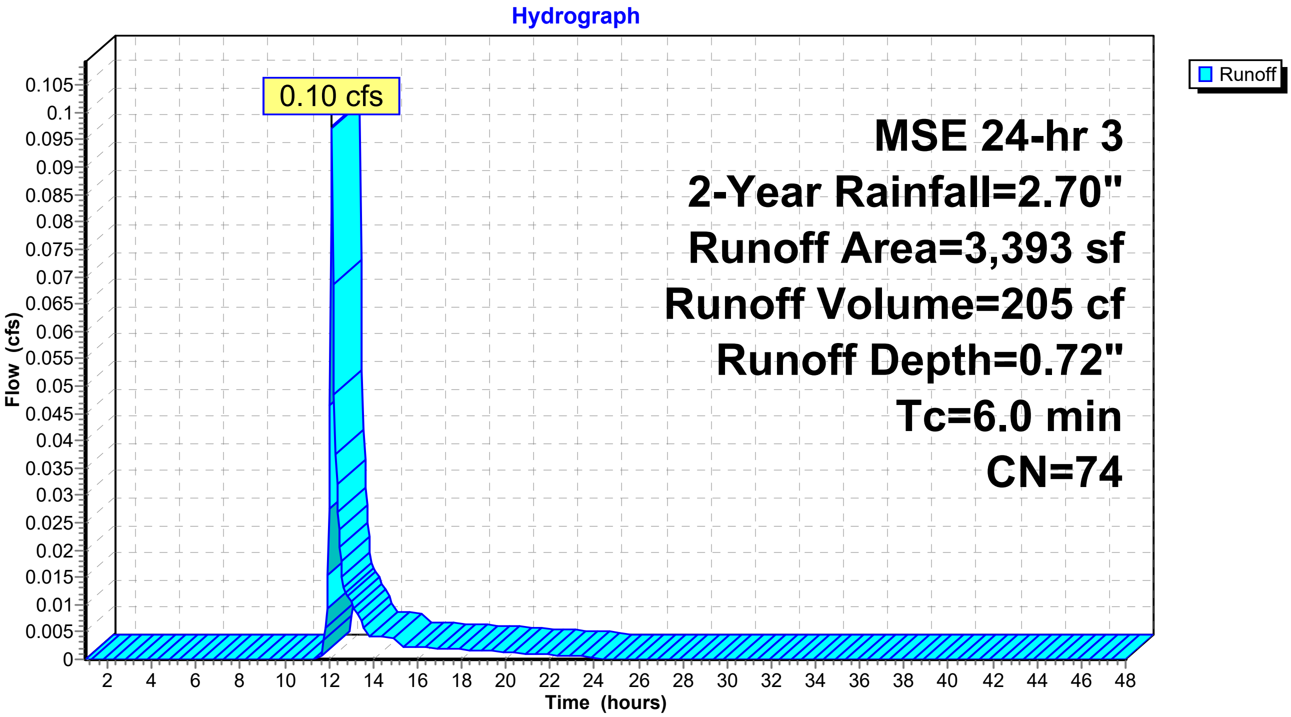
Runoff = 0.10 cfs @ 12.14 hrs, Volume= 205 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	3,393	74	landscape
	3,393		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 37S: F6



Summary for Subcatchment 39S: A

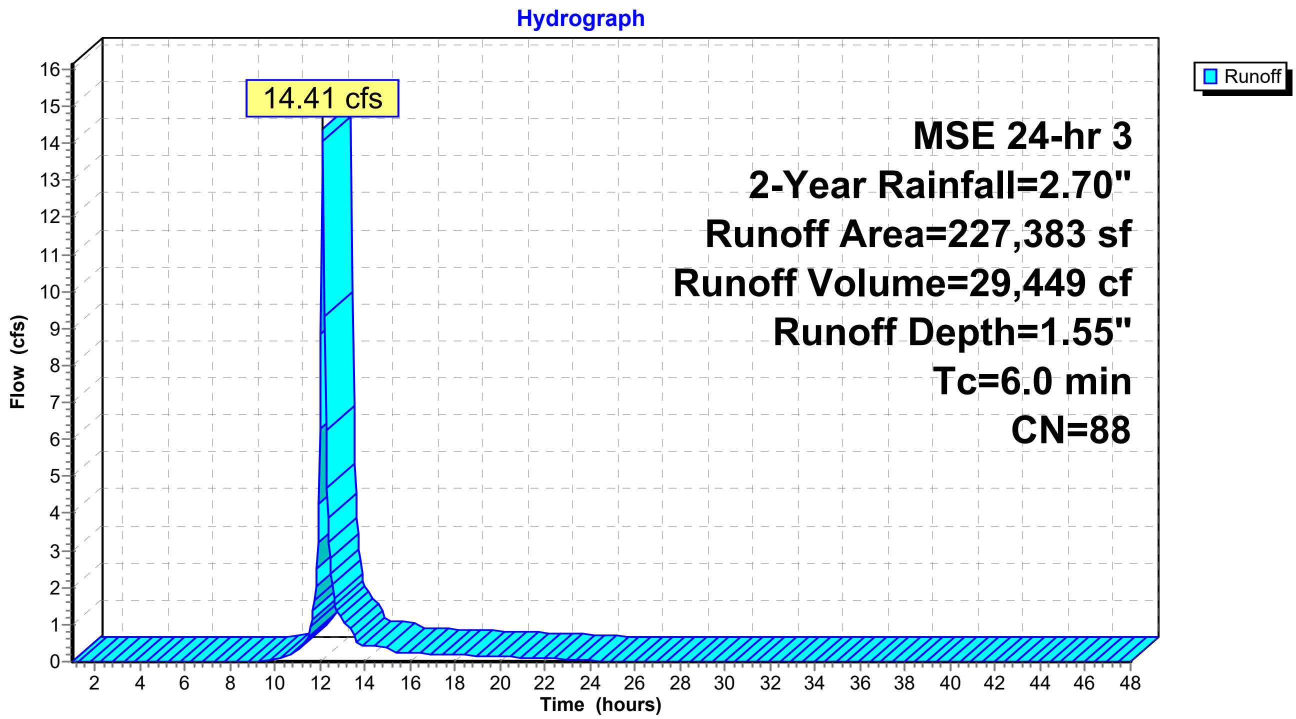
Runoff = 14.41 cfs @ 12.13 hrs, Volume= 29,449 cf, Depth= 1.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	46,354	98	walks/patio within courtyard and north
*	45,317	98	drives within courtyard
	96,978	74	>75% Grass cover, Good, HSG C
*	38,734	98	bldg 1 and 2 roof falling onto courtyard
	227,383	88	Weighted Average
	96,978		42.65% Pervious Area
	130,405		57.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 39S: A



Summary for Subcatchment 40S: F5 (Direct to Basin)

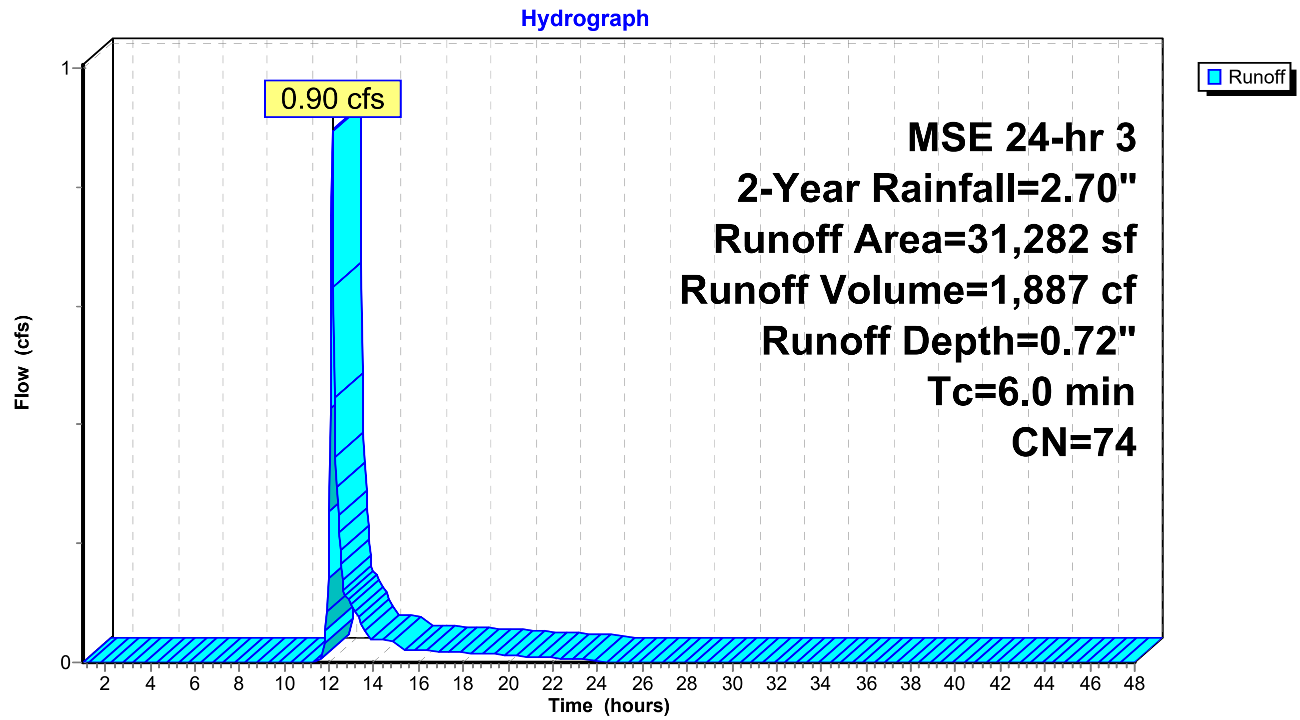
Runoff = 0.90 cfs @ 12.14 hrs, Volume= 1,887 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	31,282	74	landscape
	31,282		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, minimum**

Subcatchment 40S: F5 (Direct to Basin)



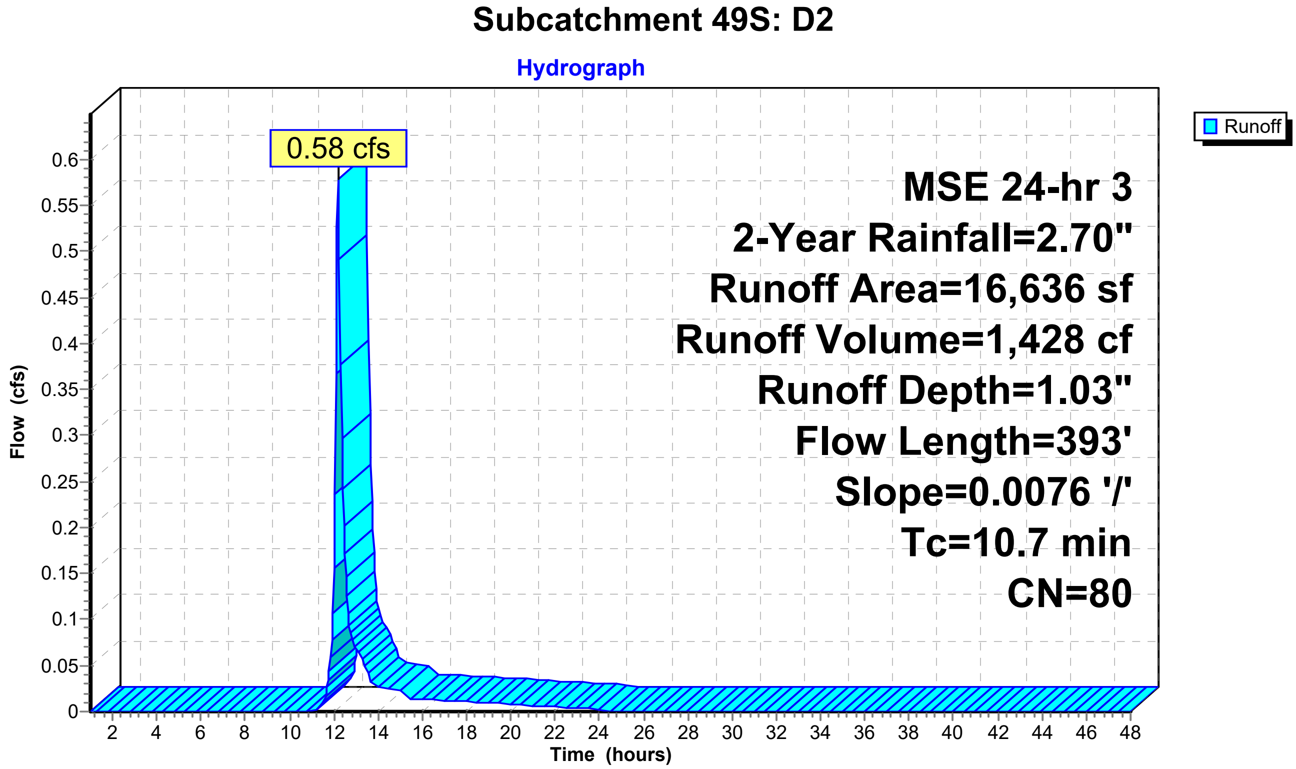
Summary for Subcatchment 49S: D2

Runoff = 0.58 cfs @ 12.19 hrs, Volume= 1,428 cf, Depth= 1.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	4,215	98	roof
*	12,421	74	landscape
	16,636	80	Weighted Average
	12,421		74.66% Pervious Area
	4,215		25.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	393	0.0076	0.61		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps



Summary for Subcatchment 52S: E1

3/3/21
Delineation NOT updated based on Justin's waterdrops, needs finalization, it routes to western property ditch that goes ultimately to IB. We are using Joe's SWMP2 Figure from December 2020.

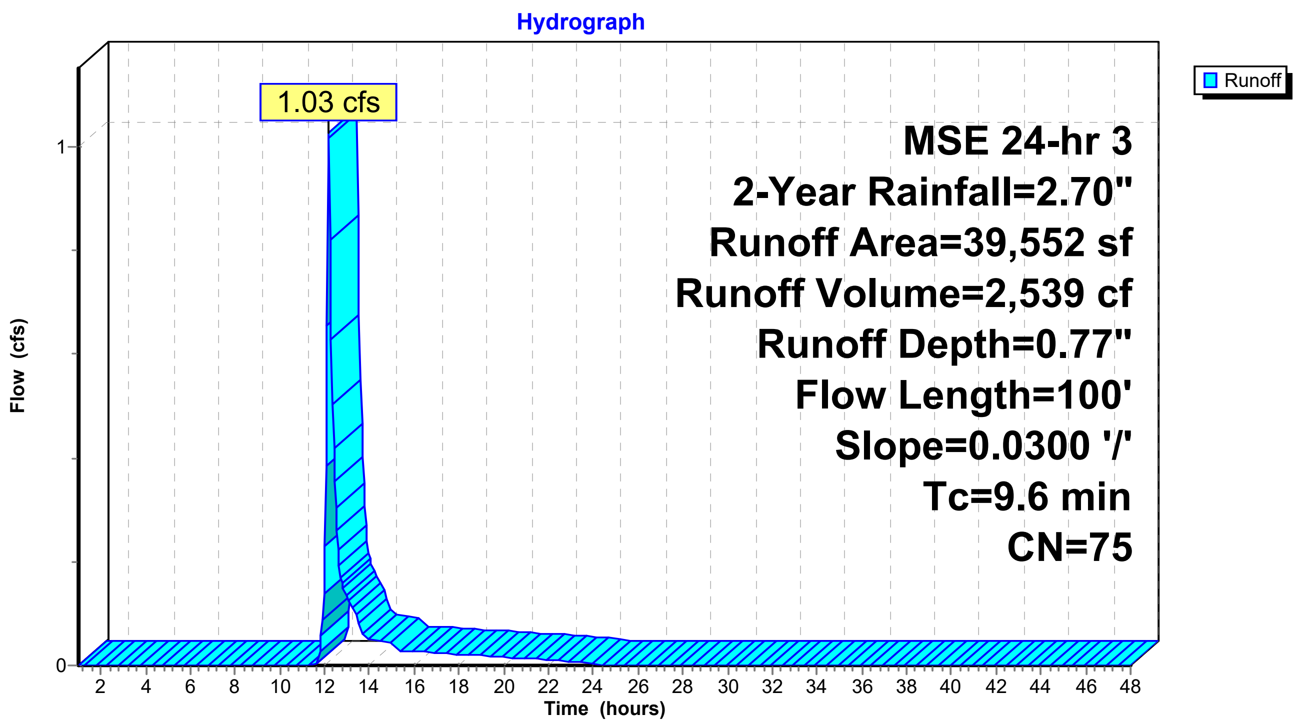
Runoff = 1.03 cfs @ 12.19 hrs, Volume= 2,539 cf, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	2,161	98	Walks
	37,391	74	>75% Grass cover, Good, HSG C
	39,552	75	Weighted Average
	37,391		94.54% Pervious Area
	2,161		5.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0300	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"

Subcatchment 52S: E1



Summary for Subcatchment 55S: G

3/3/21
Needs to be delineated, this is from Joe's SWMP2

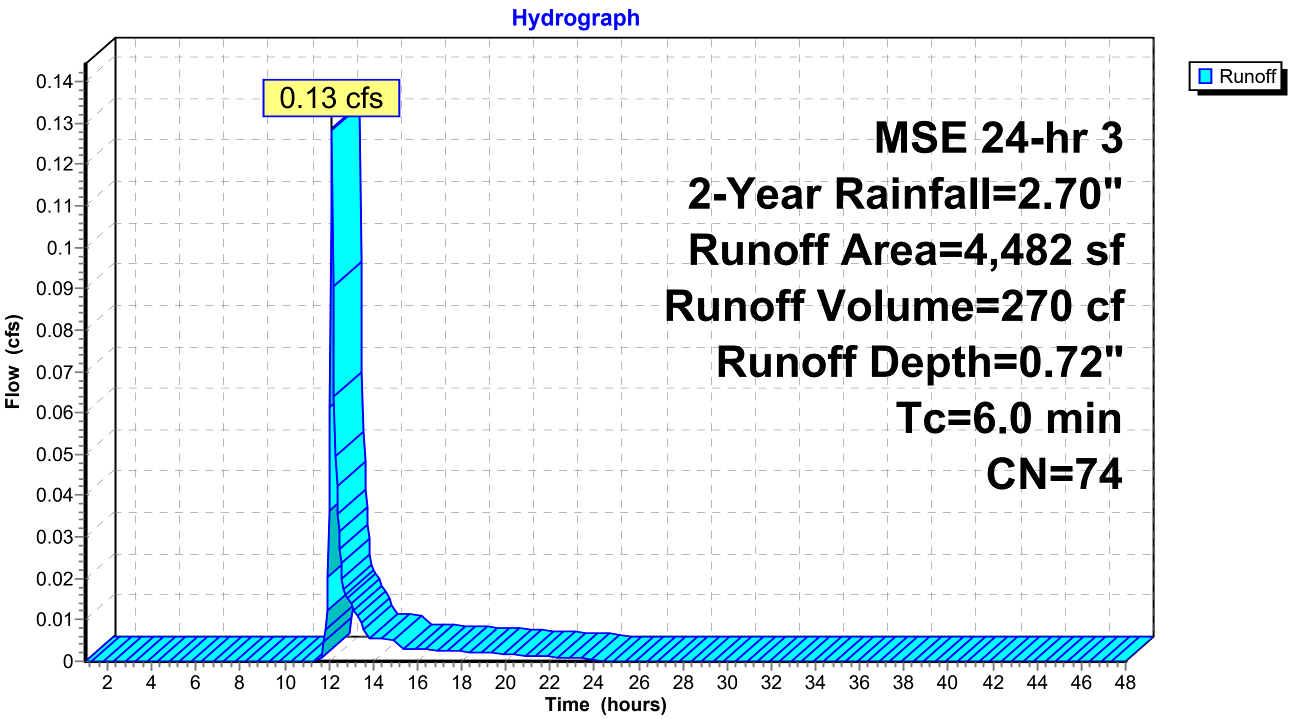
Runoff = 0.13 cfs @ 12.14 hrs, Volume= 270 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	4,482	74	landscape
	4,482		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 55S: G



Summary for Subcatchment 81S: O1

3/3/21
SW portion off-site flowing into IB

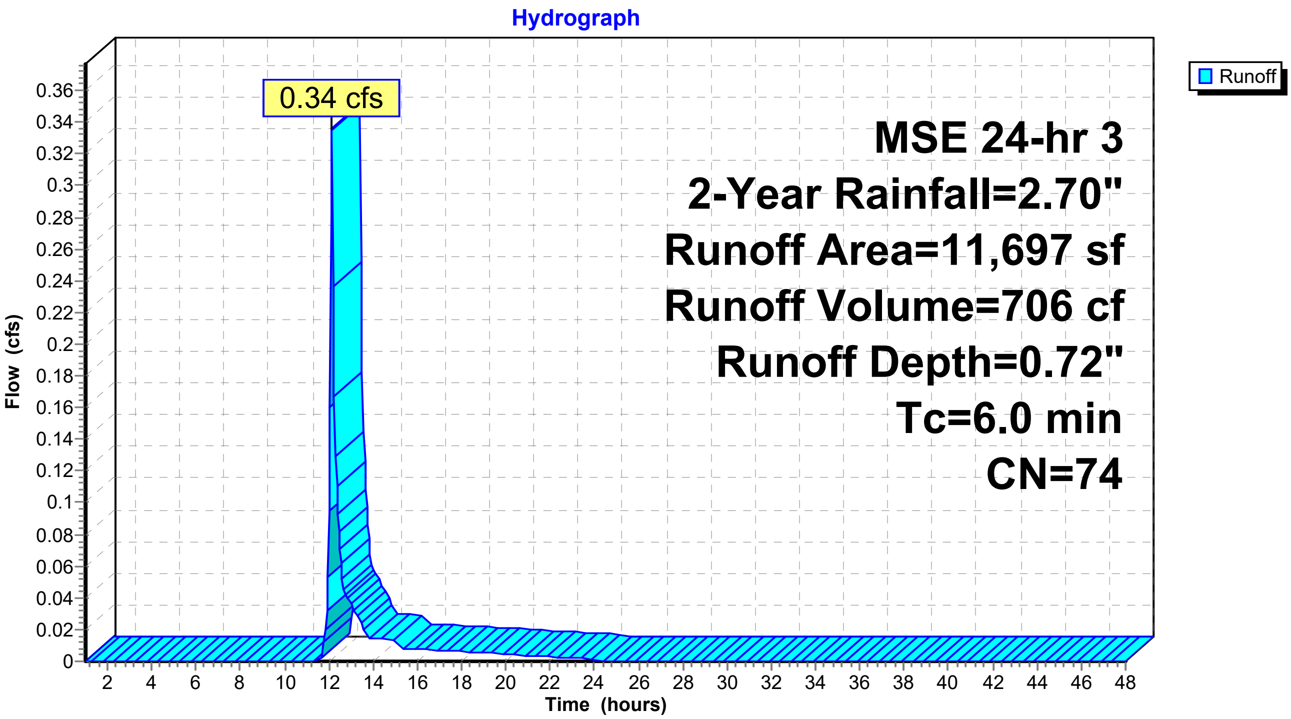
Runoff = 0.34 cfs @ 12.14 hrs, Volume= 706 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	11,697	74	PERV
	11,697		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 81S: O1



Summary for Subcatchment 82S: D1

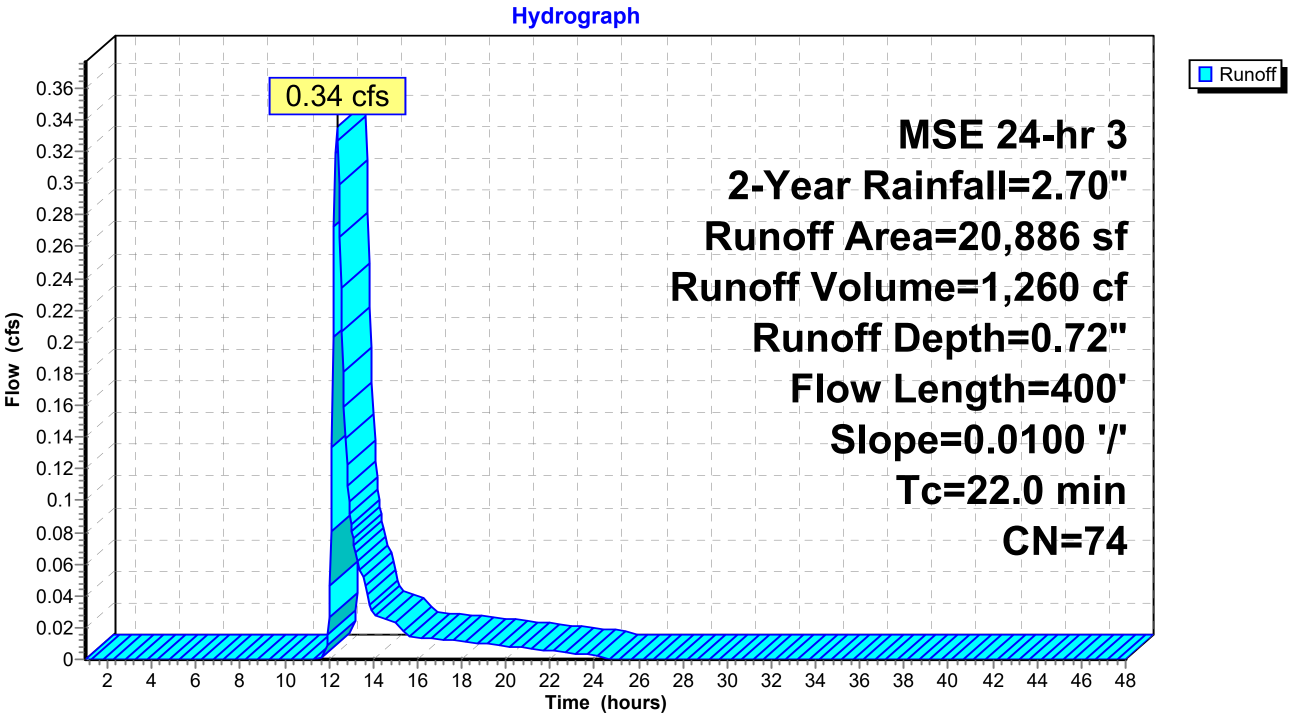
Runoff = 0.34 cfs @ 12.36 hrs, Volume= 1,260 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	20,886	74	landscape
	20,886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow, BUILDING TO SWALE** Grass: Short n= 0.150 P2= 2.42"
7.1	300	0.0100	0.70		**Shallow Concentrated Flow, SWALE ALONG BACK** Short Grass Pasture Kv= 7.0 fps
22.0	400	Total			

Subcatchment 82S: D1



Summary for Subcatchment 87S: I

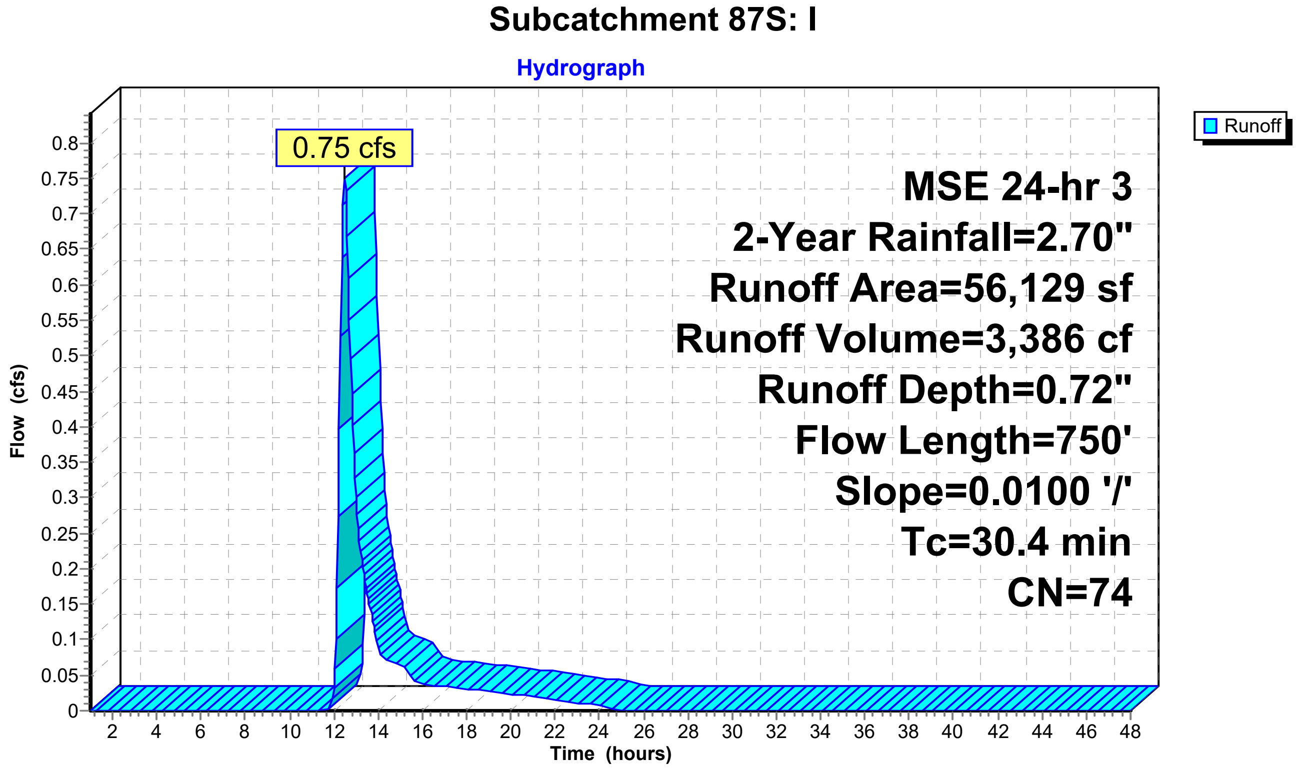
3/3/21
Wooded area

Runoff = 0.75 cfs @ 12.47 hrs, Volume= 3,386 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	56,129	74	landscape
	56,129		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
15.5	650	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
30.4	750	Total			



Summary for Subcatchment 95S: C1

Area actually draining to east swale
3/3/21
Northern portion of East Roof, exterior east courtyard, 7 home lots

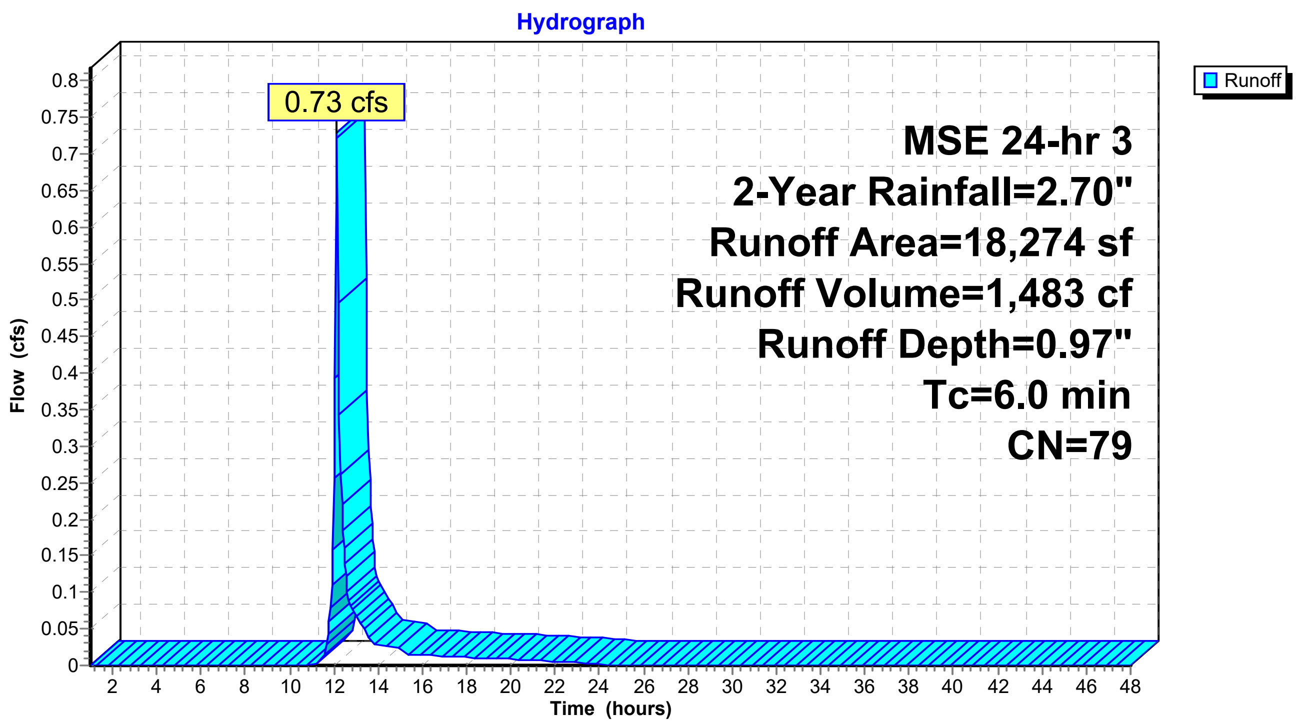
Runoff = 0.73 cfs @ 12.14 hrs, Volume= 1,483 cf, Depth= 0.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	2,210	98	walks
*	1,774	98	roads
*	14,290	74	landscape
	18,274	79	Weighted Average
	14,290		78.20% Pervious Area
	3,984		21.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 95S: C1



Summary for Subcatchment 96S: E2

3/3/21
Delineation needs updating, but it does route to IB
Portion of cemetary site that flows from north to south into IB

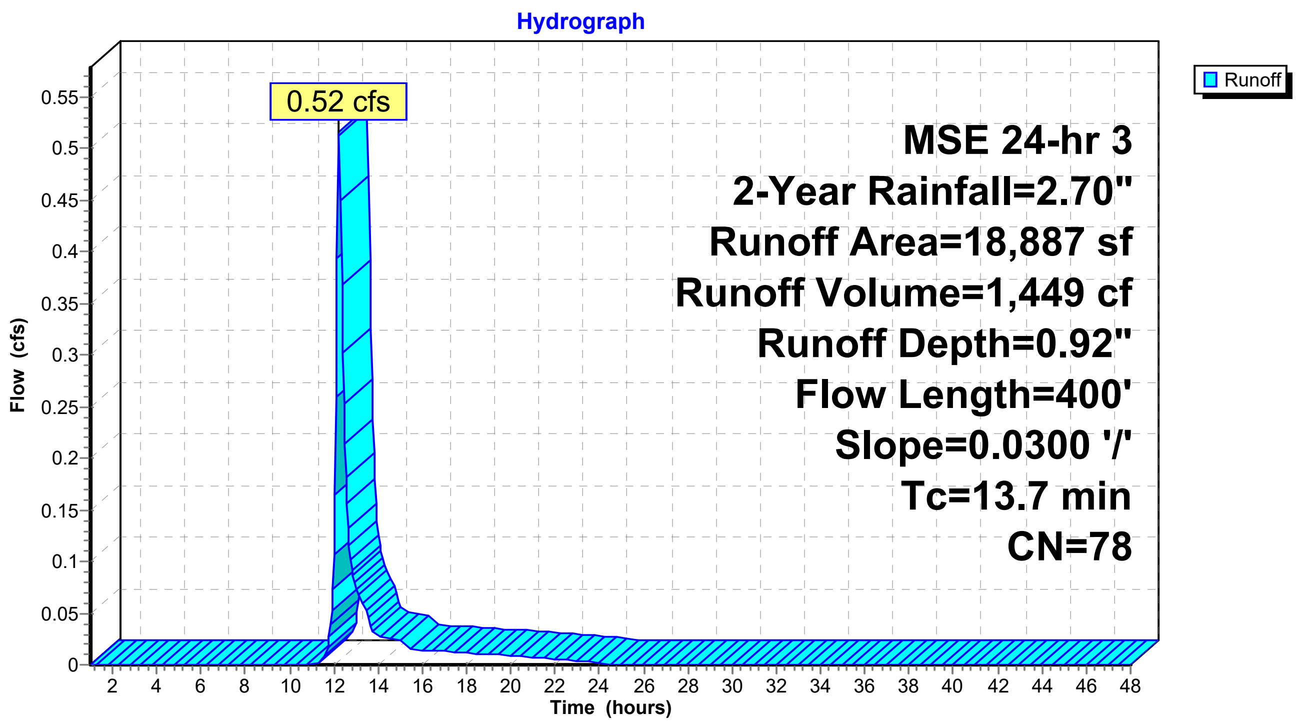
Runoff = 0.52 cfs @ 12.23 hrs, Volume= 1,449 cf, Depth= 0.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	15,384	74	landscape
*	3,503	98	roofs
	18,887	78	Weighted Average
	15,384		81.45% Pervious Area
	3,503		18.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0300	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
4.1	300	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.7	400	Total			

Subcatchment 96S: E2



Summary for Subcatchment 97S: C2

Subset C - C1
3/3/21
Southern portion of East Building Roof, Southern Building (Middle one) roof, pond area
pipe from roofs not sized yet

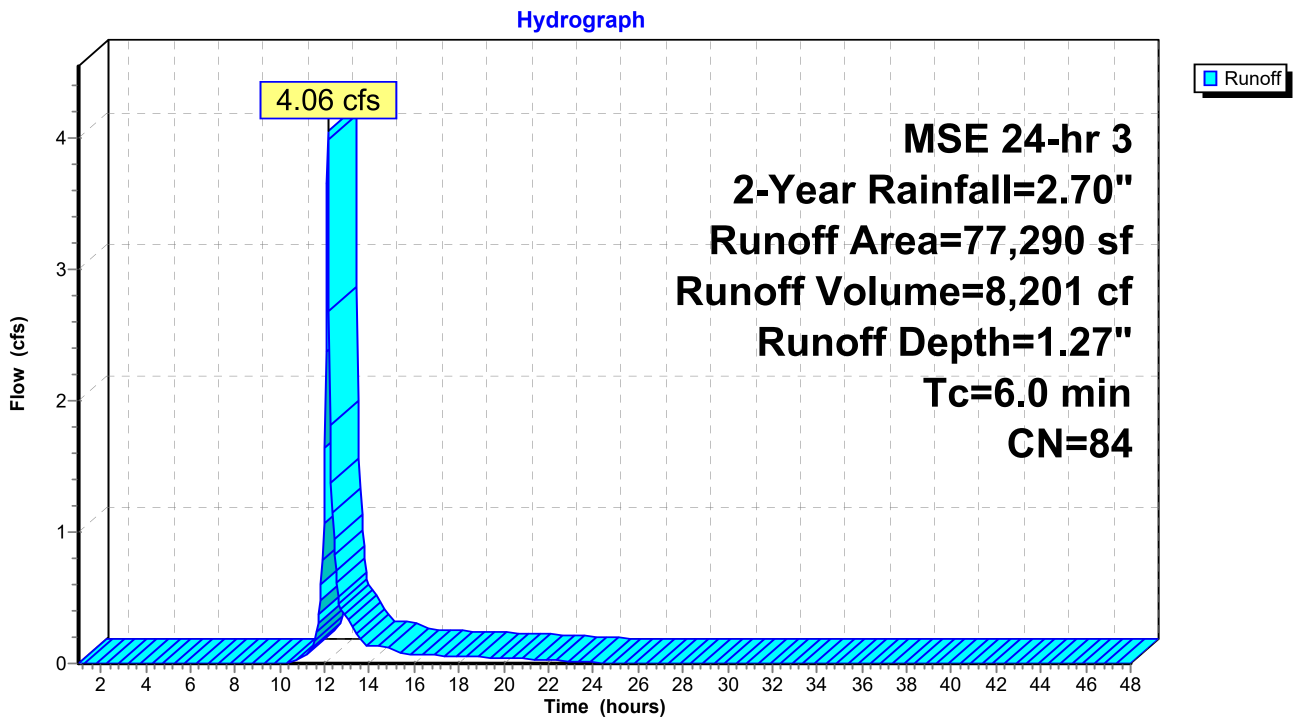
Runoff = 4.06 cfs @ 12.14 hrs, Volume= 8,201 cf, Depth= 1.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	9,728	98	walks and patios
*	23,739	98	roofs
*	43,823	74	landscape
	77,290	84	Weighted Average
	43,823		56.70% Pervious Area
	33,467		43.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 97S: C2



Summary for Subcatchment 98S: E3

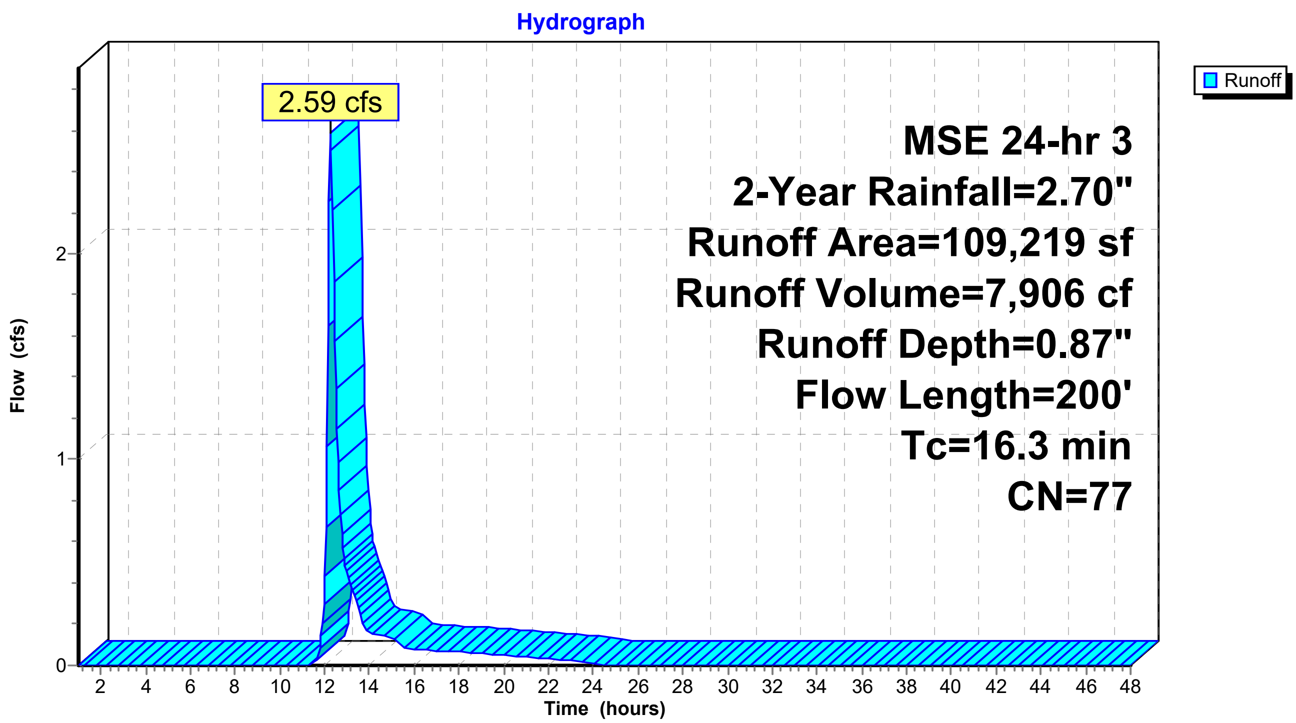
Runoff = 2.59 cfs @ 12.27 hrs, Volume= 7,906 cf, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	6,532	98	walks
*	8,300	98	Roads
*	94,387	74	landscape
	109,219	77	Weighted Average
	94,387		86.42% Pervious Area
	14,832		13.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
1.4	100	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.3	200	Total			

Subcatchment 98S: E3



Summary for Subcatchment 105S: C

Subset C - C1
3/3/21
Southern portion of East Building Roof, Southern Building (Middle one) roof, pond area
pipe from roofs not sized yet

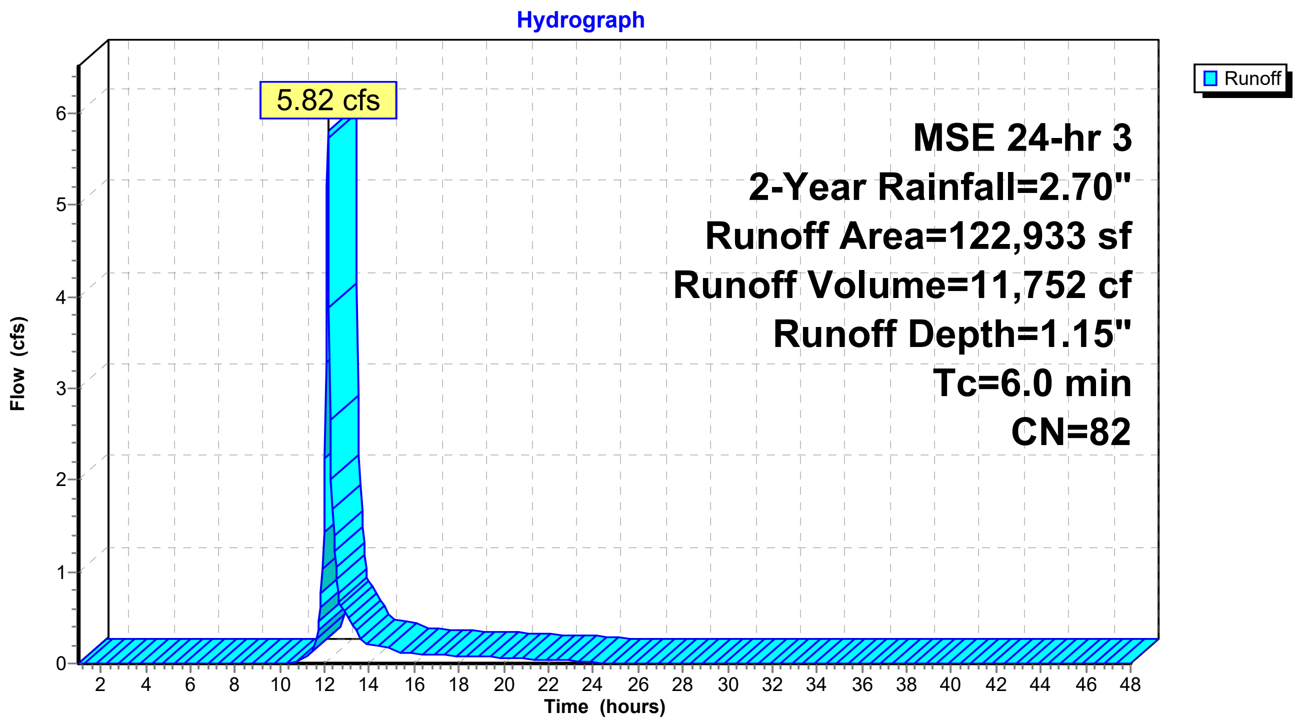
Runoff = 5.82 cfs @ 12.14 hrs, Volume= 11,752 cf, Depth= 1.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	8,648	98	walks and patios
*	32,913	98	roofs
*	81,372	74	landscape
	122,933	82	Weighted Average
	81,372		66.19% Pervious Area
	41,561		33.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 105S: C



Summary for Subcatchment 106S: B1

3/3/21
North face of West Building, Lawn Area south of WTP, Patios

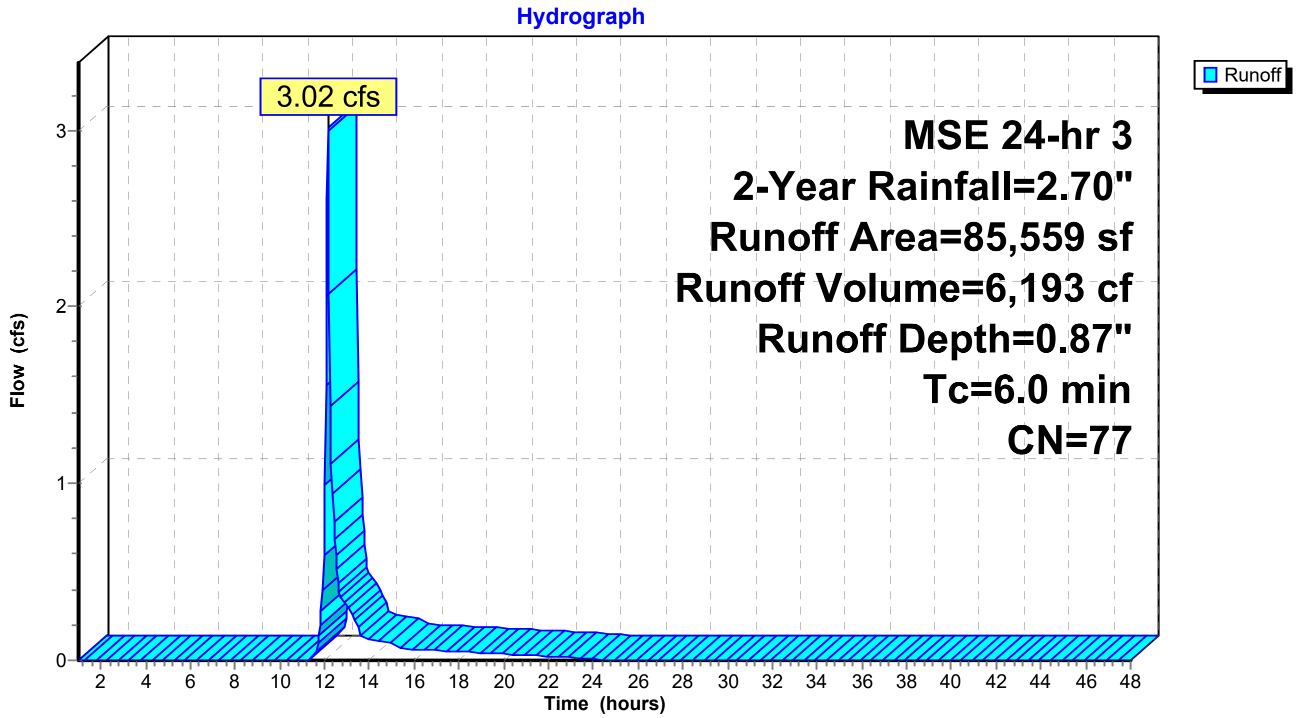
Runoff = 3.02 cfs @ 12.14 hrs, Volume= 6,193 cf, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	76,242	74	landscape
*	9,317	98	walks
	85,559	77	Weighted Average
	76,242		89.11% Pervious Area
	9,317		10.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Check Later**

Subcatchment 106S: B1



Summary for Subcatchment 107S: F

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

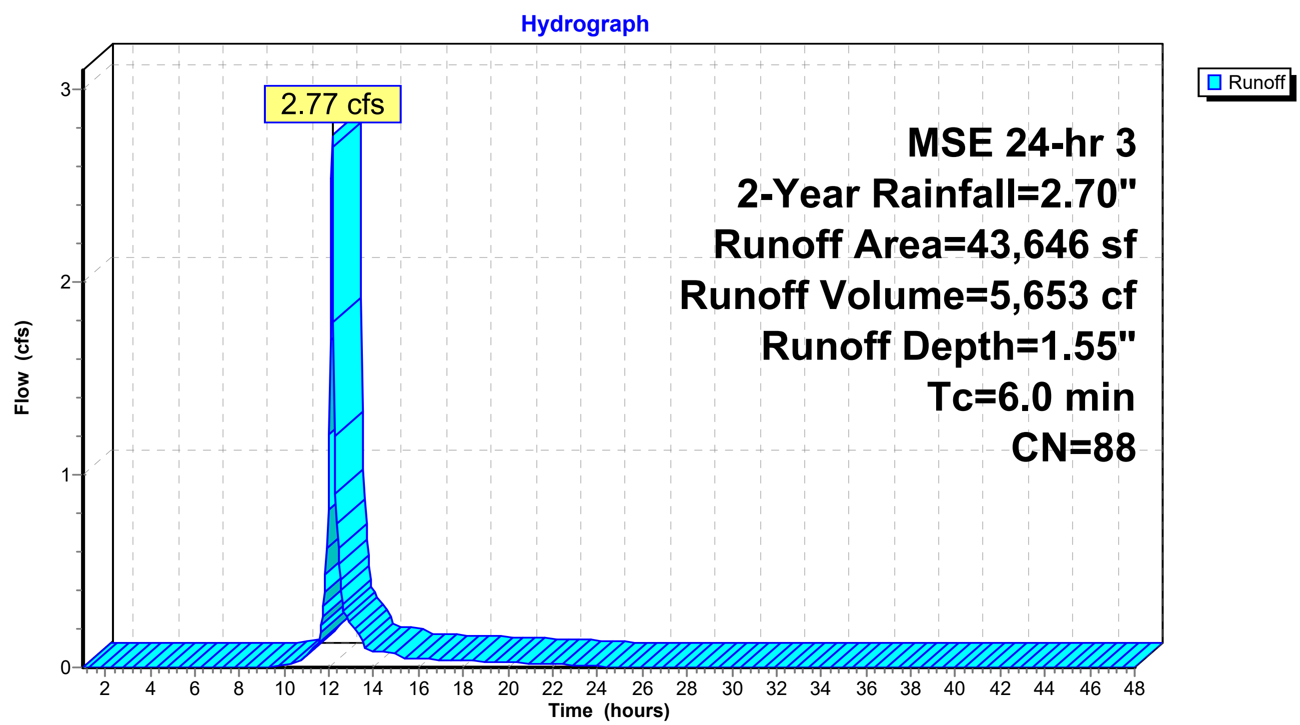
Runoff = 2.77 cfs @ 12.13 hrs, Volume= 5,653 cf, Depth= 1.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	14,227	98	roads
*	11,236	98	roof
*	18,183	74	landscape
	43,646	88	Weighted Average
	18,183		41.66% Pervious Area
	25,463		58.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 107S: F



Summary for Subcatchment 108S: B2

3/3/21
Northern portion of W building roof

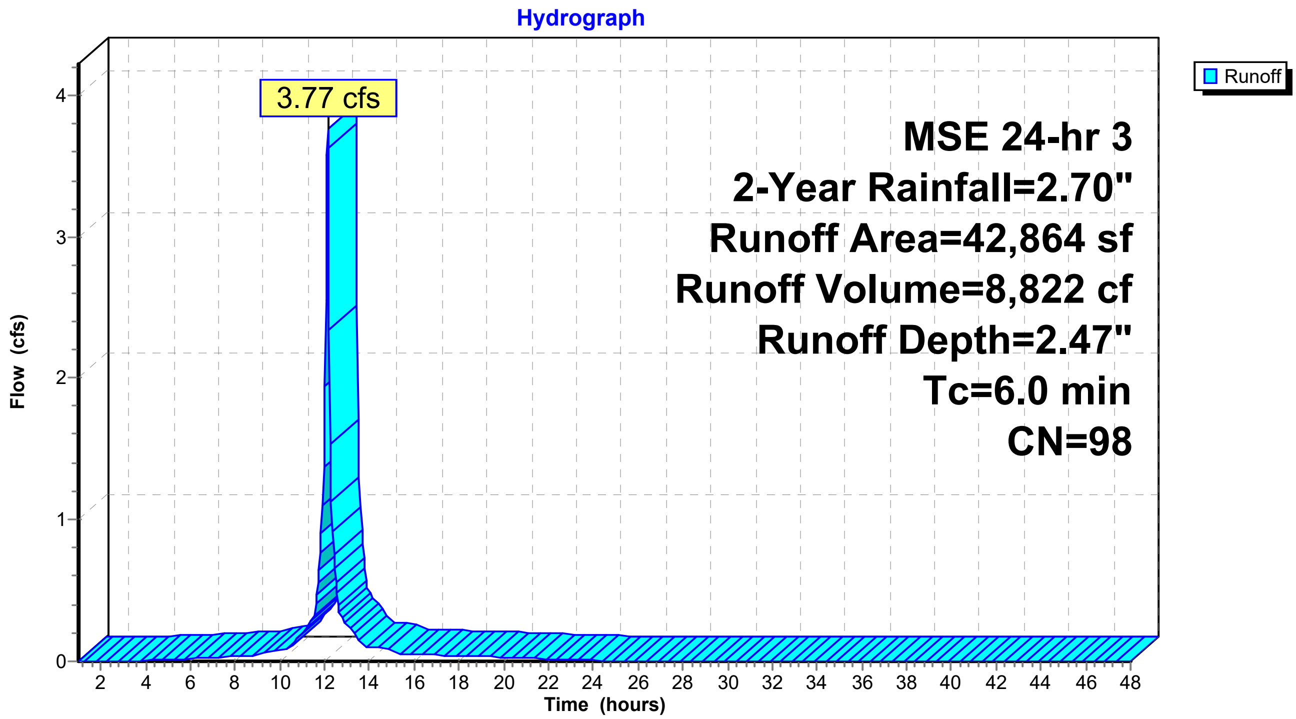
Runoff = 3.77 cfs @ 12.13 hrs, Volume= 8,822 cf, Depth= 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	42,864	98	roof
	42,864		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 108S: B2



Summary for Subcatchment 112S: D3

3/3/21
Western Building Courtyard (need to check that Joe's overall B works with B1-B4 in our update

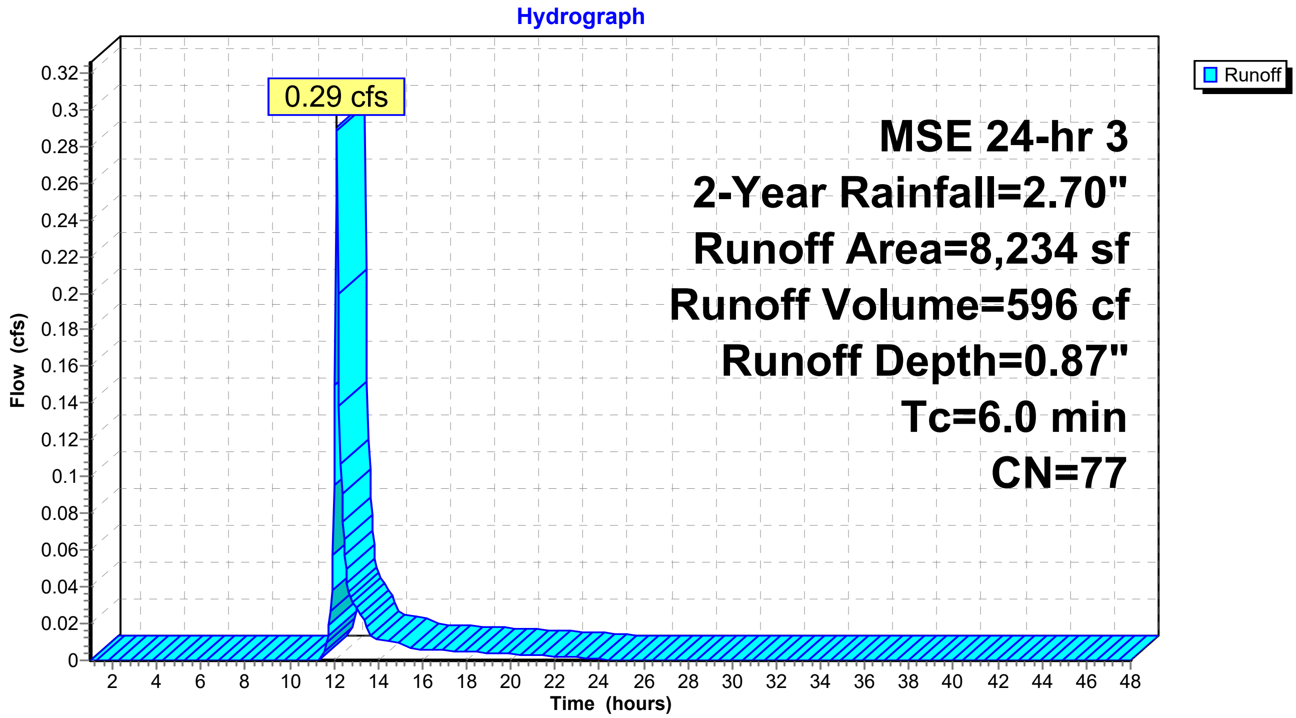
Runoff = 0.29 cfs @ 12.14 hrs, Volume= 596 cf, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	1,062	98	walks
*	7,172	74	landscape
	8,234	77	Weighted Average
	7,172		87.10% Pervious Area
	1,062		12.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 112S: D3



Summary for Subcatchment 122S: F1

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

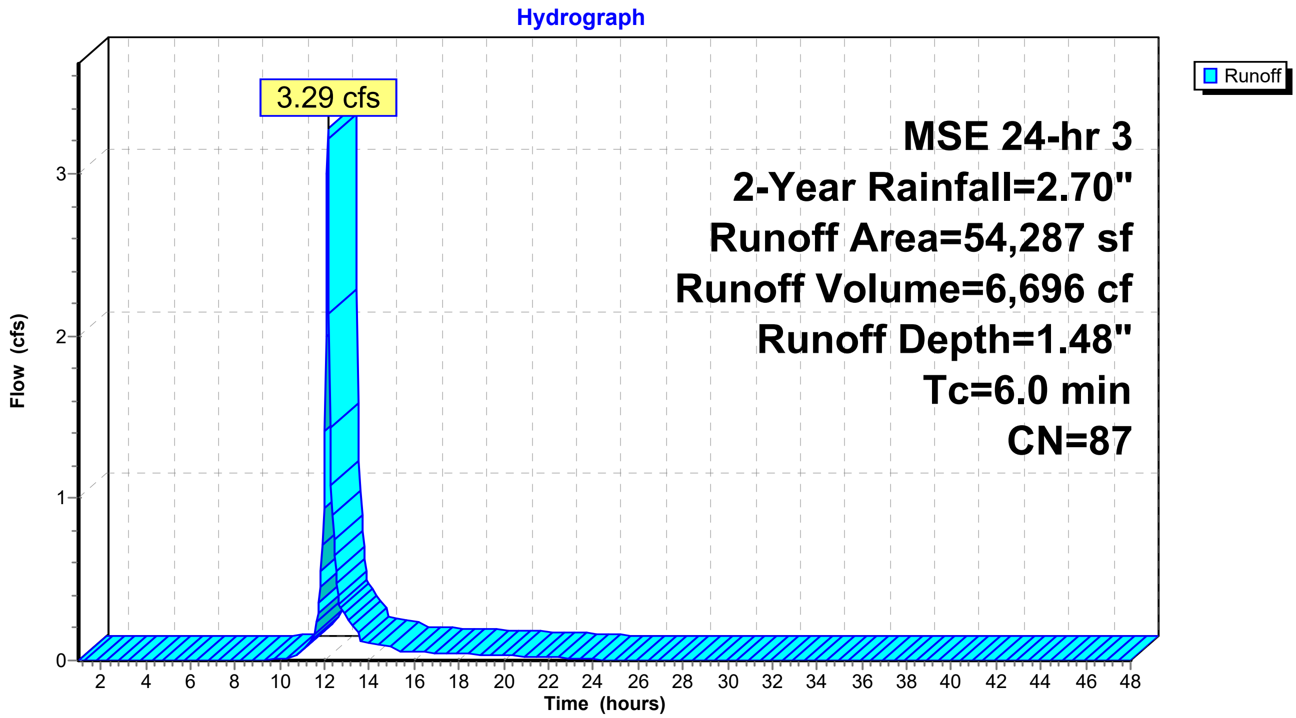
Runoff = 3.29 cfs @ 12.13 hrs, Volume= 6,696 cf, Depth= 1.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	504	98	walks
*	19,590	98	roads
*	9,863	98	roof
*	24,330	74	landscape
	54,287	87	Weighted Average
	24,330		44.82% Pervious Area
	29,957		55.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 122S: F1



Summary for Subcatchment 125S: F3

3/3/21
SW Lot that drains direct to SC Pond

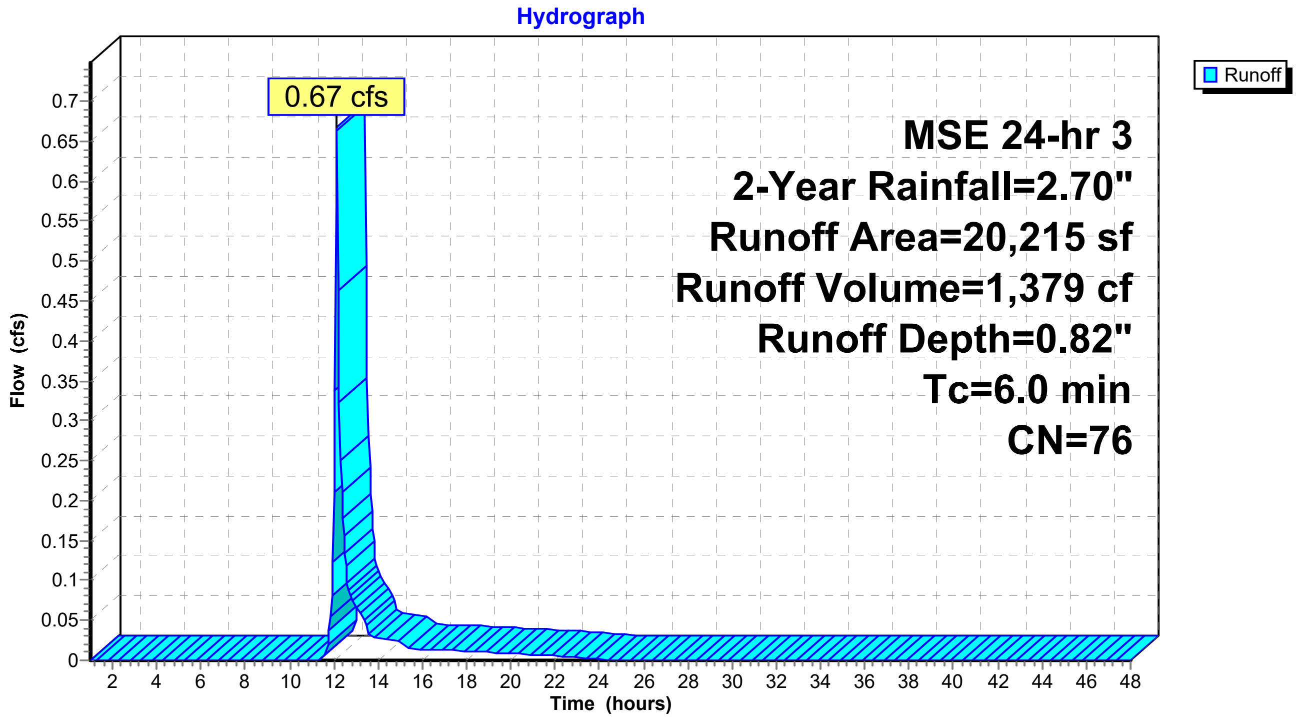
Runoff = 0.67 cfs @ 12.14 hrs, Volume= 1,379 cf, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	2,087	98	roof
*	18,128	74	landscape
	20,215	76	Weighted Average
	18,128		89.68% Pervious Area
	2,087		10.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 125S: F3



Summary for Subcatchment 126S: F4

3/3/21
SC Pond itself

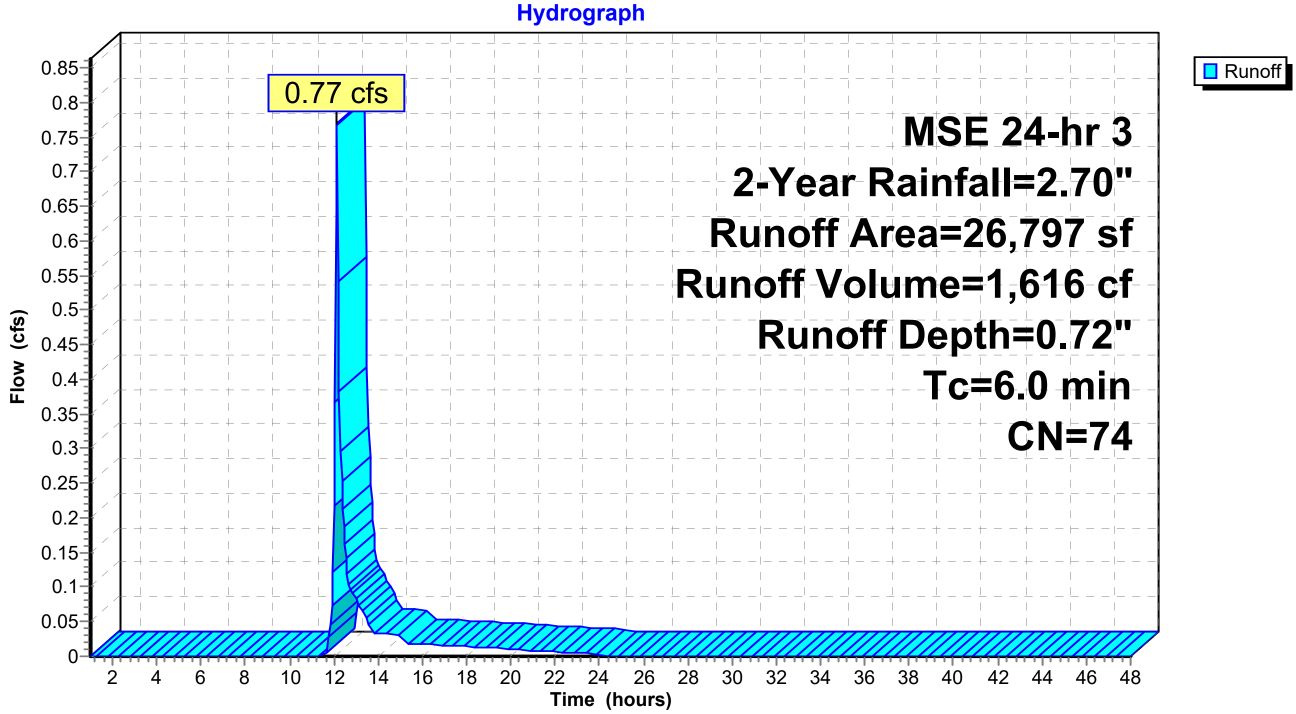
Runoff = 0.77 cfs @ 12.14 hrs, Volume= 1,616 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	26,797	74	landscape
	26,797		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 126S: F4



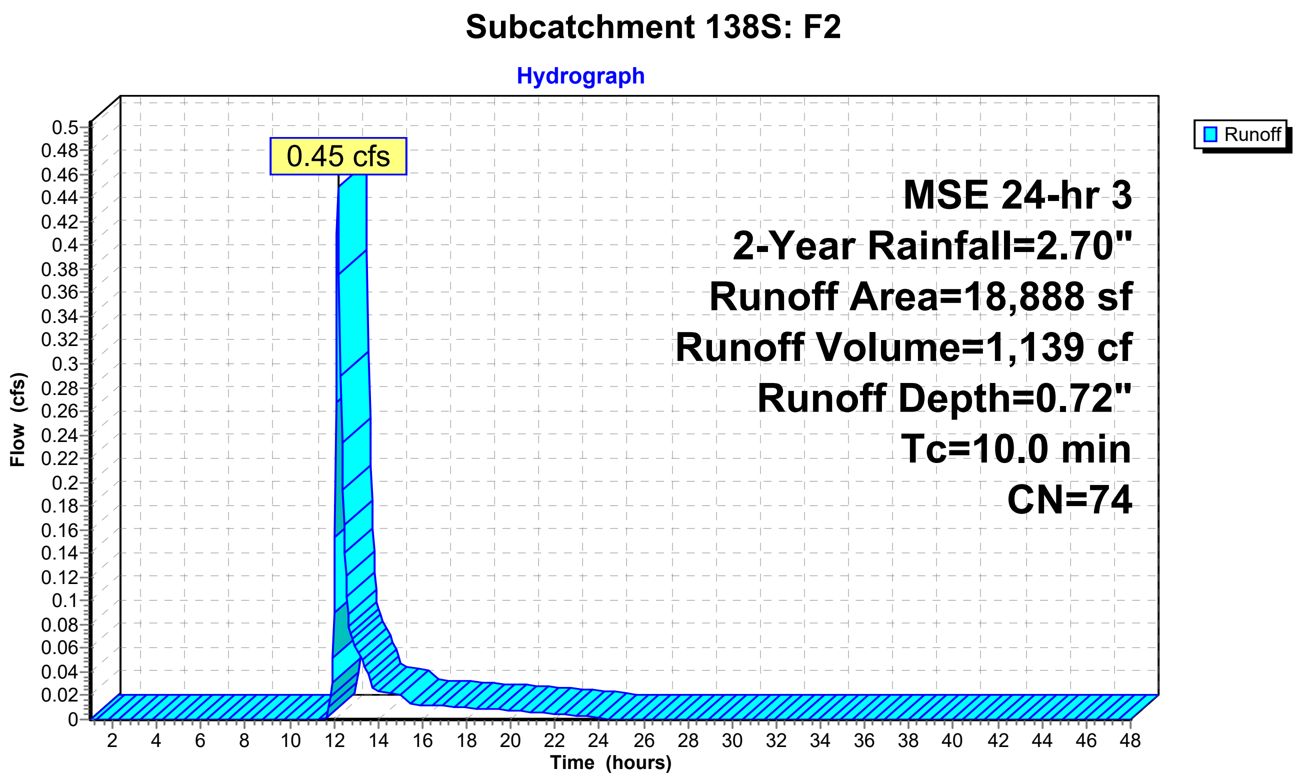
Summary for Subcatchment 138S: F2

Runoff = 0.45 cfs @ 12.19 hrs, Volume= 1,139 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	18,888	74	Landscape
	18,888		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, minimum**



Summary for Subcatchment 140S: H1

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

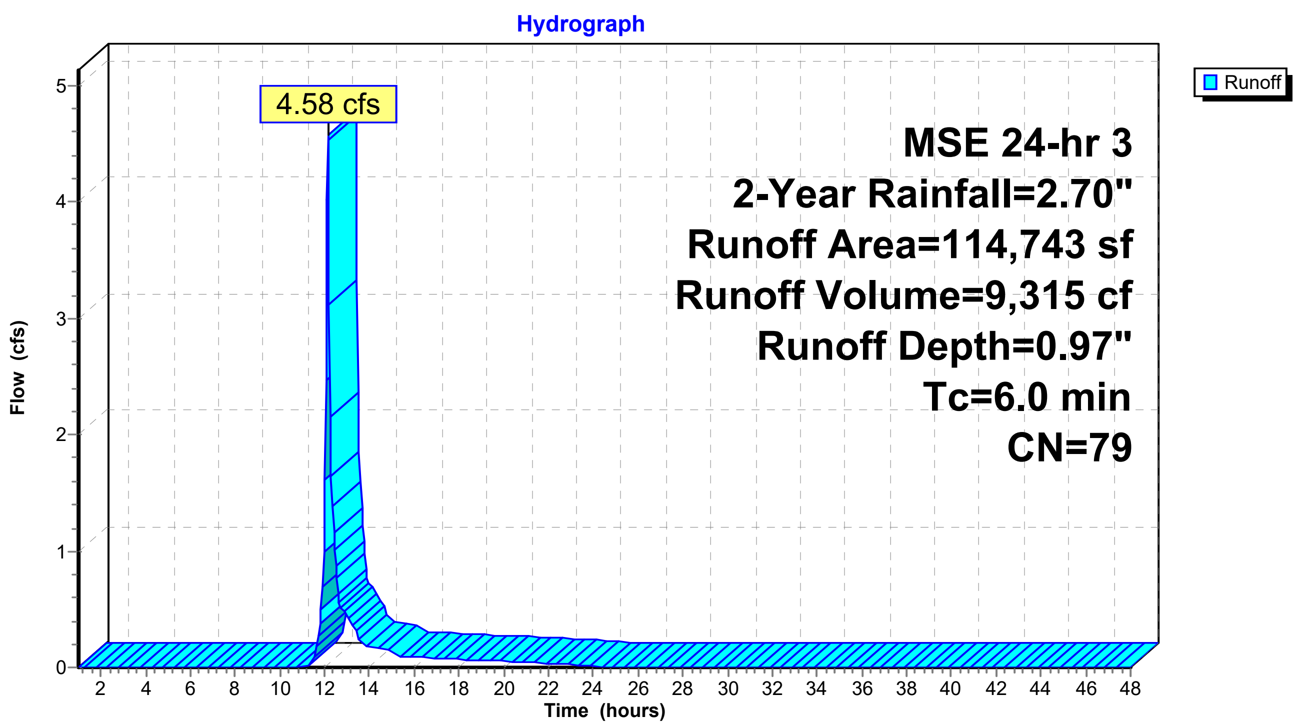
Runoff = 4.58 cfs @ 12.14 hrs, Volume= 9,315 cf, Depth= 0.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	9,481	98	roads
*	13,229	98	roof
*	92,033	74	landscape
	114,743	79	Weighted Average
	92,033		80.21% Pervious Area
	22,710		19.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 140S: H1



Summary for Subcatchment 141S: H2

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

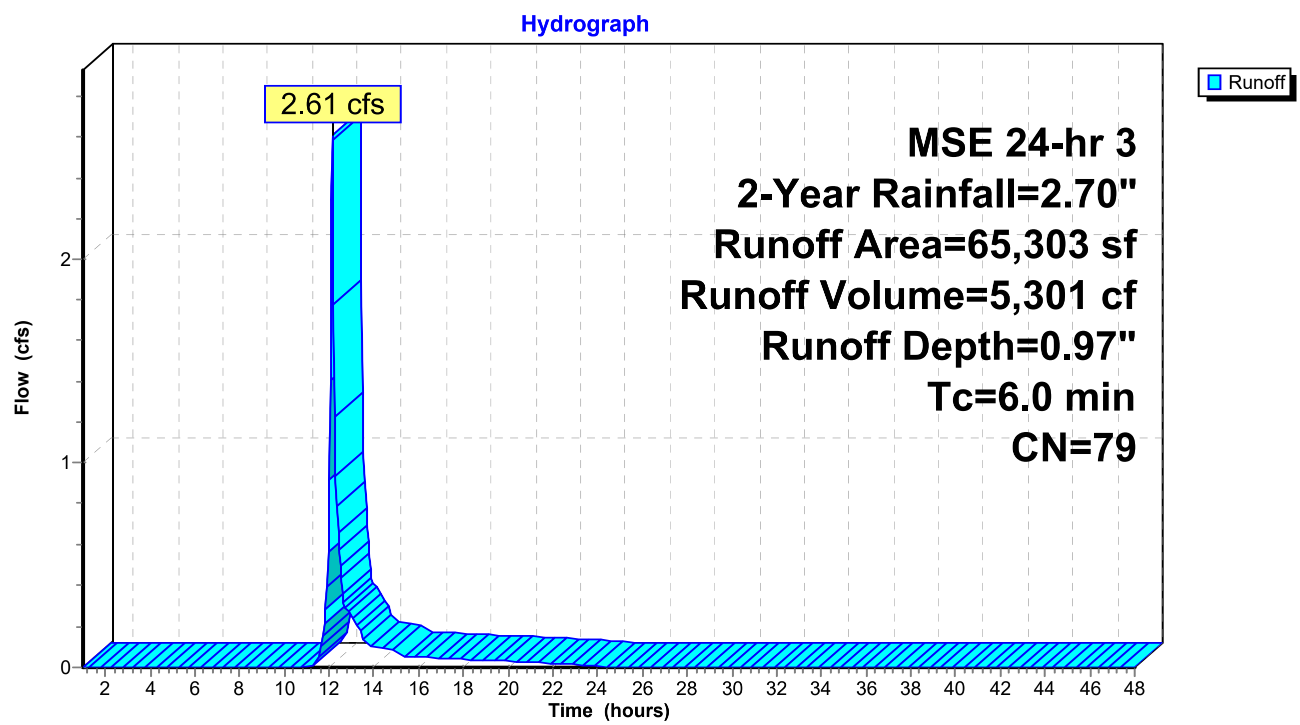
Runoff = 2.61 cfs @ 12.14 hrs, Volume= 5,301 cf, Depth= 0.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	4,833	98	roads
*	7,898	98	roof
*	52,572	74	landscape
	65,303	79	Weighted Average
	52,572		80.50% Pervious Area
	12,731		19.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 141S: H2



Summary for Subcatchment 142S: H3

3/3/21
Needs to be delineated, this is from Joe's SWMP2

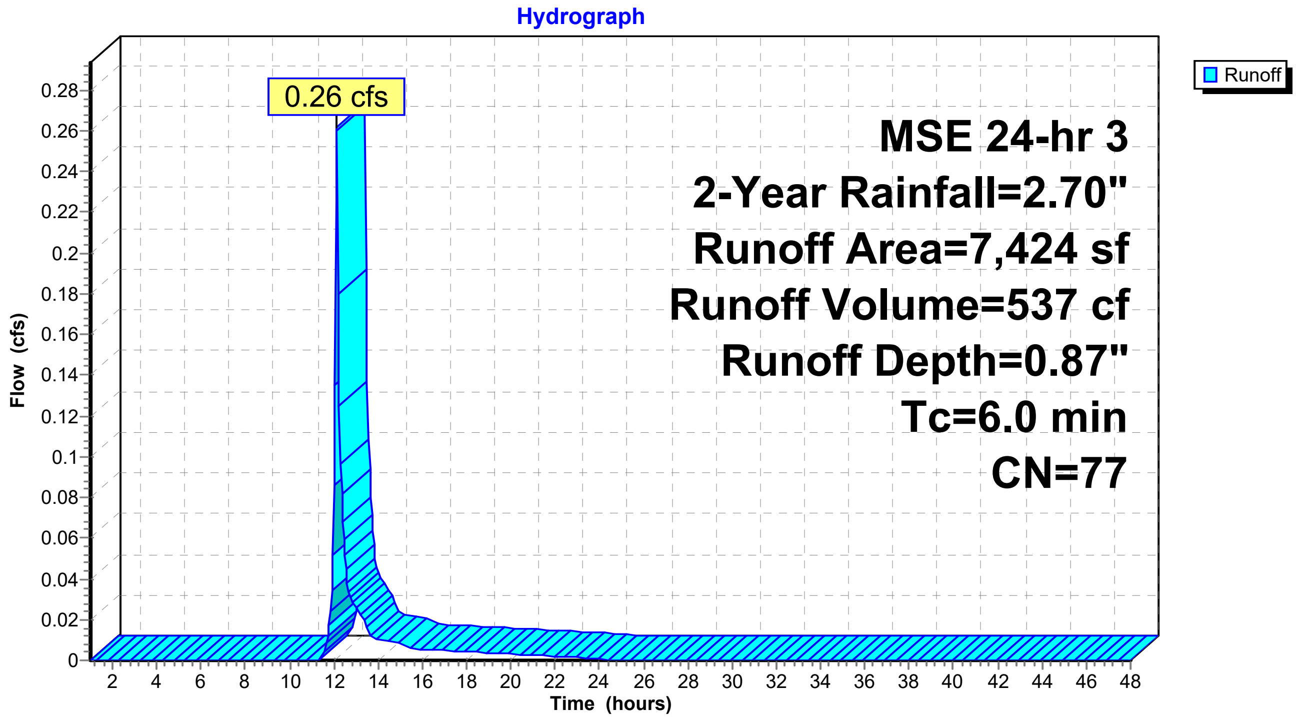
Runoff = 0.26 cfs @ 12.14 hrs, Volume= 537 cf, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	1,041	98	roads
*	6,383	74	landscape
	7,424	77	Weighted Average
	6,383		85.98% Pervious Area
	1,041		14.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 142S: H3



Summary for Subcatchment 143S: H4

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

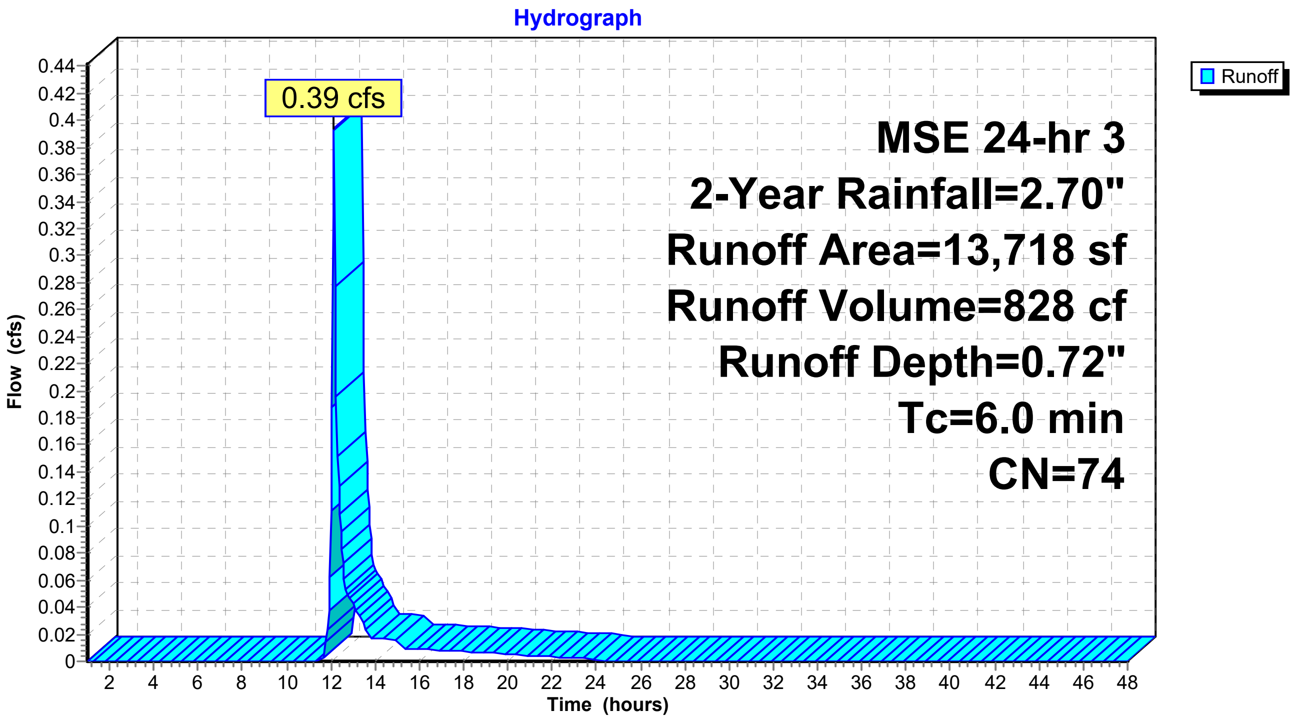
Runoff = 0.39 cfs @ 12.14 hrs, Volume= 828 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	13,718	74	landscape
	13,718		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 143S: H4



Summary for Subcatchment 144S: H5

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

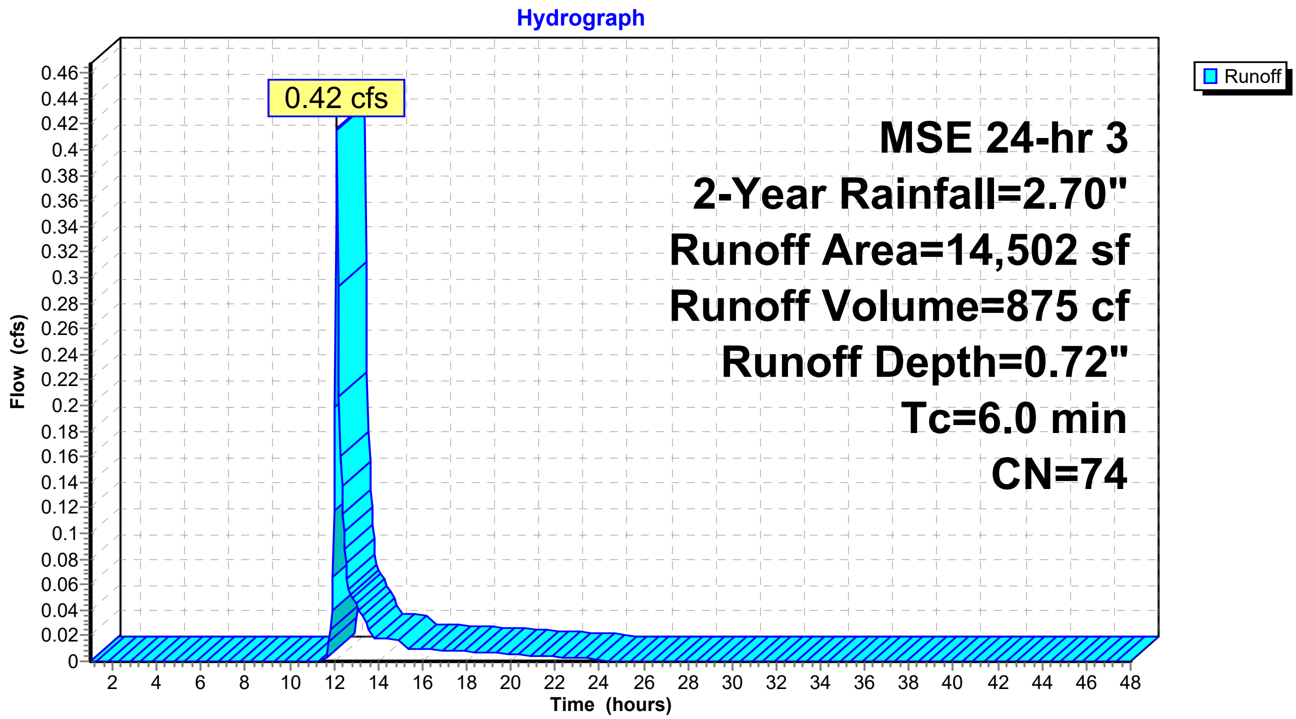
Runoff = 0.42 cfs @ 12.14 hrs, Volume= 875 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	14,502	74	landscape
	14,502		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 144S: H5



Summary for Subcatchment 145S: H6

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

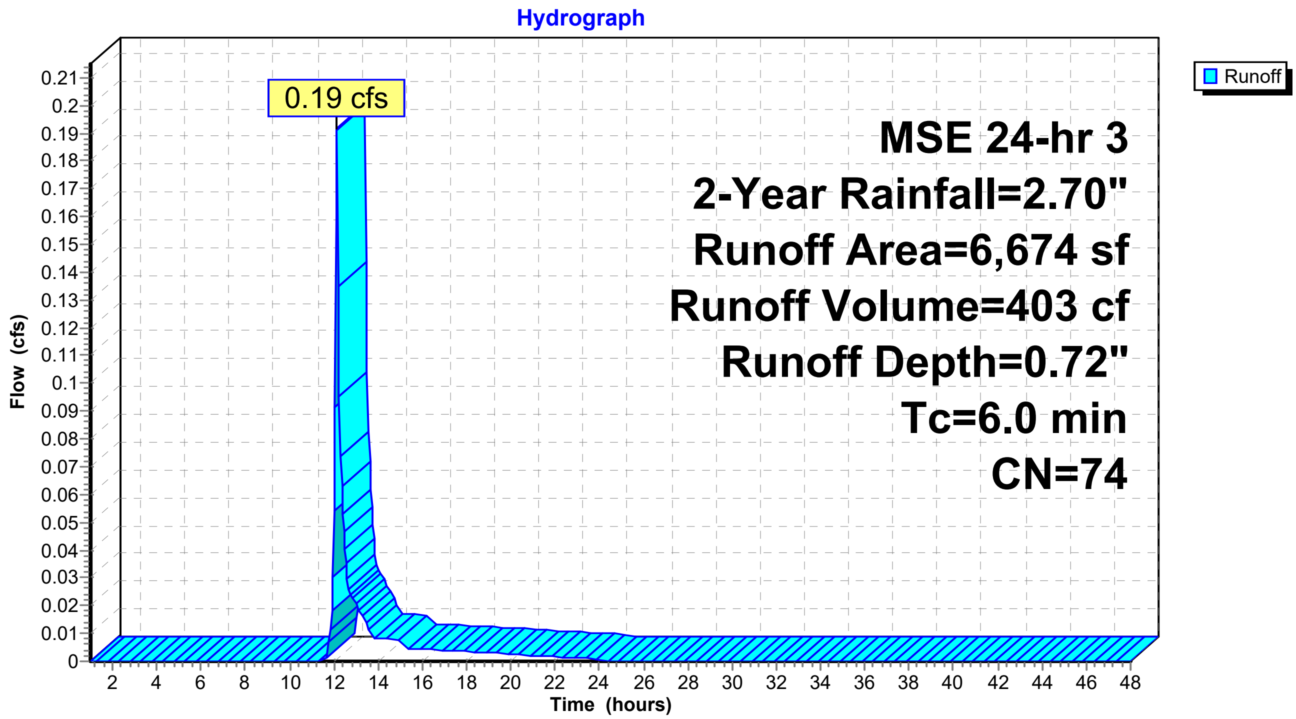
Runoff = 0.19 cfs @ 12.14 hrs, Volume= 403 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	6,674	74	landscape
	6,674		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 145S: H6



Summary for Subcatchment 146S: O2

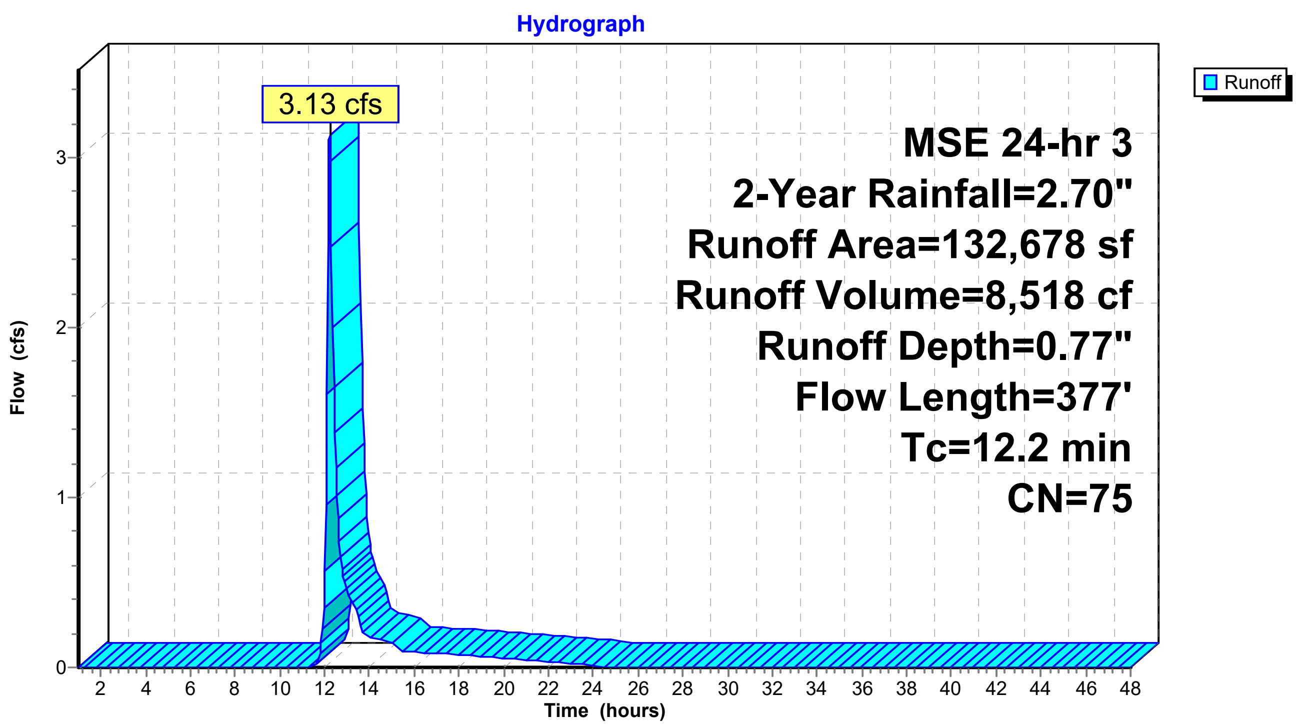
Runoff = 3.13 cfs @ 12.22 hrs, Volume= 8,518 cf, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	129,638	74	PERV
*	3,040	98	IMPERV
	132,678	75	Weighted Average
	129,638		97.71% Pervious Area
	3,040		2.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	77	0.0288	0.16		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.42"
4.3	300	0.0135	1.16		**Shallow Concentrated Flow, SHALLOW CONC** Nearly Bare & Untilled Kv= 10.0 fps
12.2	377	Total			

Subcatchment 146S: O2



Summary for Subcatchment 147S: J

3/3/21
Needs to be delineated, this is from Joe's SWMP2

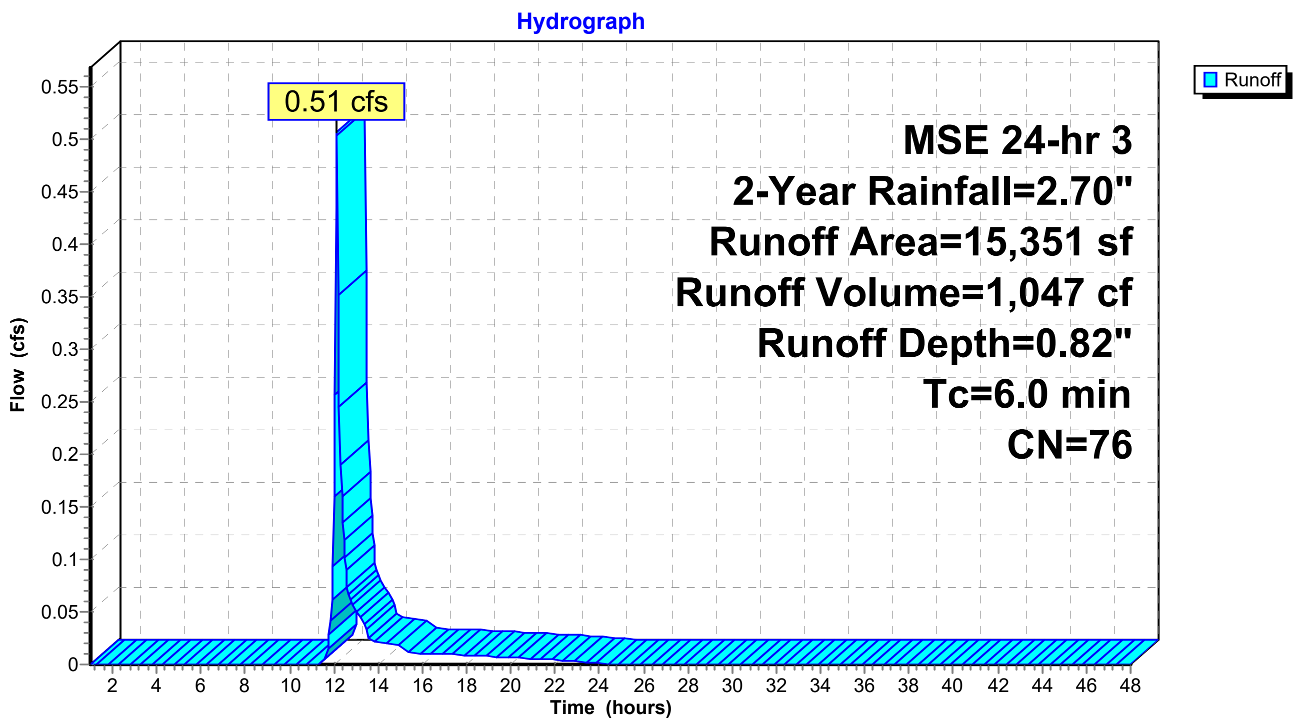
Runoff = 0.51 cfs @ 12.14 hrs, Volume= 1,047 cf, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 2-Year Rainfall=2.70"

	Area (sf)	CN	Description
*	1,360	98	walks
*	13,991	74	landscape
	15,351	76	Weighted Average
	13,991		91.14% Pervious Area
	1,360		8.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 147S: J



Summary for Reach 99R: East Swale (SE End)

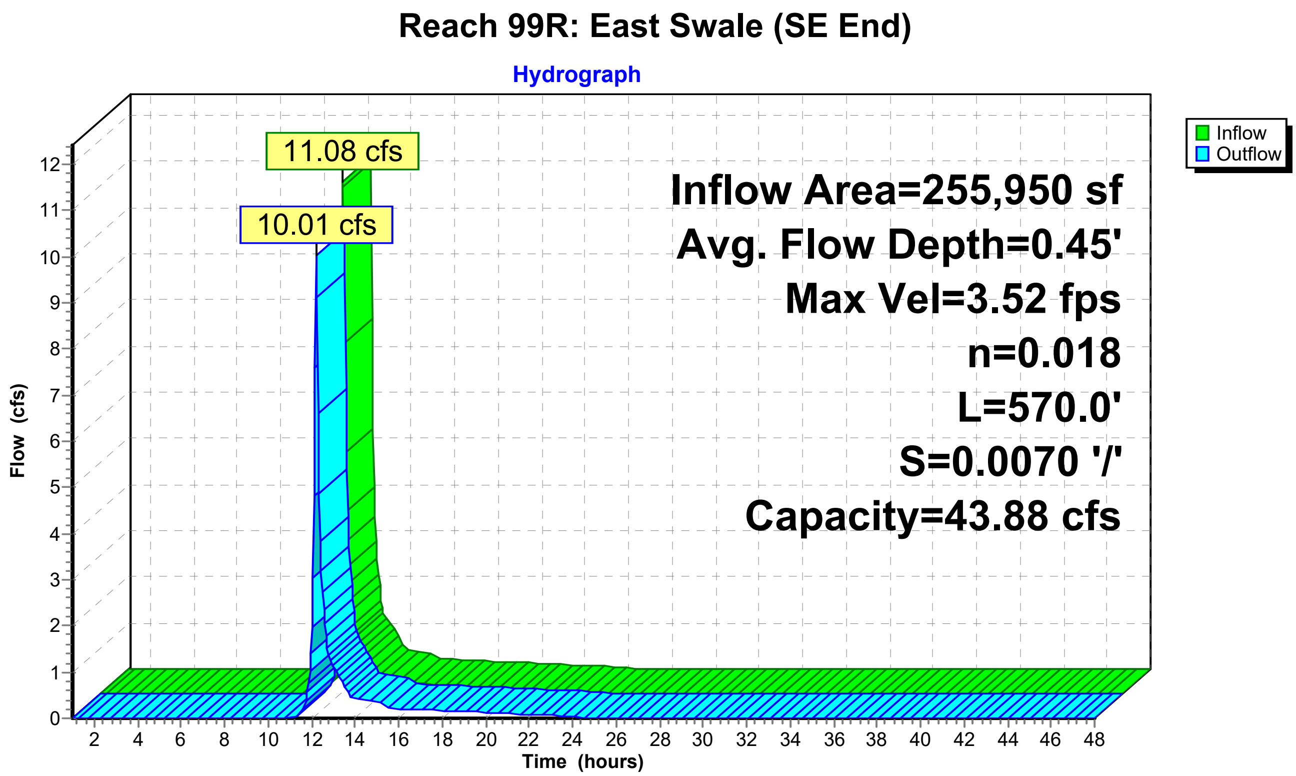
[62] Hint: Exceeded Reach 106R OUTLET depth by 0.36' @ 12.15 hrs

Inflow Area = 255,950 sf, 26.67% Impervious, Inflow Depth = 1.06" for 2-Year event
Inflow = 11.08 cfs @ 12.14 hrs, Volume= 22,550 cf
Outflow = 10.01 cfs @ 12.21 hrs, Volume= 22,550 cf, Atten= 10%, Lag= 4.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.52 fps, Min. Travel Time= 2.7 min
Avg. Velocity = 0.81 fps, Avg. Travel Time= 11.8 min

Peak Storage= 1,636 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 1.00' Flow Area= 8.0 sf, Capacity= 43.88 cfs

5.00' x 1.00' deep channel, n= 0.018
Side Slope Z-value= 3.0 '/' Top Width= 11.00'
Length= 570.0' Slope= 0.0070 '/'
Inlet Invert= 757.00', Outlet Invert= 753.00'



Summary for Reach 106R: East Swale (North End)

3/2/21
Slope Calc - (140' x 4.64%)

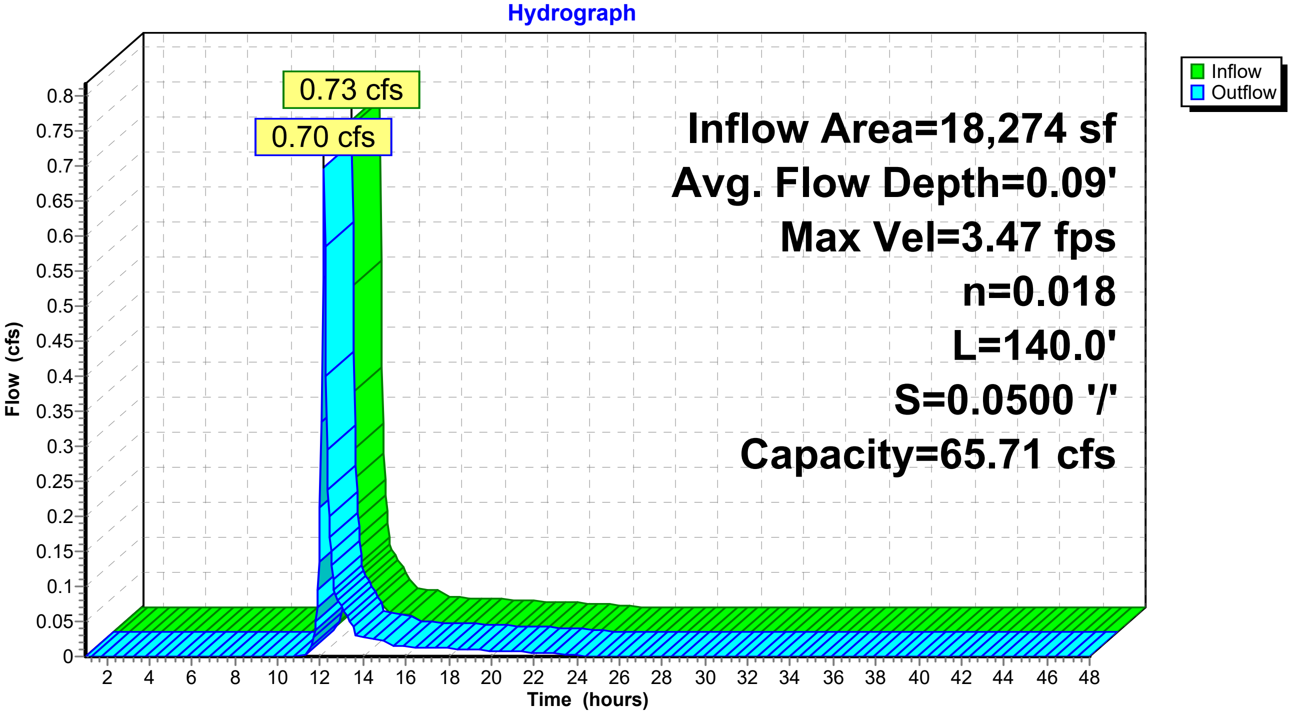
Inflow Area = 18,274 sf, 21.80% Impervious, Inflow Depth = 0.97" for 2-Year event
Inflow = 0.73 cfs @ 12.14 hrs, Volume= 1,483 cf
Outflow = 0.70 cfs @ 12.15 hrs, Volume= 1,483 cf, Atten= 4%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.47 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 1.01 fps, Avg. Travel Time= 2.3 min

Peak Storage= 29 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.09'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 65.71 cfs

2.00' x 1.00' deep channel, n= 0.018 Earth, clean & straight
Side Slope Z-value= 3.0 '/' Top Width= 8.00'
Length= 140.0' Slope= 0.0500 '/'
Inlet Invert= 764.00', Outlet Invert= 757.00'

Reach 106R: East Swale (North End)



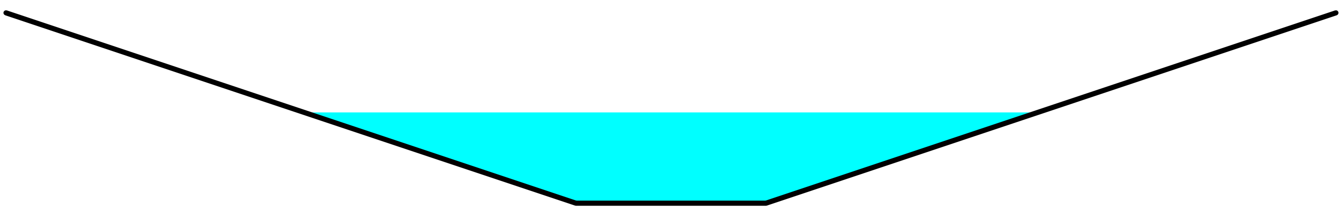
Summary for Reach 108R: South Berm Swale

Inflow Area = 121,432 sf, 10.48% Impervious, Inflow Depth = 0.86" for 2-Year event
Inflow = 2.77 cfs @ 12.14 hrs, Volume= 8,687 cf
Outflow = 2.51 cfs @ 12.20 hrs, Volume= 8,687 cf, Atten= 9%, Lag= 3.7 min

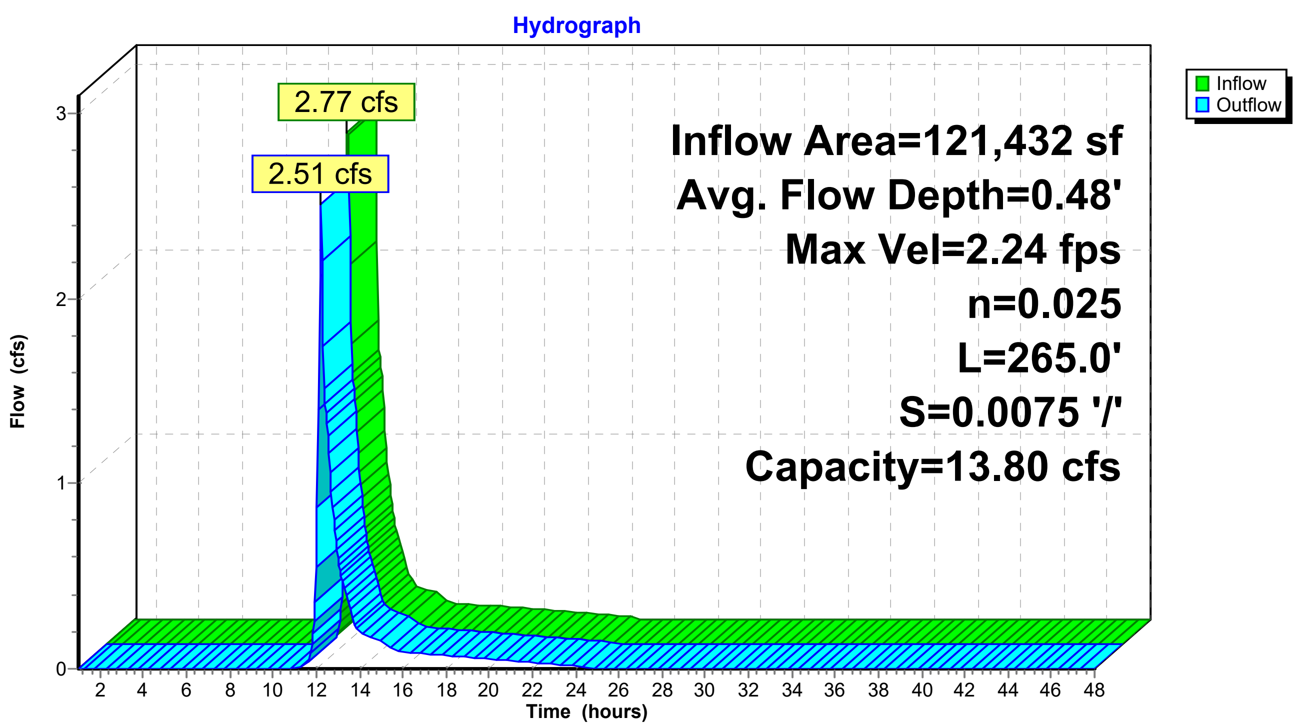
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.24 fps, Min. Travel Time= 2.0 min
Avg. Velocity = 0.79 fps, Avg. Travel Time= 5.6 min

Peak Storage= 307 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.48'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 13.80 cfs

1.00' x 1.00' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.00'
Length= 265.0' Slope= 0.0075 '/'
Inlet Invert= 754.00', Outlet Invert= 752.00'



Reach 108R: South Berm Swale



Summary for Reach 109R: SC Road East Ditch

3/3/21
Ditch on north and west side of cul-de-sac road

Inflow Area =	43,646 sf, 58.34% Impervious,	Inflow Depth = 1.55"	for 2-Year event
Inflow =	2.77 cfs @ 12.13 hrs, Volume=	5,653 cf	
Outflow =	2.34 cfs @ 12.23 hrs, Volume=	5,653 cf, Atten= 16%, Lag= 6.1 min	

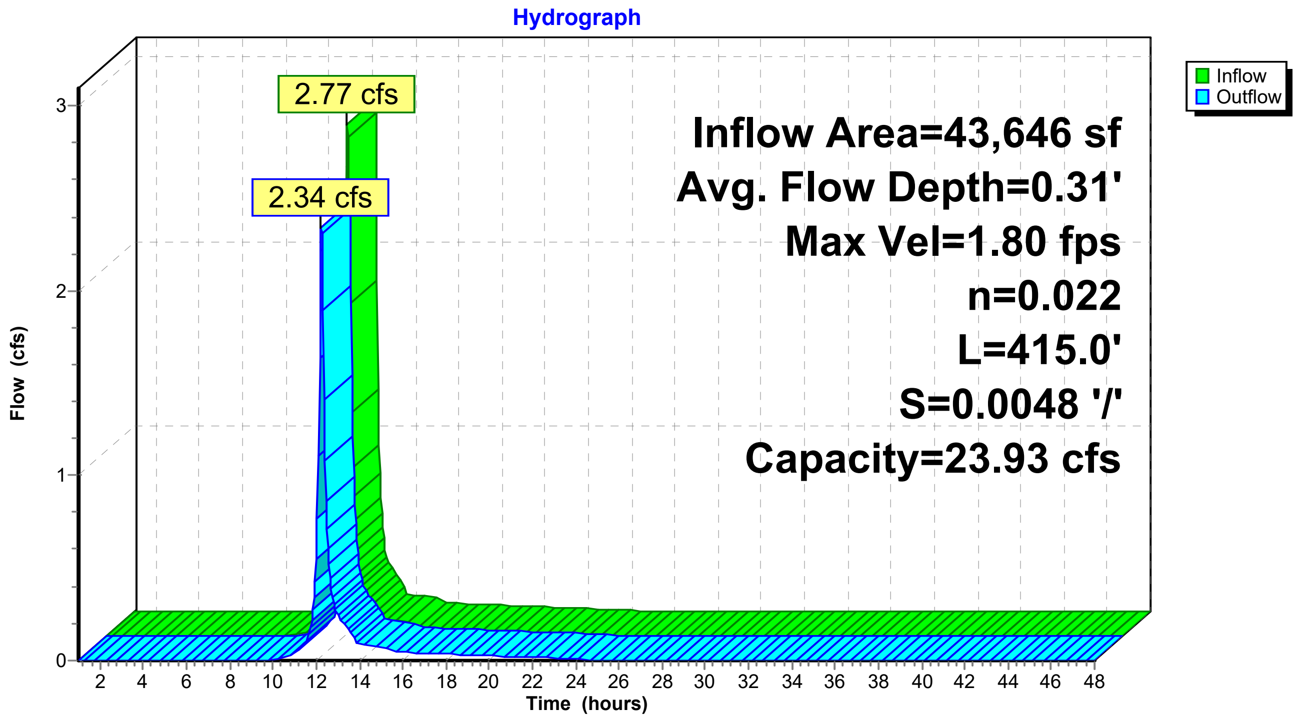
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.80 fps, Min. Travel Time= 3.8 min
Avg. Velocity = 0.43 fps, Avg. Travel Time= 16.0 min

Peak Storage= 556 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.31'
Bank-Full Depth= 1.00' Flow Area= 7.0 sf, Capacity= 23.93 cfs

3.00' x 1.00' deep channel, n= 0.022
Side Slope Z-value= 4.0 '/' Top Width= 11.00'
Length= 415.0' Slope= 0.0048 '/'
Inlet Invert= 747.00', Outlet Invert= 745.00'

‡

Reach 109R: SC Road East Ditch



Summary for Reach 111R: Western PL North Ditch

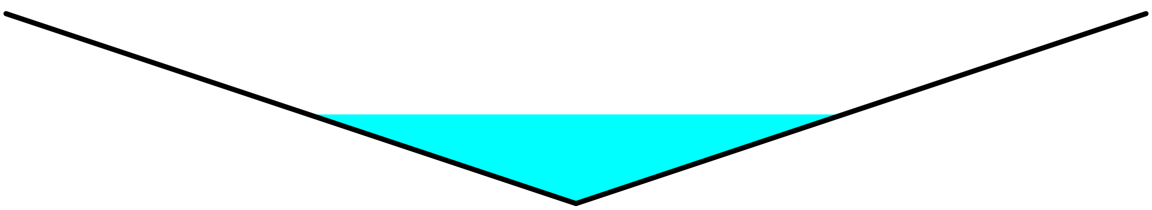
3/3/21
This is the western property line ditch that takes offsite flow and western building courtyard flow to IB
update length we shortened in screen share

Inflow Area = 125,111 sf, 9.17% Impervious, Inflow Depth = 0.84" for 2-Year event
Inflow = 3.96 cfs @ 12.15 hrs, Volume= 8,732 cf
Outflow = 3.51 cfs @ 12.23 hrs, Volume= 8,732 cf, Atten= 11%, Lag= 4.7 min

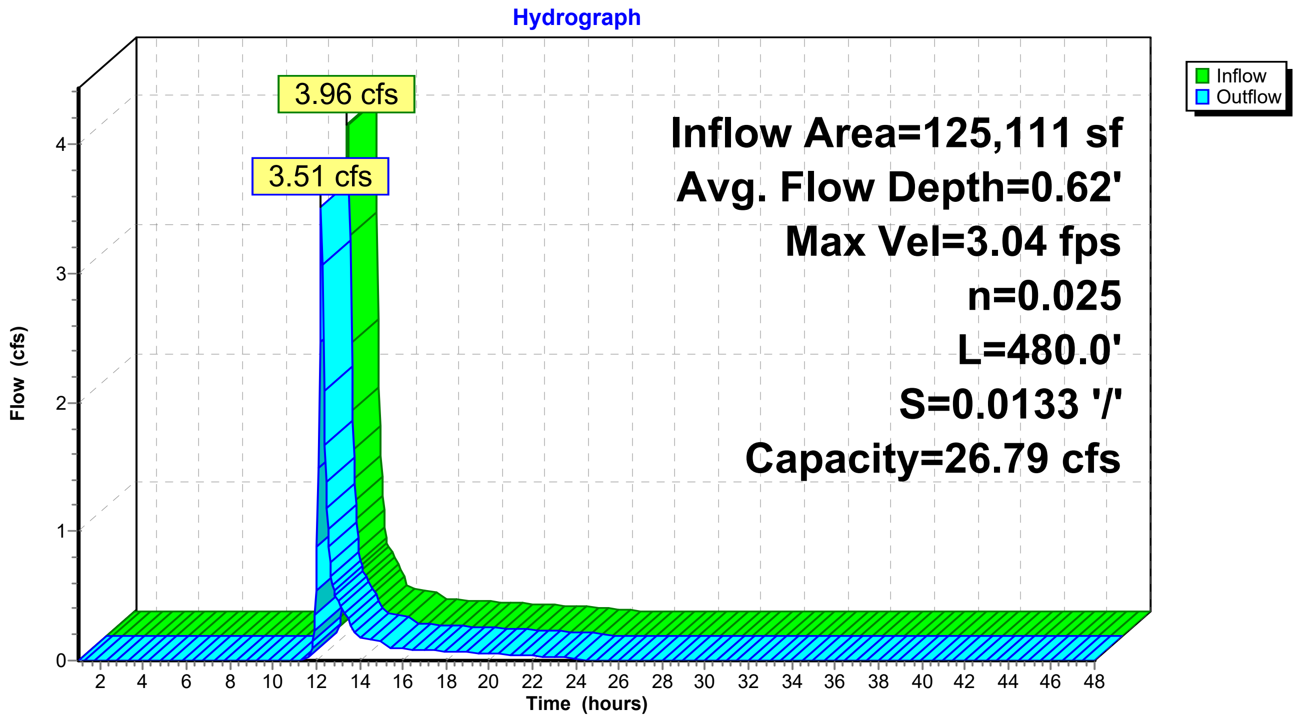
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.04 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 1.10 fps, Avg. Travel Time= 7.3 min

Peak Storage= 561 cf @ 12.18 hrs
Average Depth at Peak Storage= 0.62'
Bank-Full Depth= 1.33' Flow Area= 5.3 sf, Capacity= 26.79 cfs

0.00' x 1.33' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.98'
Length= 480.0' Slope= 0.0133 '/'
Inlet Invert= 755.50', Outlet Invert= 749.10'



Reach 111R: Western PL North Ditch



Summary for Reach 117R: SC Road West Ditch

3/3/21
Ditch on north and west side of cul-de-sac road

Inflow Area = 54,287 sf, 55.18% Impervious, Inflow Depth = 1.48" for 2-Year event
Inflow = 3.29 cfs @ 12.13 hrs, Volume= 6,696 cf
Outflow = 2.70 cfs @ 12.25 hrs, Volume= 6,696 cf, Atten= 18%, Lag= 7.0 min

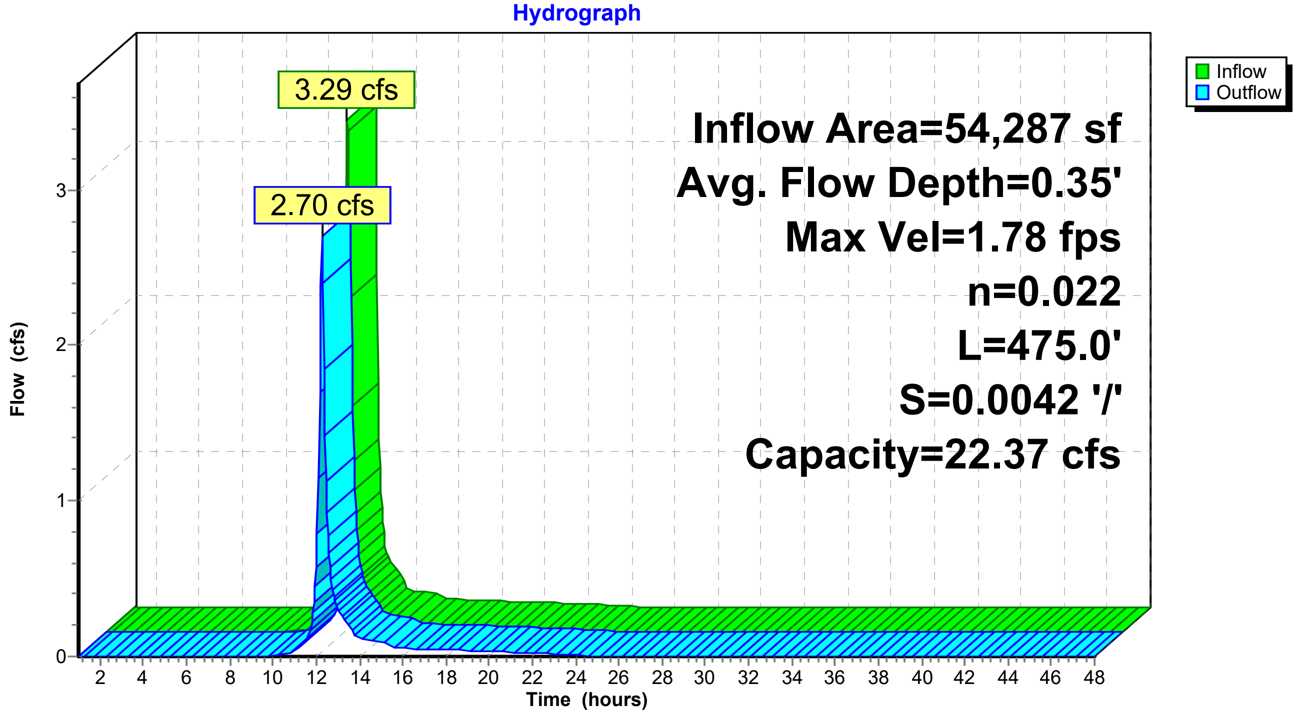
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.78 fps, Min. Travel Time= 4.4 min
Avg. Velocity = 0.43 fps, Avg. Travel Time= 18.4 min

Peak Storage= 738 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.35'
Bank-Full Depth= 1.00' Flow Area= 7.0 sf, Capacity= 22.37 cfs

3.00' x 1.00' deep channel, n= 0.022
Side Slope Z-value= 4.0 '/' Top Width= 11.00'
Length= 475.0' Slope= 0.0042 '/'
Inlet Invert= 747.00', Outlet Invert= 745.00'

‡

Reach 117R: SC Road West Ditch

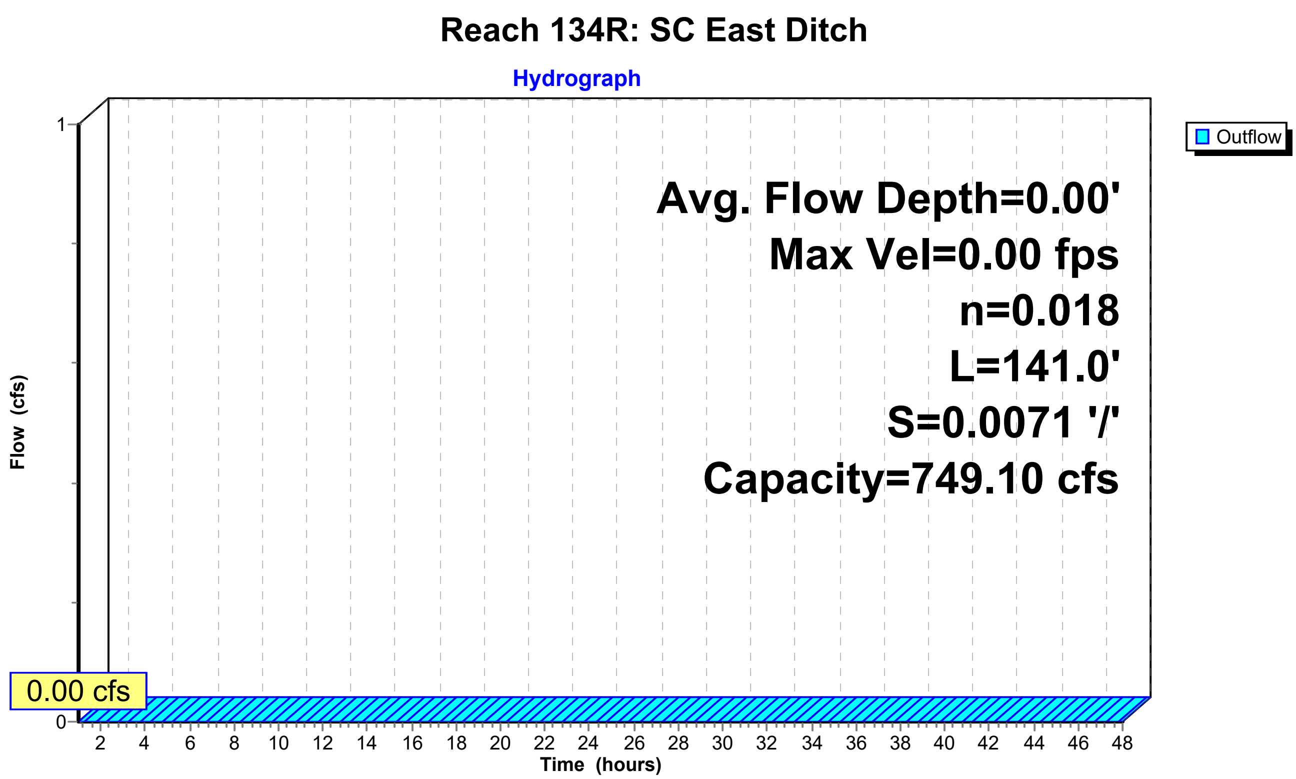


Summary for Reach 134R: SC East Ditch

[43] Hint: Has no inflow (Outflow=Zero)

Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 749.10 cfs

4.00' x 4.00' deep channel, n= 0.018
Side Slope Z-value= 3.0 '/' Top Width= 28.00'
Length= 141.0' Slope= 0.0071 '/'
Inlet Invert= 748.50', Outlet Invert= 747.50'



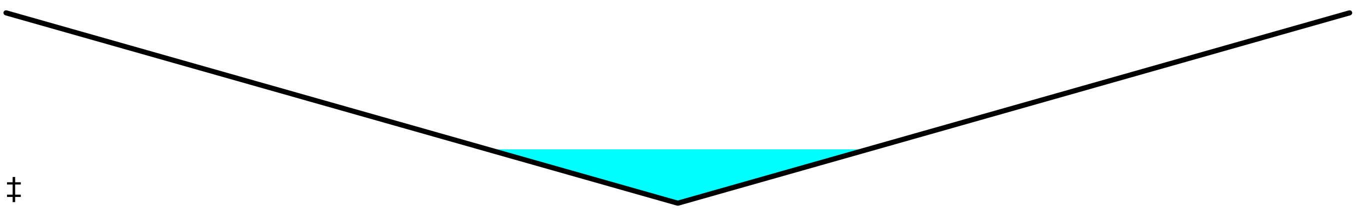
Summary for Reach 136R: SC West Ditch

Inflow Area = 281,666 sf, 11.70% Impervious, Inflow Depth = 0.06" for 2-Year event
Inflow = 0.67 cfs @ 12.14 hrs, Volume= 1,379 cf
Outflow = 0.59 cfs @ 12.21 hrs, Volume= 1,379 cf, Atten= 11%, Lag= 4.2 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.52 fps, Min. Travel Time= 2.4 min
Avg. Velocity = 0.57 fps, Avg. Travel Time= 6.3 min

Peak Storage= 87 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 17.70 cfs

0.00' x 1.00' deep channel, n= 0.025
Side Slope Z-value= 5.0 '/' Top Width= 10.00'
Length= 218.0' Slope= 0.0092 '/'
Inlet Invert= 745.00', Outlet Invert= 743.00'



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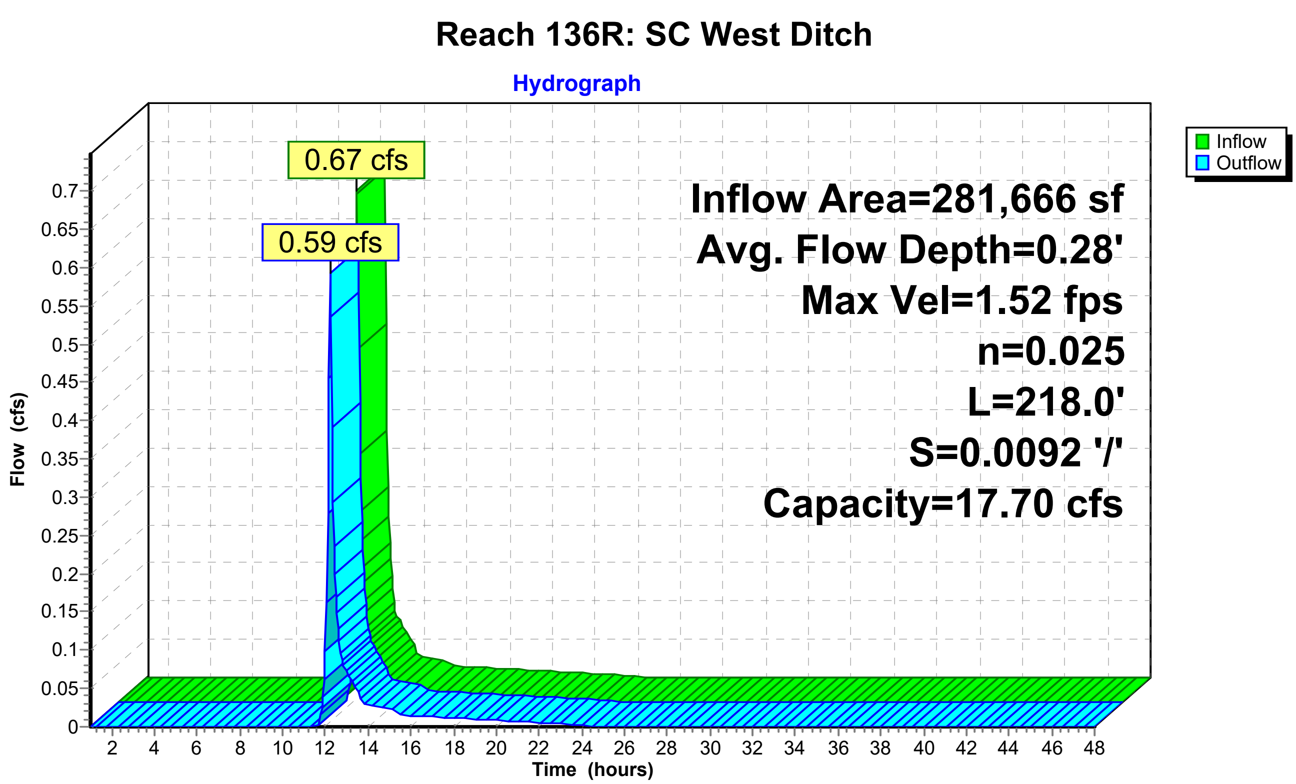
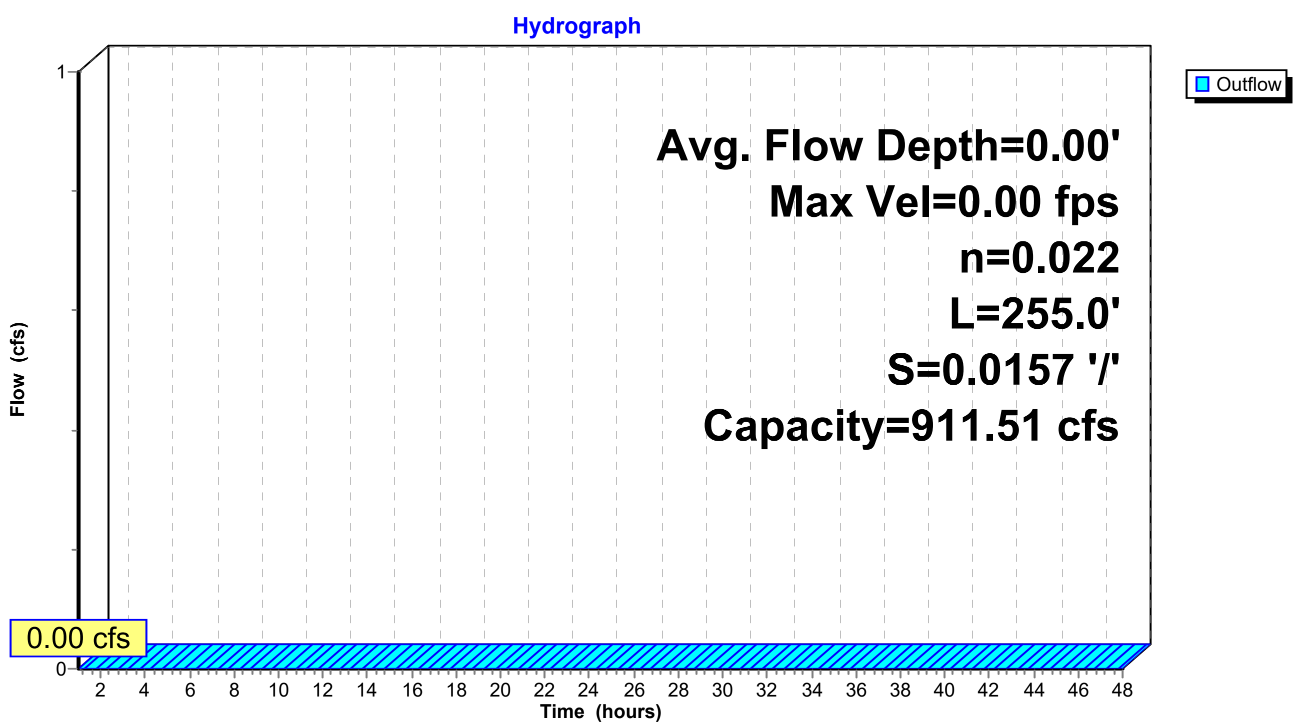


Summary for Reach 137R: SC East Ditch

[43] Hint: Has no inflow (Outflow=Zero)

Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 911.51 cfs

4.00' x 4.00' deep channel, n= 0.022
Side Slope Z-value= 3.0 '/' Top Width= 28.00'
Length= 255.0' Slope= 0.0157 '/'
Inlet Invert= 747.00', Outlet Invert= 743.00'



Summary for Reach 151R: Western PL North Ditch

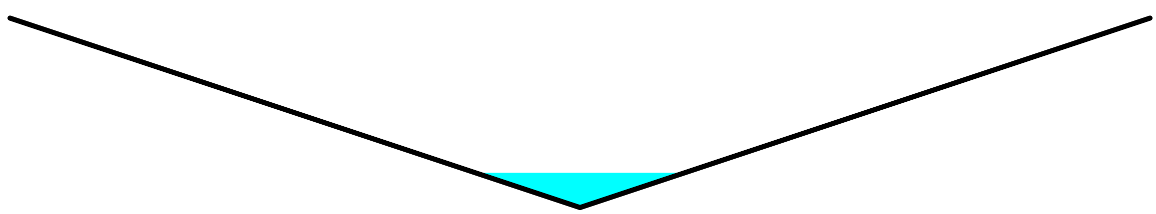
3/3/21
This is the western property line ditch that takes offsite flow and western building courtyard flow to IB
update length we shortened in screen share

Inflow Area = 8,234 sf, 12.90% Impervious, Inflow Depth = 0.87" for 2-Year event
Inflow = 0.29 cfs @ 12.14 hrs, Volume= 596 cf
Outflow = 0.26 cfs @ 12.21 hrs, Volume= 596 cf, Atten= 11%, Lag= 4.4 min

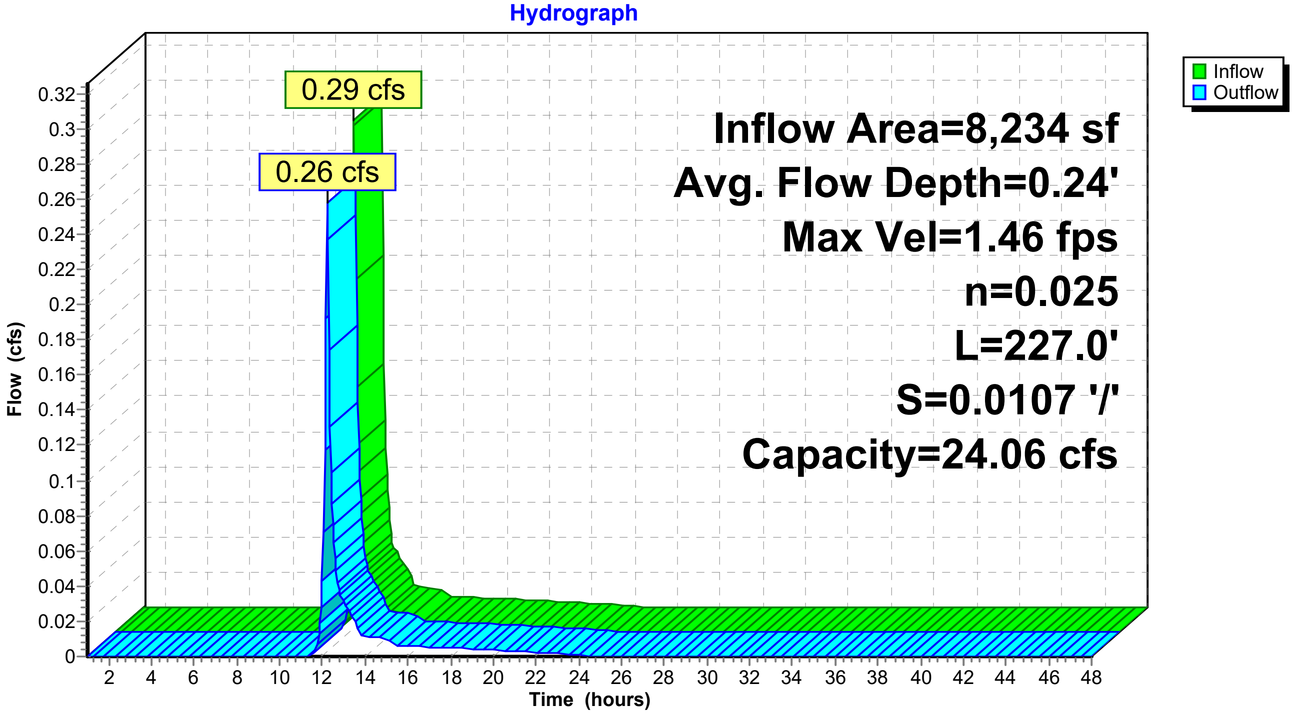
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.46 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 0.56 fps, Avg. Travel Time= 6.7 min

Peak Storage= 41 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.24'
Bank-Full Depth= 1.33' Flow Area= 5.3 sf, Capacity= 24.06 cfs

0.00' x 1.33' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.98'
Length= 227.0' Slope= 0.0107 '/'
Inlet Invert= 751.54', Outlet Invert= 749.10'



Reach 151R: Western PL North Ditch



Summary for Pond 33P: Rain Garden East

Inflow Area = 3,249 sf, 0.00% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 0.09 cfs @ 12.14 hrs, Volume= 196 cf
Outflow = 0.02 cfs @ 12.57 hrs, Volume= 128 cf, Atten= 83%, Lag= 25.6 min
Primary = 0.02 cfs @ 12.57 hrs, Volume= 128 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 744.09' @ 12.57 hrs Surf.Area= 220 sf Storage= 86 cf

Plug-Flow detention time= 192.3 min calculated for 128 cf (65% of inflow)
Center-of-Mass det. time= 97.4 min (934.5 - 837.0)

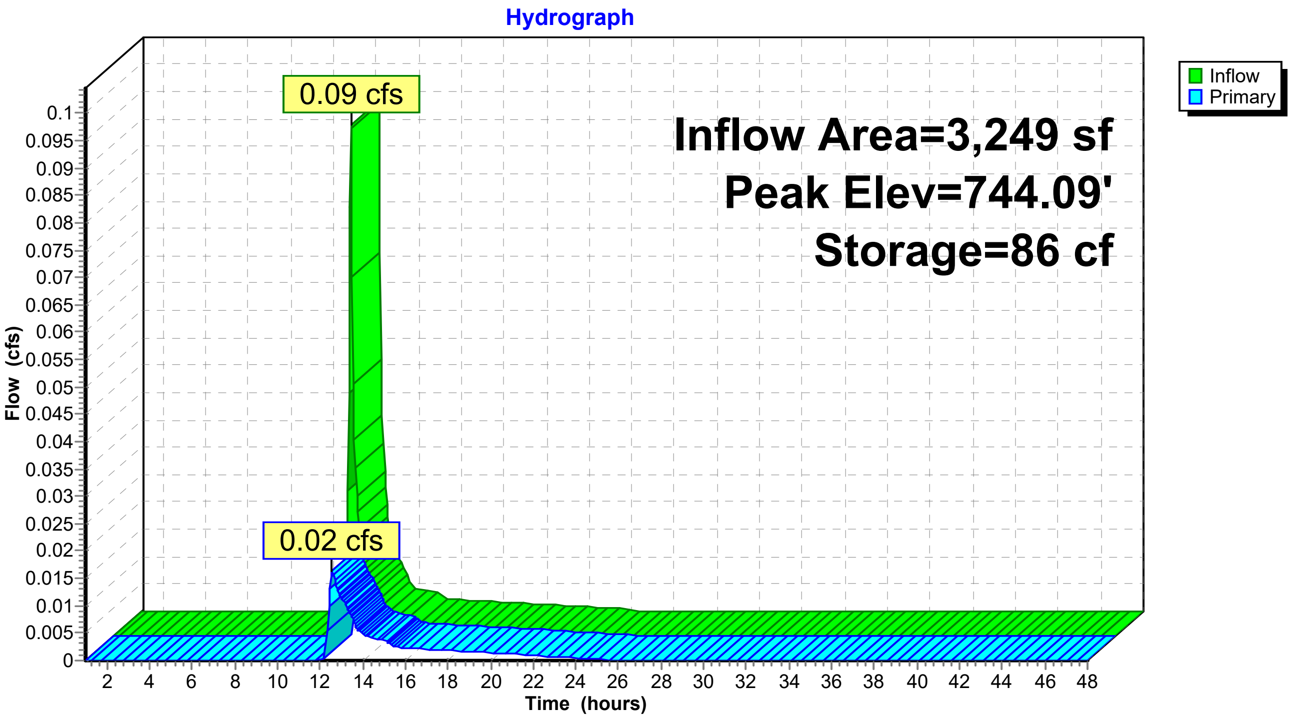
Volume	Invert	Avail.Storage	Storage Description
#1	743.00'	286 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
743.00	220	0.0	0	0
743.01	220	27.0	1	1
743.50	220	27.0	29	30
743.51	220	33.0	1	30
744.00	220	33.0	36	66
744.01	220	100.0	2	68
745.00	220	100.0	218	286

Device	Routing	Invert	Outlet Devices
#1	Primary	744.01'	**4.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	744.99'	**20.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.02 cfs @ 12.57 hrs HW=744.09' (Free Discharge)
1=Orifice/Grate (Orifice Controls 0.02 cfs @ 0.97 fps)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 33P: Rain Garden East



Summary for Pond 36P: Rain Garden West

Inflow Area = 3,393 sf, 0.00% Impervious, Inflow Depth = 0.72" for 2-Year event
Inflow = 0.10 cfs @ 12.14 hrs, Volume= 205 cf
Outflow = 0.02 cfs @ 12.54 hrs, Volume= 136 cf, Atten= 81%, Lag= 24.0 min
Primary = 0.02 cfs @ 12.54 hrs, Volume= 136 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 743.60' @ 12.54 hrs Surf.Area= 220 sf Storage= 87 cf

Plug-Flow detention time= 184.5 min calculated for 136 cf (67% of inflow)
Center-of-Mass det. time= 92.6 min (929.6 - 837.0)

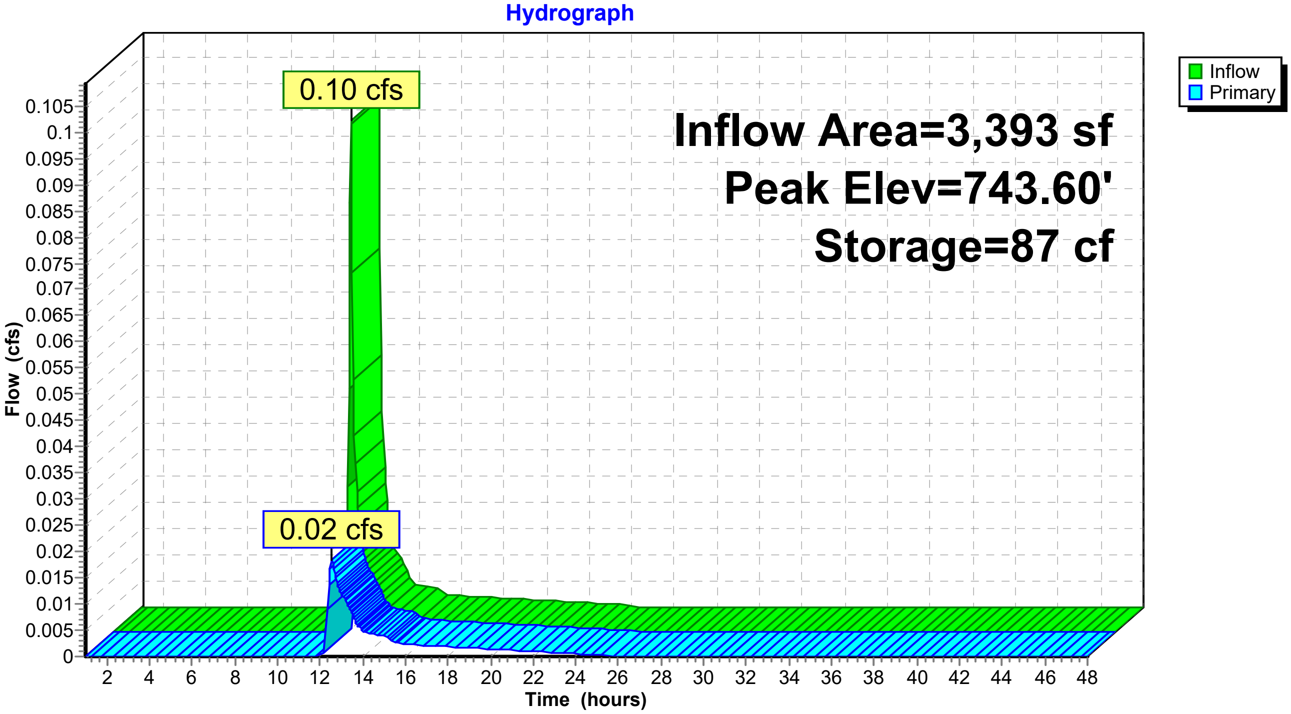
Volume	Invert	Avail.Storage	Storage Description
#1	742.50'	286 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
742.50	220	0.0	0	0
742.51	220	27.0	1	1
743.00	220	27.0	29	30
743.01	220	33.0	1	30
743.50	220	33.0	36	66
743.51	220	100.0	2	68
744.50	220	100.0	218	286

Device	Routing	Invert	Outlet Devices
#1	Primary	743.51'	**4.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	744.49'	**10.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.02 cfs @ 12.54 hrs HW=743.60' (Free Discharge)
1=Orifice/Grate (Orifice Controls 0.02 cfs @ 1.00 fps)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 36P: Rain Garden West

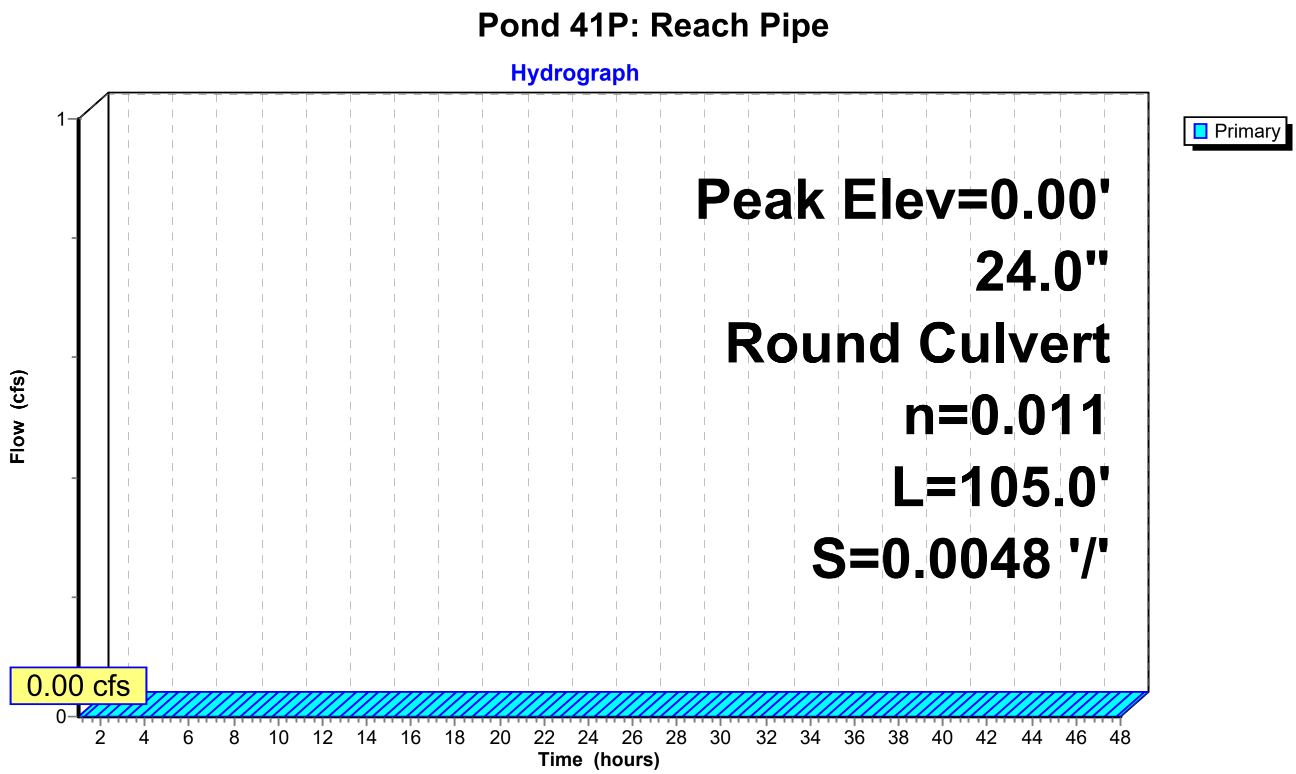


Summary for Pond 41P: Reach Pipe

[43] Hint: Has no inflow (Outflow=Zero)

Device	Routing	Invert	Outlet Devices
#1	Primary	747.50'	**24.0" Round Culvert** L= 105.0' Ke= 0.500 Inlet / Outlet Invert= 747.50' / 747.00' S= 0.0048 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 57P: Dry Pond 2

Inflow Area = 158,954 sf, 10.66% Impervious, Inflow Depth = 0.86" for 2-Year event
Inflow = 3.30 cfs @ 12.21 hrs, Volume= 11,375 cf
Outflow = 0.14 cfs @ 15.47 hrs, Volume= 11,375 cf, Atten= 96%, Lag= 196.1 min
Discarded = 0.14 cfs @ 15.47 hrs, Volume= 11,375 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 749.68' @ 15.47 hrs Surf.Area= 11,418 sf Storage= 7,364 cf

Plug-Flow detention time= 582.7 min calculated for 11,363 cf (100% of inflow)
Center-of-Mass det. time= 583.0 min (1,424.7 - 841.8)

Volume	Invert	Avail.Storage	Storage Description
#1	749.00'	38,350 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

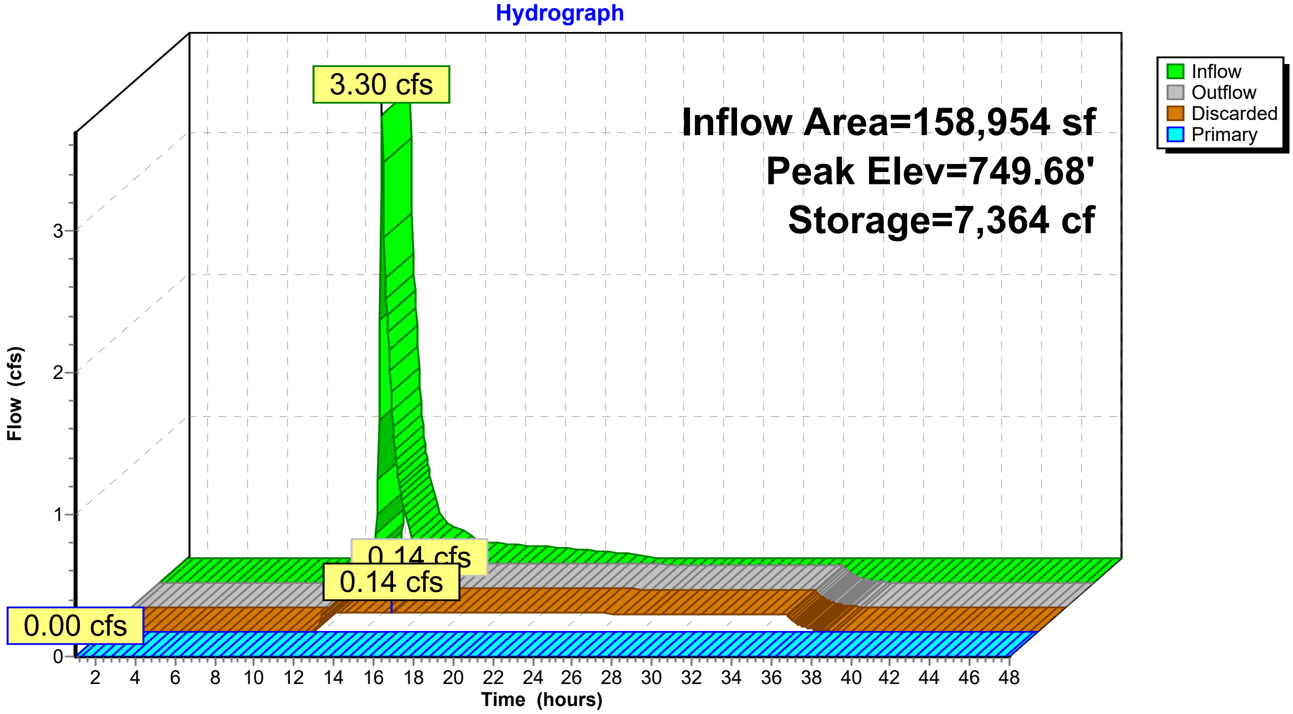
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
749.00	10,334	0	0
750.00	11,935	11,135	11,135
751.00	13,594	12,765	23,899
752.00	15,308	14,451	38,350

Device	Routing	Invert	Outlet Devices
#1	Primary	750.00'	**12.0" Round Culvert X 2.00** L= 75.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 750.00' / 749.00' S= 0.0133 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	751.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Discarded	749.00'	**0.500 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.14 cfs @ 15.47 hrs HW=749.68' (Free Discharge)
└─**3=Exfiltration** (Controls 0.14 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=749.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)
  └─**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 57P: Dry Pond 2



Summary for Pond 58P: Dry Pond 1

Inflow Area = 603,487 sf, 45.57% Impervious, Inflow Depth > 1.31" for 2-Year event
Inflow = 15.86 cfs @ 12.17 hrs, Volume= 65,926 cf
Outflow = 3.96 cfs @ 12.57 hrs, Volume= 65,919 cf, Atten= 75%, Lag= 24.0 min
Discarded = 3.96 cfs @ 12.57 hrs, Volume= 65,919 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 750.43' @ 12.57 hrs Surf.Area= 28,144 sf Storage= 11,823 cf

Plug-Flow detention time= 17.9 min calculated for 65,919 cf (100% of inflow)
Center-of-Mass det. time= 17.7 min (985.3 - 967.6)

Volume	Invert	Avail.Storage	Storage Description
#1	750.00'	131,829 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

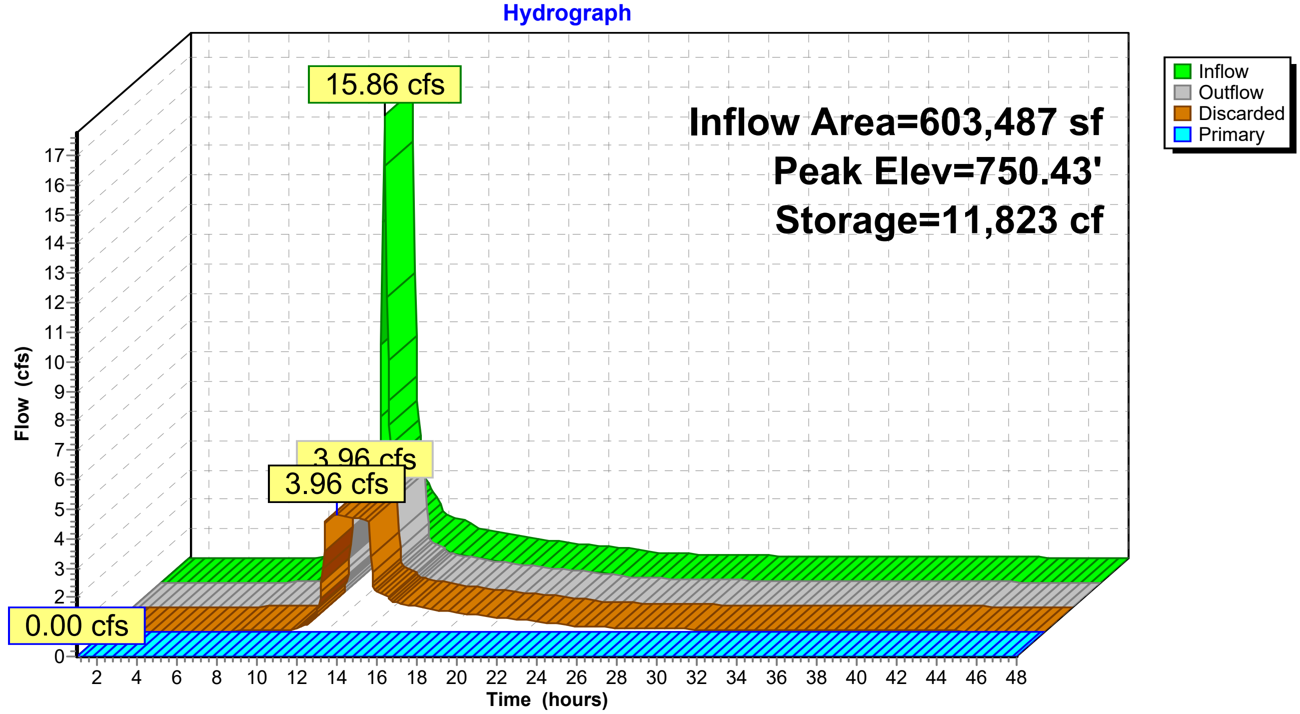
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
750.00	26,853	0	0
751.00	29,856	28,355	28,355
752.00	32,915	31,386	59,740
753.00	36,030	34,473	94,213
754.00	39,203	37,617	131,829

Device	Routing	Invert	Outlet Devices
#1	Primary	753.00'	**12.0" Round Culvert** L= 48.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 753.00' / 752.00' S= 0.0208 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	753.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	753.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Discarded	750.00'	**6.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=3.96 cfs @ 12.57 hrs HW=750.43' (Free Discharge)
└─**4=Exfiltration** (Controls 3.96 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=750.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)
  ├─**2=Orifice/Grate** (Controls 0.00 cfs)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 58P: Dry Pond 1



Summary for Pond 60P: Infiltration Basin #1

Inflow Area = 261,451 sf, 11.81% Impervious, Inflow Depth = 0.86" for 2-Year event
Inflow = 6.78 cfs @ 12.24 hrs, Volume= 18,683 cf
Outflow = 0.77 cfs @ 13.34 hrs, Volume= 18,683 cf, Atten= 89%, Lag= 66.3 min
Discarded = 0.77 cfs @ 13.34 hrs, Volume= 18,683 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 738.85' @ 13.34 hrs Surf.Area= 0.083 ac Storage= 0.201 af

Plug-Flow detention time= 135.3 min calculated for 18,663 cf (100% of inflow)
Center-of-Mass det. time= 135.2 min (973.0 - 837.9)

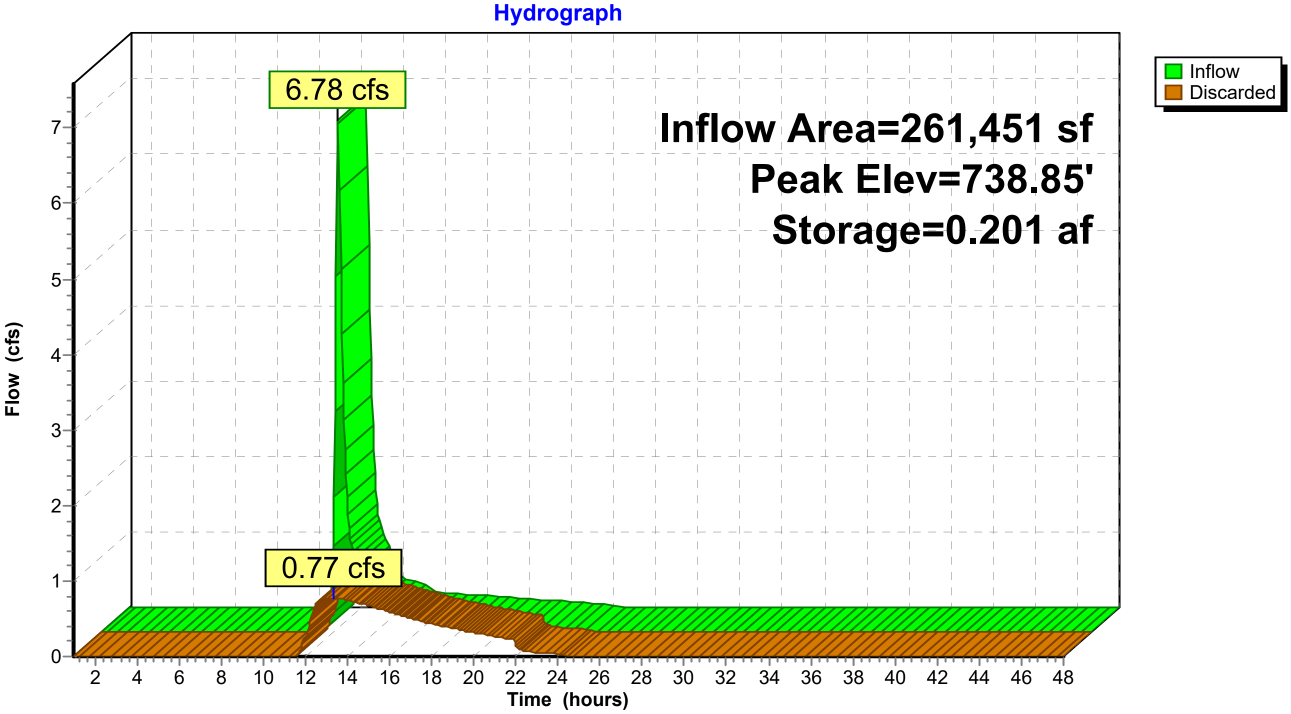
Volume	Invert	Avail.Storage	Storage Description
#1	735.00'	1.145 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
735.00	0.026	0.000	0.000
736.00	0.038	0.032	0.032
737.00	0.051	0.044	0.077
738.00	0.068	0.059	0.136
739.00	0.086	0.077	0.213
740.00	0.100	0.093	0.306
741.00	0.129	0.114	0.420
742.00	0.153	0.141	0.561
743.00	0.180	0.166	0.728
744.00	0.208	0.194	0.922
745.00	0.238	0.223	1.145

Device	Routing	Invert	Outlet Devices
#1	Discarded	735.00'	**8.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=0.77 cfs @ 13.34 hrs HW=738.85' (Free Discharge)
└─**1=Exfiltration** (Controls 0.77 cfs)

Pond 60P: Infiltration Basin #1



Summary for Pond 72P: UG 1 StormTrap Lowered

Inflow Area = 227,383 sf, 57.35% Impervious, Inflow Depth = 1.55" for 2-Year event
Inflow = 14.41 cfs @ 12.13 hrs, Volume= 29,449 cf
Outflow = 0.82 cfs @ 13.39 hrs, Volume= 26,353 cf, Atten= 94%, Lag= 75.5 min
Primary = 0.82 cfs @ 13.39 hrs, Volume= 26,353 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 753.59' @ 13.39 hrs Surf.Area= 36,225 sf Storage= 18,736 cf

Plug-Flow detention time= 449.4 min calculated for 26,325 cf (89% of inflow)
Center-of-Mass det. time= 406.7 min (1,206.5 - 799.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	753.00'	0 cf	**182.90'W x 198.06'L x 2.50'H Field A** 90,562 cf Overall - 90,562 cf Embedded = 0 cf
#2A	753.00'	63,969 cf	**StormTrap ST2 SingleTrap 2-0** x 240 Inside #1 Inside= 101.7"W x 24.0"H => 15.05 sf x 15.40'L = 231.7 cf Outside= 101.7"W x 30.0"H => 21.20 sf x 15.40'L = 326.4 cf 20 Rows of 12 Chambers 169.58' x 184.75' Core + 6.66' Border = 182.90' x 198.06' System
		63,969 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	753.00'	**12.0" Round Culvert** L= 189.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 753.00' / 752.52' S= 0.0025 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf

Primary OutFlow Max=0.82 cfs @ 13.39 hrs HW=753.59' (Free Discharge)
1=Culvert (Barrel Controls 0.82 cfs @ 2.46 fps)

Pond 72P: UG 1 StormTrap Lowered - Chamber Wizard Field A

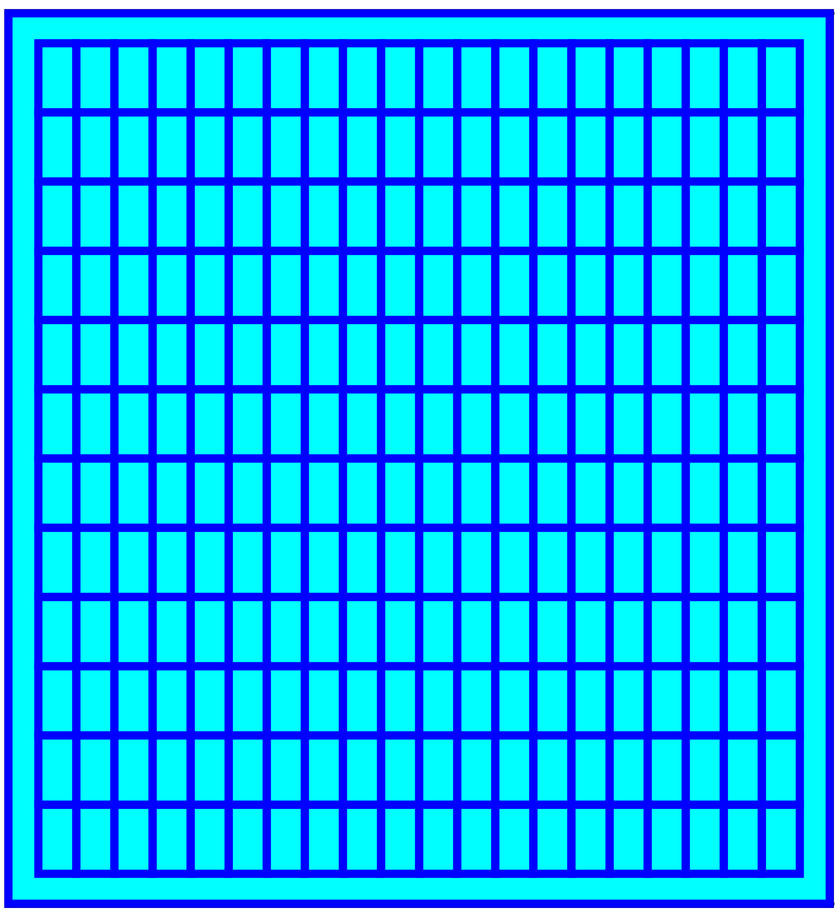
Chamber Model = StormTrap ST2 SingleTrap 2-0 (StormTrap ST2 SingleTrap® Type II+IV)
Inside= 101.7"W x 24.0"H => 15.05 sf x 15.40'L = 231.7 cf
Outside= 101.7"W x 30.0"H => 21.20 sf x 15.40'L = 326.4 cf

12 Chambers/Row x 15.40' Long = 184.75' Row Length +79.9" Border x 2 = 198.06' Base Length
20 Rows x 101.7" Wide + 79.9" Side Border x 2 = 182.90' Base Width
30.0" Chamber Height = 2.50' Field Height

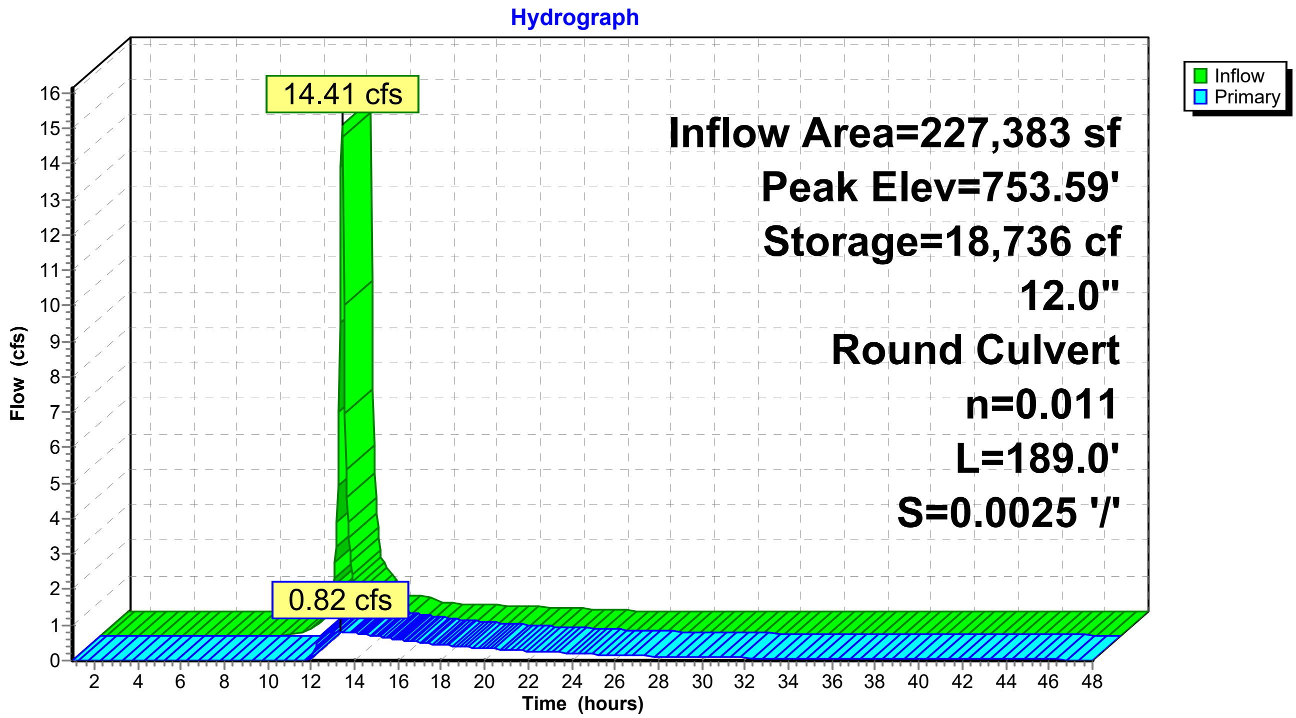
240 Chambers x 231.7 cf + 8,367.8 cf Border = 63,968.8 cf Chamber Storage
240 Chambers x 326.4 cf + 12,235.7 cf Border = 90,562.0 cf Displacement

Chamber Storage = 63,968.8 cf = 1.469 af
Overall Storage Efficiency = 70.6%
Overall System Size = 198.06' x 182.90' x 2.50'

240 Chambers (plus border)
3,354.1 cy Field



Pond 72P: UG 1 StormTrap Lowered



Summary for Pond 95P: Dry Pond 3

Inflow Area = 413,038 sf, 21.40% Impervious, Inflow Depth = 0.45" for 2-Year event
Inflow = 5.99 cfs @ 12.23 hrs, Volume= 15,608 cf
Outflow = 0.27 cfs @ 14.02 hrs, Volume= 15,608 cf, Atten= 95%, Lag= 107.0 min
Discarded = 0.27 cfs @ 14.02 hrs, Volume= 15,608 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 739.91' @ 14.02 hrs Surf.Area= 0.256 ac Storage= 0.216 af

Plug-Flow detention time= 369.4 min calculated for 15,592 cf (100% of inflow)
Center-of-Mass det. time= 369.3 min (1,190.3 - 821.0)

Volume	Invert	Avail.Storage	Storage Description
#1	739.00'	1.214 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

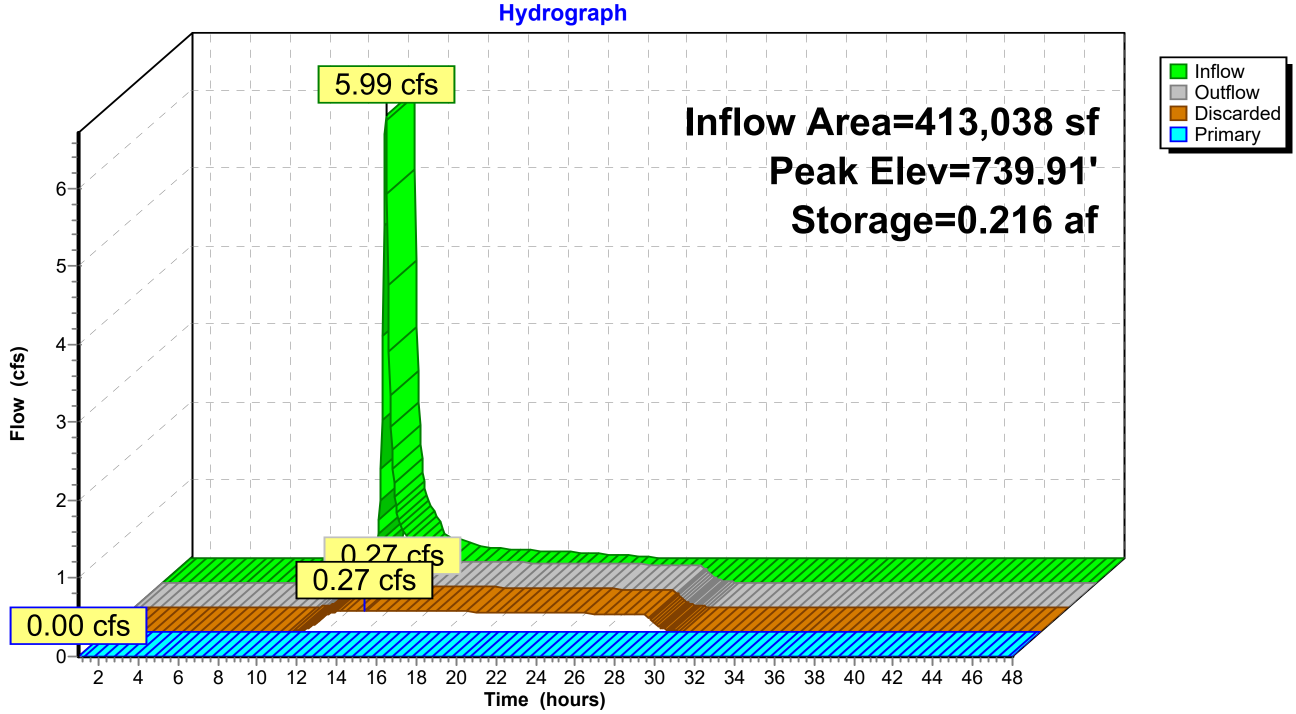
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
739.00	0.220	0.000	0.000
740.00	0.260	0.240	0.240
741.00	0.302	0.281	0.521
742.00	0.346	0.324	0.845
743.00	0.392	0.369	1.214

Device	Routing	Invert	Outlet Devices
#1	Primary	740.00'	**6.0" Round Culvert** L= 130.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 740.00' / 738.00' S= 0.0154 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf
#2	Primary	742.75'	**20.0' long x 20.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#3	Discarded	739.00'	**1.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=0.27 cfs @ 14.02 hrs HW=739.91' (Free Discharge)
└─**3=Exfiltration** (Controls 0.27 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=739.00' (Free Discharge)
├─**1=Culvert** (Controls 0.00 cfs)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 95P: Dry Pond 3



Summary for Pond 101R: Reach Pipe

3/2/21
Reach Pipe 4

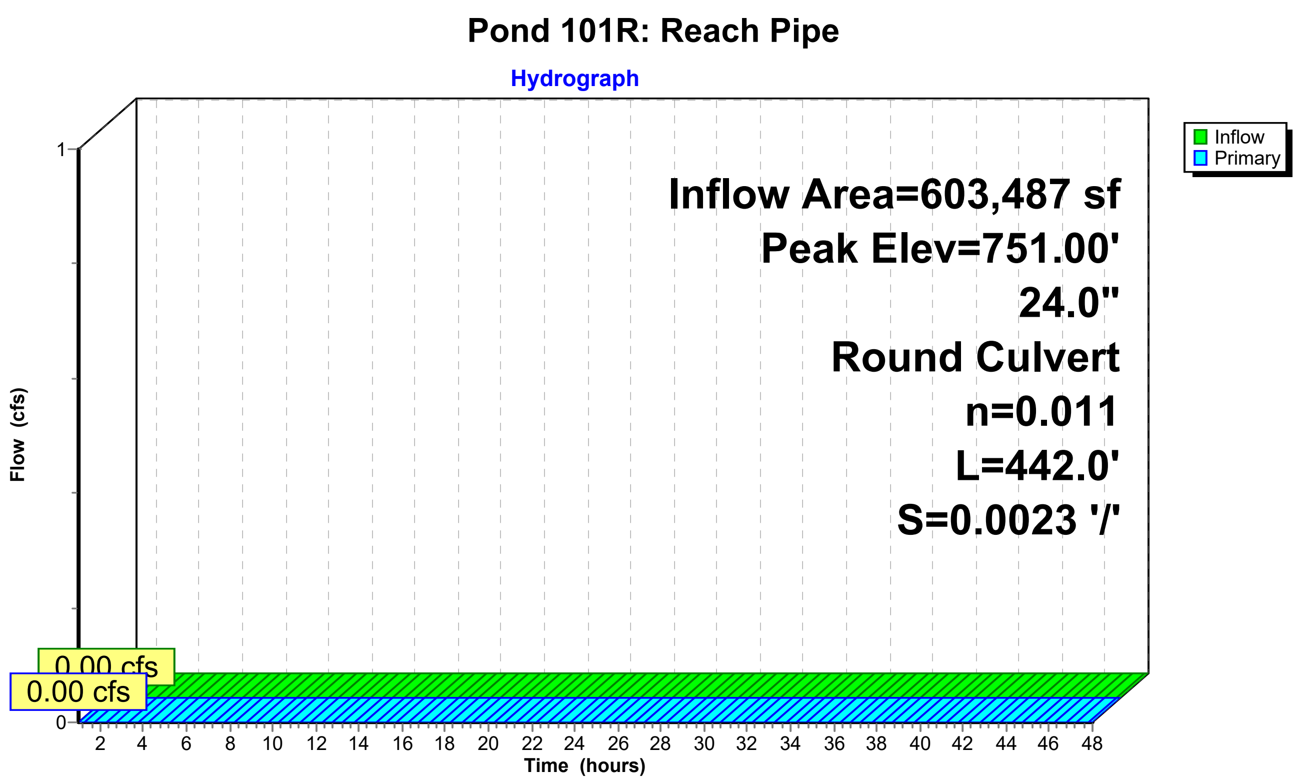
[57] Hint: Peaked at 751.00' (Flood elevation advised)

Inflow Area =	603,487 sf,	45.57% Impervious,	Inflow Depth = 0.00"	for 2-Year event		
Inflow =	0.00 cfs @	1.00 hrs,	Volume=	0 cf		
Outflow =	0.00 cfs @	1.00 hrs,	Volume=	0 cf,	Atten= 0%,	Lag= 0.0 min
Primary =	0.00 cfs @	1.00 hrs,	Volume=	0 cf		

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 751.00' @ 1.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	751.00'	**24.0" Round Culvert** L= 442.0' Ke= 0.500 Inlet / Outlet Invert= 751.00' / 750.00' S= 0.0023 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=751.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 107P: SC East Ditch

Inflow Area = 816,223 sf, 35.77% Impervious, Inflow Depth = 0.04" for 2-Year event
Inflow = 1.20 cfs @ 12.20 hrs, Volume= 2,734 cf
Outflow = 0.04 cfs @ 15.11 hrs, Volume= 2,734 cf, Atten= 96%, Lag= 174.6 min
Discarded = 0.04 cfs @ 15.11 hrs, Volume= 2,734 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 744.36' @ 15.11 hrs Surf.Area= 1,712 sf Storage= 1,855 cf

Plug-Flow detention time= 495.0 min calculated for 2,731 cf (100% of inflow)
Center-of-Mass det. time= 495.2 min (1,310.1 - 814.9)

Volume	Invert	Avail.Storage	Storage Description
#1	743.00'	8,160 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

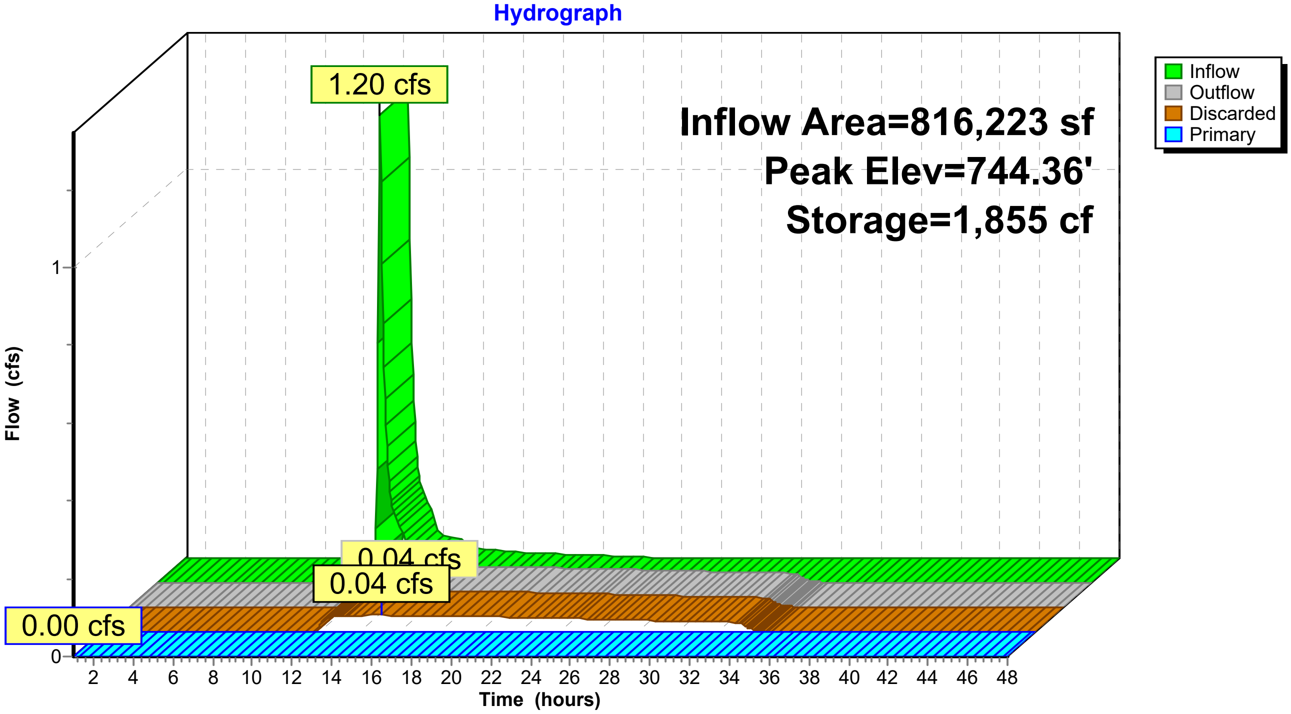
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
743.00	1,020	0	0
744.00	1,530	1,275	1,275
745.00	2,040	1,785	3,060
746.00	2,550	2,295	5,355
747.00	3,060	2,805	8,160

Device	Routing	Invert	Outlet Devices
#1	Primary	746.00'	**4.0" Round Culvert** L= 10.0' Ke= 0.900 Inlet / Outlet Invert= 746.00' / 745.90' S= 0.0100 '/' Cc= 0.900 n= 0.022, Flow Area= 0.09 sf
#2	Primary	746.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	746.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Discarded	743.00'	**1.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.04 cfs @ 15.11 hrs HW=744.36' (Free Discharge)
└─**4=Exfiltration** (Controls 0.04 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=743.00' (Free Discharge)
├─**1=Culvert** (Controls 0.00 cfs)
├─**2=Orifice/Grate** (Controls 0.00 cfs)
└─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 107P: SC East Ditch



Summary for Pond 108P: SC East Ditch

Inflow Area = 797,335 sf, 36.61% Impervious, Inflow Depth = 0.03" for 2-Year event
Inflow = 1.00 cfs @ 12.14 hrs, Volume= 2,105 cf
Outflow = 0.77 cfs @ 12.20 hrs, Volume= 2,105 cf, Atten= 23%, Lag= 3.6 min
Discarded = 0.02 cfs @ 12.20 hrs, Volume= 510 cf
Primary = 0.75 cfs @ 12.20 hrs, Volume= 1,595 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 747.97' @ 12.20 hrs Surf.Area= 696 sf Storage= 295 cf

Plug-Flow detention time= 14.6 min calculated for 2,103 cf (100% of inflow)
Center-of-Mass det. time= 14.7 min (851.7 - 837.0)

Volume	Invert	Avail.Storage	Storage Description
#1	747.50'	4,512 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

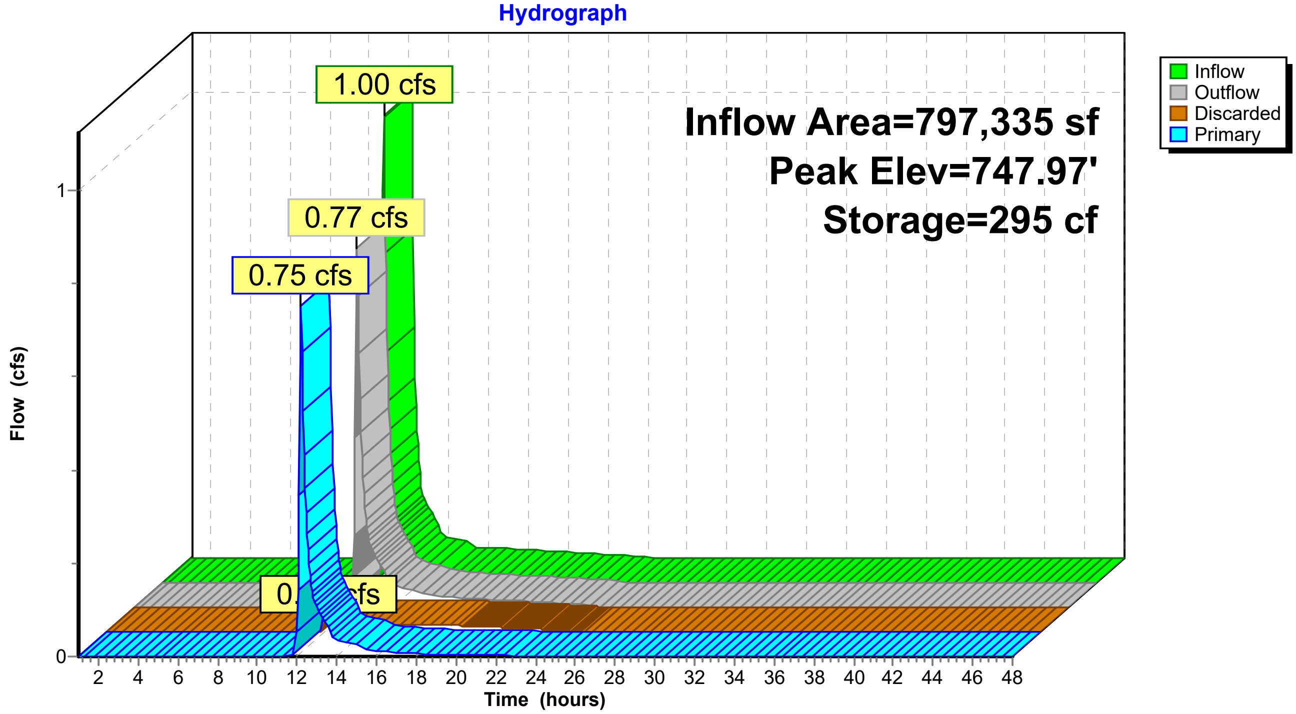
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
747.50	564	0	0
748.50	846	705	705
749.50	1,128	987	1,692
750.50	1,410	1,269	2,961
751.50	1,692	1,551	4,512

Device	Routing	Invert	Outlet Devices
#1	Primary	747.50'	**24.0" Round Culvert** L= 105.0' Ke= 0.900 Inlet / Outlet Invert= 747.50' / 747.00' S= 0.0048 '/' Cc= 0.900 n= 0.018 Corrugated PE, corrugated interior, Flow Area= 3.14 sf
#2	Discarded	747.50'	**1.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.02 cfs @ 12.20 hrs HW=747.97' (Free Discharge)
└─**2=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=0.75 cfs @ 12.20 hrs HW=747.97' (Free Discharge)
└─**1=Culvert** (Barrel Controls 0.75 cfs @ 2.02 fps)

Pond 108P: SC East Ditch



Summary for Pond 110R: Western Pipe Run

3/3/21
Pipe that cuts through western exterior courtyard to collect ditch north of west building and northern portion of west building roof and conveys to DP1

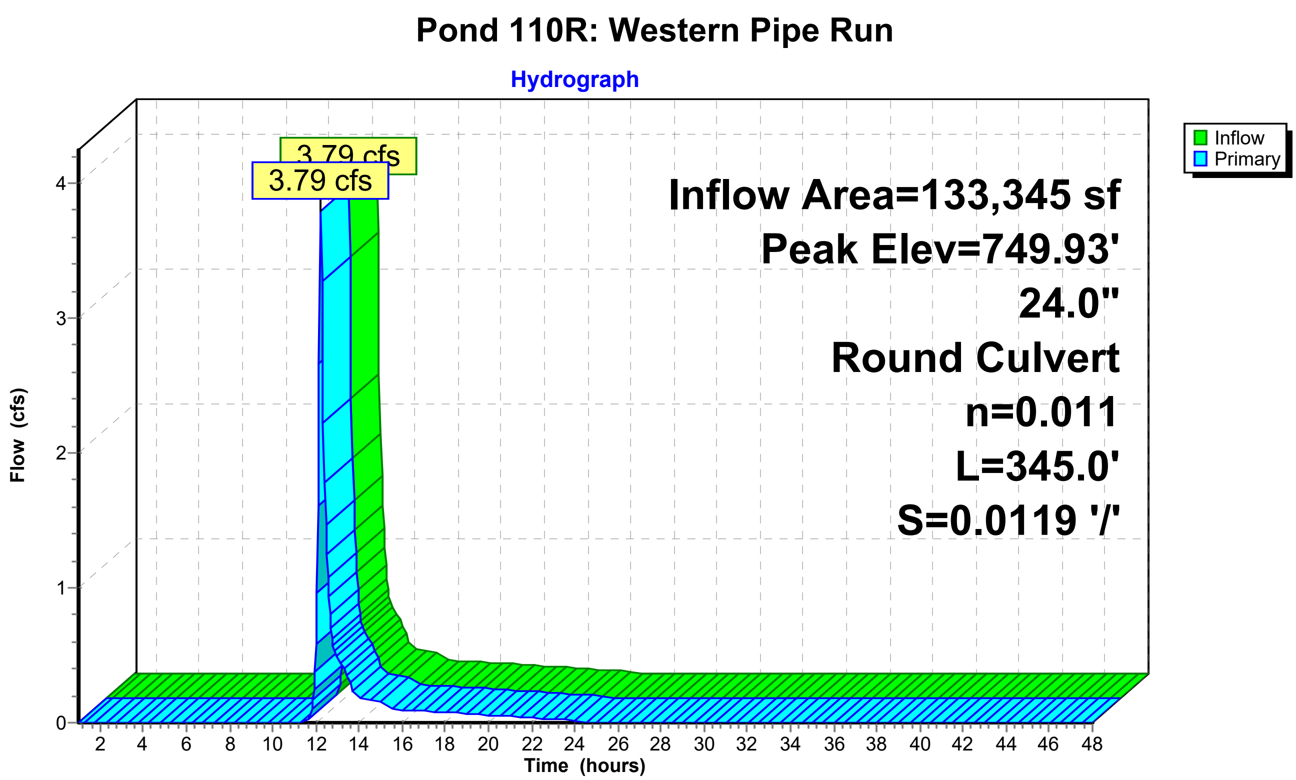
[57] Hint: Peaked at 749.93' (Flood elevation advised)
[62] Hint: Exceeded Reach 111R OUTLET depth by 0.24' @ 12.25 hrs
[62] Hint: Exceeded Reach 151R OUTLET depth by 0.60' @ 12.25 hrs

Inflow Area = 133,345 sf, 9.40% Impervious, Inflow Depth = 0.84" for 2-Year event
Inflow = 3.79 cfs @ 12.22 hrs, Volume= 9,328 cf
Outflow = 3.79 cfs @ 12.22 hrs, Volume= 9,328 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.79 cfs @ 12.22 hrs, Volume= 9,328 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 749.93' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	749.10'	**24.0" Round Culvert** L= 345.0' Ke= 0.500 Inlet / Outlet Invert= 749.10' / 745.00' S= 0.0119 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=3.67 cfs @ 12.22 hrs HW=749.91' (Free Discharge)
└─**1=Culvert** (Inlet Controls 3.67 cfs @ 3.07 fps)



Summary for Pond 154P: Southeast Basin

Inflow Area = 1,260,543 sf, 30.17% Impervious, Inflow Depth = 0.02" for 2-Year event
Inflow = 0.90 cfs @ 12.14 hrs, Volume= 1,887 cf
Outflow = 0.40 cfs @ 12.27 hrs, Volume= 1,887 cf, Atten= 56%, Lag= 7.9 min
Discarded = 0.40 cfs @ 12.27 hrs, Volume= 1,887 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 730.12' @ 12.27 hrs Surf.Area= 3,403 sf Storage= 369 cf

Plug-Flow detention time= 13.6 min calculated for 1,887 cf (100% of inflow)
Center-of-Mass det. time= 13.5 min (850.5 - 837.0)

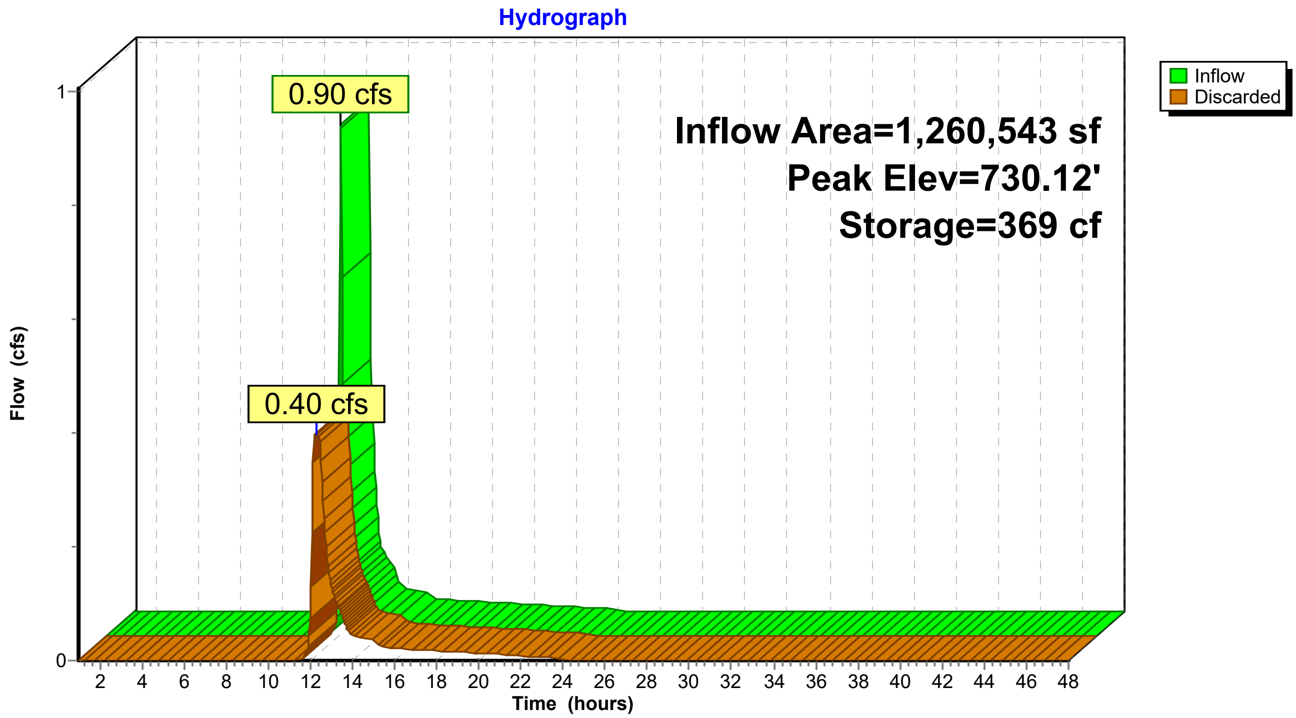
Volume	Invert	Avail.Storage	Storage Description
#1	730.00'	273,743 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
730.00	2,768	0	0
731.00	8,073	5,421	5,421
732.00	12,399	10,236	15,657
733.00	17,056	14,728	30,384
734.00	21,328	19,192	49,576
735.00	25,607	23,468	73,044
736.00	29,845	27,726	100,770
737.00	35,145	32,495	133,265
738.00	42,680	38,913	172,177
739.00	51,064	46,872	219,049
740.00	58,323	54,694	273,743

Device	Routing	Invert	Outlet Devices
#1	Discarded	730.00'	**5.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=0.40 cfs @ 12.27 hrs HW=730.12' (Free Discharge)
└─**1=Exfiltration** (Controls 0.40 cfs)

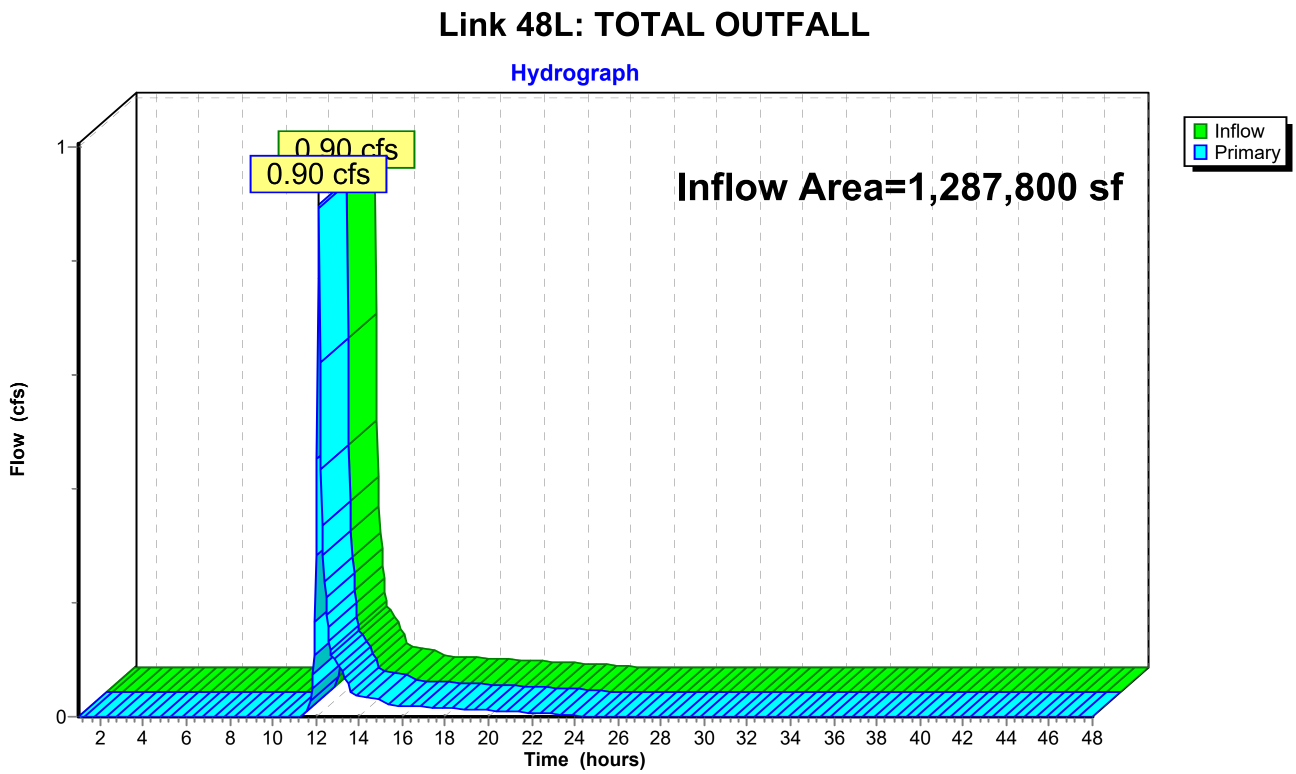
Pond 154P: Southeast Basin



Summary for Link 48L: TOTAL OUTFALL

Inflow Area = 1,287,800 sf, 29.72% Impervious, Inflow Depth = 0.02" for 2-Year event
Inflow = 0.90 cfs @ 12.14 hrs, Volume= 1,855 cf
Primary = 0.90 cfs @ 12.14 hrs, Volume= 1,855 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

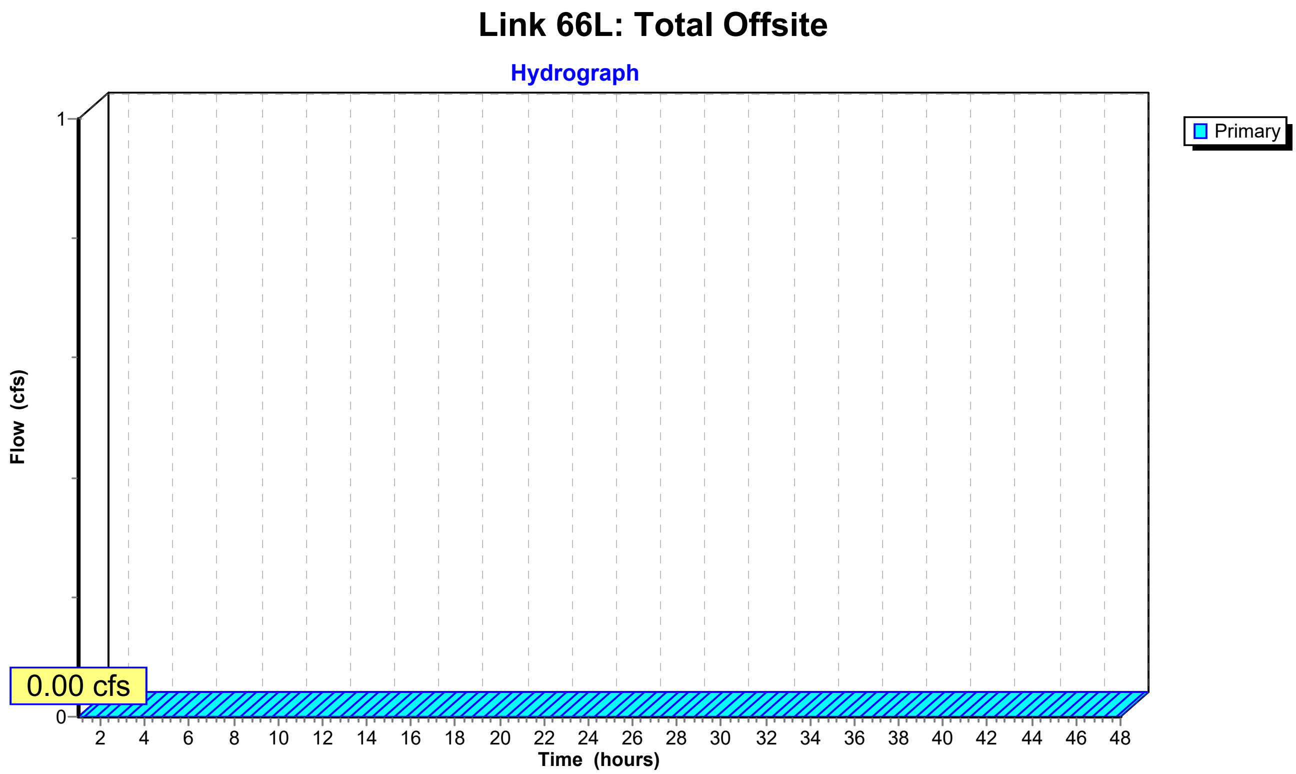


Summary for Link 66L: Total Offsite

[43] Hint: Has no inflow (Outflow=Zero)

Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Primary outflow = Inflow, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs



Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 35S: F6 Runoff Area=3,249 sf 0.00% Impervious Runoff Depth=1.46"
Tc=6.0 min CN=74 Runoff=0.19 cfs 395 cf

Subcatchment 37S: F6 Runoff Area=3,393 sf 0.00% Impervious Runoff Depth=1.46"
Tc=6.0 min CN=74 Runoff=0.20 cfs 412 cf

Subcatchment 39S: A Runoff Area=227,383 sf 57.35% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=88 Runoff=23.17 cfs 48,377 cf

Subcatchment 40S: F5 (Direct to Basin) Runoff Area=31,282 sf 0.00% Impervious Runoff Depth=1.46"
Tc=6.0 min CN=74 Runoff=1.88 cfs 3,802 cf

Subcatchment 49S: D2 Runoff Area=16,636 sf 25.34% Impervious Runoff Depth=1.89"
Flow Length=393' Slope=0.0076 '/' Tc=10.7 min CN=80 Runoff=1.07 cfs 2,614 cf

Subcatchment 52S: E1 Runoff Area=39,552 sf 5.46% Impervious Runoff Depth=1.53"
Flow Length=100' Slope=0.0300 '/' Tc=9.6 min CN=75 Runoff=2.12 cfs 5,028 cf

Subcatchment 55S: G Runoff Area=4,482 sf 0.00% Impervious Runoff Depth=1.46"
Tc=6.0 min CN=74 Runoff=0.27 cfs 545 cf

Subcatchment 81S: O1 Runoff Area=11,697 sf 0.00% Impervious Runoff Depth=1.46"
Tc=6.0 min CN=74 Runoff=0.70 cfs 1,422 cf

Subcatchment 82S: D1 Runoff Area=20,886 sf 0.00% Impervious Runoff Depth=1.46"
Flow Length=400' Slope=0.0100 '/' Tc=22.0 min CN=74 Runoff=0.72 cfs 2,538 cf

Subcatchment 87S: I Runoff Area=56,129 sf 0.00% Impervious Runoff Depth=1.46"
Flow Length=750' Slope=0.0100 '/' Tc=30.4 min CN=74 Runoff=1.62 cfs 6,821 cf

Subcatchment 95S: C1 Runoff Area=18,274 sf 21.80% Impervious Runoff Depth=1.81"
Tc=6.0 min CN=79 Runoff=1.36 cfs 2,757 cf

Subcatchment 96S: E2 Runoff Area=18,887 sf 18.55% Impervious Runoff Depth=1.74"
Flow Length=400' Slope=0.0300 '/' Tc=13.7 min CN=78 Runoff=1.01 cfs 2,734 cf

Subcatchment 97S: C2 Runoff Area=77,290 sf 43.30% Impervious Runoff Depth=2.20"
Tc=6.0 min CN=84 Runoff=6.94 cfs 14,199 cf

Subcatchment 98S: E3 Runoff Area=109,219 sf 13.58% Impervious Runoff Depth=1.66"
Flow Length=200' Tc=16.3 min CN=77 Runoff=5.14 cfs 15,152 cf

Subcatchment 105S: C Runoff Area=122,933 sf 33.81% Impervious Runoff Depth=2.04"
Tc=6.0 min CN=82 Runoff=10.29 cfs 20,915 cf

Subcatchment 106S: B1 Runoff Area=85,559 sf 10.89% Impervious Runoff Depth=1.66"
Tc=6.0 min CN=77 Runoff=5.88 cfs 11,870 cf

Subcatchment 107S: F Runoff Area=43,646 sf 58.34% Impervious Runoff Depth=2.55"
Tc=6.0 min CN=88 Runoff=4.45 cfs 9,286 cf

Subcatchment 108S: B2 Runoff Area=42,864 sf 100.00% Impervious Runoff Depth=3.58"
Tc=6.0 min CN=98 Runoff=5.36 cfs 12,772 cf

Subcatchment 112S: D3 Runoff Area=8,234 sf 12.90% Impervious Runoff Depth=1.66"
Tc=6.0 min CN=77 Runoff=0.57 cfs 1,142 cf

Subcatchment 122S: F1 Runoff Area=54,287 sf 55.18% Impervious Runoff Depth=2.46"
Tc=6.0 min CN=87 Runoff=5.37 cfs 11,142 cf

Subcatchment 125S: F3 Runoff Area=20,215 sf 10.32% Impervious Runoff Depth=1.59"
Tc=6.0 min CN=76 Runoff=1.33 cfs 2,686 cf

Subcatchment 126S: F4 Runoff Area=26,797 sf 0.00% Impervious Runoff Depth=1.46"
Tc=6.0 min CN=74 Runoff=1.61 cfs 3,257 cf

Subcatchment 138S: F2 Runoff Area=18,888 sf 0.00% Impervious Runoff Depth=1.46"
Tc=10.0 min CN=74 Runoff=0.95 cfs 2,295 cf

Subcatchment 140S: H1 Runoff Area=114,743 sf 19.79% Impervious Runoff Depth=1.81"
Tc=6.0 min CN=79 Runoff=8.56 cfs 17,311 cf

Subcatchment 141S: H2 Runoff Area=65,303 sf 19.50% Impervious Runoff Depth=1.81"
Tc=6.0 min CN=79 Runoff=4.87 cfs 9,852 cf

Subcatchment 142S: H3 Runoff Area=7,424 sf 14.02% Impervious Runoff Depth=1.66"
Tc=6.0 min CN=77 Runoff=0.51 cfs 1,030 cf

Subcatchment 143S: H4 Runoff Area=13,718 sf 0.00% Impervious Runoff Depth=1.46"
Tc=6.0 min CN=74 Runoff=0.82 cfs 1,667 cf

Subcatchment 144S: H5 Runoff Area=14,502 sf 0.00% Impervious Runoff Depth=1.46"
Tc=6.0 min CN=74 Runoff=0.87 cfs 1,762 cf

Subcatchment 145S: H6 Runoff Area=6,674 sf 0.00% Impervious Runoff Depth=1.46"
Tc=6.0 min CN=74 Runoff=0.40 cfs 811 cf

Subcatchment 146S: O2 Runoff Area=132,678 sf 2.29% Impervious Runoff Depth=1.53"
Flow Length=377' Tc=12.2 min CN=75 Runoff=6.50 cfs 16,867 cf

Subcatchment 147S: J Runoff Area=15,351 sf 8.86% Impervious Runoff Depth=1.59"
Tc=6.0 min CN=76 Runoff=1.01 cfs 2,040 cf

Reach 99R: East Swale (SE End) Avg. Flow Depth=0.64' Max Vel=4.28 fps Inflow=20.16 cfs 40,982 cf
n=0.018 L=570.0' S=0.0070 '/' Capacity=43.88 cfs Outflow=18.29 cfs 40,982 cf

Reach 106R: East Swale (North End) Avg. Flow Depth=0.13' Max Vel=4.29 fps Inflow=1.36 cfs 2,757 cf
n=0.018 L=140.0' S=0.0500 '/' Capacity=65.71 cfs Outflow=1.32 cfs 2,757 cf

Reach 108R: South Berm Swale Avg. Flow Depth=0.65' Max Vel=2.68 fps Inflow=5.36 cfs 16,673 cf
n=0.025 L=265.0' S=0.0075 '/' Capacity=13.80 cfs Outflow=4.91 cfs 16,673 cf

Reach 109R: SC Road East Ditch Avg. Flow Depth=0.41' Max Vel=2.09 fps Inflow=4.45 cfs 9,286 cf
n=0.022 L=415.0' S=0.0048 '/' Capacity=23.93 cfs Outflow=3.93 cfs 9,286 cf

Reach 111R: Western PL North Ditch Avg. Flow Depth=0.82' Max Vel=3.63 fps Inflow=7.85 cfs 16,898 cf
n=0.025 L=480.0' S=0.0133 '/' Capacity=26.79 cfs Outflow=7.12 cfs 16,898 cf

Reach 117R: SC Road West Ditch Avg. Flow Depth=0.46' Max Vel=2.08 fps Inflow=5.37 cfs 11,142 cf
n=0.022 L=475.0' S=0.0042 '/' Capacity=22.37 cfs Outflow=4.55 cfs 11,142 cf

Reach 134R: SC East Ditch Avg. Flow Depth=0.00' Max Vel=0.00 fps
n=0.018 L=141.0' S=0.0071 '/' Capacity=749.10 cfs Outflow=0.00 cfs 0 cf

Reach 136R: SC West Ditch Avg. Flow Depth=0.37' Max Vel=1.82 fps Inflow=1.33 cfs 2,686 cf
n=0.025 L=218.0' S=0.0092 '/' Capacity=17.70 cfs Outflow=1.20 cfs 2,686 cf

Reach 137R: SC East Ditch Avg. Flow Depth=0.00' Max Vel=0.00 fps
n=0.022 L=255.0' S=0.0157 '/' Capacity=911.51 cfs Outflow=0.00 cfs 0 cf

Reach 151R: Western PL North Ditch Avg. Flow Depth=0.32' Max Vel=1.74 fps Inflow=0.57 cfs 1,142 cf
n=0.025 L=227.0' S=0.0107 '/' Capacity=24.06 cfs Outflow=0.51 cfs 1,142 cf

Pond 33P: Rain Garden East Peak Elev=744.25' Storage=120 cf Inflow=0.19 cfs 395 cf
Outflow=0.11 cfs 327 cf

Pond 36P: Rain Garden West Peak Elev=743.76' Storage=124 cf Inflow=0.20 cfs 412 cf
Outflow=0.12 cfs 344 cf

Pond 41P: Reach Pipe Peak Elev=0.00'
24.0" Round Culvert n=0.011 L=105.0' S=0.0048 '/' Primary=0.00 cfs 0 cf

Pond 57P: Dry Pond 2 Peak Elev=750.41' Storage=16,141 cf Inflow=6.46 cfs 21,826 cf
Discarded=0.16 cfs 18,967 cf Primary=0.00 cfs 0 cf Outflow=0.16 cfs 18,967 cf

Pond 58P: Dry Pond 1 Peak Elev=751.02' Storage=29,074 cf Inflow=28.90 cfs 113,059 cf
Discarded=4.29 cfs 113,052 cf Primary=0.00 cfs 0 cf Outflow=4.29 cfs 113,052 cf

Pond 60P: Infiltration Basin #1 Peak Elev=741.11' Storage=0.435 af Inflow=13.49 cfs 35,925 cf
Outflow=1.27 cfs 35,925 cf

Pond 72P: UG 1 StormTrap Lowered Peak Elev=753.93' Storage=29,809 cf Inflow=23.17 cfs 48,377 cf
12.0" Round Culvert n=0.011 L=189.0' S=0.0025 '/' Outflow=1.73 cfs 45,106 cf

Pond 95P: Dry Pond 3 Peak Elev=740.45' Storage=0.361 af Inflow=10.81 cfs 27,041 cf
Discarded=0.30 cfs 21,239 cf Primary=0.53 cfs 5,803 cf Outflow=0.83 cfs 27,041 cf

Pond 101R: Reach Pipe Peak Elev=751.00' Inflow=0.00 cfs 0 cf
24.0" Round Culvert n=0.011 L=442.0' S=0.0023 '/' Outflow=0.00 cfs 0 cf

Pond 107P: SC East Ditch Peak Elev=745.59' Storage=4,358 cf Inflow=2.71 cfs 5,924 cf
Discarded=0.06 cfs 5,903 cf Primary=0.00 cfs 0 cf Outflow=0.06 cfs 5,903 cf

Pond 108P: SC East Ditch Peak Elev=748.22' Storage=478 cf Inflow=2.09 cfs 4,241 cf
Discarded=0.02 cfs 612 cf Primary=1.76 cfs 3,629 cf Outflow=1.78 cfs 4,241 cf

Pond 110R: Western Pipe Run Peak Elev=750.33' Inflow=7.62 cfs 18,040 cf
24.0" Round Culvert n=0.011 L=345.0' S=0.0119 '/' Outflow=7.62 cfs 18,040 cf

Pond 154P: Southeast Basin Peak Elev=730.39' Storage=1,490 cf Inflow=1.88 cfs 9,604 cf
Outflow=0.58 cfs 9,604 cf

Link 48L: TOTAL OUTFALL Inflow=1.79 cfs 3,614 cf
Primary=1.79 cfs 3,614 cf

Link 66L: Total Offsite
Primary=0.00 cfs 0 cf

Total Runoff Area = 1,432,175 sf Runoff Volume = 233,499 cf Average Runoff Depth = 1.96"
73.06% Pervious = 1,046,415 sf 26.94% Impervious = 385,760 sf

Summary for Subcatchment 35S: F6

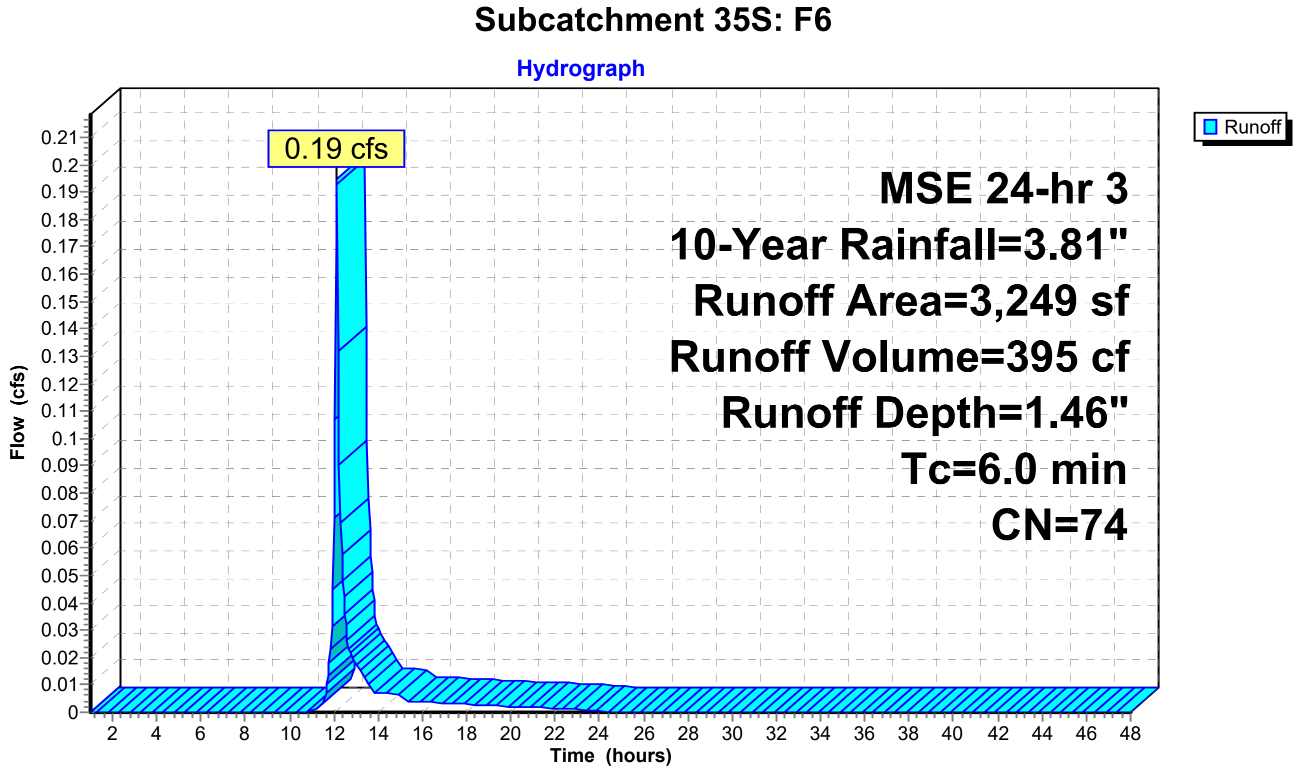
3/3/21
Undetained portion of SE corner of SC that goes direct to SE low area (back yards of 3 home lots SE corner)

Runoff = 0.19 cfs @ 12.14 hrs, Volume= 395 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	3,249	74	landscape
	3,249		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**



Summary for Subcatchment 37S: F6

3/3/21
Undetained portion of SE corner of SC that goes direct to SE low area (back yards of 3 home lots SE corner)

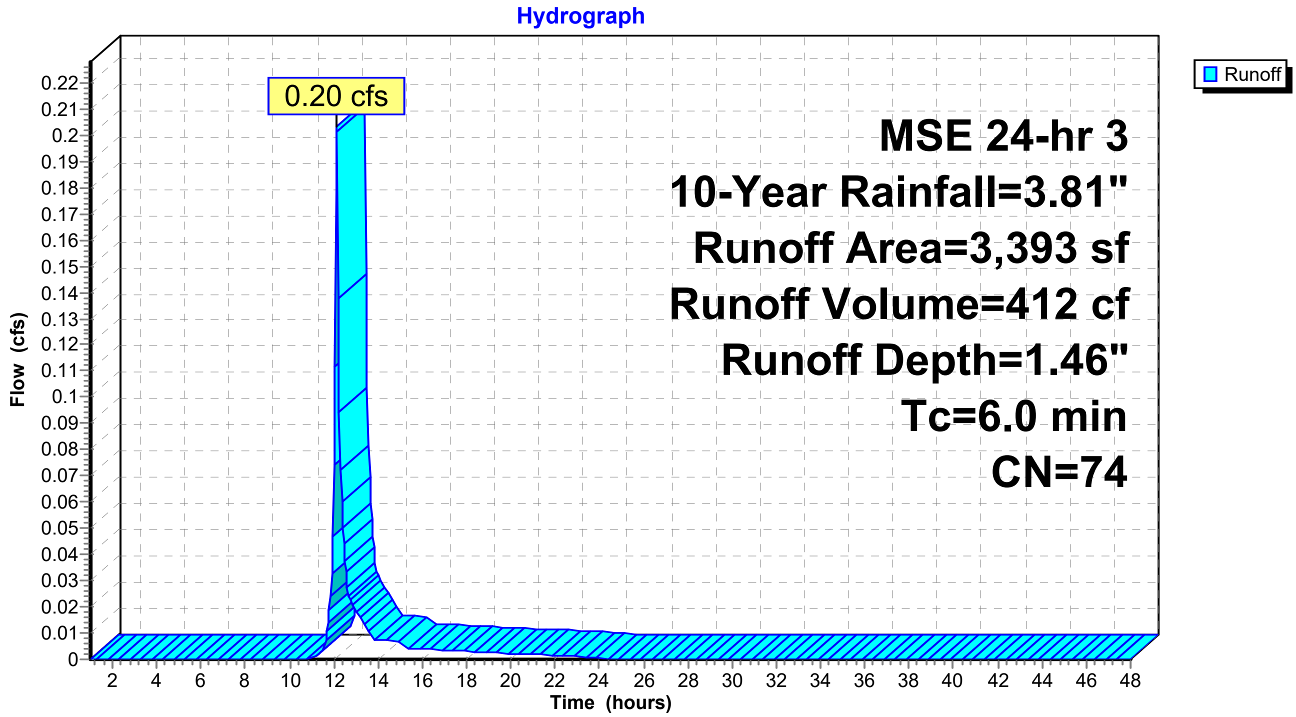
Runoff = 0.20 cfs @ 12.14 hrs, Volume= 412 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	3,393	74	landscape
	3,393		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 37S: F6



Summary for Subcatchment 39S: A

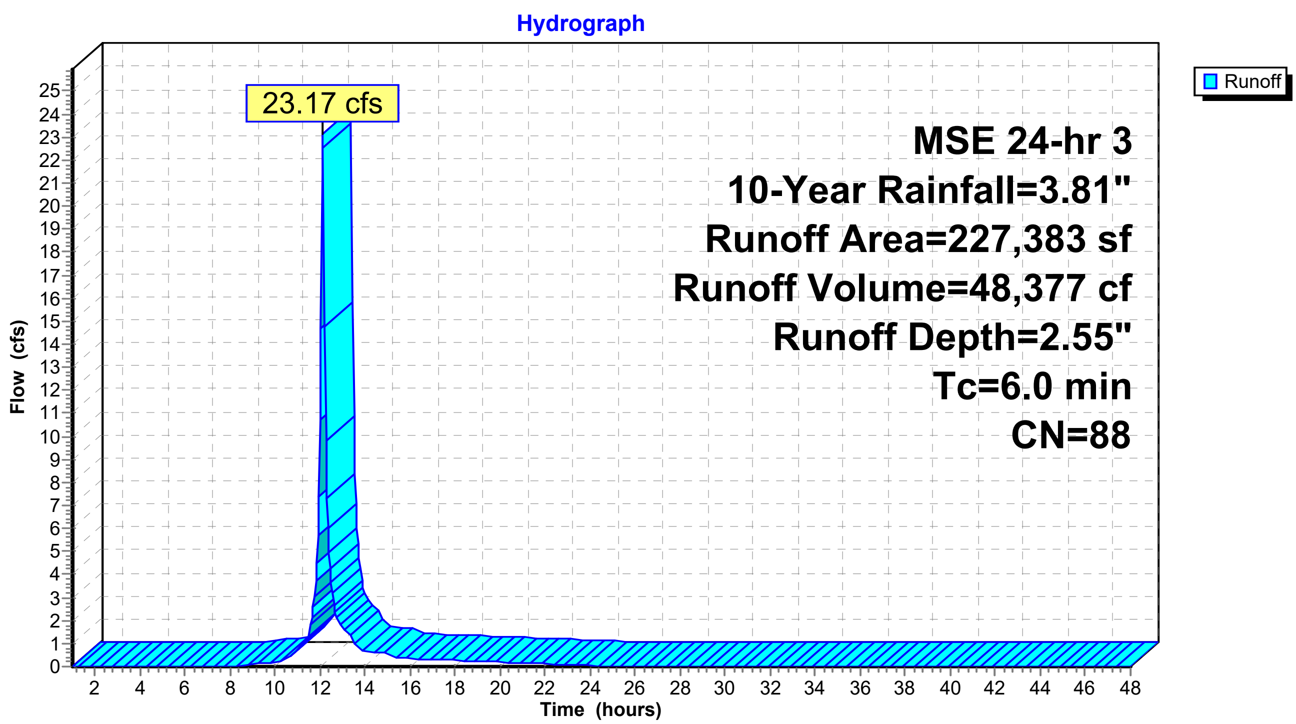
Runoff = 23.17 cfs @ 12.13 hrs, Volume= 48,377 cf, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	46,354	98	walks/patio within courtyard and north
*	45,317	98	drives within courtyard
	96,978	74	>75% Grass cover, Good, HSG C
*	38,734	98	bldg 1 and 2 roof falling onto courtyard
	227,383	88	Weighted Average
	96,978		42.65% Pervious Area
	130,405		57.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 39S: A



Summary for Subcatchment 40S: F5 (Direct to Basin)

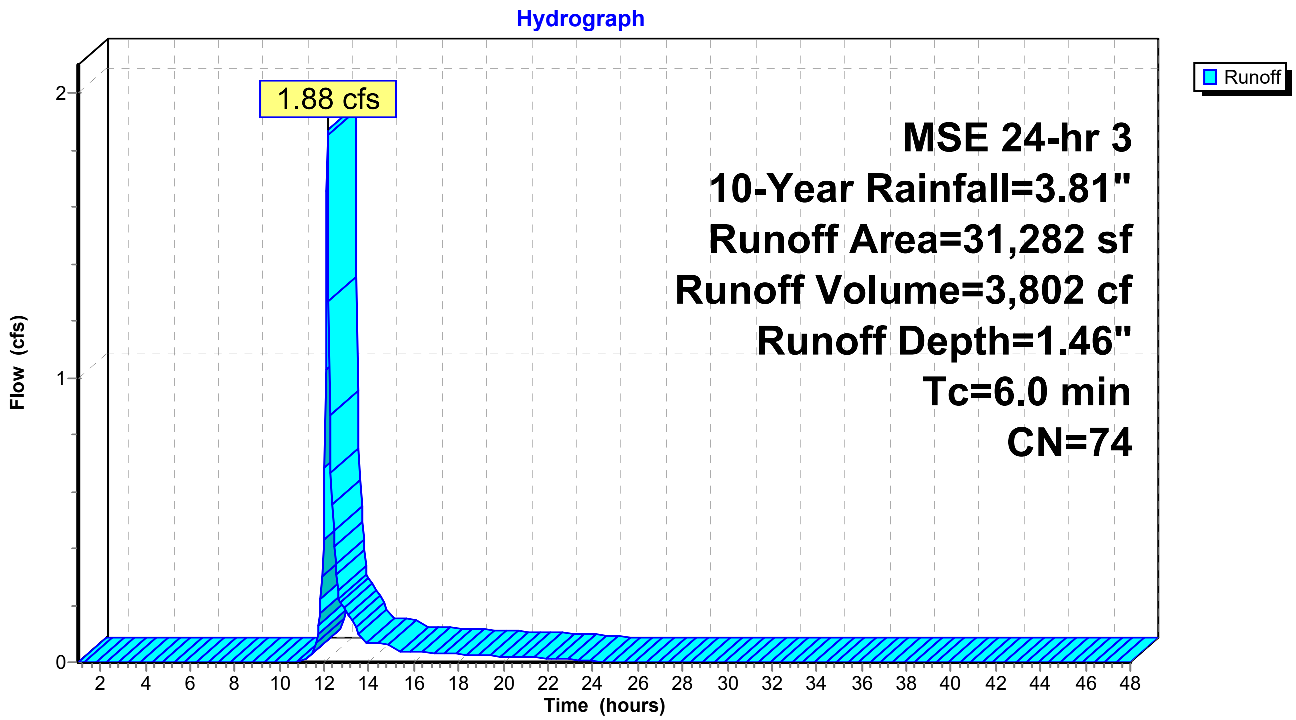
Runoff = 1.88 cfs @ 12.14 hrs, Volume= 3,802 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	31,282	74	landscape
	31,282		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, minimum**

Subcatchment 40S: F5 (Direct to Basin)



Summary for Subcatchment 49S: D2

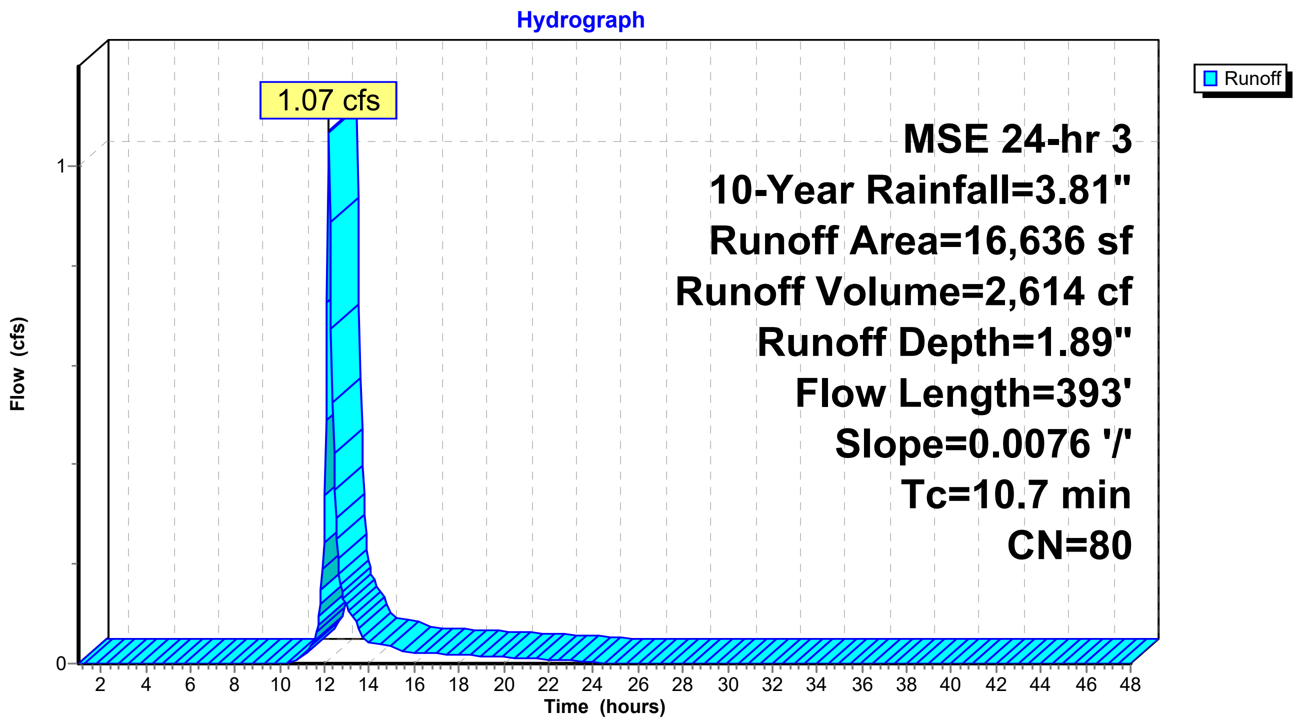
Runoff = 1.07 cfs @ 12.19 hrs, Volume= 2,614 cf, Depth= 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	4,215	98	roof
*	12,421	74	landscape
	16,636	80	Weighted Average
	12,421		74.66% Pervious Area
	4,215		25.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	393	0.0076	0.61		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps

Subcatchment 49S: D2



Summary for Subcatchment 52S: E1

3/3/21
Delineation NOT updated based on Justin's waterdrops, needs finalization, it routes to western property ditch that goes ultimately to IB. We are using Joe's SWMP2 Figure from December 2020.

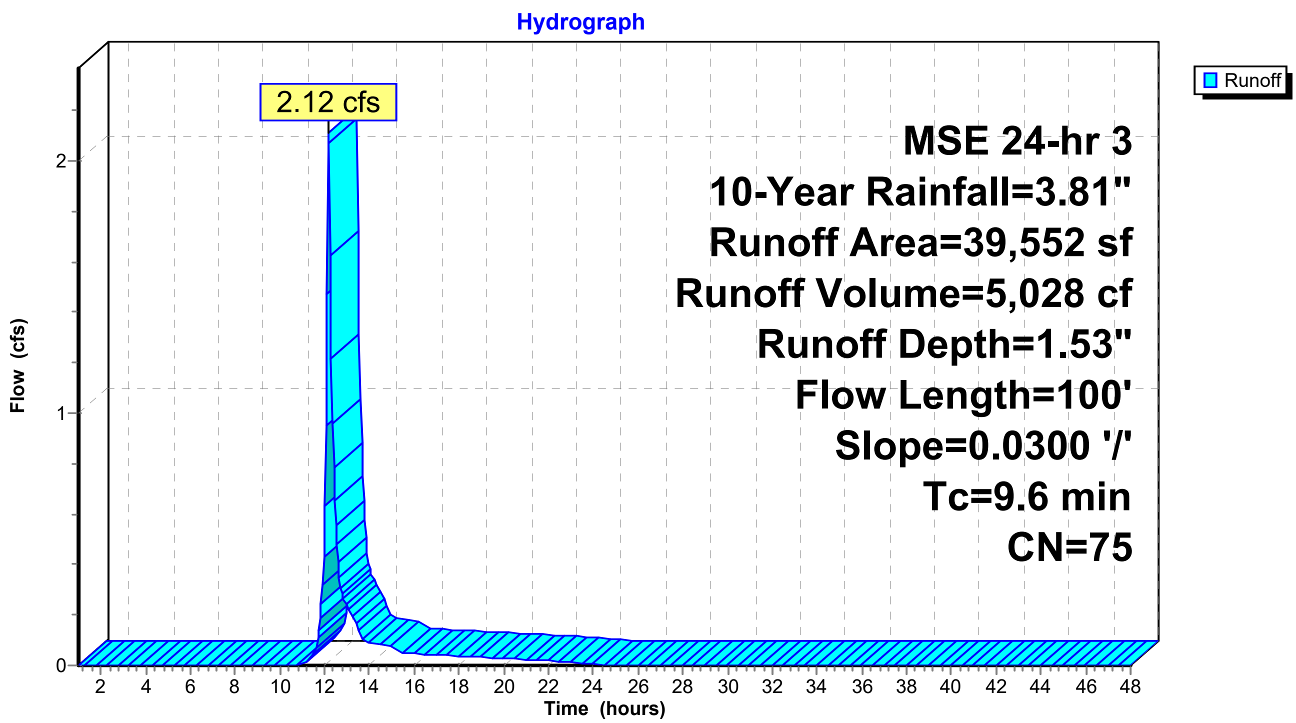
Runoff = 2.12 cfs @ 12.18 hrs, Volume= 5,028 cf, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	2,161	98	Walks
	37,391	74	>75% Grass cover, Good, HSG C
	39,552	75	Weighted Average
	37,391		94.54% Pervious Area
	2,161		5.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0300	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"

Subcatchment 52S: E1



Summary for Subcatchment 55S: G

3/3/21
Needs to be delineated, this is from Joe's SWMP2

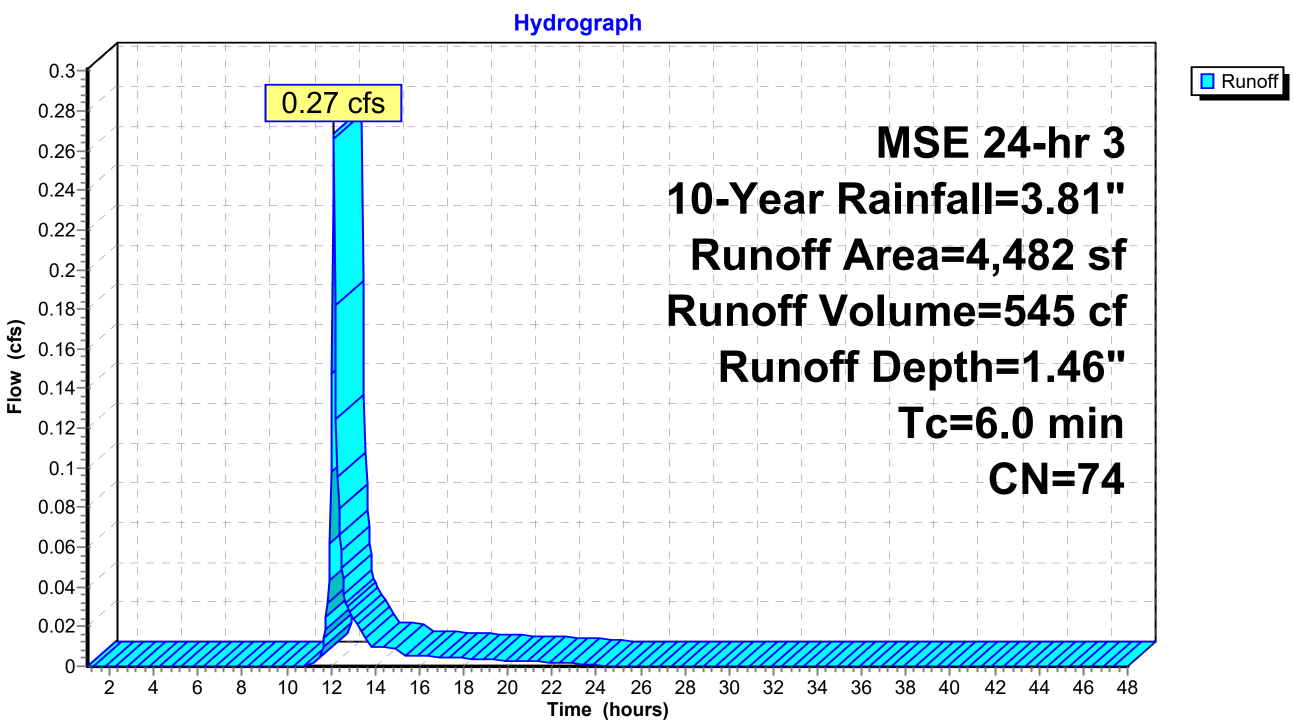
Runoff = 0.27 cfs @ 12.14 hrs, Volume= 545 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	4,482	74	landscape
	4,482		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 55S: G



Summary for Subcatchment 81S: O1

3/3/21
SW portion off-site flowing into IB

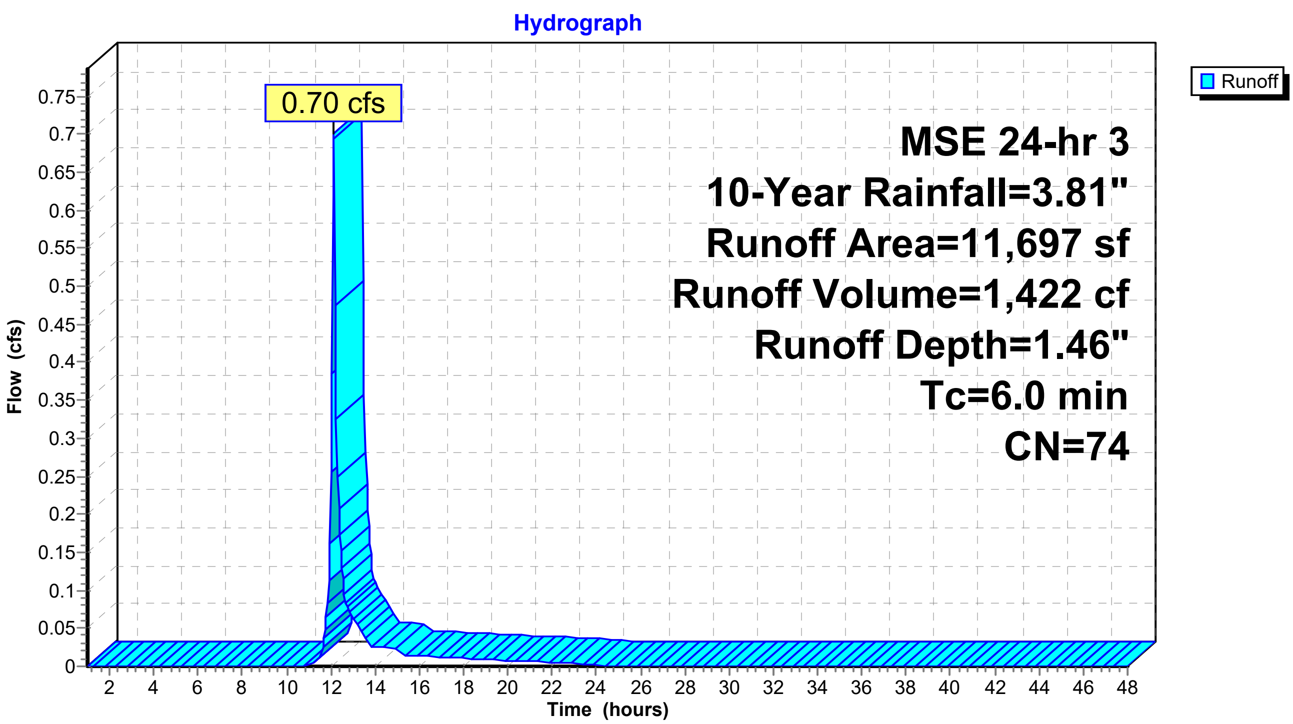
Runoff = 0.70 cfs @ 12.14 hrs, Volume= 1,422 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	11,697	74	PERV
	11,697		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 81S: O1



Summary for Subcatchment 82S: D1

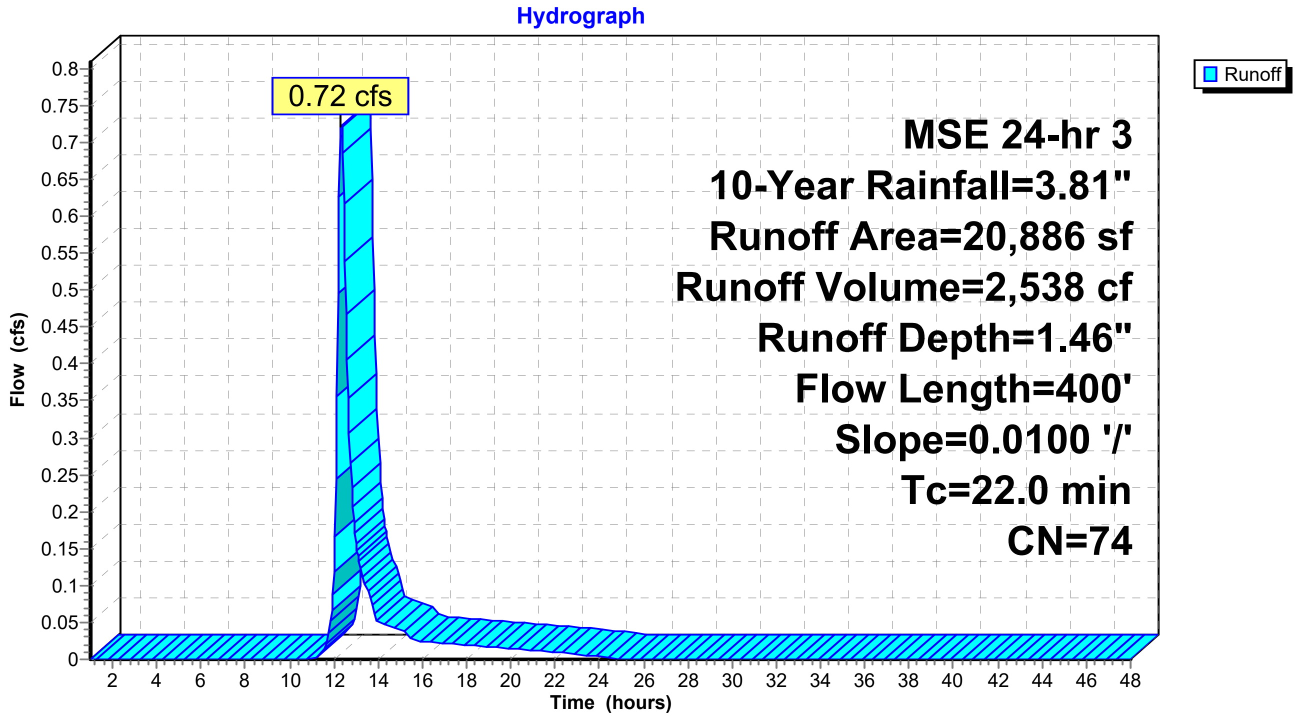
Runoff = 0.72 cfs @ 12.34 hrs, Volume= 2,538 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	20,886	74	landscape
	20,886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow, BUILDING TO SWALE** Grass: Short n= 0.150 P2= 2.42"
7.1	300	0.0100	0.70		**Shallow Concentrated Flow, SWALE ALONG BACK** Short Grass Pasture Kv= 7.0 fps
22.0	400	Total			

Subcatchment 82S: D1



Summary for Subcatchment 87S: I

3/3/21
Wooded area

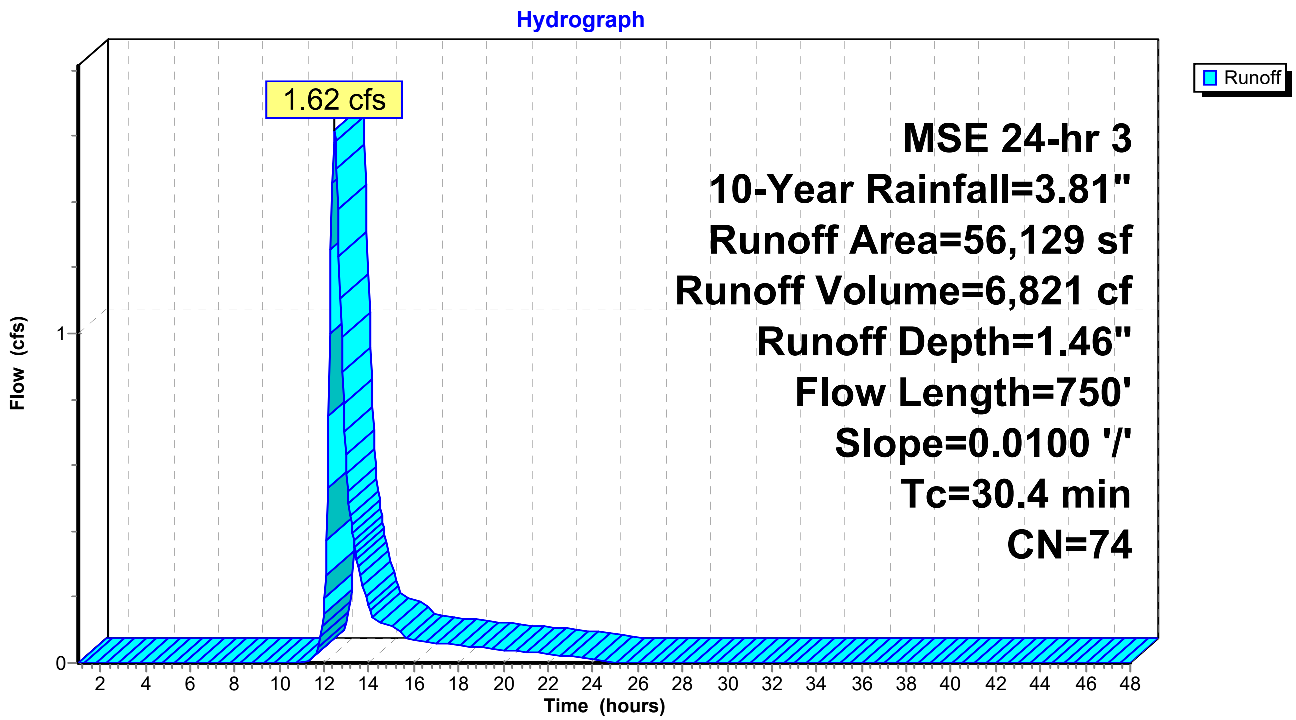
Runoff = 1.62 cfs @ 12.45 hrs, Volume= 6,821 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	56,129	74	landscape
	56,129		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
15.5	650	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
30.4	750	Total			

Subcatchment 87S: I



Summary for Subcatchment 95S: C1

Area actually draining to east swale
3/3/21
Northern portion of East Roof, exterior east courtyard, 7 home lots

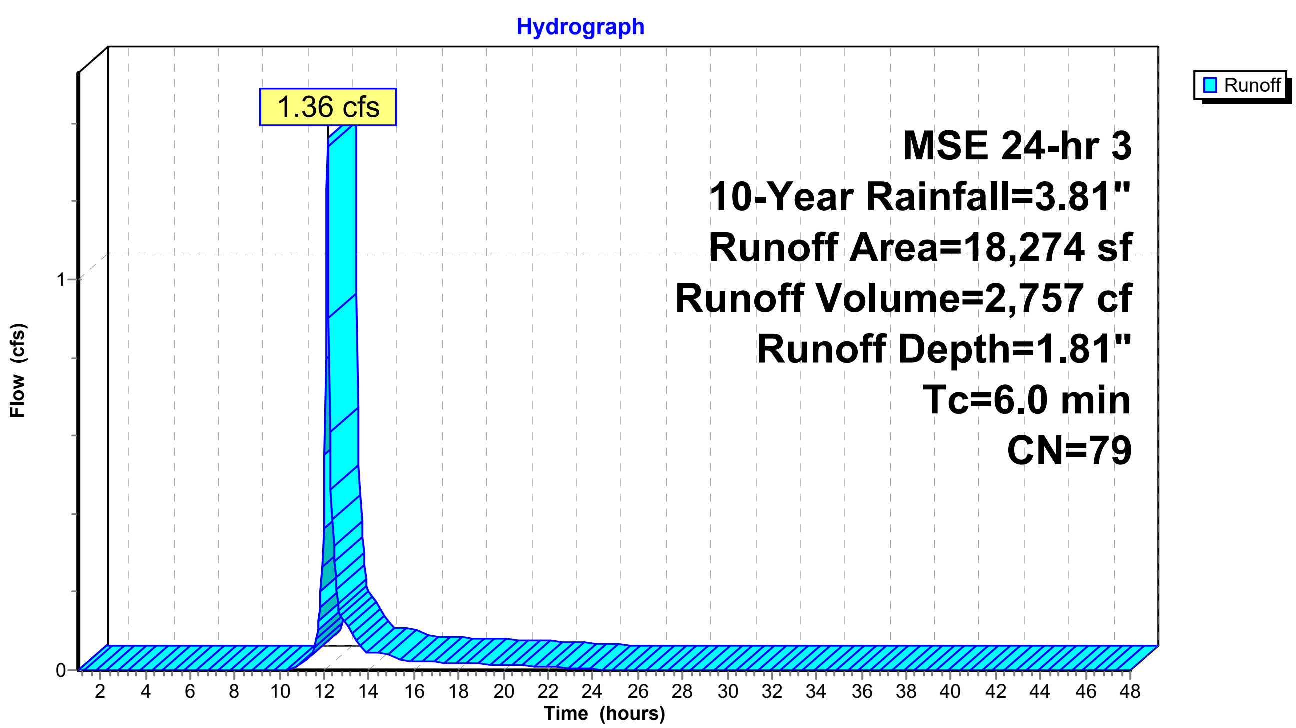
Runoff = 1.36 cfs @ 12.13 hrs, Volume= 2,757 cf, Depth= 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	2,210	98	walks
*	1,774	98	roads
*	14,290	74	landscape
	18,274	79	Weighted Average
	14,290		78.20% Pervious Area
	3,984		21.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 95S: C1



Summary for Subcatchment 96S: E2

3/3/21
Delineation needs updating, but it does route to IB
Portion of cemetary site that flows from north to south into IB

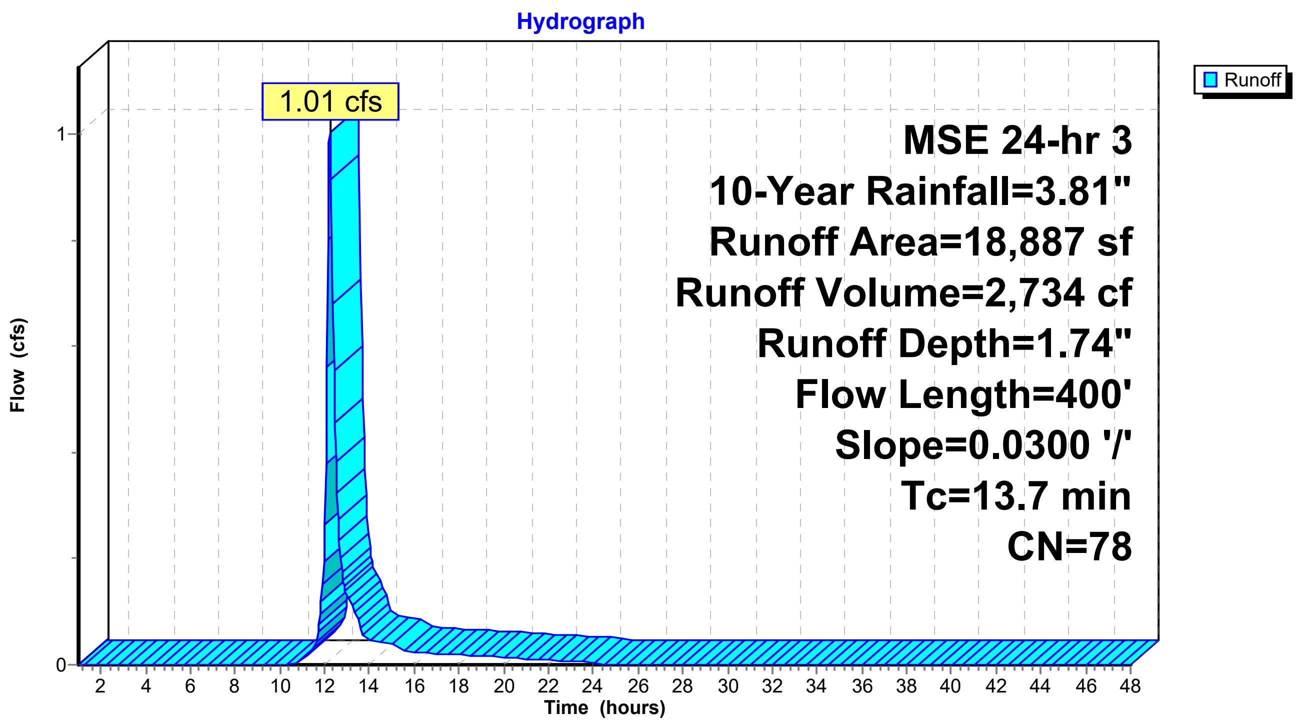
Runoff = 1.01 cfs @ 12.22 hrs, Volume= 2,734 cf, Depth= 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	15,384	74	landscape
*	3,503	98	roofs
	18,887	78	Weighted Average
	15,384		81.45% Pervious Area
	3,503		18.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0300	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
4.1	300	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.7	400	Total			

Subcatchment 96S: E2



Summary for Subcatchment 97S: C2

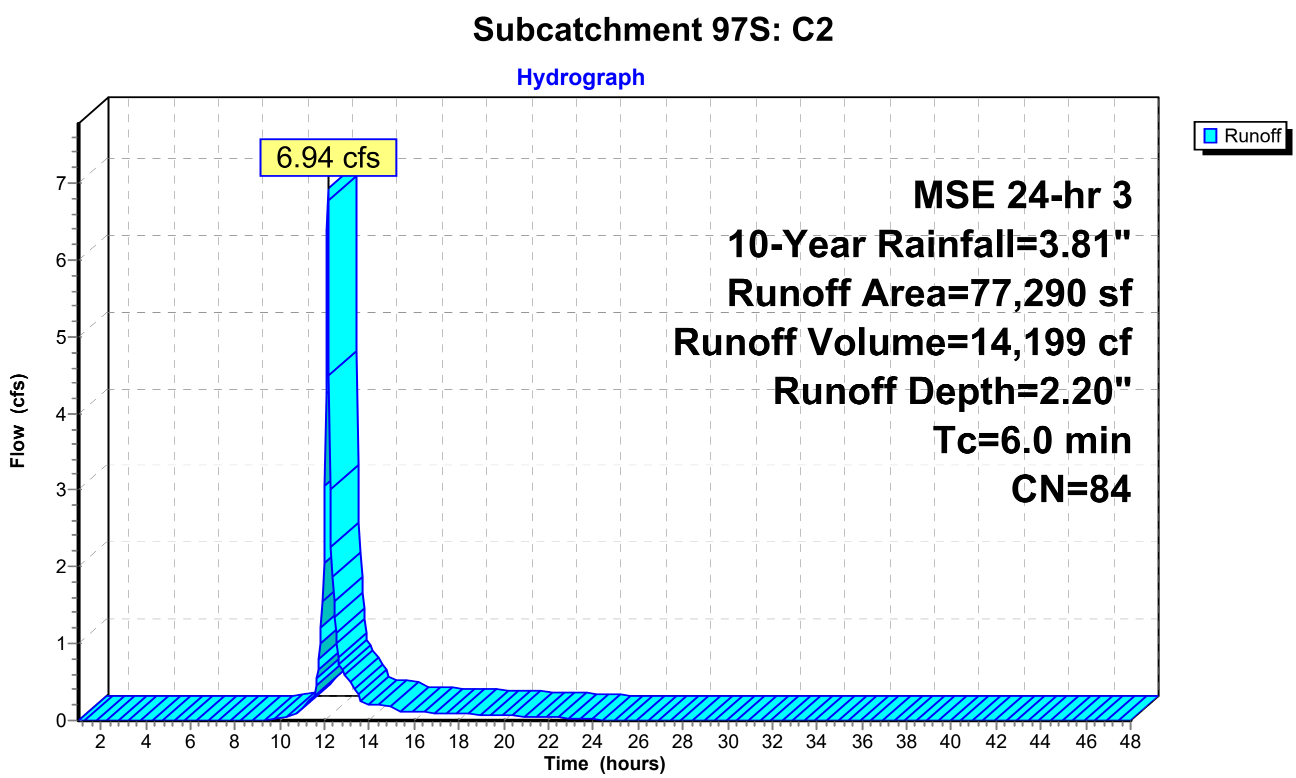
Subset C - C1
3/3/21
Southern portion of East Building Roof, Southern Building (Middle one) roof, pond area
pipe from roofs not sized yet

Runoff = 6.94 cfs @ 12.13 hrs, Volume= 14,199 cf, Depth= 2.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	9,728	98	walks and patios
*	23,739	98	roofs
*	43,823	74	landscape
	77,290	84	Weighted Average
	43,823		56.70% Pervious Area
	33,467		43.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**



Summary for Subcatchment 98S: E3

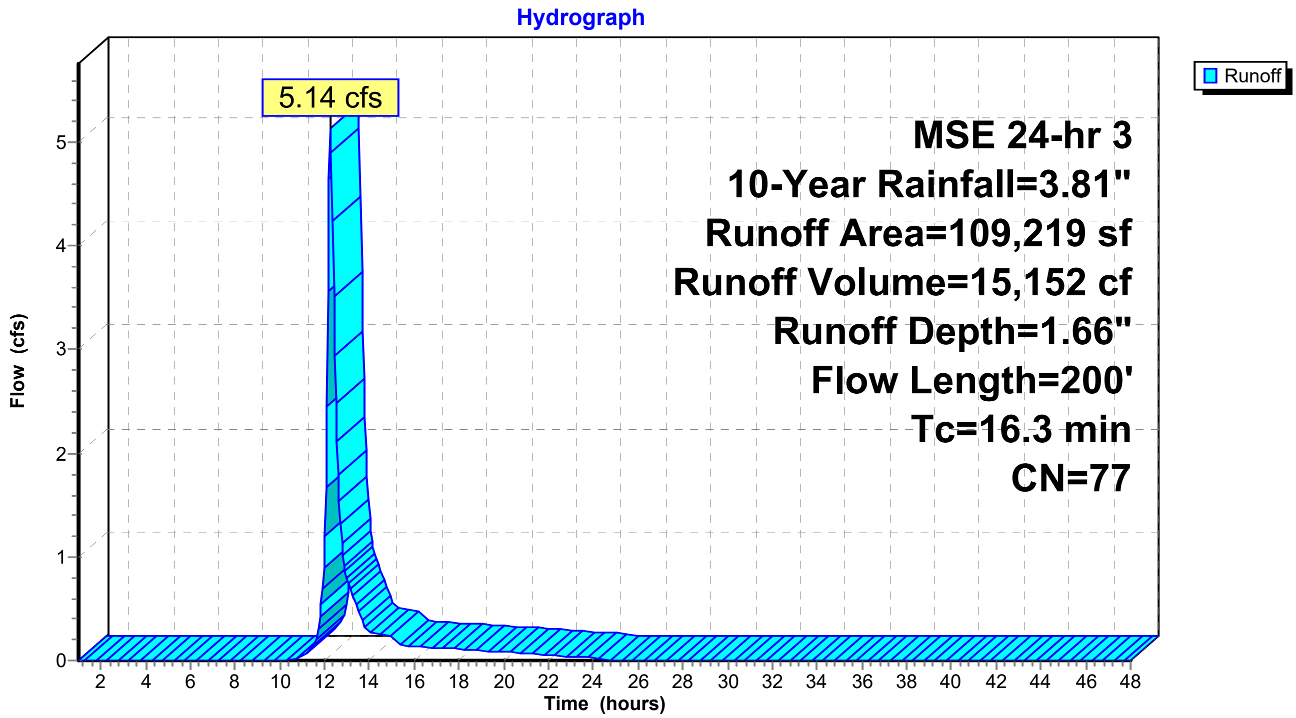
Runoff = 5.14 cfs @ 12.26 hrs, Volume= 15,152 cf, Depth= 1.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	6,532	98	walks
*	8,300	98	Roads
*	94,387	74	landscape
	109,219	77	Weighted Average
	94,387		86.42% Pervious Area
	14,832		13.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
1.4	100	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.3	200	Total			

Subcatchment 98S: E3



Summary for Subcatchment 105S: C

Subset C - C1
3/3/21
Southern portion of East Building Roof, Southern Building (Middle one) roof, pond area
pipe from roofs not sized yet

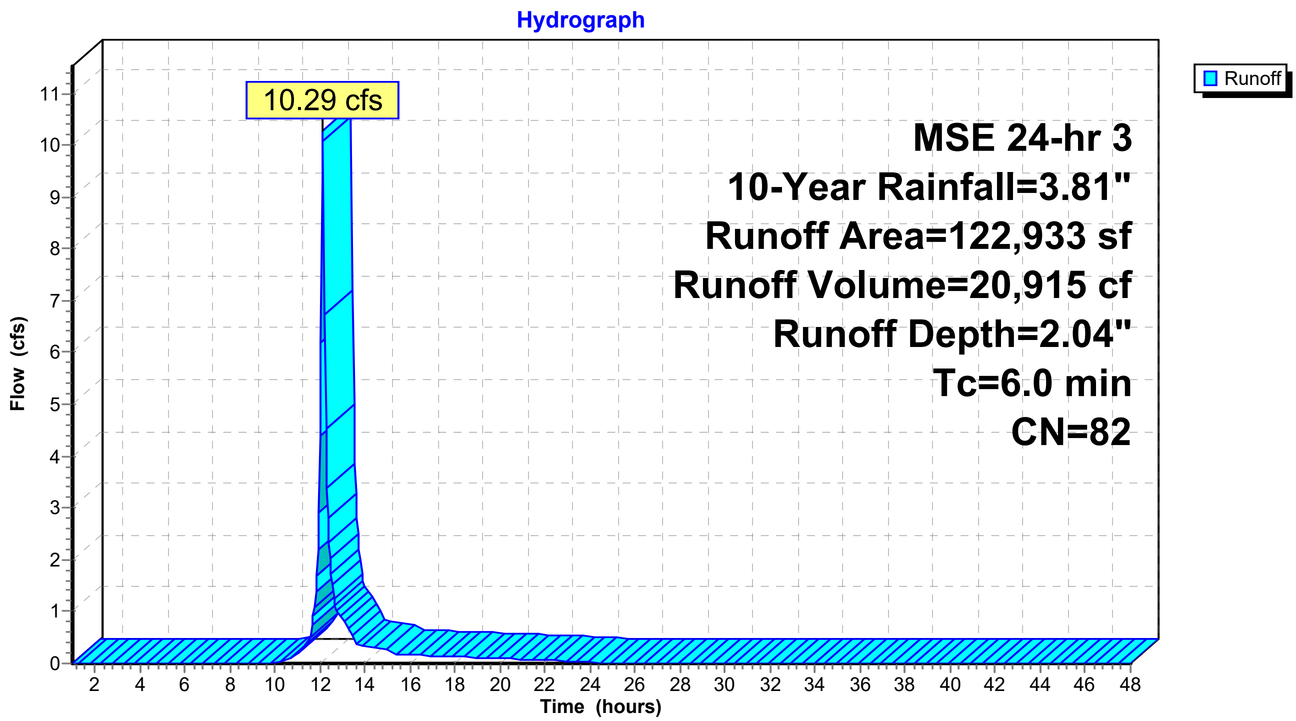
Runoff = 10.29 cfs @ 12.13 hrs, Volume= 20,915 cf, Depth= 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	8,648	98	walks and patios
*	32,913	98	roofs
*	81,372	74	landscape
	122,933	82	Weighted Average
	81,372		66.19% Pervious Area
	41,561		33.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 105S: C



Summary for Subcatchment 106S: B1

3/3/21
North face of West Building, Lawn Area south of WTP, Patios

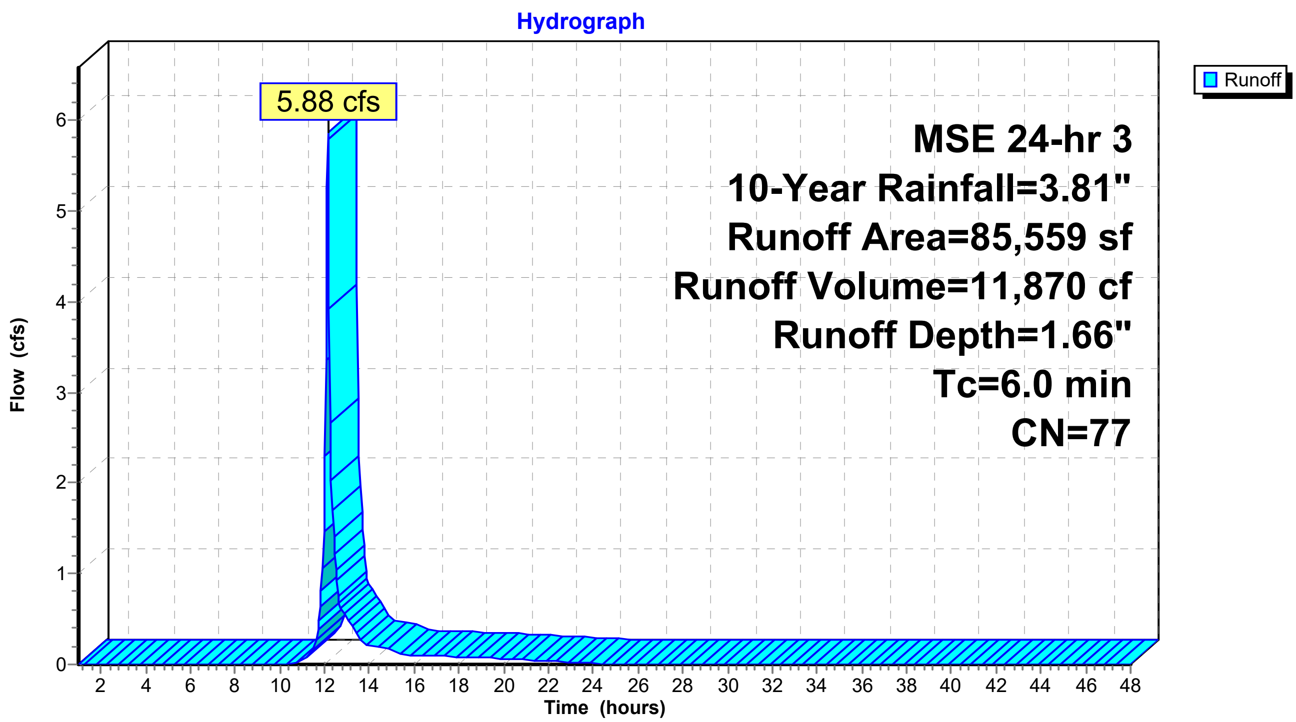
Runoff = 5.88 cfs @ 12.14 hrs, Volume= 11,870 cf, Depth= 1.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	76,242	74	landscape
*	9,317	98	walks
	85,559	77	Weighted Average
	76,242		89.11% Pervious Area
	9,317		10.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Check Later**

Subcatchment 106S: B1



Summary for Subcatchment 107S: F

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

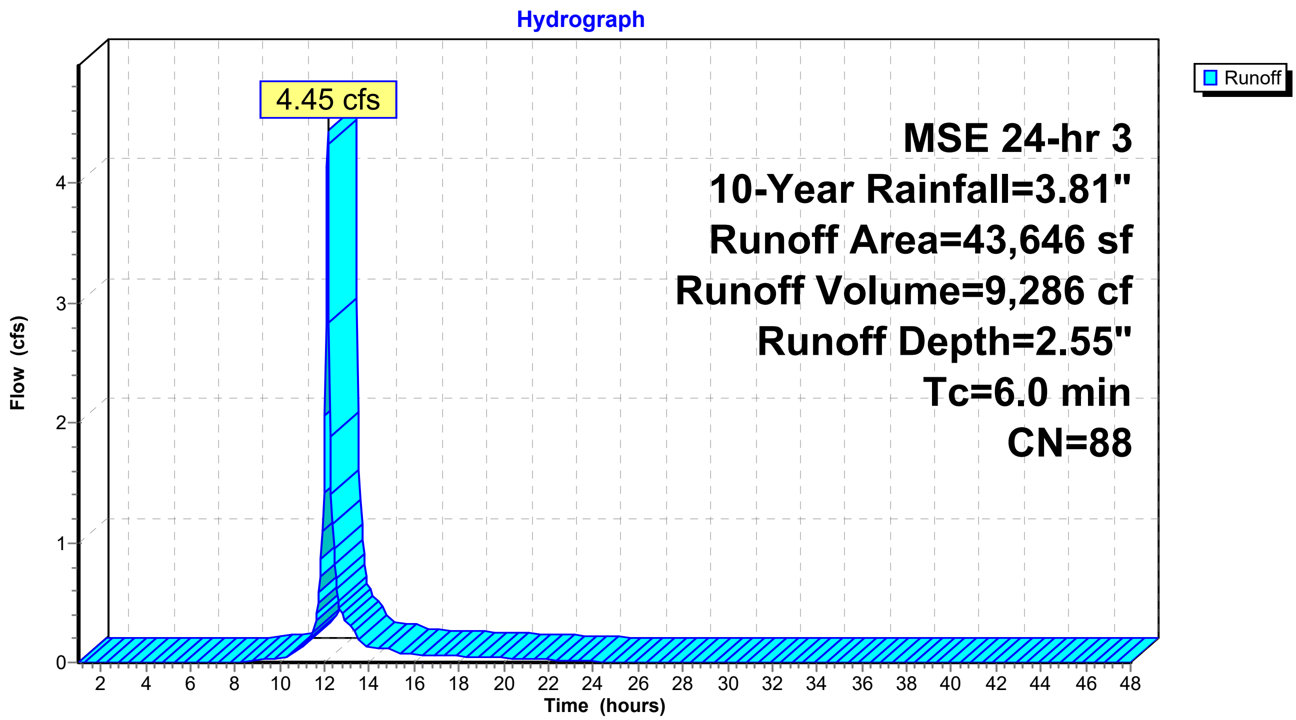
Runoff = 4.45 cfs @ 12.13 hrs, Volume= 9,286 cf, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	14,227	98	roads
*	11,236	98	roof
*	18,183	74	landscape
	43,646	88	Weighted Average
	18,183		41.66% Pervious Area
	25,463		58.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 107S: F



Summary for Subcatchment 108S: B2

3/3/21
Northern portion of W building roof

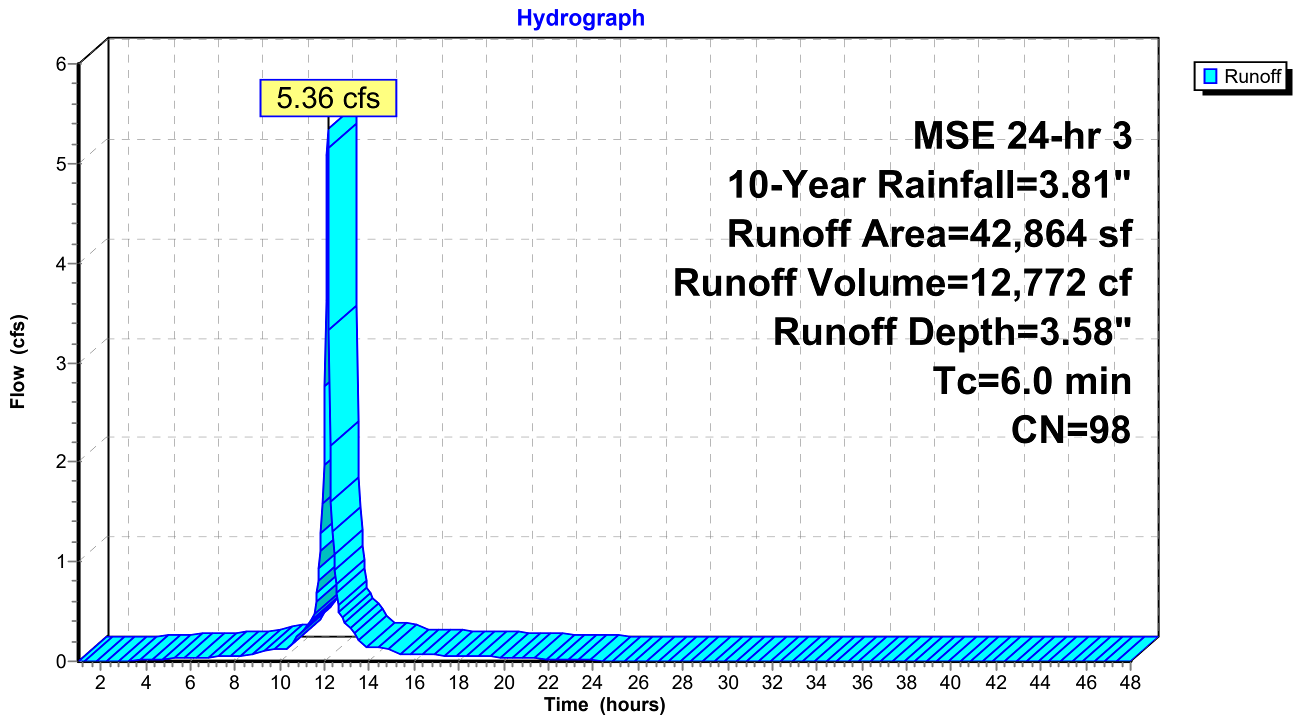
Runoff = 5.36 cfs @ 12.13 hrs, Volume= 12,772 cf, Depth= 3.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	42,864	98	roof
	42,864		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 108S: B2



Summary for Subcatchment 112S: D3

3/3/21
Western Building Courtyard (need to check that Joe's overall B works with B1-B4 in our update

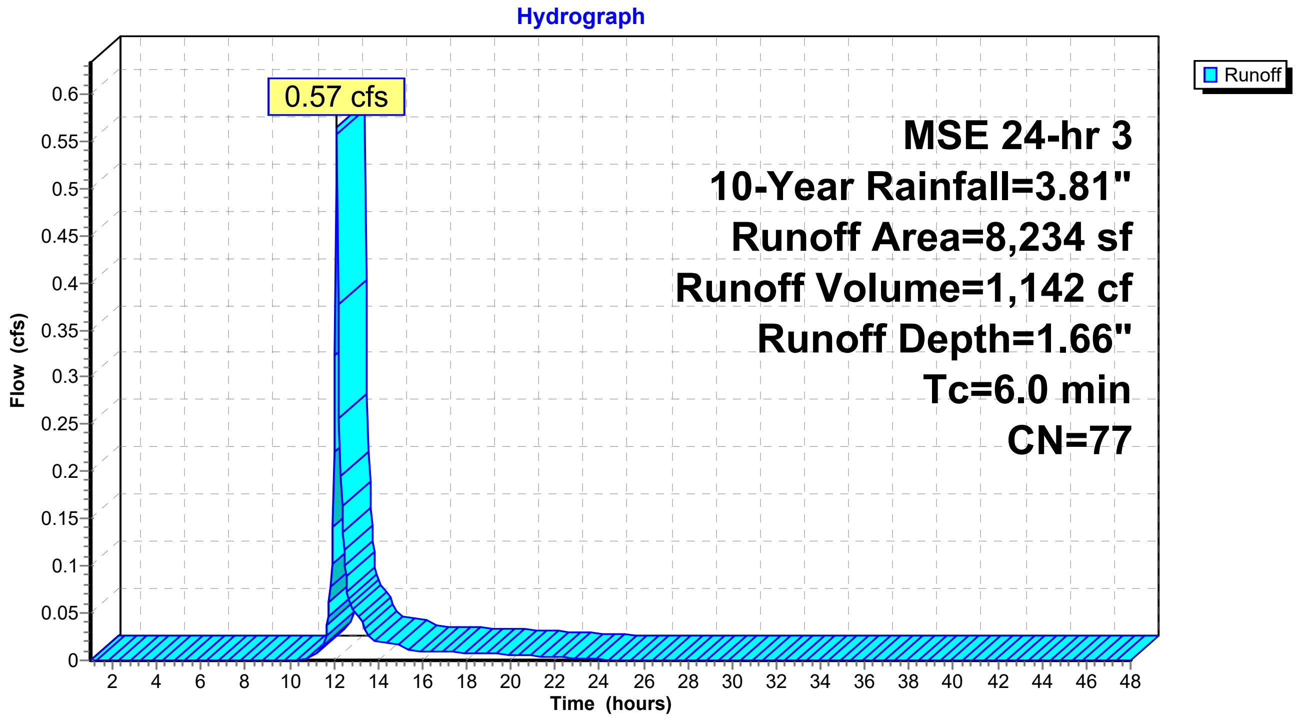
Runoff = 0.57 cfs @ 12.14 hrs, Volume= 1,142 cf, Depth= 1.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	1,062	98	walks
*	7,172	74	landscape
	8,234	77	Weighted Average
	7,172		87.10% Pervious Area
	1,062		12.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 112S: D3



Summary for Subcatchment 122S: F1

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

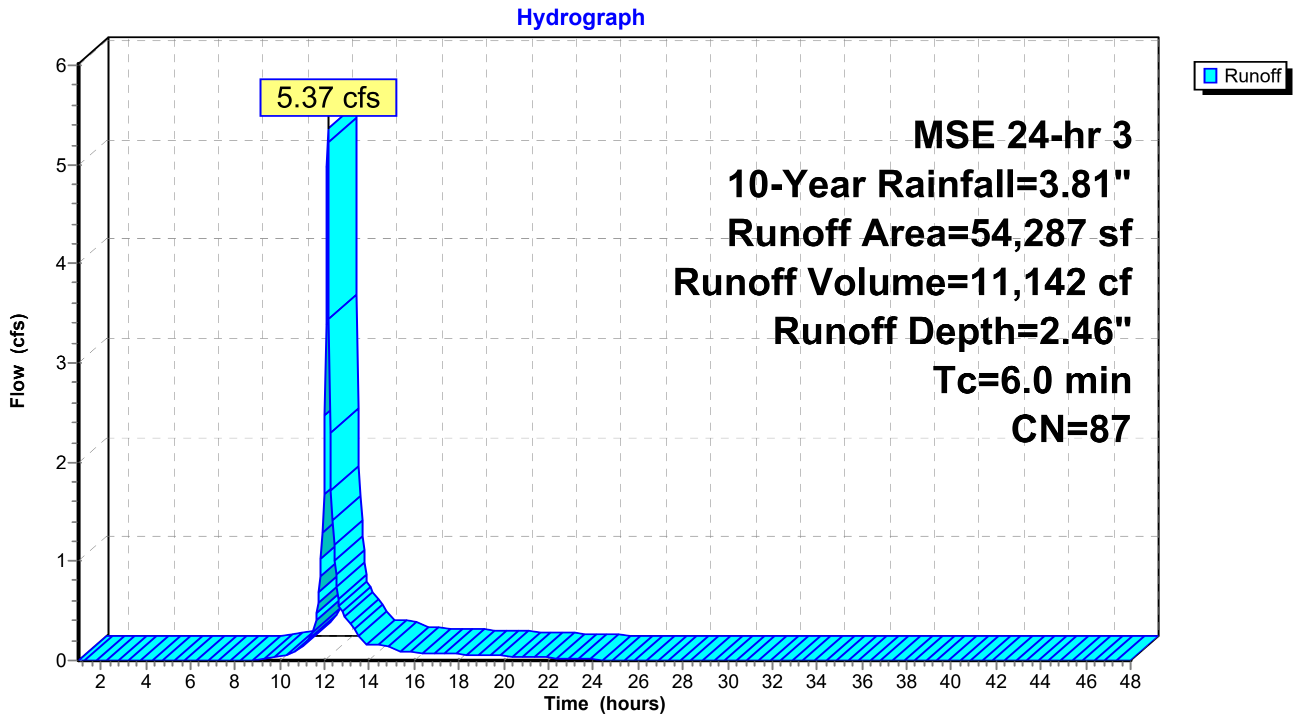
Runoff = 5.37 cfs @ 12.13 hrs, Volume= 11,142 cf, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	504	98	walks
*	19,590	98	roads
*	9,863	98	roof
*	24,330	74	landscape
	54,287	87	Weighted Average
	24,330		44.82% Pervious Area
	29,957		55.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 122S: F1



Summary for Subcatchment 125S: F3

3/3/21
SW Lot that drains direct to SC Pond

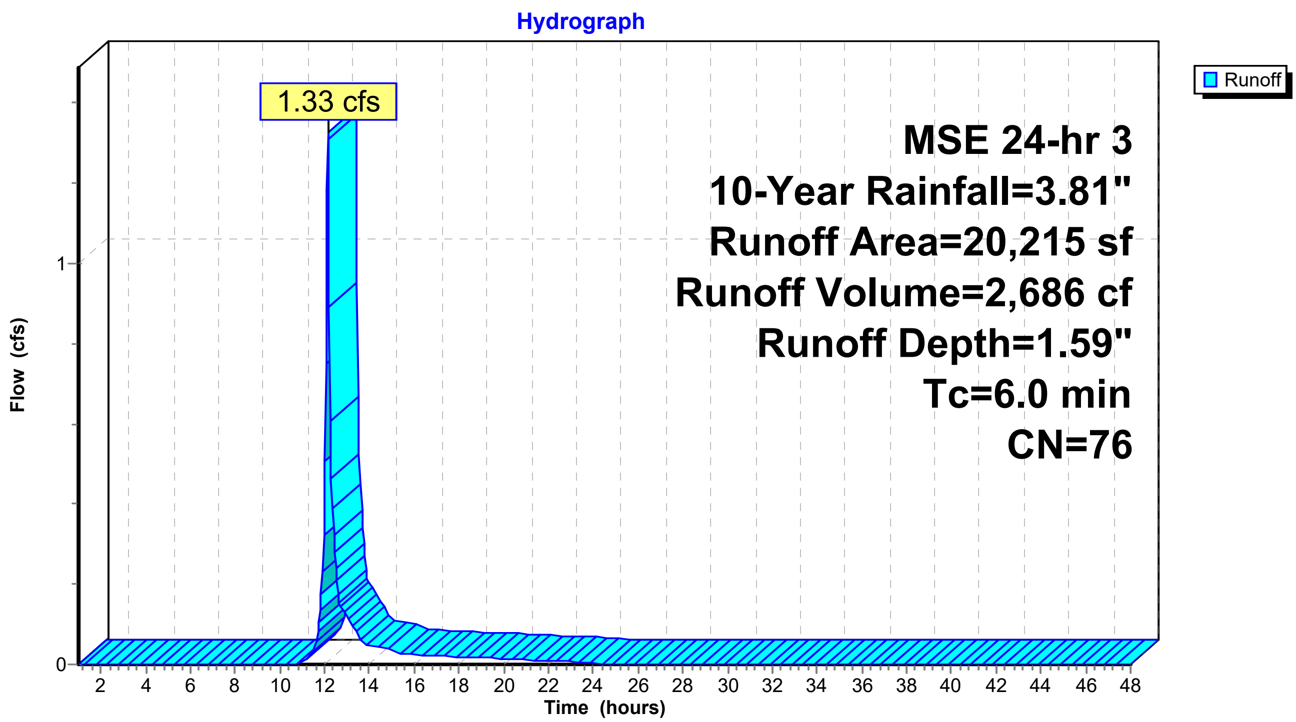
Runoff = 1.33 cfs @ 12.14 hrs, Volume= 2,686 cf, Depth= 1.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	2,087	98	roof
*	18,128	74	landscape
	20,215	76	Weighted Average
	18,128		89.68% Pervious Area
	2,087		10.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 125S: F3



Summary for Subcatchment 126S: F4

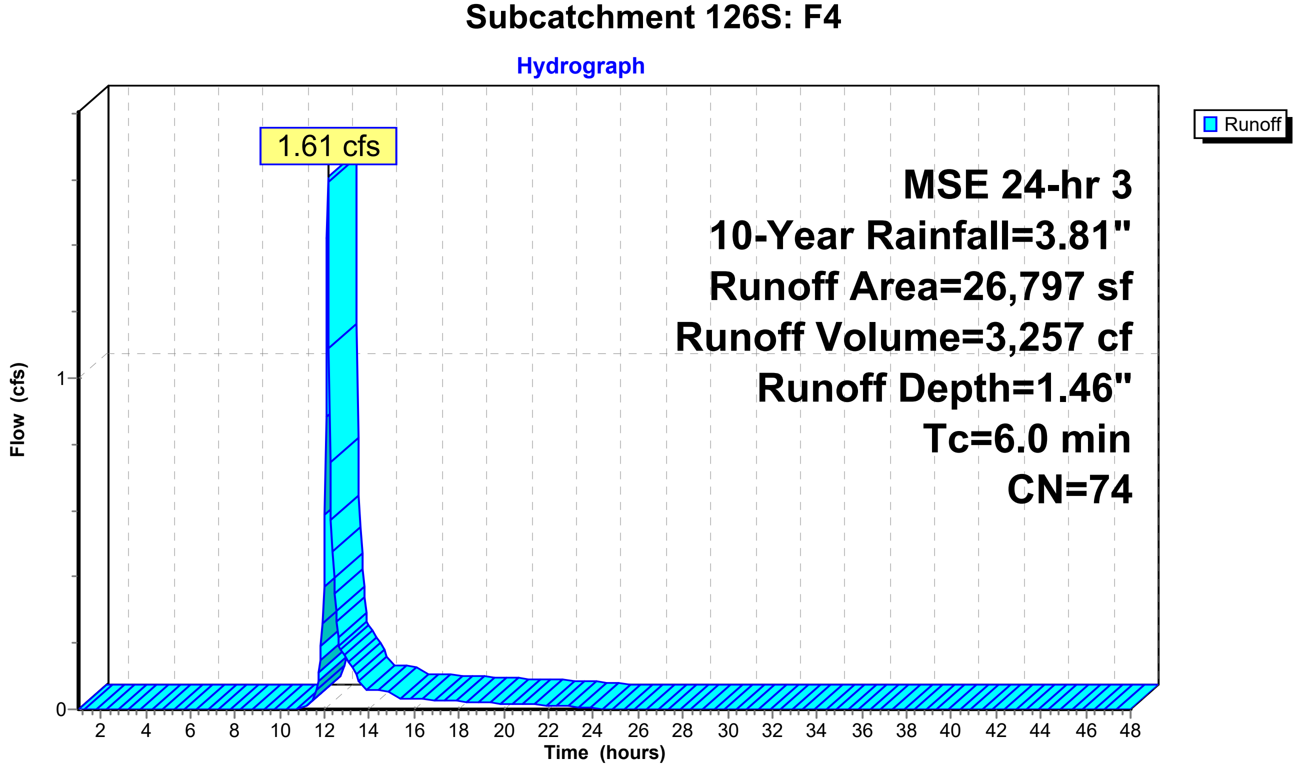
3/3/21
SC Pond itself

Runoff = 1.61 cfs @ 12.14 hrs, Volume= 3,257 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	26,797	74	landscape
	26,797		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**



Summary for Subcatchment 138S: F2

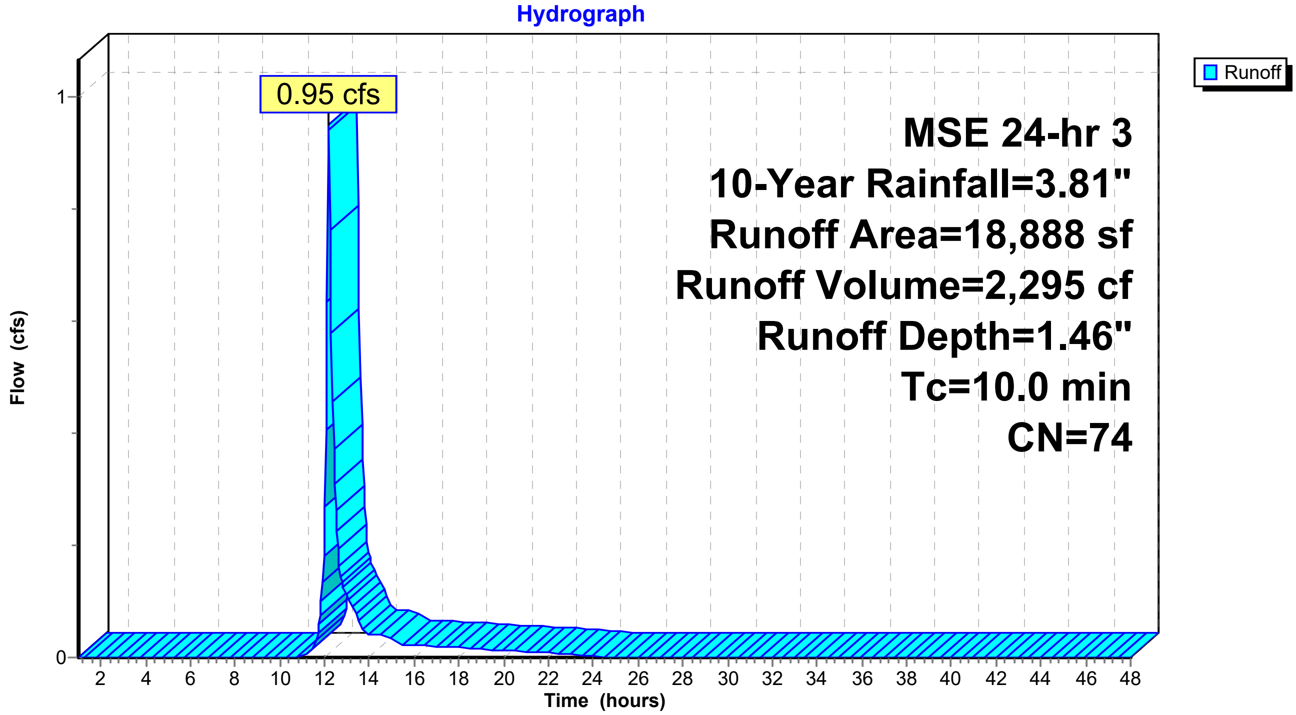
Runoff = 0.95 cfs @ 12.18 hrs, Volume= 2,295 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	18,888	74	Landscape
	18,888		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, minimum**

Subcatchment 138S: F2



Summary for Subcatchment 140S: H1

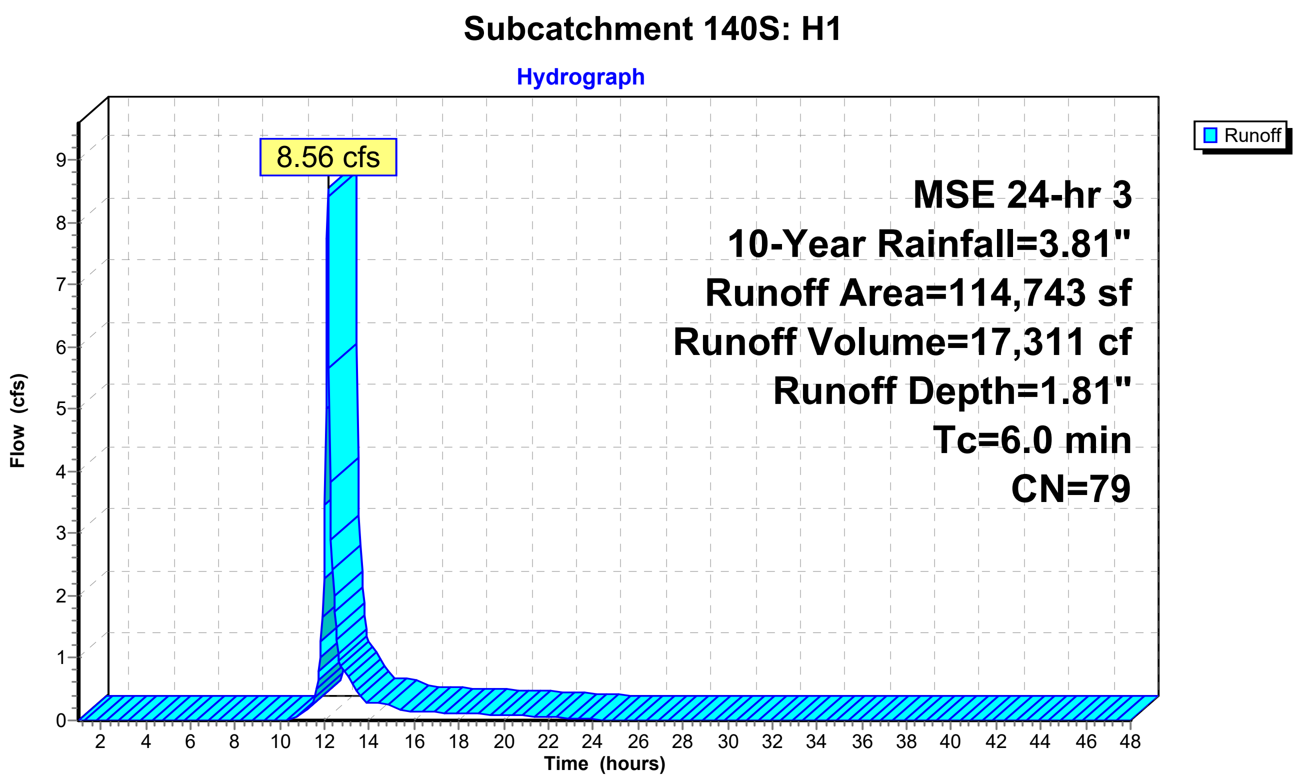
3/3/21
Northern Berm north of cul-de-sac road, east side of SC

Runoff = 8.56 cfs @ 12.13 hrs, Volume= 17,311 cf, Depth= 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	9,481	98	roads
*	13,229	98	roof
*	92,033	74	landscape
	114,743	79	Weighted Average
	92,033		80.21% Pervious Area
	22,710		19.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**



Summary for Subcatchment 141S: H2

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

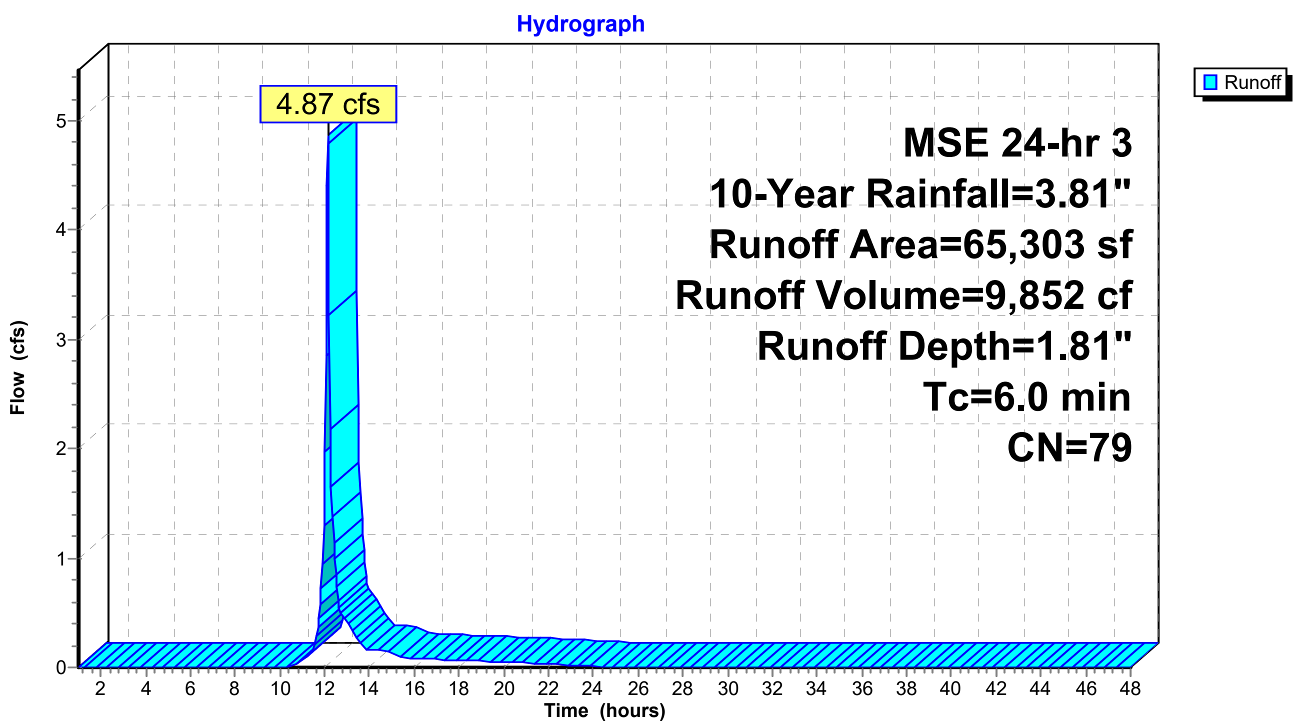
Runoff = 4.87 cfs @ 12.13 hrs, Volume= 9,852 cf, Depth= 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	4,833	98	roads
*	7,898	98	roof
*	52,572	74	landscape
	65,303	79	Weighted Average
	52,572		80.50% Pervious Area
	12,731		19.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 141S: H2



Summary for Subcatchment 142S: H3

3/3/21
Needs to be delineated, this is from Joe's SWMP2

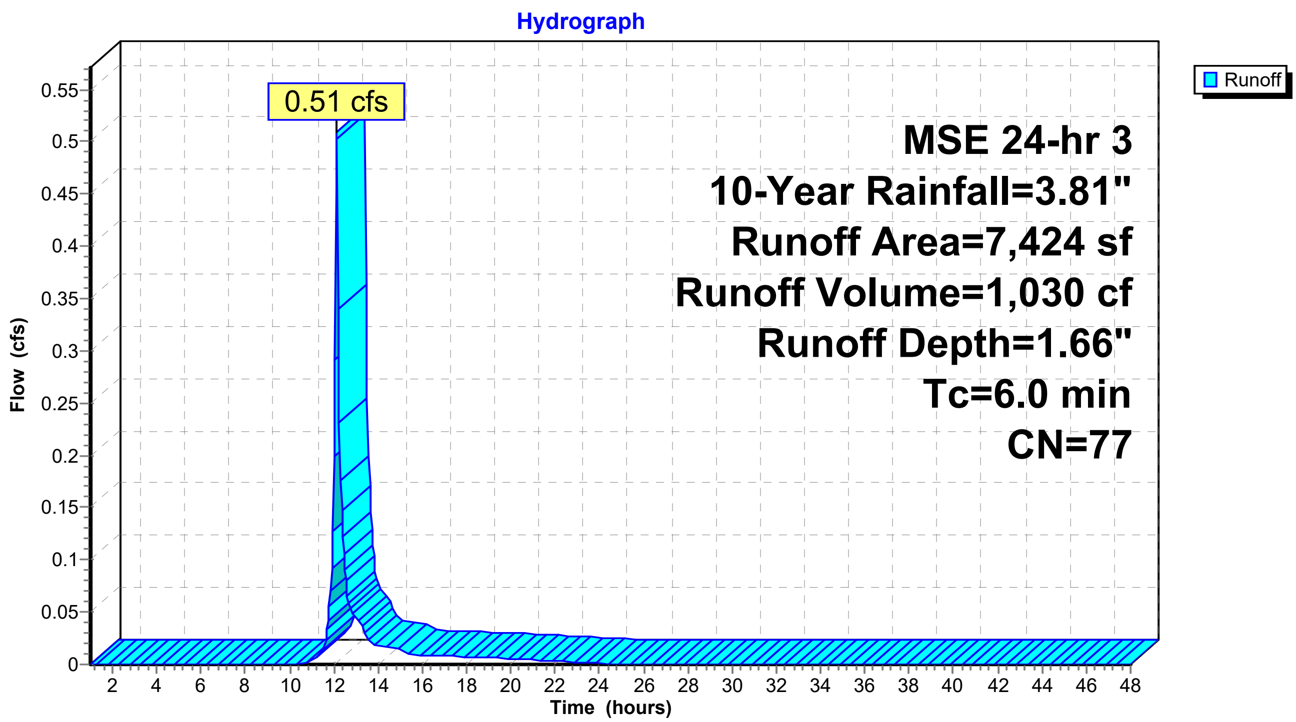
Runoff = 0.51 cfs @ 12.14 hrs, Volume= 1,030 cf, Depth= 1.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	1,041	98	roads
*	6,383	74	landscape
	7,424	77	Weighted Average
	6,383		85.98% Pervious Area
	1,041		14.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 142S: H3



Summary for Subcatchment 143S: H4

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

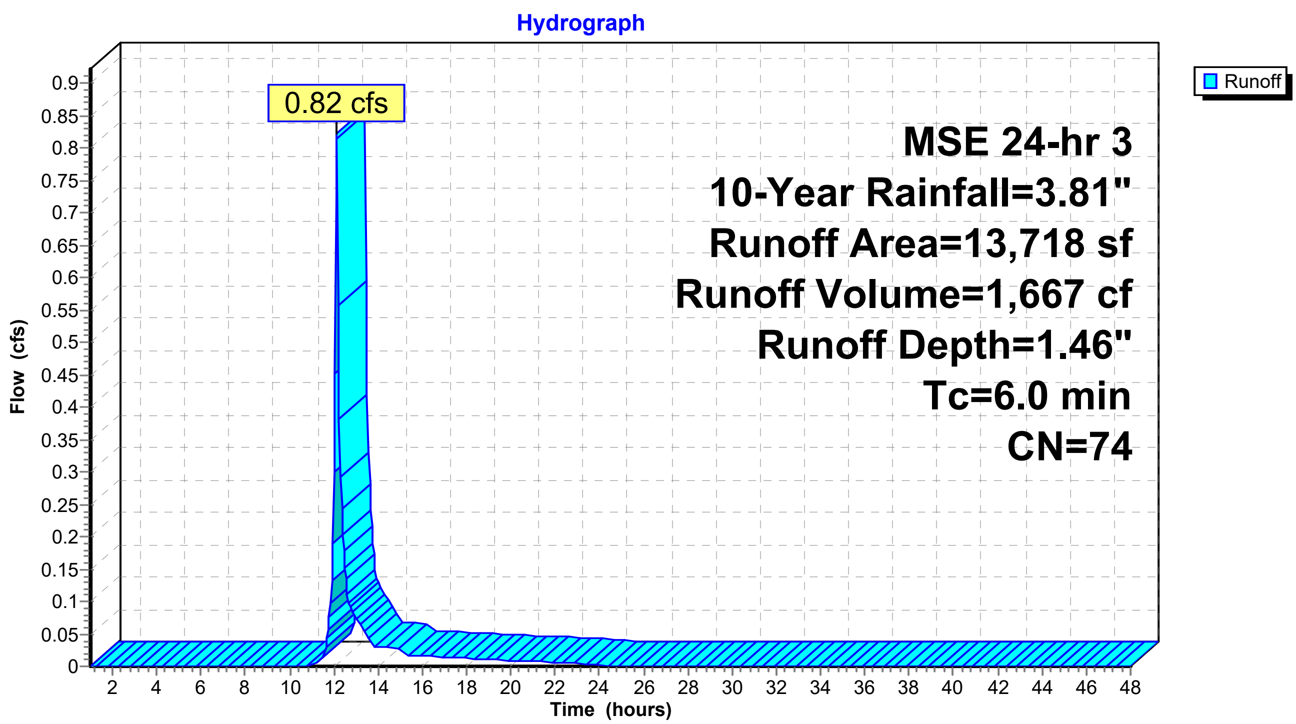
Runoff = 0.82 cfs @ 12.14 hrs, Volume= 1,667 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	13,718	74	landscape
	13,718		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 143S: H4



Summary for Subcatchment 144S: H5

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

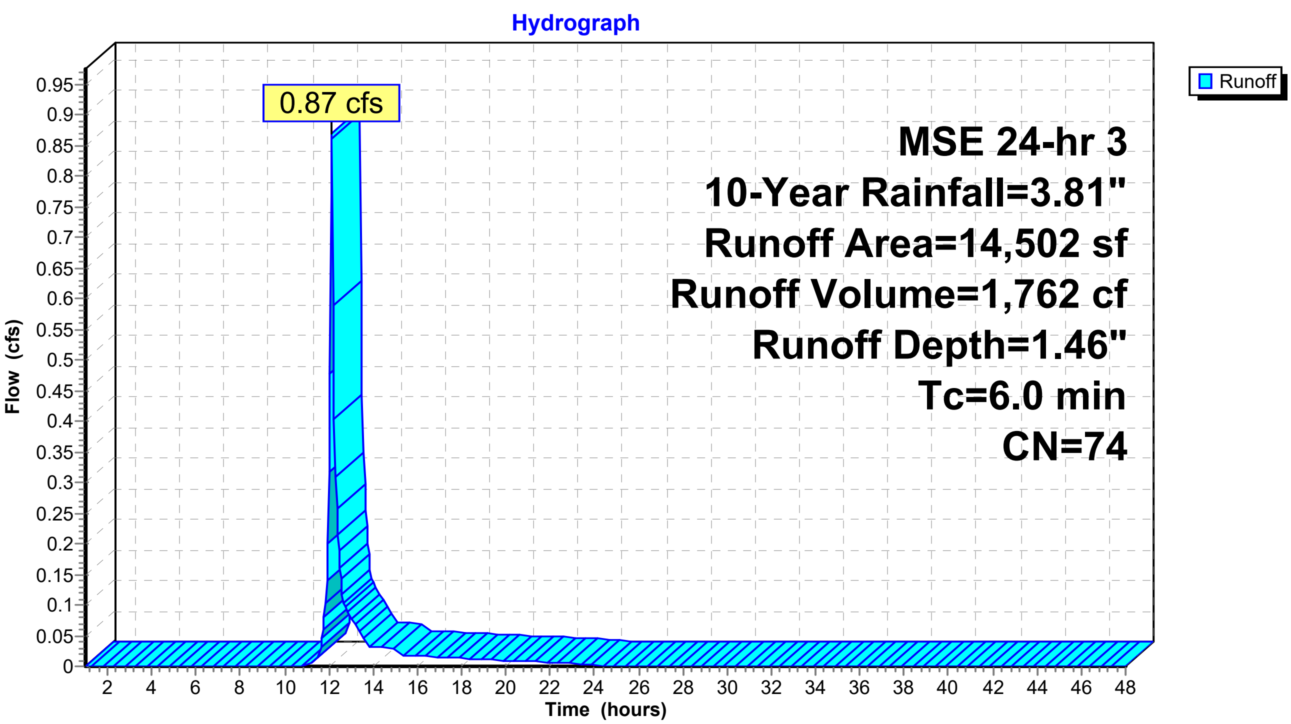
Runoff = 0.87 cfs @ 12.14 hrs, Volume= 1,762 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	14,502	74	landscape
	14,502		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 144S: H5



Summary for Subcatchment 145S: H6

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

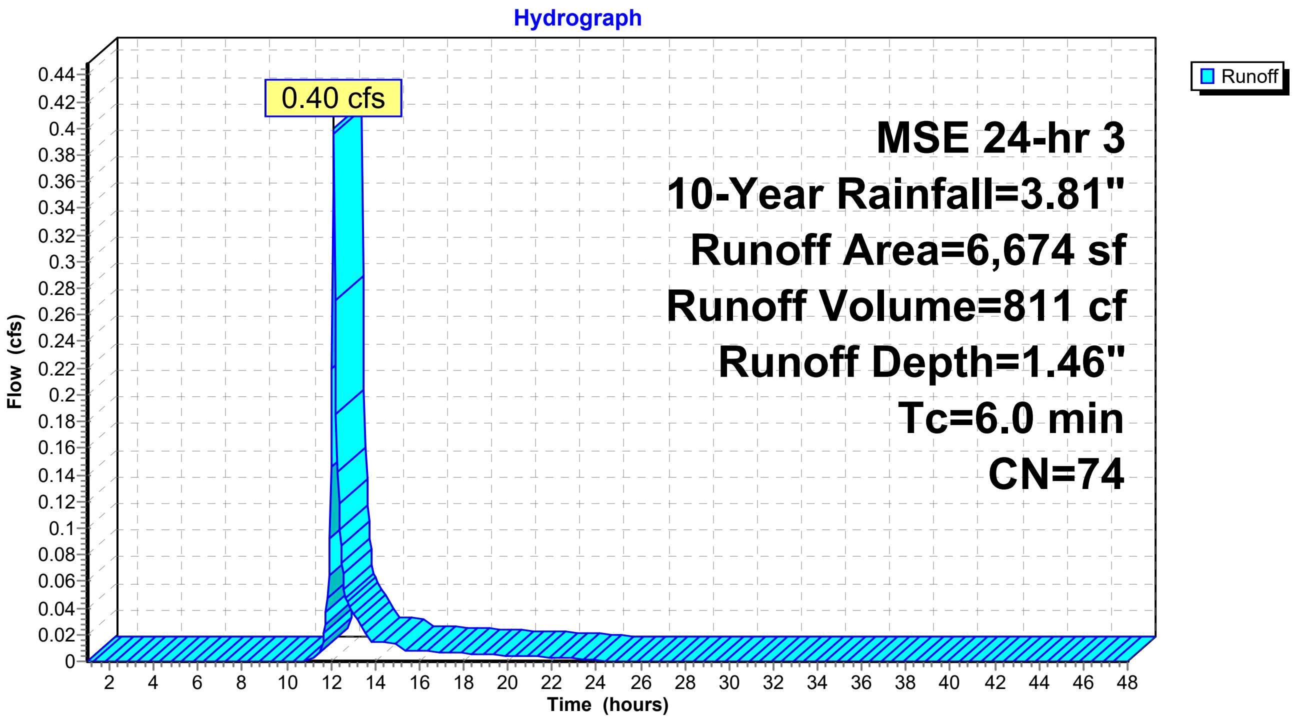
Runoff = 0.40 cfs @ 12.14 hrs, Volume= 811 cf, Depth= 1.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	6,674	74	landscape
	6,674		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 145S: H6



Summary for Subcatchment 146S: O2

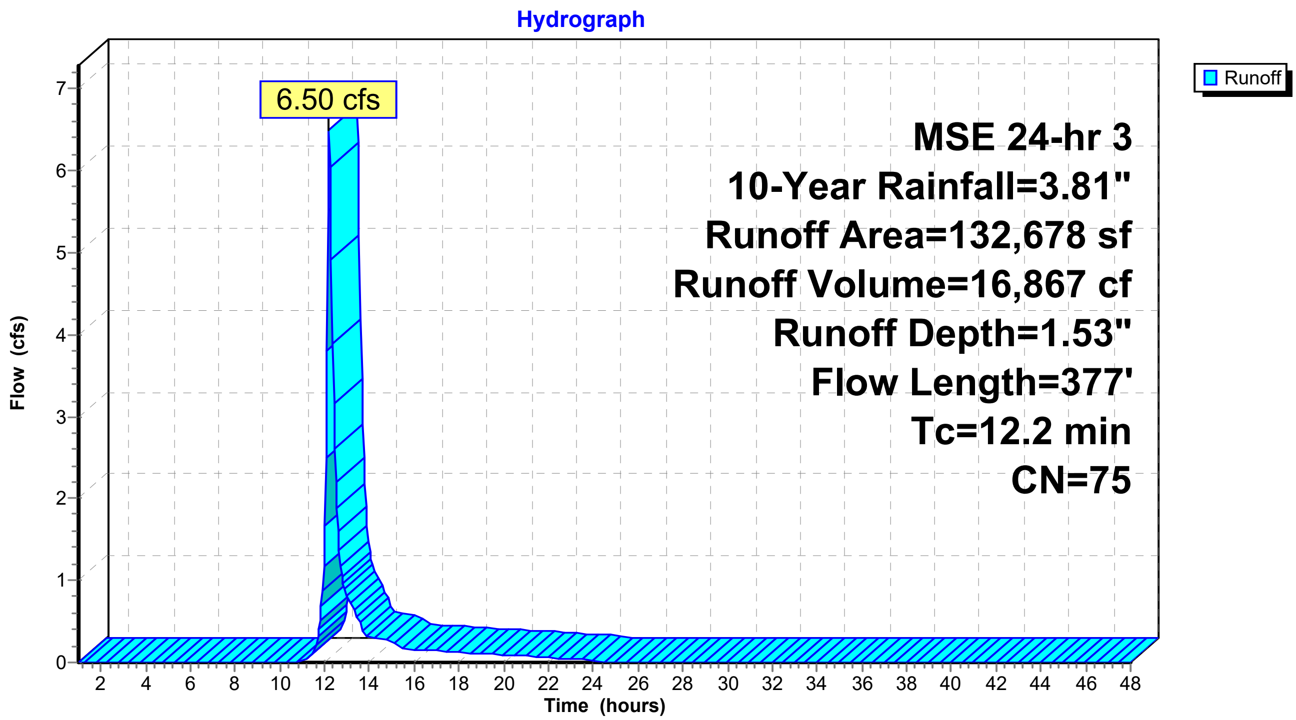
Runoff = 6.50 cfs @ 12.21 hrs, Volume= 16,867 cf, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	129,638	74	PERV
*	3,040	98	IMPERV
	132,678	75	Weighted Average
	129,638		97.71% Pervious Area
	3,040		2.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	77	0.0288	0.16		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.42"
4.3	300	0.0135	1.16		**Shallow Concentrated Flow, SHALLOW CONC** Nearly Bare & Untilled Kv= 10.0 fps
12.2	377	Total			

Subcatchment 146S: O2



Summary for Subcatchment 147S: J

3/3/21
Needs to be delineated, this is from Joe's SWMP2

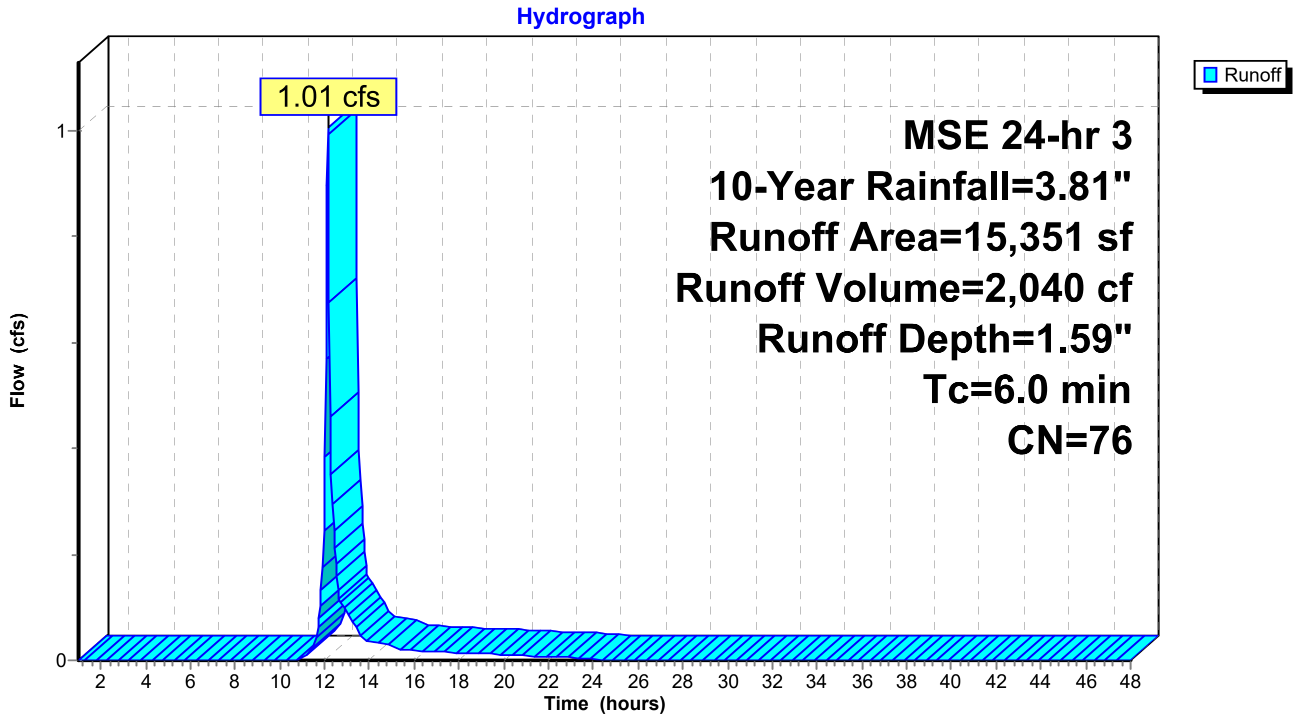
Runoff = 1.01 cfs @ 12.14 hrs, Volume= 2,040 cf, Depth= 1.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 10-Year Rainfall=3.81"

	Area (sf)	CN	Description
*	1,360	98	walks
*	13,991	74	landscape
	15,351	76	Weighted Average
	13,991		91.14% Pervious Area
	1,360		8.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 147S: J



Summary for Reach 99R: East Swale (SE End)

[62] Hint: Exceeded Reach 106R OUTLET depth by 0.50' @ 12.15 hrs

Inflow Area = 255,950 sf, 26.67% Impervious, Inflow Depth = 1.92" for 10-Year event
Inflow = 20.16 cfs @ 12.14 hrs, Volume= 40,982 cf
Outflow = 18.29 cfs @ 12.20 hrs, Volume= 40,982 cf, Atten= 9%, Lag= 3.8 min

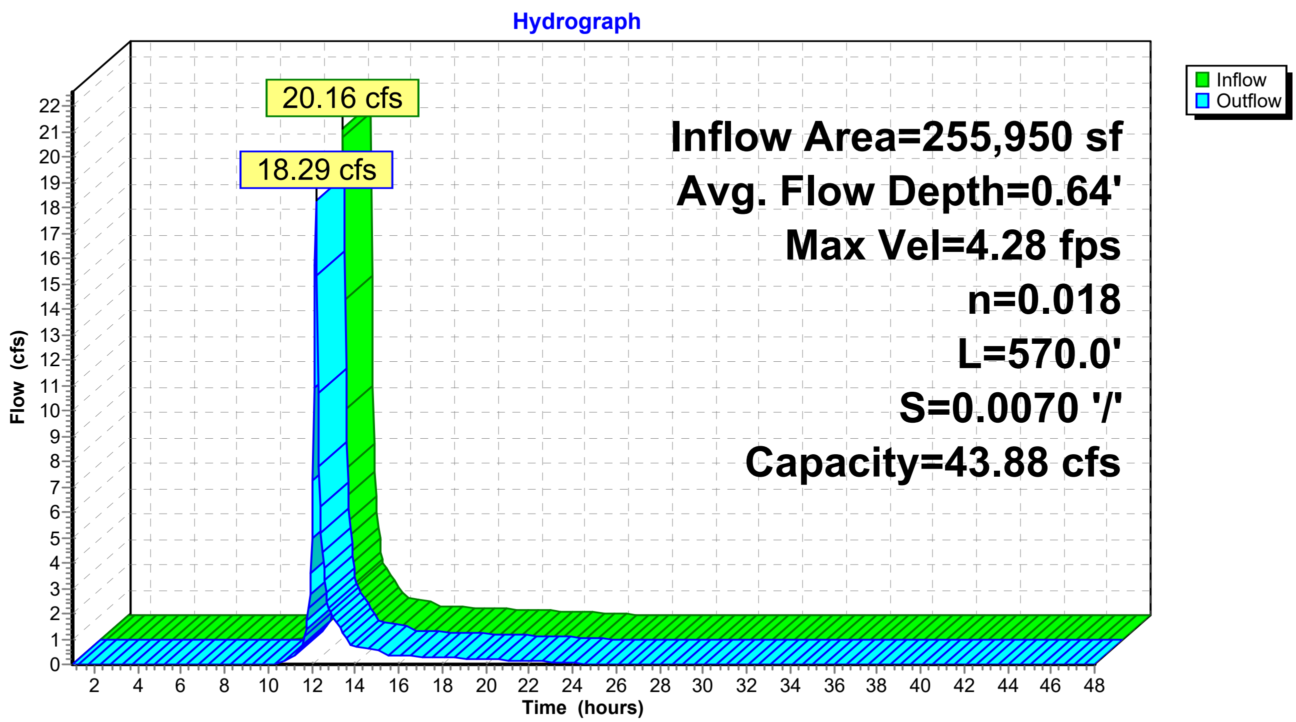
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.28 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 0.95 fps, Avg. Travel Time= 10.0 min

Peak Storage= 2,517 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.64'
Bank-Full Depth= 1.00' Flow Area= 8.0 sf, Capacity= 43.88 cfs

5.00' x 1.00' deep channel, n= 0.018
Side Slope Z-value= 3.0 '/' Top Width= 11.00'
Length= 570.0' Slope= 0.0070 '/'
Inlet Invert= 757.00', Outlet Invert= 753.00'

‡

Reach 99R: East Swale (SE End)



Summary for Reach 106R: East Swale (North End)

3/2/21
Slope Calc - (140' x 4.64%)

Inflow Area = 18,274 sf, 21.80% Impervious, Inflow Depth = 1.81" for 10-Year event
Inflow = 1.36 cfs @ 12.13 hrs, Volume= 2,757 cf
Outflow = 1.32 cfs @ 12.15 hrs, Volume= 2,757 cf, Atten= 3%, Lag= 0.8 min

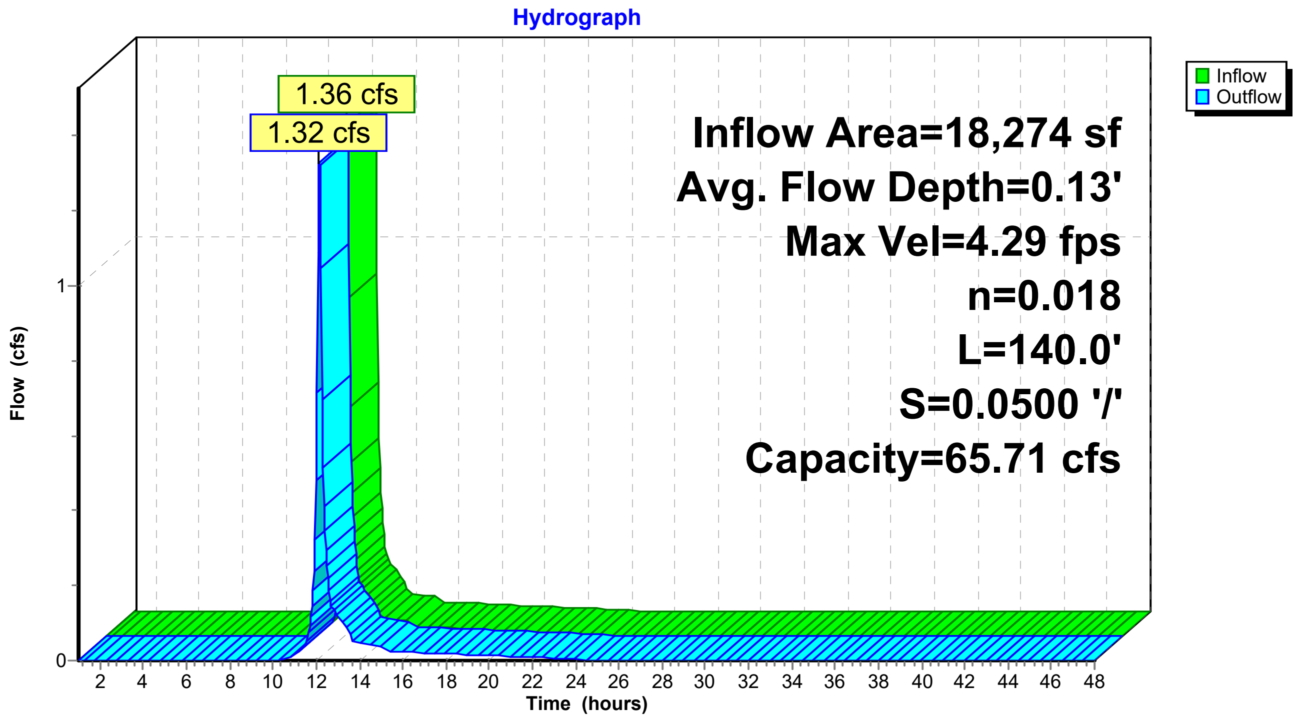
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.29 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.12 fps, Avg. Travel Time= 2.1 min

Peak Storage= 45 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.13'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 65.71 cfs

2.00' x 1.00' deep channel, n= 0.018 Earth, clean & straight
Side Slope Z-value= 3.0 '/' Top Width= 8.00'
Length= 140.0' Slope= 0.0500 '/'
Inlet Invert= 764.00', Outlet Invert= 757.00'

‡

Reach 106R: East Swale (North End)



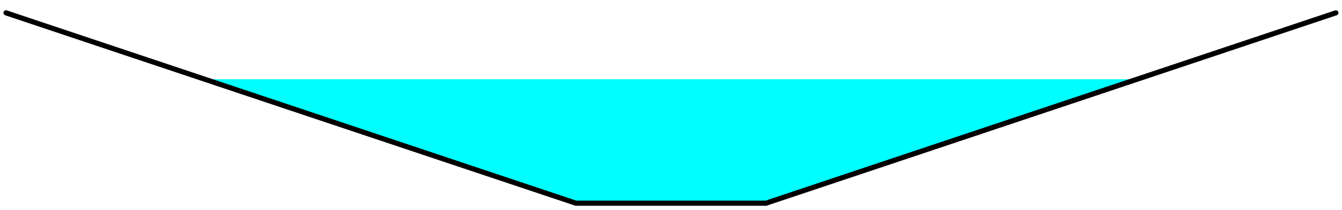
Summary for Reach 108R: South Berm Swale

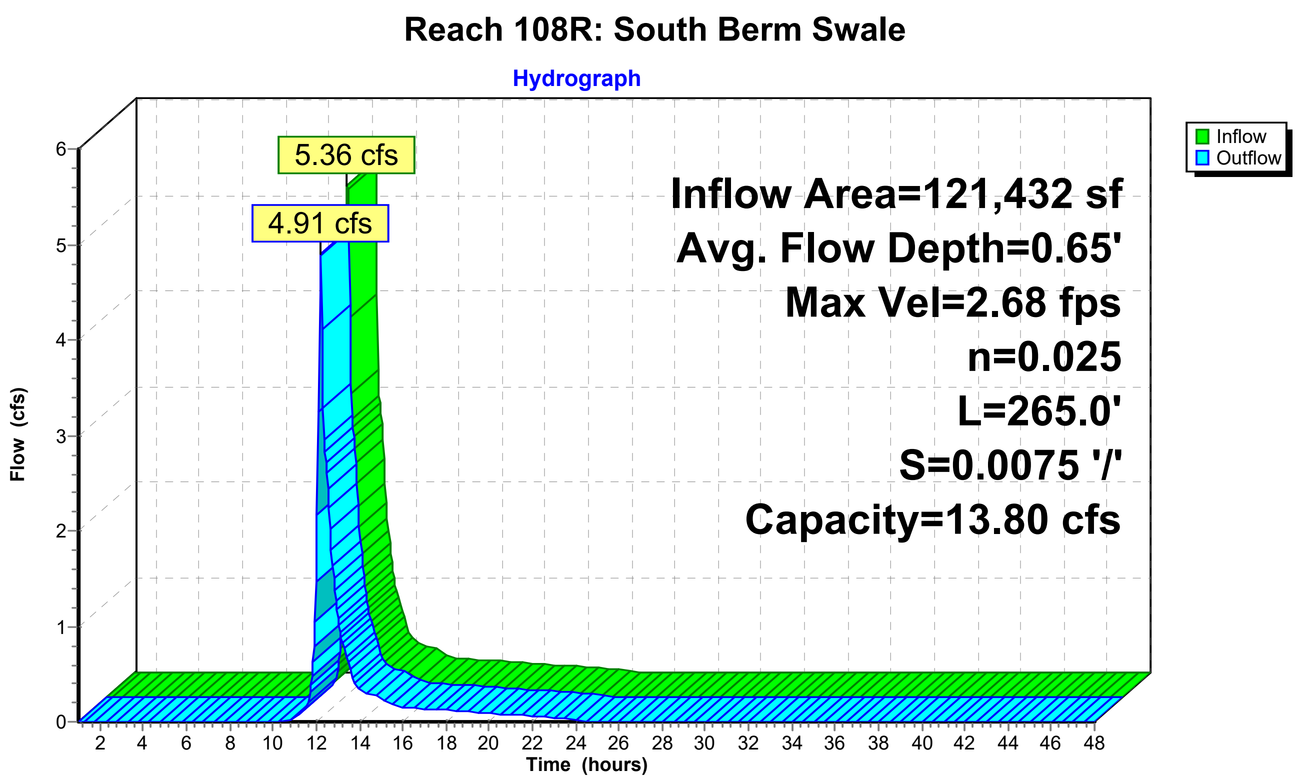
Inflow Area = 121,432 sf, 10.48% Impervious, Inflow Depth = 1.65" for 10-Year event
Inflow = 5.36 cfs @ 12.14 hrs, Volume= 16,673 cf
Outflow = 4.91 cfs @ 12.19 hrs, Volume= 16,673 cf, Atten= 8%, Lag= 3.1 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.68 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 0.92 fps, Avg. Travel Time= 4.8 min

Peak Storage= 509 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.65'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 13.80 cfs

1.00' x 1.00' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.00'
Length= 265.0' Slope= 0.0075 '/'
Inlet Invert= 754.00', Outlet Invert= 752.00'





Summary for Reach 109R: SC Road East Ditch

3/3/21
Ditch on north and west side of cul-de-sac road

Inflow Area = 43,646 sf, 58.34% Impervious, Inflow Depth = 2.55" for 10-Year event
Inflow = 4.45 cfs @ 12.13 hrs, Volume= 9,286 cf
Outflow = 3.93 cfs @ 12.22 hrs, Volume= 9,286 cf, Atten= 12%, Lag= 5.1 min

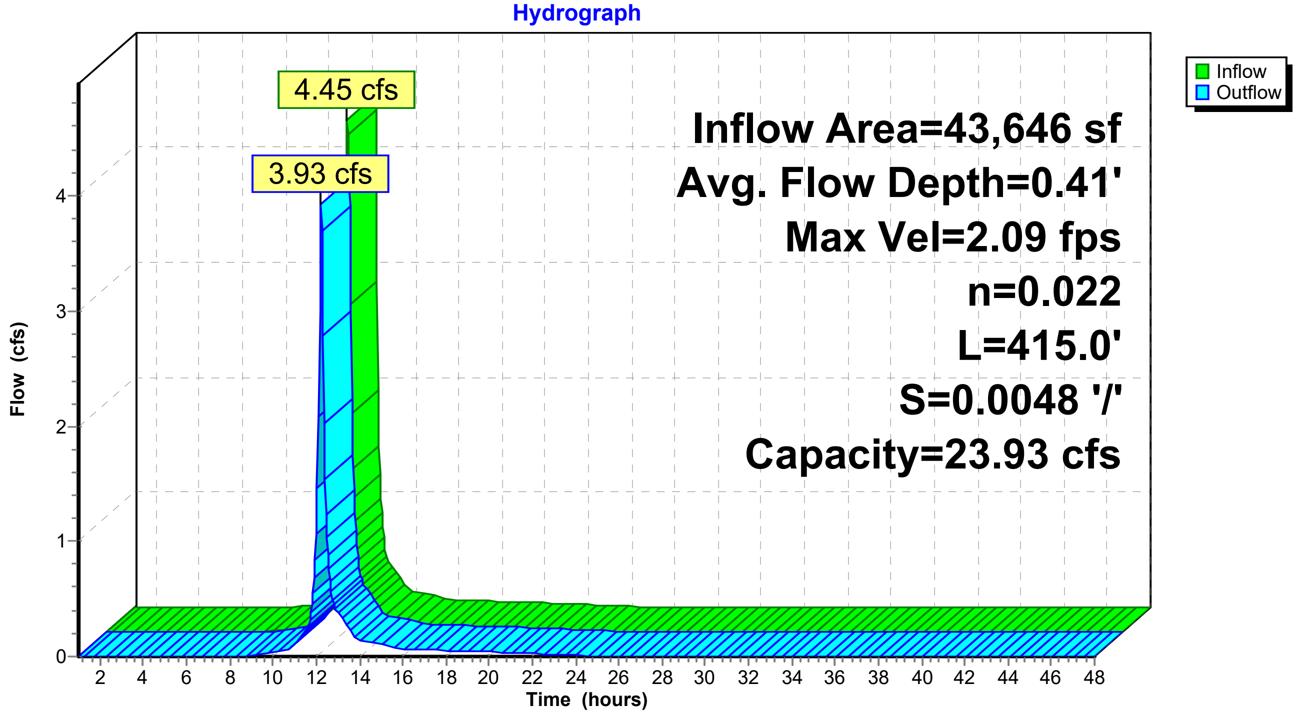
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.09 fps, Min. Travel Time= 3.3 min
Avg. Velocity = 0.49 fps, Avg. Travel Time= 14.2 min

Peak Storage= 792 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.41'
Bank-Full Depth= 1.00' Flow Area= 7.0 sf, Capacity= 23.93 cfs

3.00' x 1.00' deep channel, n= 0.022
Side Slope Z-value= 4.0 '/' Top Width= 11.00'
Length= 415.0' Slope= 0.0048 '/'
Inlet Invert= 747.00', Outlet Invert= 745.00'

‡

Reach 109R: SC Road East Ditch



Summary for Reach 111R: Western PL North Ditch

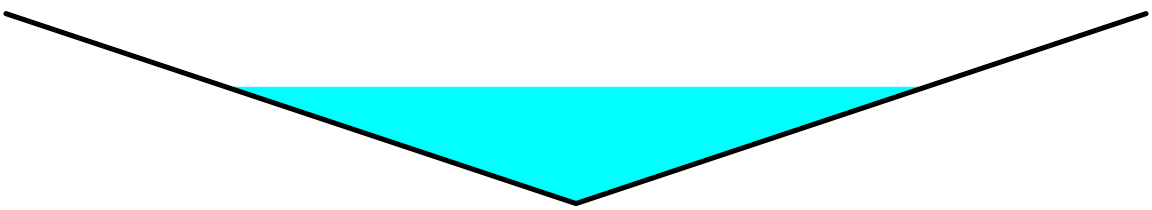
3/3/21
This is the western property line ditch that takes offsite flow and western building courtyard flow to IB
update length we shortened in screen share

Inflow Area = 125,111 sf, 9.17% Impervious, Inflow Depth = 1.62" for 10-Year event
Inflow = 7.85 cfs @ 12.14 hrs, Volume= 16,898 cf
Outflow = 7.12 cfs @ 12.21 hrs, Volume= 16,898 cf, Atten= 9%, Lag= 3.9 min

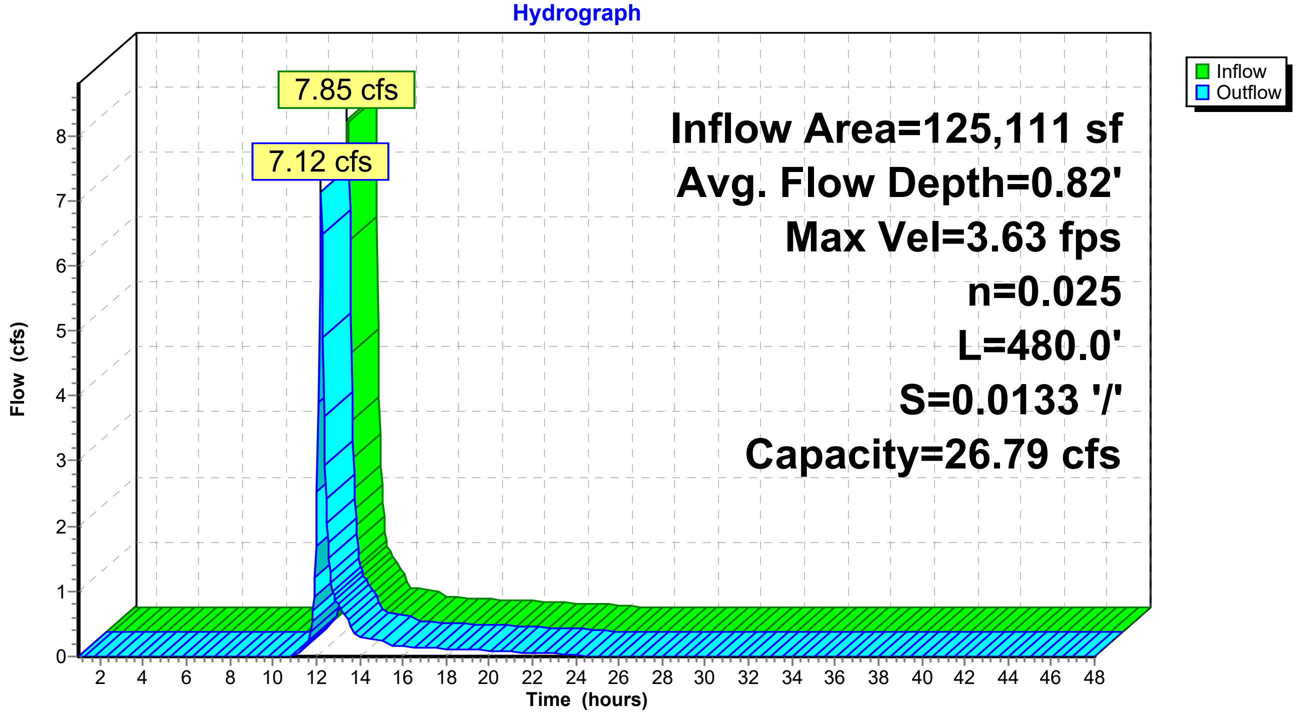
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.63 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 1.26 fps, Avg. Travel Time= 6.4 min

Peak Storage= 962 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.82'
Bank-Full Depth= 1.33' Flow Area= 5.3 sf, Capacity= 26.79 cfs

0.00' x 1.33' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.98'
Length= 480.0' Slope= 0.0133 '/'
Inlet Invert= 755.50', Outlet Invert= 749.10'



Reach 111R: Western PL North Ditch



Summary for Reach 117R: SC Road West Ditch

3/3/21
Ditch on north and west side of cul-de-sac road

Inflow Area = 54,287 sf, 55.18% Impervious, Inflow Depth = 2.46" for 10-Year event
Inflow = 5.37 cfs @ 12.13 hrs, Volume= 11,142 cf
Outflow = 4.55 cfs @ 12.23 hrs, Volume= 11,142 cf, Atten= 15%, Lag= 6.0 min

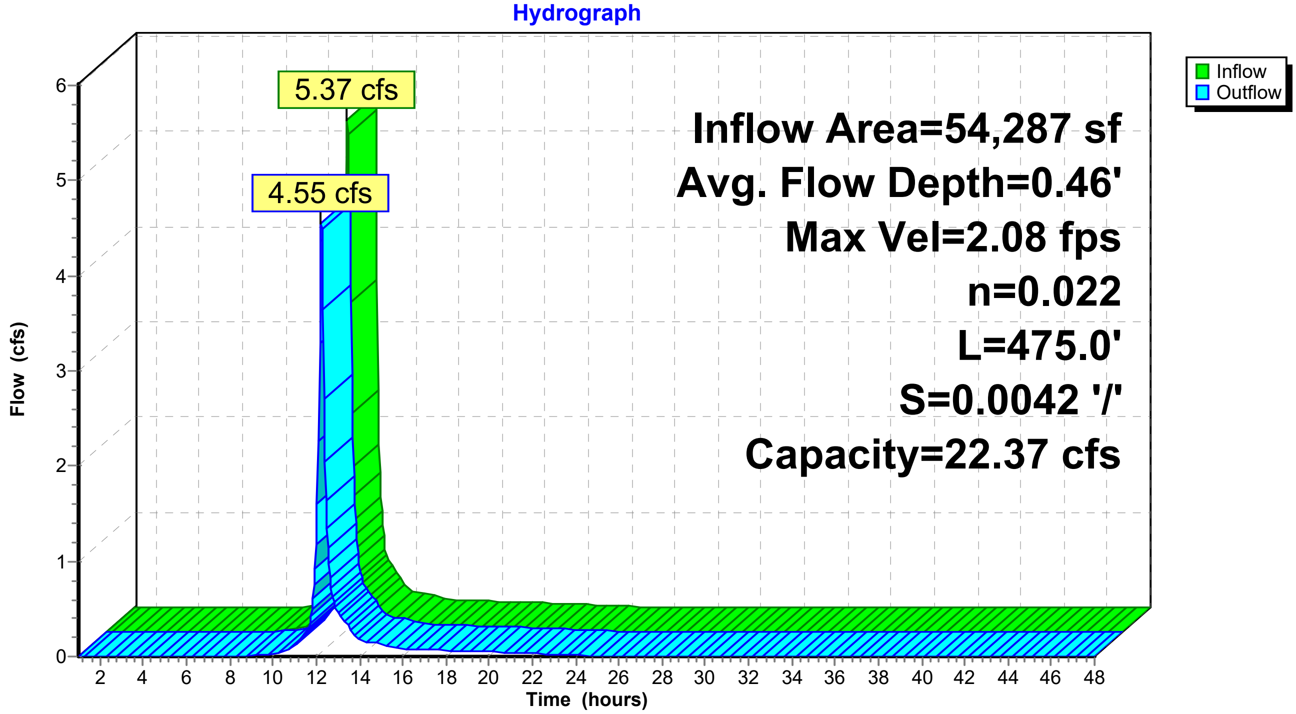
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.08 fps, Min. Travel Time= 3.8 min
Avg. Velocity = 0.49 fps, Avg. Travel Time= 16.3 min

Peak Storage= 1,070 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.46'
Bank-Full Depth= 1.00' Flow Area= 7.0 sf, Capacity= 22.37 cfs

3.00' x 1.00' deep channel, n= 0.022
Side Slope Z-value= 4.0 '/' Top Width= 11.00'
Length= 475.0' Slope= 0.0042 '/'
Inlet Invert= 747.00', Outlet Invert= 745.00'

‡

Reach 117R: SC Road West Ditch



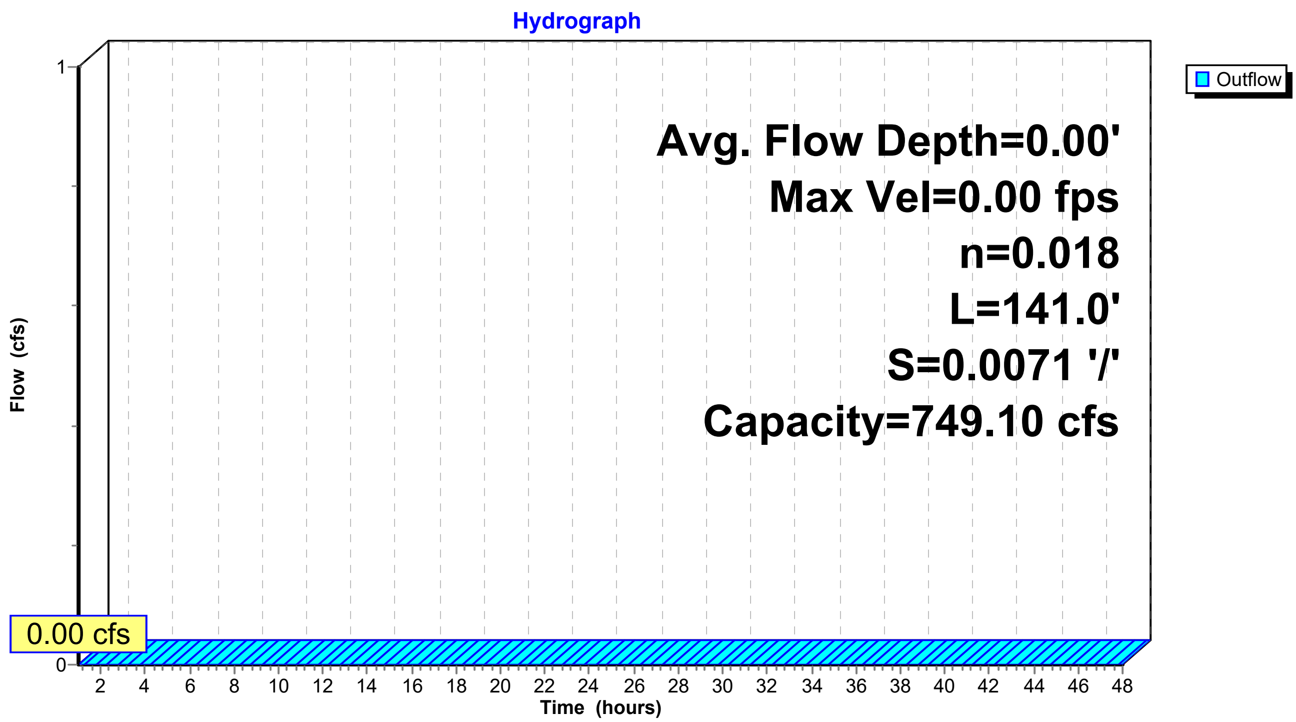
Summary for Reach 134R: SC East Ditch

[43] Hint: Has no inflow (Outflow=Zero)

Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 749.10 cfs

4.00' x 4.00' deep channel, n= 0.018
Side Slope Z-value= 3.0 '/' Top Width= 28.00'
Length= 141.0' Slope= 0.0071 '/'
Inlet Invert= 748.50', Outlet Invert= 747.50'

Reach 134R: SC East Ditch



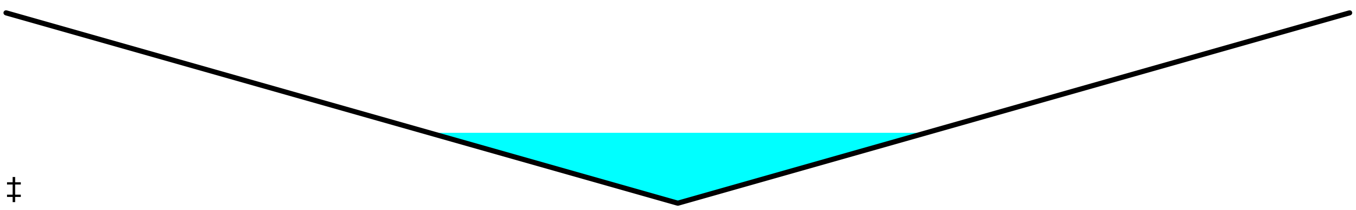
Summary for Reach 136R: SC West Ditch

Inflow Area = 281,666 sf, 11.70% Impervious, Inflow Depth = 0.11" for 10-Year event
Inflow = 1.33 cfs @ 12.14 hrs, Volume= 2,686 cf
Outflow = 1.20 cfs @ 12.20 hrs, Volume= 2,686 cf, Atten= 10%, Lag= 3.6 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.82 fps, Min. Travel Time= 2.0 min
Avg. Velocity = 0.65 fps, Avg. Travel Time= 5.5 min

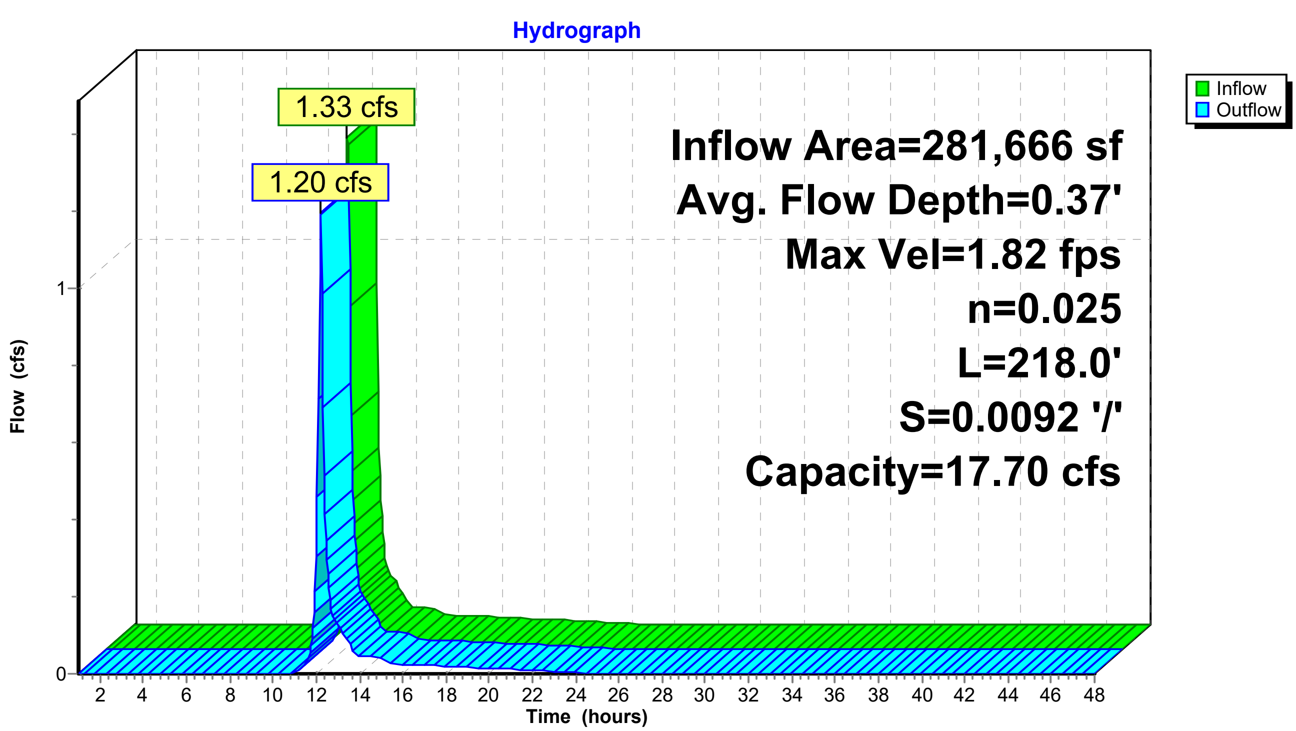
Peak Storage= 149 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.37'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 17.70 cfs

0.00' x 1.00' deep channel, n= 0.025
Side Slope Z-value= 5.0 '/' Top Width= 10.00'
Length= 218.0' Slope= 0.0092 '/'
Inlet Invert= 745.00', Outlet Invert= 743.00'



‡

Reach 136R: SC West Ditch

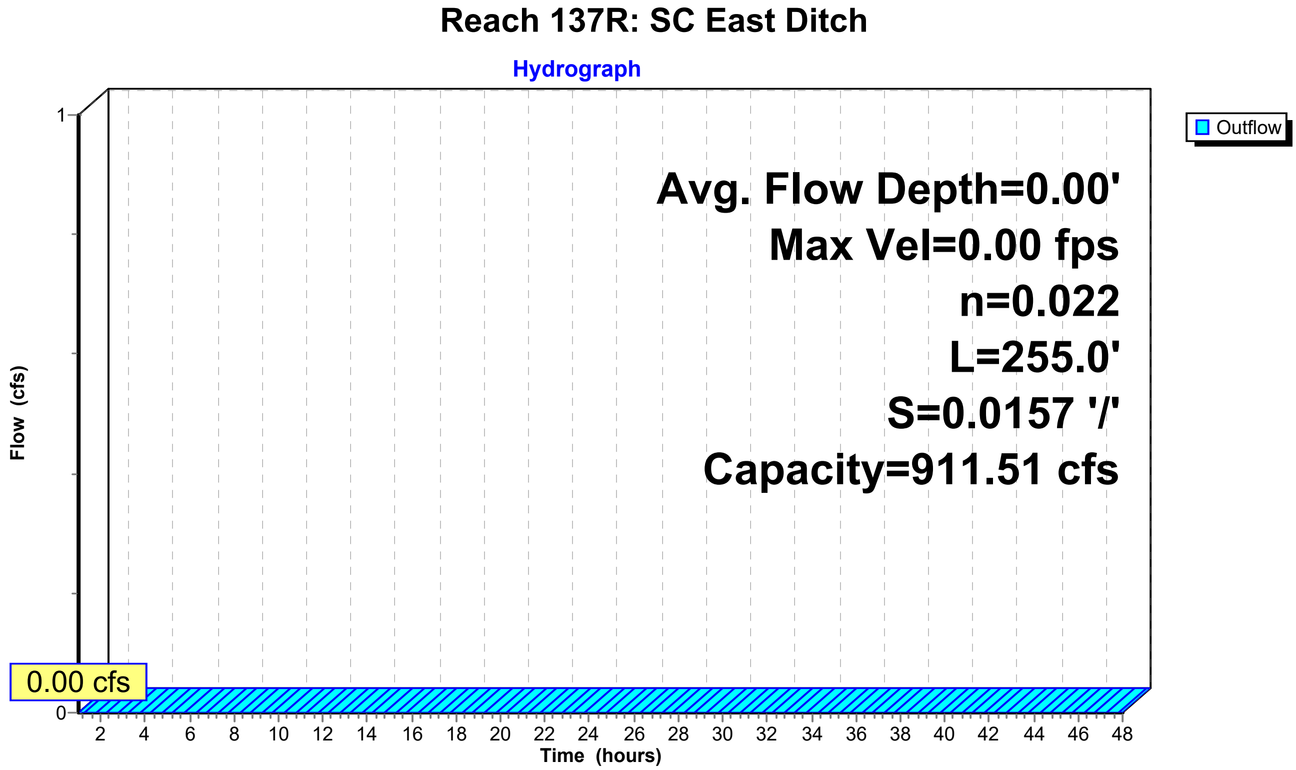


Summary for Reach 137R: SC East Ditch

[43] Hint: Has no inflow (Outflow=Zero)

Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 911.51 cfs

4.00' x 4.00' deep channel, n= 0.022
Side Slope Z-value= 3.0 '/' Top Width= 28.00'
Length= 255.0' Slope= 0.0157 '/'
Inlet Invert= 747.00', Outlet Invert= 743.00'



Summary for Reach 151R: Western PL North Ditch

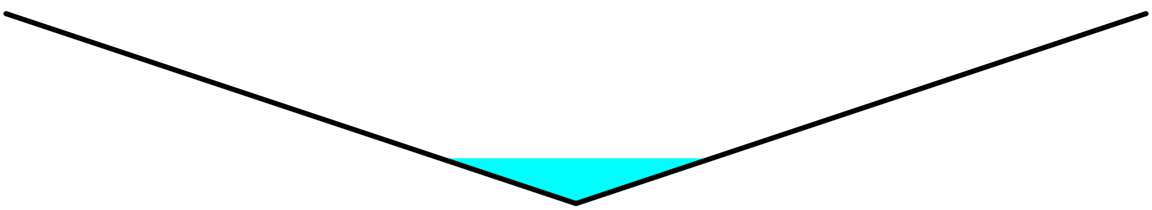
3/3/21
This is the western property line ditch that takes offsite flow and western building courtyard flow to IB
update length we shortened in screen share

Inflow Area = 8,234 sf, 12.90% Impervious, Inflow Depth = 1.66" for 10-Year event
Inflow = 0.57 cfs @ 12.14 hrs, Volume= 1,142 cf
Outflow = 0.51 cfs @ 12.20 hrs, Volume= 1,142 cf, Atten= 10%, Lag= 3.8 min

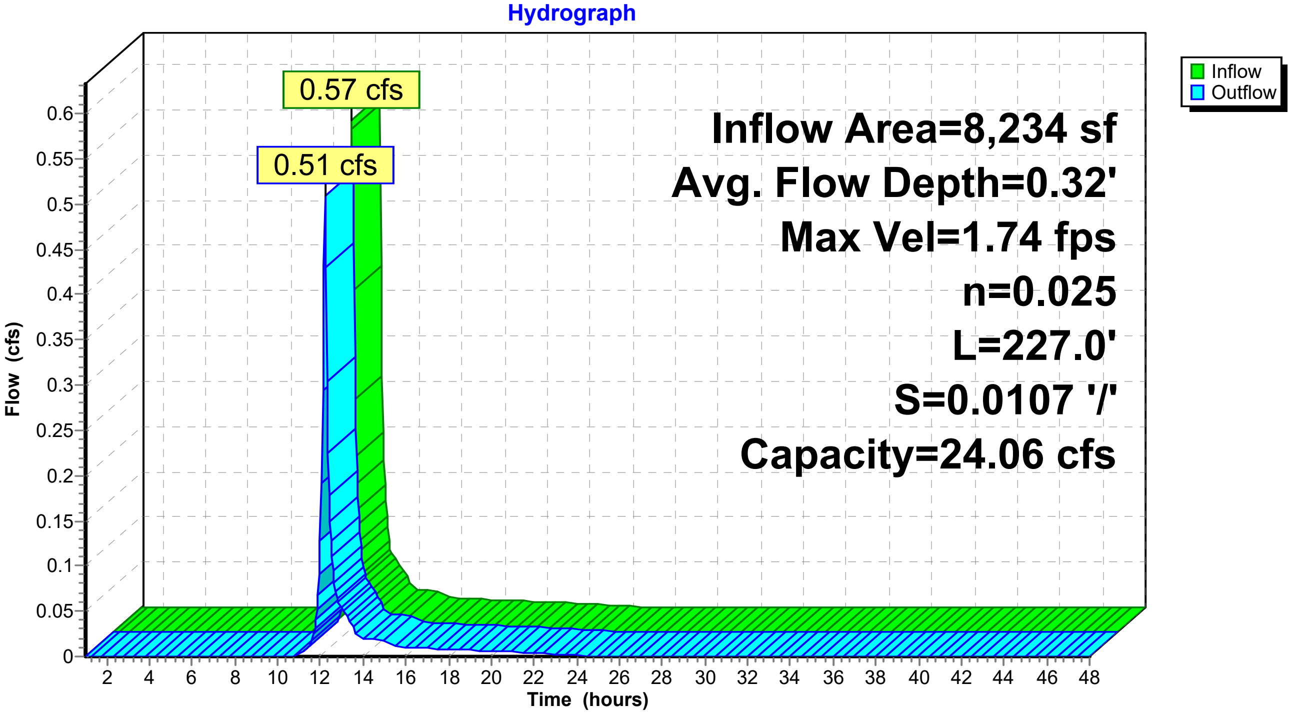
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.74 fps, Min. Travel Time= 2.2 min
Avg. Velocity = 0.64 fps, Avg. Travel Time= 5.9 min

Peak Storage= 69 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 1.33' Flow Area= 5.3 sf, Capacity= 24.06 cfs

0.00' x 1.33' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.98'
Length= 227.0' Slope= 0.0107 '/'
Inlet Invert= 751.54', Outlet Invert= 749.10'



Reach 151R: Western PL North Ditch



Summary for Pond 33P: Rain Garden East

Inflow Area = 3,249 sf, 0.00% Impervious, Inflow Depth = 1.46" for 10-Year event
Inflow = 0.19 cfs @ 12.14 hrs, Volume= 395 cf
Outflow = 0.11 cfs @ 12.23 hrs, Volume= 327 cf, Atten= 44%, Lag= 5.6 min
Primary = 0.11 cfs @ 12.23 hrs, Volume= 327 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 744.25' @ 12.23 hrs Surf.Area= 220 sf Storage= 120 cf

Plug-Flow detention time= 108.7 min calculated for 327 cf (83% of inflow)
Center-of-Mass det. time= 44.7 min (865.5 - 820.7)

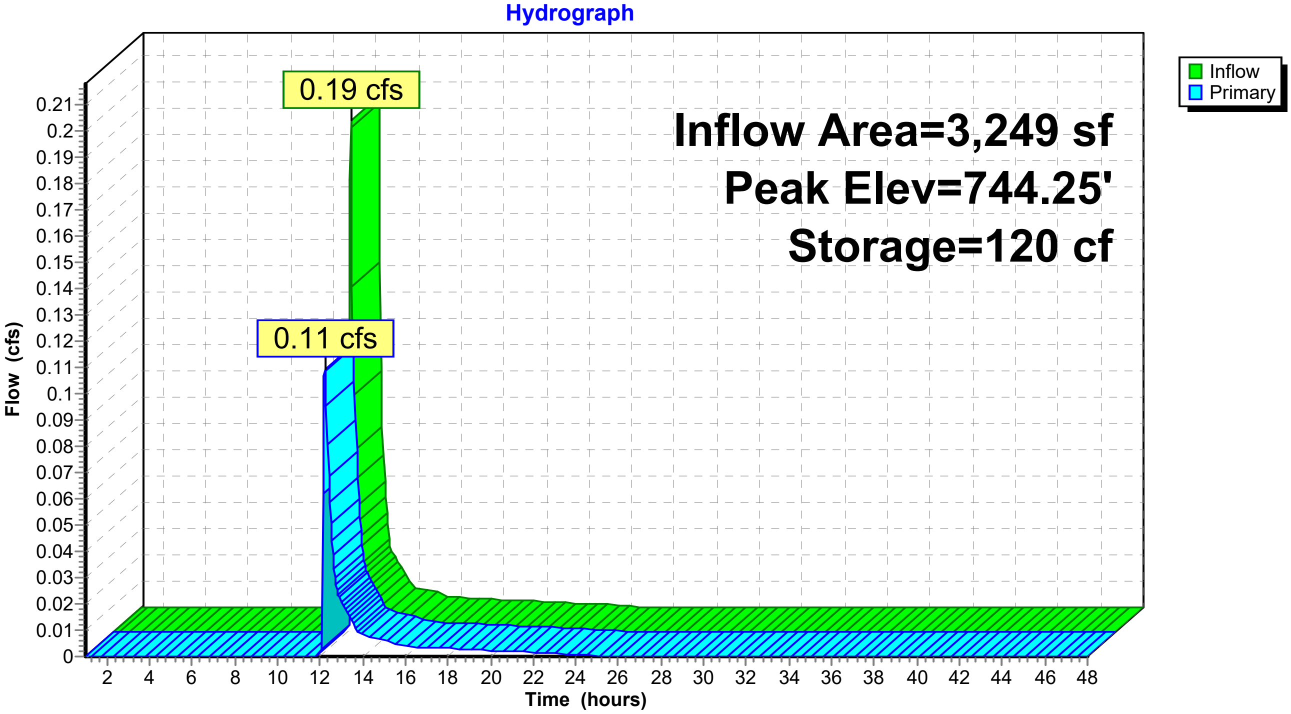
Volume	Invert	Avail.Storage	Storage Description
#1	743.00'	286 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
743.00	220	0.0	0	0
743.01	220	27.0	1	1
743.50	220	27.0	29	30
743.51	220	33.0	1	30
744.00	220	33.0	36	66
744.01	220	100.0	2	68
745.00	220	100.0	218	286

Device	Routing	Invert	Outlet Devices
#1	Primary	744.01'	**4.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	744.99'	**20.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.11 cfs @ 12.23 hrs HW=744.24' (Free Discharge)
1=Orifice/Grate (Orifice Controls 0.11 cfs @ 1.65 fps)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 33P: Rain Garden East



Summary for Pond 36P: Rain Garden West

Inflow Area = 3,393 sf, 0.00% Impervious, Inflow Depth = 1.46" for 10-Year event
Inflow = 0.20 cfs @ 12.14 hrs, Volume= 412 cf
Outflow = 0.12 cfs @ 12.22 hrs, Volume= 344 cf, Atten= 40%, Lag= 5.2 min
Primary = 0.12 cfs @ 12.22 hrs, Volume= 344 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 743.76' @ 12.22 hrs Surf.Area= 220 sf Storage= 124 cf

Plug-Flow detention time= 104.2 min calculated for 344 cf (83% of inflow)
Center-of-Mass det. time= 43.1 min (863.8 - 820.7)

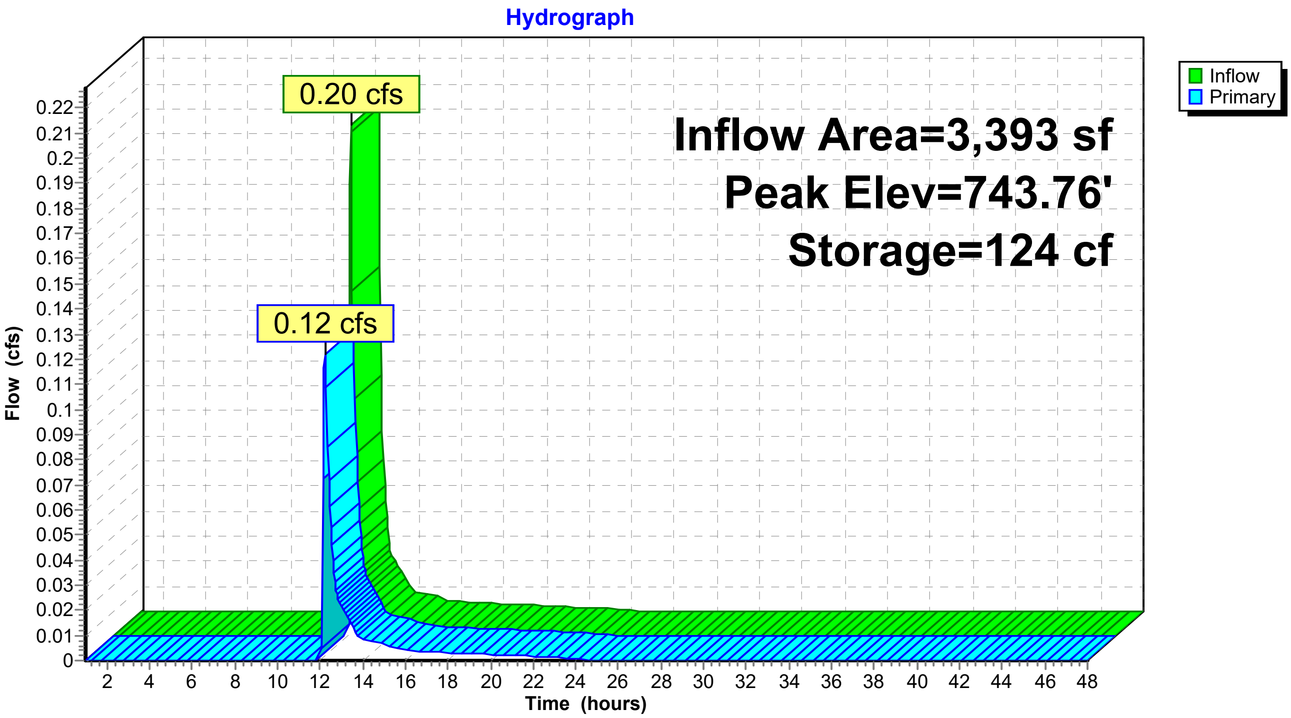
Volume	Invert	Avail.Storage	Storage Description
#1	742.50'	286 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
742.50	220	0.0	0	0
742.51	220	27.0	1	1
743.00	220	27.0	29	30
743.01	220	33.0	1	30
743.50	220	33.0	36	66
743.51	220	100.0	2	68
744.50	220	100.0	218	286

Device	Routing	Invert	Outlet Devices
#1	Primary	743.51'	**4.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	744.49'	**10.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.12 cfs @ 12.22 hrs HW=743.76' (Free Discharge)
1=Orifice/Grate (Orifice Controls 0.12 cfs @ 1.69 fps)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 36P: Rain Garden West

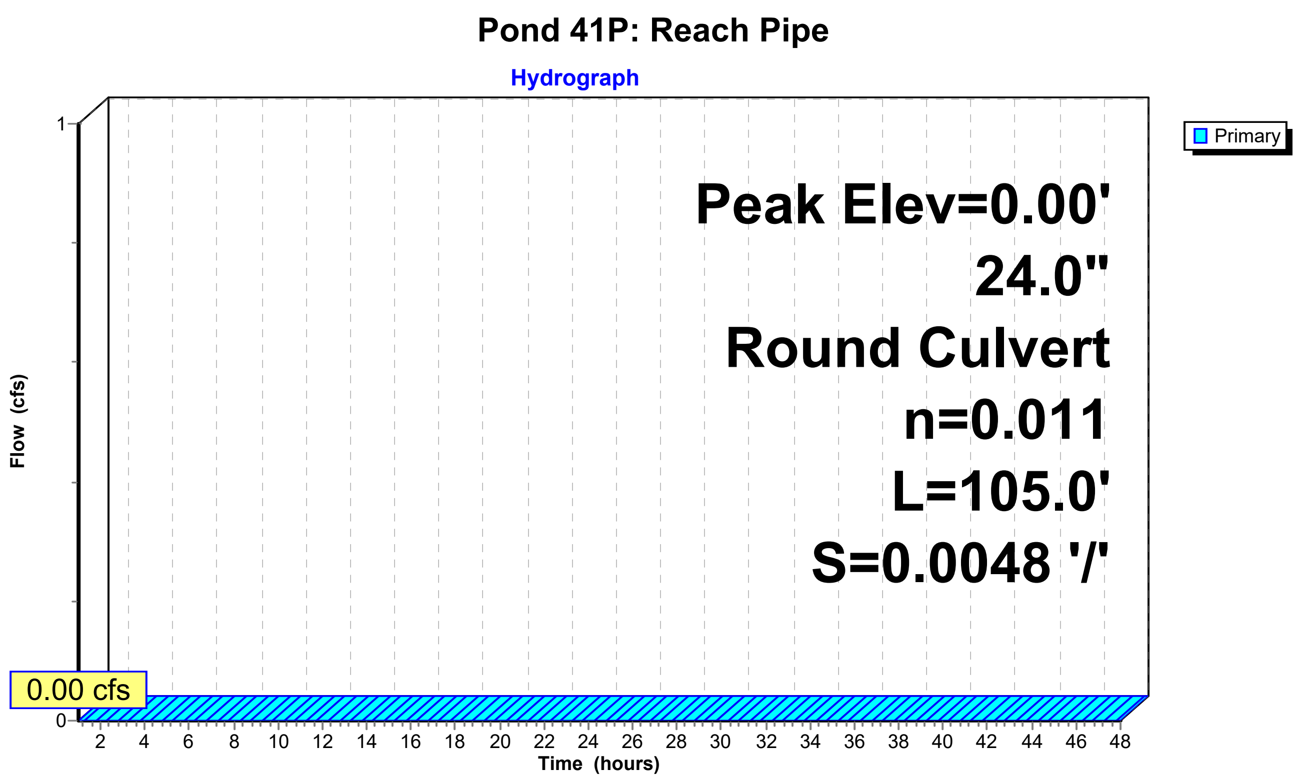


Summary for Pond 41P: Reach Pipe

[43] Hint: Has no inflow (Outflow=Zero)

Device	Routing	Invert	Outlet Devices
#1	Primary	747.50'	**24.0" Round Culvert** L= 105.0' Ke= 0.500 Inlet / Outlet Invert= 747.50' / 747.00' S= 0.0048 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 57P: Dry Pond 2

Inflow Area = 158,954 sf, 10.66% Impervious, Inflow Depth = 1.65" for 10-Year event
Inflow = 6.46 cfs @ 12.20 hrs, Volume= 21,826 cf
Outflow = 0.16 cfs @ 18.06 hrs, Volume= 18,967 cf, Atten= 98%, Lag= 352.0 min
Discarded = 0.16 cfs @ 18.06 hrs, Volume= 18,967 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 750.41' @ 18.06 hrs Surf.Area= 12,612 sf Storage= 16,141 cf

Plug-Flow detention time= 973.3 min calculated for 18,947 cf (87% of inflow)
Center-of-Mass det. time= 921.1 min (1,748.3 - 827.3)

Volume	Invert	Avail.Storage	Storage Description
#1	749.00'	38,350 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

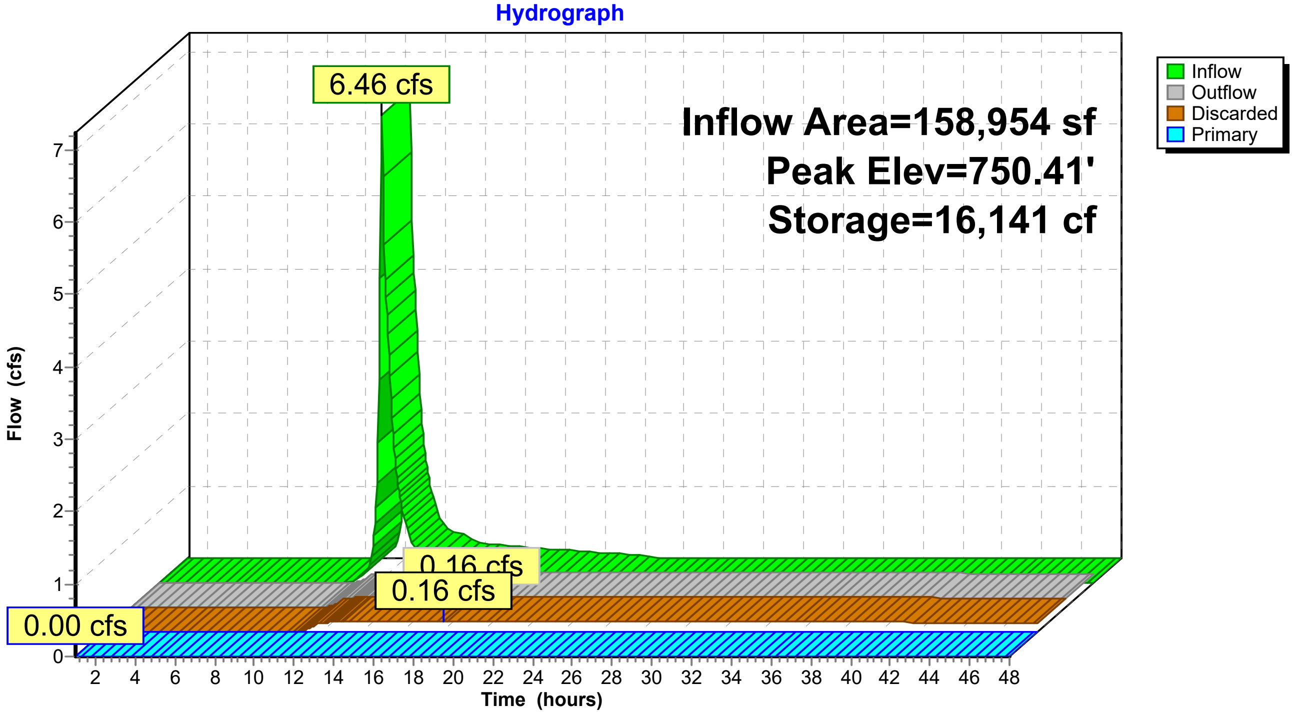
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
749.00	10,334	0	0
750.00	11,935	11,135	11,135
751.00	13,594	12,765	23,899
752.00	15,308	14,451	38,350

Device	Routing	Invert	Outlet Devices
#1	Primary	750.00'	**12.0" Round Culvert X 2.00** L= 75.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 750.00' / 749.00' S= 0.0133 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	751.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Discarded	749.00'	**0.500 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.16 cfs @ 18.06 hrs HW=750.41' (Free Discharge)
└─**3=Exfiltration** (Controls 0.16 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=749.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)
  └─**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 57P: Dry Pond 2



Summary for Pond 58P: Dry Pond 1

Inflow Area = 603,487 sf, 45.57% Impervious, Inflow Depth > 2.25" for 10-Year event
Inflow = 28.90 cfs @ 12.17 hrs, Volume= 113,059 cf
Outflow = 4.29 cfs @ 13.09 hrs, Volume= 113,052 cf, Atten= 85%, Lag= 55.4 min
Discarded = 4.29 cfs @ 13.09 hrs, Volume= 113,052 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 751.02' @ 13.09 hrs Surf.Area= 29,930 sf Storage= 29,074 cf

Plug-Flow detention time= 53.0 min calculated for 113,052 cf (100% of inflow)
Center-of-Mass det. time= 52.9 min (982.7 - 929.9)

Volume	Invert	Avail.Storage	Storage Description
#1	750.00'	131,829 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

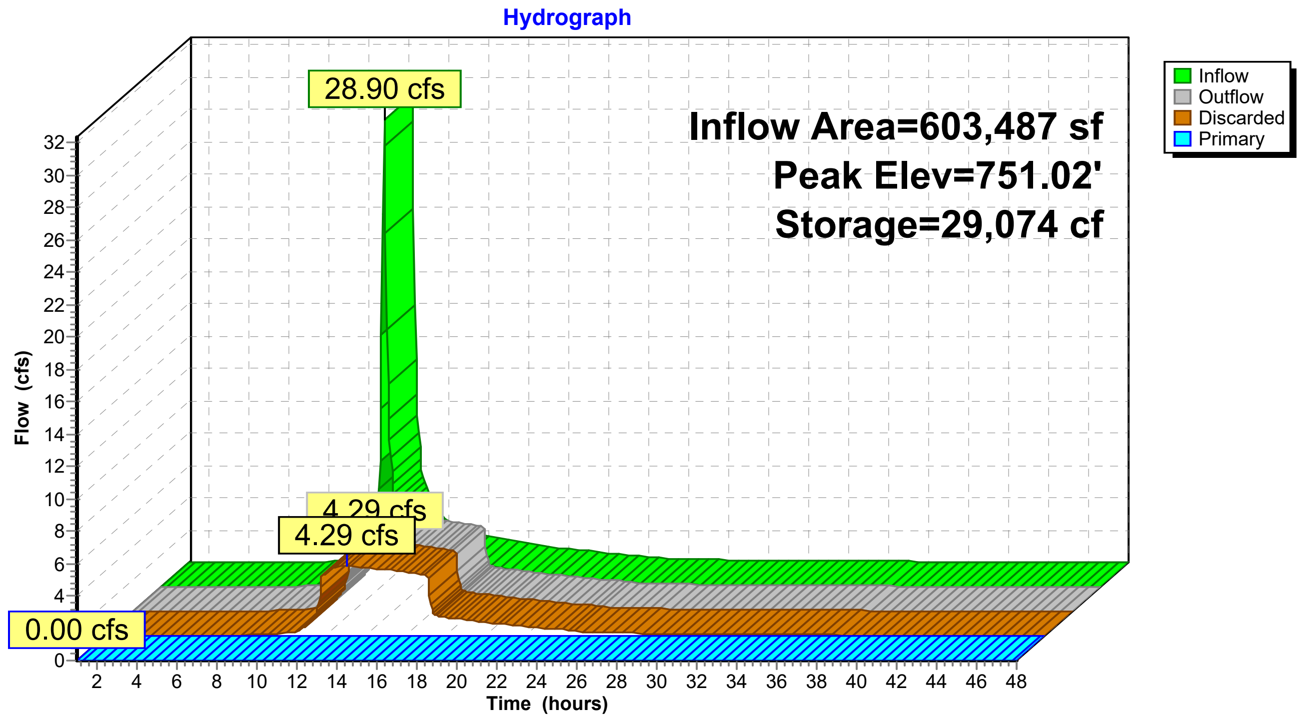
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
750.00	26,853	0	0
751.00	29,856	28,355	28,355
752.00	32,915	31,386	59,740
753.00	36,030	34,473	94,213
754.00	39,203	37,617	131,829

Device	Routing	Invert	Outlet Devices
#1	Primary	753.00'	**12.0" Round Culvert** L= 48.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 753.00' / 752.00' S= 0.0208 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	753.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	753.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Discarded	750.00'	**6.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=4.29 cfs @ 13.09 hrs HW=751.02' (Free Discharge)
└─**4=Exfiltration** (Controls 4.29 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=750.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)
  ├─**2=Orifice/Grate** (Controls 0.00 cfs)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 58P: Dry Pond 1



Summary for Pond 60P: Infiltration Basin #1

Inflow Area = 261,451 sf, 11.81% Impervious, Inflow Depth = 1.65" for 10-Year event
Inflow = 13.49 cfs @ 12.22 hrs, Volume= 35,925 cf
Outflow = 1.27 cfs @ 13.39 hrs, Volume= 35,925 cf, Atten= 91%, Lag= 70.2 min
Discarded = 1.27 cfs @ 13.39 hrs, Volume= 35,925 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 741.11' @ 13.39 hrs Surf.Area= 0.132 ac Storage= 0.435 af

Plug-Flow detention time= 193.5 min calculated for 35,887 cf (100% of inflow)
Center-of-Mass det. time= 193.3 min (1,016.3 - 822.9)

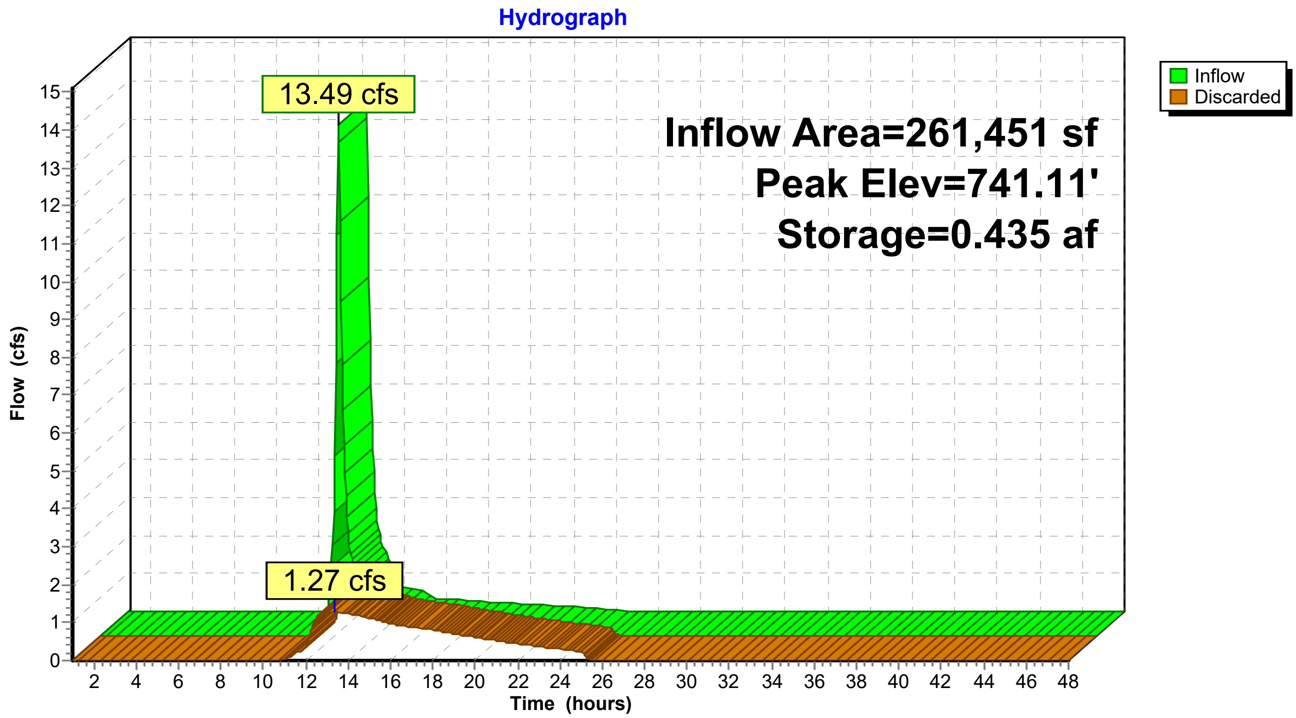
Volume	Invert	Avail.Storage	Storage Description
#1	735.00'	1.145 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
735.00	0.026	0.000	0.000
736.00	0.038	0.032	0.032
737.00	0.051	0.044	0.077
738.00	0.068	0.059	0.136
739.00	0.086	0.077	0.213
740.00	0.100	0.093	0.306
741.00	0.129	0.114	0.420
742.00	0.153	0.141	0.561
743.00	0.180	0.166	0.728
744.00	0.208	0.194	0.922
745.00	0.238	0.223	1.145

Device	Routing	Invert	Outlet Devices
#1	Discarded	735.00'	**8.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=1.27 cfs @ 13.39 hrs HW=741.11' (Free Discharge)
└─**1=Exfiltration** (Controls 1.27 cfs)

Pond 60P: Infiltration Basin #1



Summary for Pond 72P: UG 1 StormTrap Lowered

Inflow Area = 227,383 sf, 57.35% Impervious, Inflow Depth = 2.55" for 10-Year event
Inflow = 23.17 cfs @ 12.13 hrs, Volume= 48,377 cf
Outflow = 1.73 cfs @ 13.03 hrs, Volume= 45,106 cf, Atten= 93%, Lag= 53.8 min
Primary = 1.73 cfs @ 13.03 hrs, Volume= 45,106 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 753.93' @ 13.03 hrs Surf.Area= 36,225 sf Storage= 29,809 cf

Plug-Flow detention time= 368.8 min calculated for 45,106 cf (93% of inflow)
Center-of-Mass det. time= 337.1 min (1,127.0 - 789.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	753.00'	0 cf	**182.90'W x 198.06'L x 2.50'H Field A** 90,562 cf Overall - 90,562 cf Embedded = 0 cf
#2A	753.00'	63,969 cf	**StormTrap ST2 SingleTrap 2-0** x 240 Inside #1 Inside= 101.7"W x 24.0"H => 15.05 sf x 15.40'L = 231.7 cf Outside= 101.7"W x 30.0"H => 21.20 sf x 15.40'L = 326.4 cf 20 Rows of 12 Chambers 169.58' x 184.75' Core + 6.66' Border = 182.90' x 198.06' System
		63,969 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	753.00'	**12.0" Round Culvert** L= 189.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 753.00' / 752.52' S= 0.0025 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf

Primary OutFlow Max=1.73 cfs @ 13.03 hrs HW=753.93' (Free Discharge)
└─**1=Culvert** (Barrel Controls 1.73 cfs @ 2.95 fps)

Pond 72P: UG 1 StormTrap Lowered - Chamber Wizard Field A

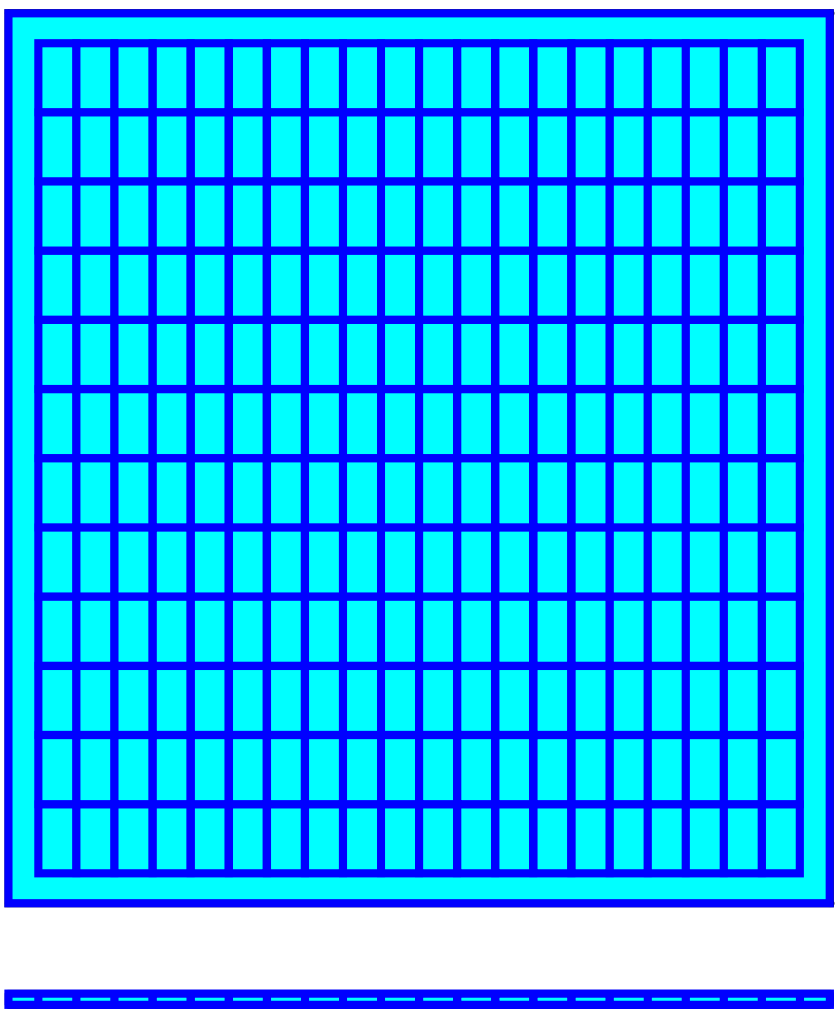
Chamber Model = StormTrap ST2 SingleTrap 2-0 (StormTrap ST2 SingleTrap® Type II+IV)
Inside= 101.7"W x 24.0"H => 15.05 sf x 15.40'L = 231.7 cf
Outside= 101.7"W x 30.0"H => 21.20 sf x 15.40'L = 326.4 cf

12 Chambers/Row x 15.40' Long = 184.75' Row Length +79.9" Border x 2 = 198.06' Base Length
20 Rows x 101.7" Wide + 79.9" Side Border x 2 = 182.90' Base Width
30.0" Chamber Height = 2.50' Field Height

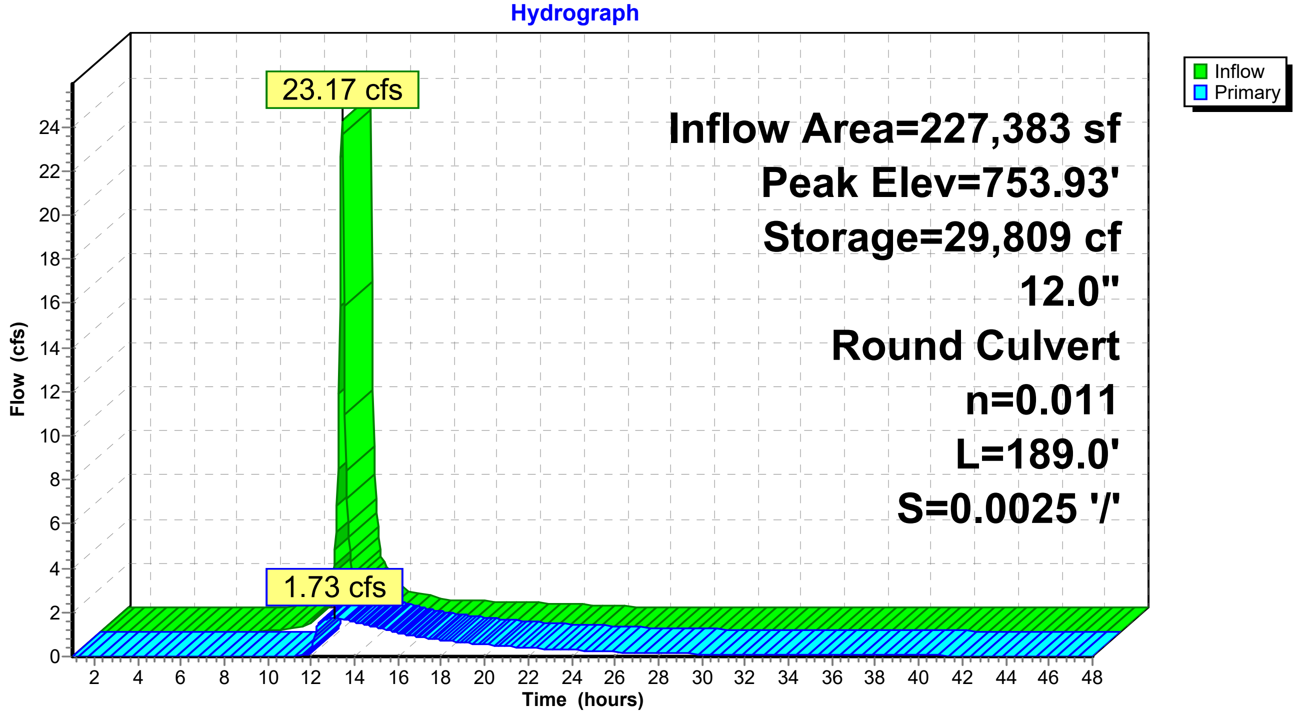
240 Chambers x 231.7 cf + 8,367.8 cf Border = 63,968.8 cf Chamber Storage
240 Chambers x 326.4 cf + 12,235.7 cf Border = 90,562.0 cf Displacement

Chamber Storage = 63,968.8 cf = 1.469 af
Overall Storage Efficiency = 70.6%
Overall System Size = 198.06' x 182.90' x 2.50'

240 Chambers (plus border)
3,354.1 cy Field



Pond 72P: UG 1 StormTrap Lowered



Summary for Pond 95P: Dry Pond 3

Inflow Area = 413,038 sf, 21.40% Impervious, Inflow Depth = 0.79" for 10-Year event
Inflow = 10.81 cfs @ 12.21 hrs, Volume= 27,041 cf
Outflow = 0.83 cfs @ 13.41 hrs, Volume= 27,041 cf, Atten= 92%, Lag= 72.0 min
Discarded = 0.30 cfs @ 13.41 hrs, Volume= 21,239 cf
Primary = 0.53 cfs @ 13.41 hrs, Volume= 5,803 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 740.45' @ 13.41 hrs Surf.Area= 0.279 ac Storage= 0.361 af

Plug-Flow detention time= 392.9 min calculated for 27,013 cf (100% of inflow)
Center-of-Mass det. time= 393.1 min (1,201.3 - 808.3)

Volume	Invert	Avail.Storage	Storage Description
#1	739.00'	1.214 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

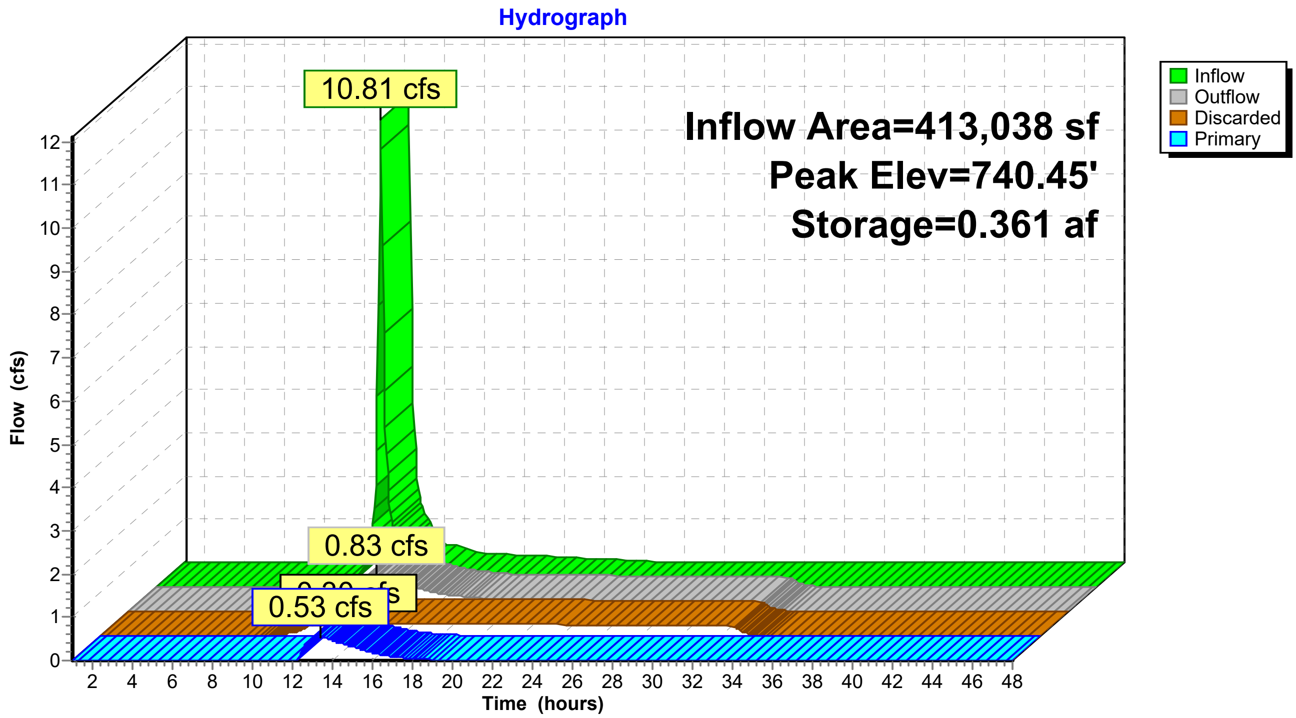
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
739.00	0.220	0.000	0.000
740.00	0.260	0.240	0.240
741.00	0.302	0.281	0.521
742.00	0.346	0.324	0.845
743.00	0.392	0.369	1.214

Device	Routing	Invert	Outlet Devices
#1	Primary	740.00'	**6.0" Round Culvert** L= 130.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 740.00' / 738.00' S= 0.0154 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf
#2	Primary	742.75'	**20.0' long x 20.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#3	Discarded	739.00'	**1.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=0.30 cfs @ 13.41 hrs HW=740.45' (Free Discharge)
└─**3=Exfiltration** (Controls 0.30 cfs)

Primary OutFlow Max=0.53 cfs @ 13.41 hrs HW=740.45' (Free Discharge)
├─**1=Culvert** (Inlet Controls 0.53 cfs @ 2.85 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 95P: Dry Pond 3



Summary for Pond 101R: Reach Pipe

3/2/21
Reach Pipe 4

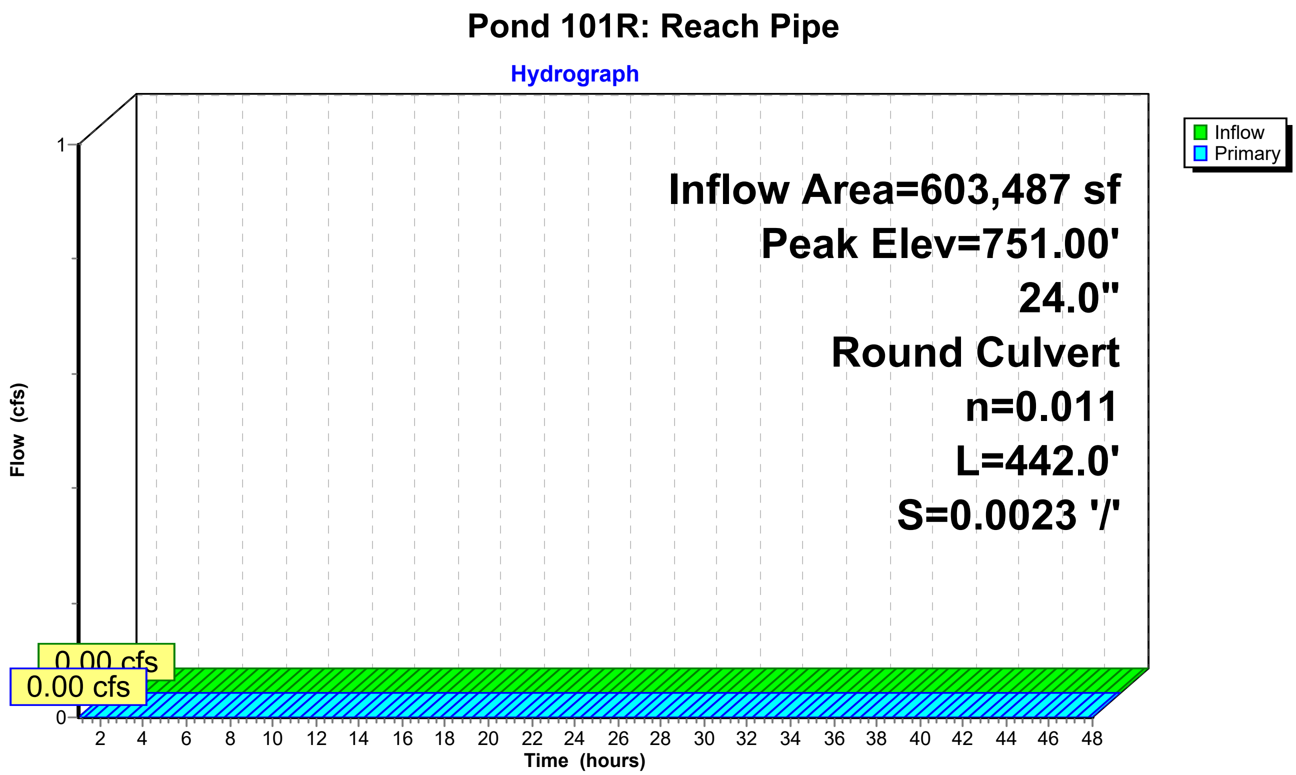
[57] Hint: Peaked at 751.00' (Flood elevation advised)

Inflow Area =	603,487 sf,	45.57% Impervious,	Inflow Depth = 0.00"	for 10-Year event	
Inflow =	0.00 cfs @	1.00 hrs,	Volume=	0 cf	
Outflow =	0.00 cfs @	1.00 hrs,	Volume=	0 cf,	Atten= 0%, Lag= 0.0 min
Primary =	0.00 cfs @	1.00 hrs,	Volume=	0 cf	

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 751.00' @ 1.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	751.00'	**24.0" Round Culvert** L= 442.0' Ke= 0.500 Inlet / Outlet Invert= 751.00' / 750.00' S= 0.0023 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=751.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 107P: SC East Ditch

Inflow Area = 816,223 sf, 35.77% Impervious, Inflow Depth = 0.09" for 10-Year event
Inflow = 2.71 cfs @ 12.18 hrs, Volume= 5,924 cf
Outflow = 0.06 cfs @ 15.31 hrs, Volume= 5,903 cf, Atten= 98%, Lag= 187.9 min
Discarded = 0.06 cfs @ 15.31 hrs, Volume= 5,903 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 745.59' @ 15.31 hrs Surf.Area= 2,342 sf Storage= 4,358 cf

Plug-Flow detention time= 827.9 min calculated for 5,903 cf (100% of inflow)
Center-of-Mass det. time= 825.7 min (1,633.6 - 807.9)

Volume	Invert	Avail.Storage	Storage Description
#1	743.00'	8,160 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

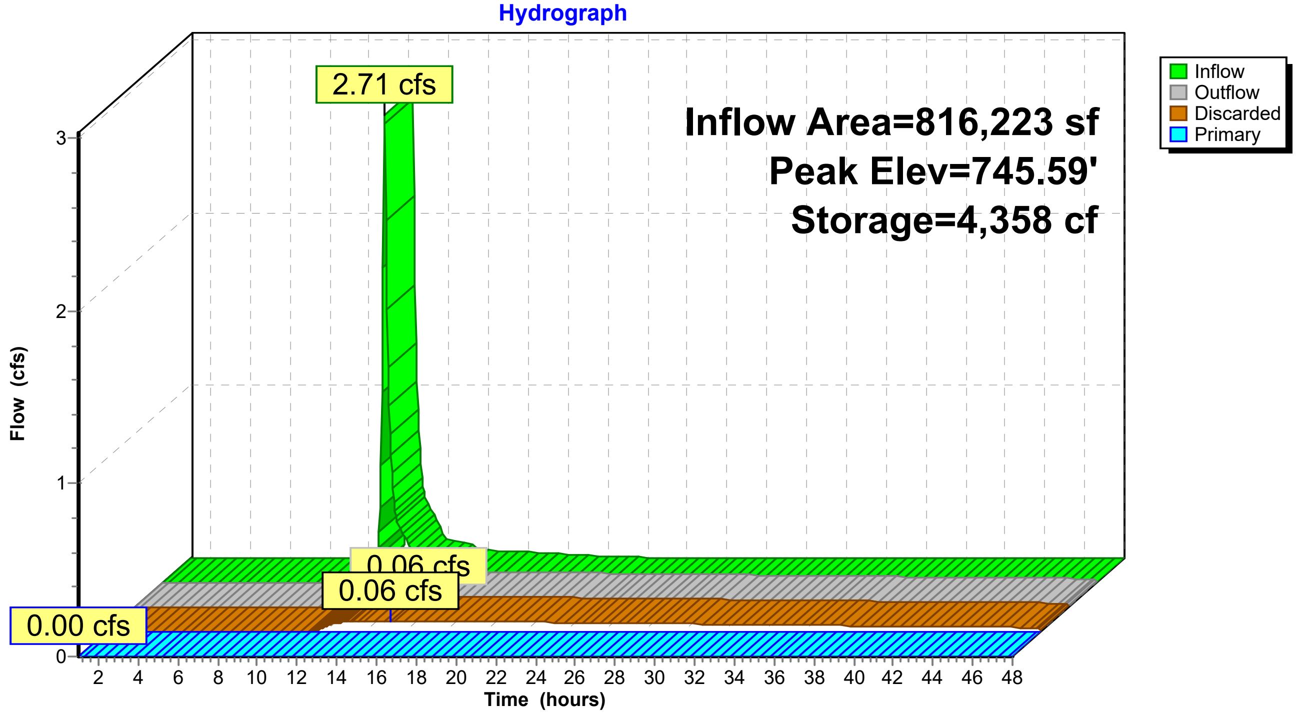
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
743.00	1,020	0	0
744.00	1,530	1,275	1,275
745.00	2,040	1,785	3,060
746.00	2,550	2,295	5,355
747.00	3,060	2,805	8,160

Device	Routing	Invert	Outlet Devices
#1	Primary	746.00'	**4.0" Round Culvert** L= 10.0' Ke= 0.900 Inlet / Outlet Invert= 746.00' / 745.90' S= 0.0100 '/' Cc= 0.900 n= 0.022, Flow Area= 0.09 sf
#2	Primary	746.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	746.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Discarded	743.00'	**1.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.06 cfs @ 15.31 hrs HW=745.59' (Free Discharge)
└─**4=Exfiltration** (Controls 0.06 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=743.00' (Free Discharge)
├─**1=Culvert** (Controls 0.00 cfs)
├─**2=Orifice/Grate** (Controls 0.00 cfs)
└─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 107P: SC East Ditch



Summary for Pond 108P: SC East Ditch

Inflow Area = 797,335 sf, 36.61% Impervious, Inflow Depth = 0.06" for 10-Year event
Inflow = 2.09 cfs @ 12.14 hrs, Volume= 4,241 cf
Outflow = 1.78 cfs @ 12.18 hrs, Volume= 4,241 cf, Atten= 15%, Lag= 2.3 min
Discarded = 0.02 cfs @ 12.18 hrs, Volume= 612 cf
Primary = 1.76 cfs @ 12.18 hrs, Volume= 3,629 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 748.22' @ 12.18 hrs Surf.Area= 767 sf Storage= 478 cf

Plug-Flow detention time= 11.8 min calculated for 4,236 cf (100% of inflow)
Center-of-Mass det. time= 11.8 min (832.6 - 820.7)

Volume	Invert	Avail.Storage	Storage Description
#1	747.50'	4,512 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

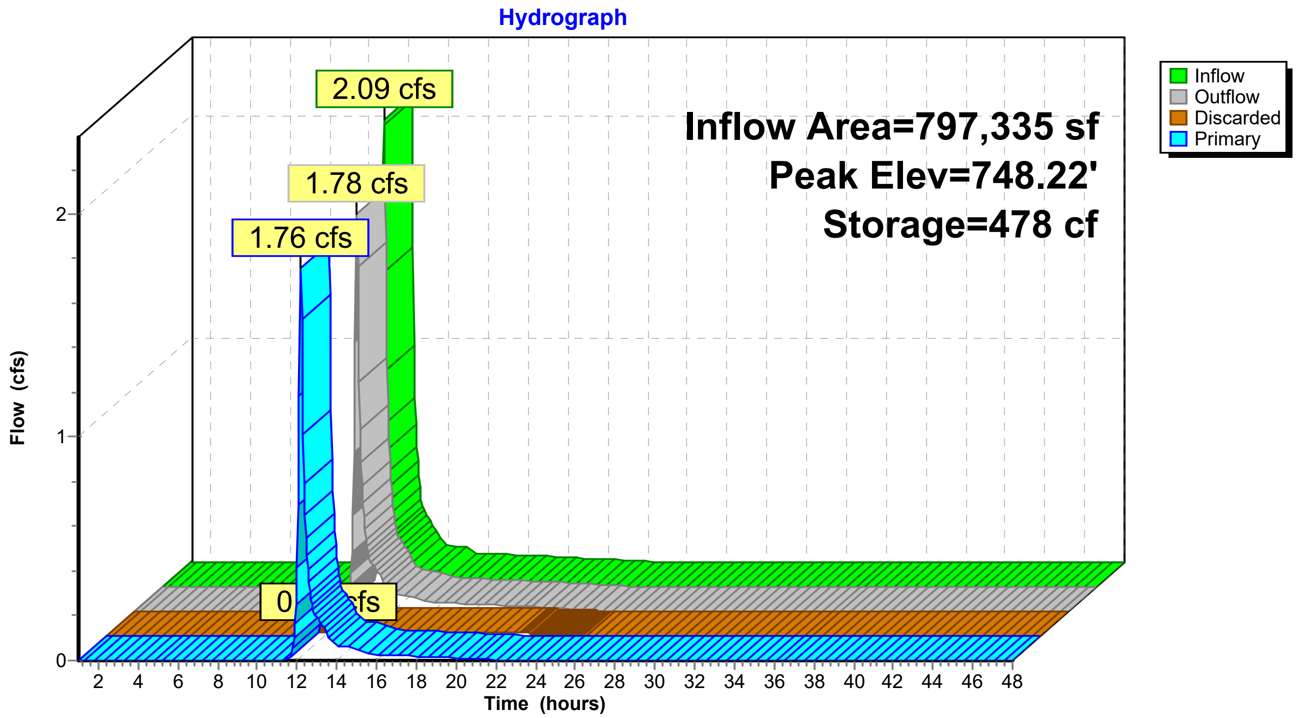
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
747.50	564	0	0
748.50	846	705	705
749.50	1,128	987	1,692
750.50	1,410	1,269	2,961
751.50	1,692	1,551	4,512

Device	Routing	Invert	Outlet Devices
#1	Primary	747.50'	**24.0" Round Culvert** L= 105.0' Ke= 0.900 Inlet / Outlet Invert= 747.50' / 747.00' S= 0.0048 '/' Cc= 0.900 n= 0.018 Corrugated PE, corrugated interior, Flow Area= 3.14 sf
#2	Discarded	747.50'	**1.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.02 cfs @ 12.18 hrs HW=748.21' (Free Discharge)
└─**2=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=1.71 cfs @ 12.18 hrs HW=748.21' (Free Discharge)
└─**1=Culvert** (Barrel Controls 1.71 cfs @ 2.56 fps)

Pond 108P: SC East Ditch



Summary for Pond 110R: Western Pipe Run

3/3/21
Pipe that cuts through western exterior courtyard to collect ditch north of west building and northern portion of west building roof and conveys to DP1

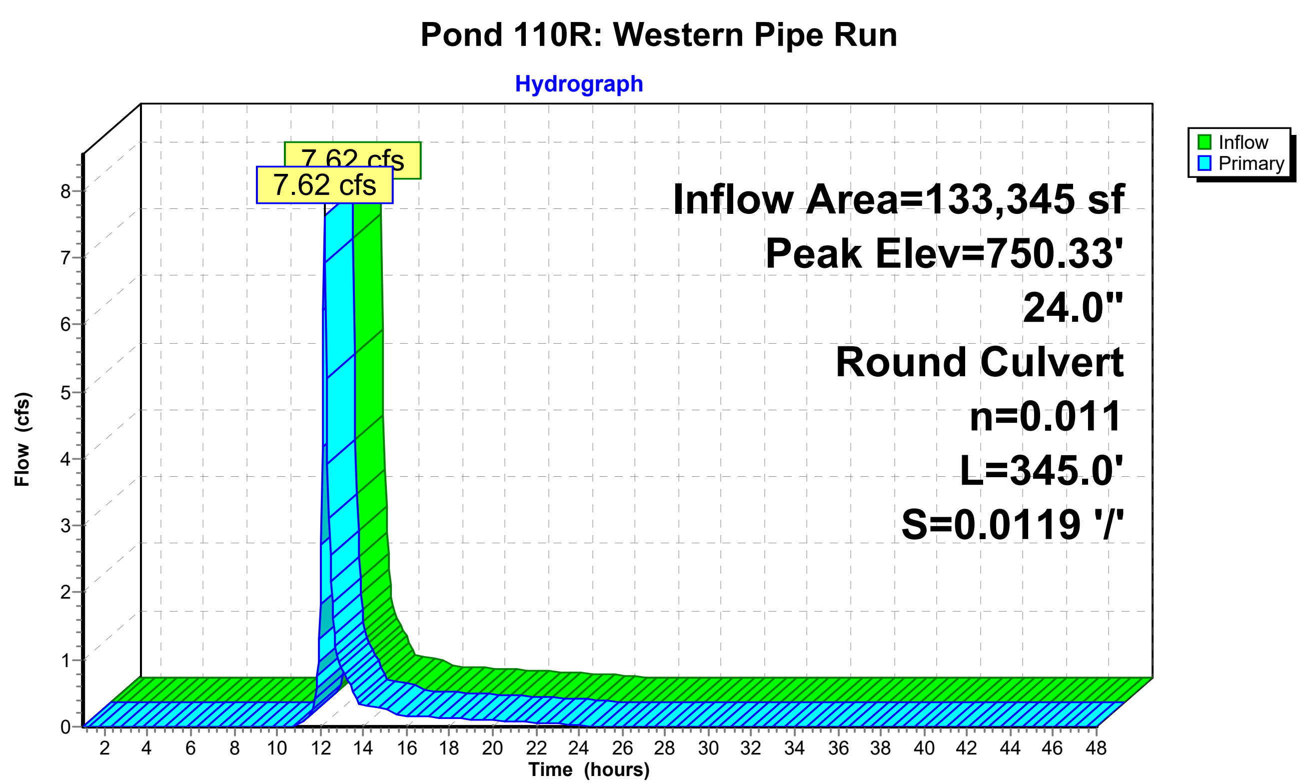
[57] Hint: Peaked at 750.33' (Flood elevation advised)
[62] Hint: Exceeded Reach 111R OUTLET depth by 0.44' @ 12.25 hrs
[62] Hint: Exceeded Reach 151R OUTLET depth by 0.92' @ 12.20 hrs

Inflow Area = 133,345 sf, 9.40% Impervious, Inflow Depth = 1.62" for 10-Year event
Inflow = 7.62 cfs @ 12.21 hrs, Volume= 18,040 cf
Outflow = 7.62 cfs @ 12.21 hrs, Volume= 18,040 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.62 cfs @ 12.21 hrs, Volume= 18,040 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 750.33' @ 12.21 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	749.10'	**24.0" Round Culvert** L= 345.0' Ke= 0.500 Inlet / Outlet Invert= 749.10' / 745.00' S= 0.0119 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=7.48 cfs @ 12.21 hrs HW=750.31' (Free Discharge)
└─**1=Culvert** (Inlet Controls 7.48 cfs @ 3.75 fps)



Summary for Pond 154P: Southeast Basin

Inflow Area = 1,260,543 sf, 30.17% Impervious, Inflow Depth = 0.09" for 10-Year event
Inflow = 1.88 cfs @ 12.14 hrs, Volume= 9,604 cf
Outflow = 0.58 cfs @ 13.75 hrs, Volume= 9,604 cf, Atten= 69%, Lag= 96.9 min
Discarded = 0.58 cfs @ 13.75 hrs, Volume= 9,604 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 730.39' @ 13.75 hrs Surf.Area= 4,845 sf Storage= 1,490 cf

Plug-Flow detention time= 31.4 min calculated for 9,594 cf (100% of inflow)
Center-of-Mass det. time= 31.4 min (880.1 - 848.7)

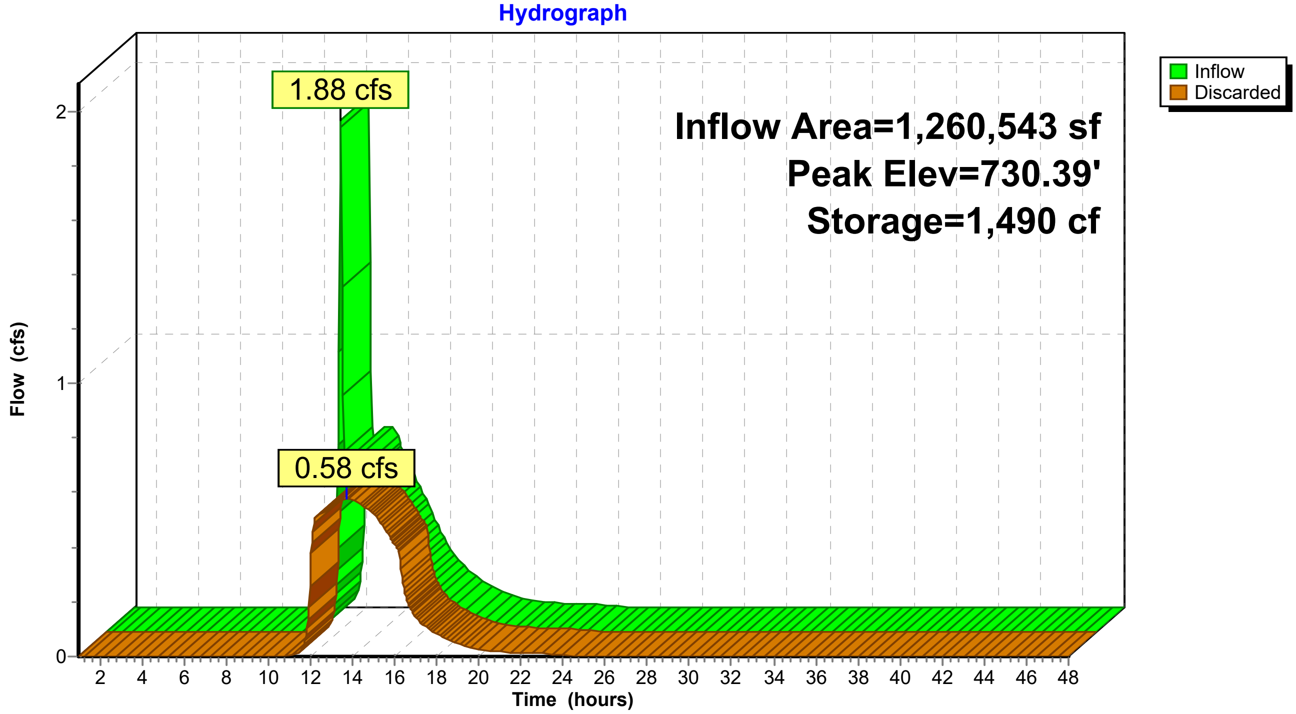
Volume	Invert	Avail.Storage	Storage Description
#1	730.00'	273,743 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
730.00	2,768	0	0
731.00	8,073	5,421	5,421
732.00	12,399	10,236	15,657
733.00	17,056	14,728	30,384
734.00	21,328	19,192	49,576
735.00	25,607	23,468	73,044
736.00	29,845	27,726	100,770
737.00	35,145	32,495	133,265
738.00	42,680	38,913	172,177
739.00	51,064	46,872	219,049
740.00	58,323	54,694	273,743

Device	Routing	Invert	Outlet Devices
#1	Discarded	730.00'	**5.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=0.58 cfs @ 13.75 hrs HW=730.39' (Free Discharge)
└─**1=Exfiltration** (Controls 0.58 cfs)

Pond 154P: Southeast Basin

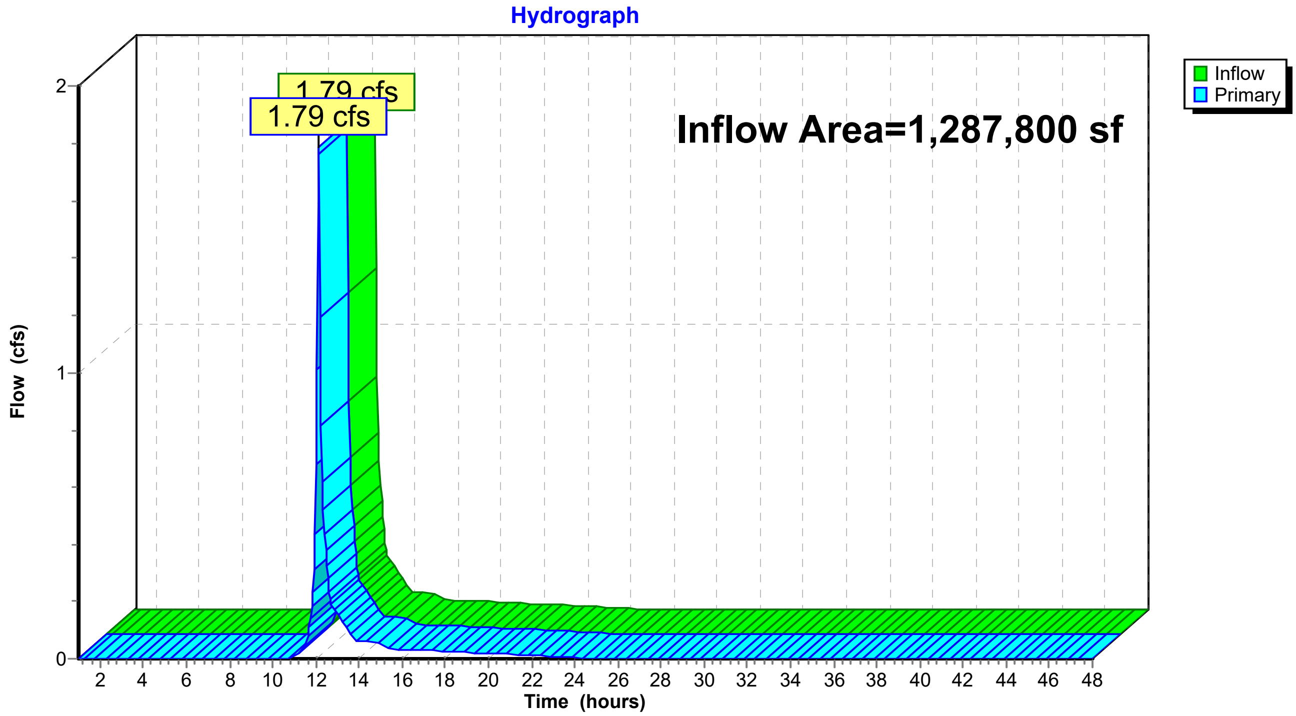


Summary for Link 48L: TOTAL OUTFALL

Inflow Area = 1,287,800 sf, 29.72% Impervious, Inflow Depth = 0.03" for 10-Year event
Inflow = 1.79 cfs @ 12.14 hrs, Volume= 3,614 cf
Primary = 1.79 cfs @ 12.14 hrs, Volume= 3,614 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Link 48L: TOTAL OUTFALL



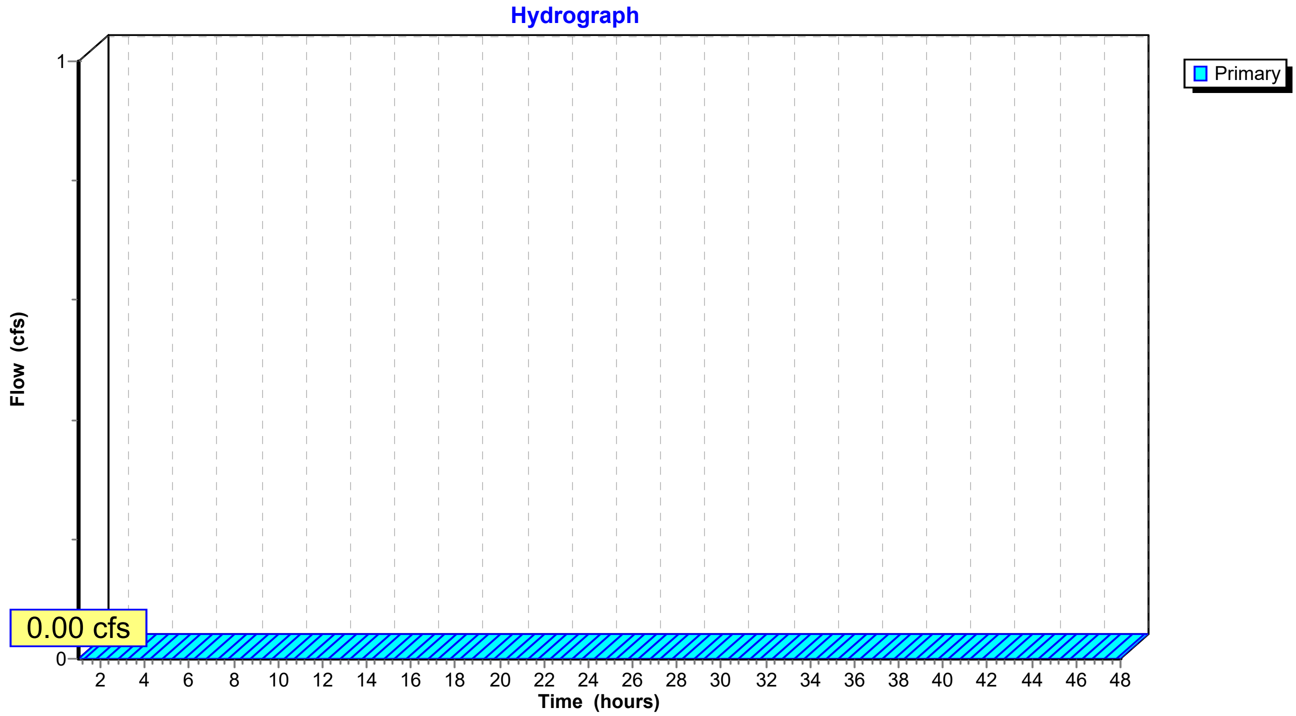
Summary for Link 66L: Total Offsite

[43] Hint: Has no inflow (Outflow=Zero)

Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Primary outflow = Inflow, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Link 66L: Total Offsite



Time span=1.00-48.00 hrs, dt=0.05 hrs, 941 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 35S: F6 Runoff Area=3,249 sf 0.00% Impervious Runoff Depth=3.34"
Tc=6.0 min CN=74 Runoff=0.44 cfs 903 cf

Subcatchment 37S: F6 Runoff Area=3,393 sf 0.00% Impervious Runoff Depth=3.34"
Tc=6.0 min CN=74 Runoff=0.46 cfs 943 cf

Subcatchment 39S: A Runoff Area=227,383 sf 57.35% Impervious Runoff Depth=4.80"
Tc=6.0 min CN=88 Runoff=41.97 cfs 90,941 cf

Subcatchment 40S: F5 (Direct to Basin) Runoff Area=31,282 sf 0.00% Impervious Runoff Depth=3.34"
Tc=6.0 min CN=74 Runoff=4.28 cfs 8,699 cf

Subcatchment 49S: D2 Runoff Area=16,636 sf 25.34% Impervious Runoff Depth=3.94"
Flow Length=393' Slope=0.0076 '/' Tc=10.7 min CN=80 Runoff=2.21 cfs 5,468 cf

Subcatchment 52S: E1 Runoff Area=39,552 sf 5.46% Impervious Runoff Depth=3.44"
Flow Length=100' Slope=0.0300 '/' Tc=9.6 min CN=75 Runoff=4.81 cfs 11,325 cf

Subcatchment 55S: G Runoff Area=4,482 sf 0.00% Impervious Runoff Depth=3.34"
Tc=6.0 min CN=74 Runoff=0.61 cfs 1,246 cf

Subcatchment 81S: O1 Runoff Area=11,697 sf 0.00% Impervious Runoff Depth=3.34"
Tc=6.0 min CN=74 Runoff=1.60 cfs 3,253 cf

Subcatchment 82S: D1 Runoff Area=20,886 sf 0.00% Impervious Runoff Depth=3.34"
Flow Length=400' Slope=0.0100 '/' Tc=22.0 min CN=74 Runoff=1.69 cfs 5,808 cf

Subcatchment 87S: I Runoff Area=56,129 sf 0.00% Impervious Runoff Depth=3.34"
Flow Length=750' Slope=0.0100 '/' Tc=30.4 min CN=74 Runoff=3.81 cfs 15,608 cf

Subcatchment 95S: C1 Runoff Area=18,274 sf 21.80% Impervious Runoff Depth=3.84"
Tc=6.0 min CN=79 Runoff=2.84 cfs 5,849 cf

Subcatchment 96S: E2 Runoff Area=18,887 sf 18.55% Impervious Runoff Depth=3.74"
Flow Length=400' Slope=0.0300 '/' Tc=13.7 min CN=78 Runoff=2.16 cfs 5,884 cf

Subcatchment 97S: C2 Runoff Area=77,290 sf 43.30% Impervious Runoff Depth=4.37"
Tc=6.0 min CN=84 Runoff=13.32 cfs 28,116 cf

Subcatchment 98S: E3 Runoff Area=109,219 sf 13.58% Impervious Runoff Depth=3.64"
Flow Length=200' Tc=16.3 min CN=77 Runoff=11.28 cfs 33,100 cf

Subcatchment 105S: C Runoff Area=122,933 sf 33.81% Impervious Runoff Depth=4.15"
Tc=6.0 min CN=82 Runoff=20.37 cfs 42,545 cf

Subcatchment 106S: B1 Runoff Area=85,559 sf 10.89% Impervious Runoff Depth=3.64"
Tc=6.0 min CN=77 Runoff=12.65 cfs 25,930 cf

Subcatchment 107S: F Runoff Area=43,646 sf 58.34% Impervious Runoff Depth=4.80"
Tc=6.0 min CN=88 Runoff=8.06 cfs 17,456 cf

Subcatchment 108S: B2 Runoff Area=42,864 sf 100.00% Impervious Runoff Depth=5.94"
Tc=6.0 min CN=98 Runoff=8.74 cfs 21,224 cf

Subcatchment 112S: D3 Runoff Area=8,234 sf 12.90% Impervious Runoff Depth=3.64"
Tc=6.0 min CN=77 Runoff=1.22 cfs 2,495 cf

Subcatchment 122S: F1 Runoff Area=54,287 sf 55.18% Impervious Runoff Depth=4.69"
Tc=6.0 min CN=87 Runoff=9.86 cfs 21,216 cf

Subcatchment 125S: F3 Runoff Area=20,215 sf 10.32% Impervious Runoff Depth=3.54"
Tc=6.0 min CN=76 Runoff=2.92 cfs 5,957 cf

Subcatchment 126S: F4 Runoff Area=26,797 sf 0.00% Impervious Runoff Depth=3.34"
Tc=6.0 min CN=74 Runoff=3.66 cfs 7,451 cf

Subcatchment 138S: F2 Runoff Area=18,888 sf 0.00% Impervious Runoff Depth=3.34"
Tc=10.0 min CN=74 Runoff=2.19 cfs 5,252 cf

Subcatchment 140S: H1 Runoff Area=114,743 sf 19.79% Impervious Runoff Depth=3.84"
Tc=6.0 min CN=79 Runoff=17.80 cfs 36,725 cf

Subcatchment 141S: H2 Runoff Area=65,303 sf 19.50% Impervious Runoff Depth=3.84"
Tc=6.0 min CN=79 Runoff=10.13 cfs 20,901 cf

Subcatchment 142S: H3 Runoff Area=7,424 sf 14.02% Impervious Runoff Depth=3.64"
Tc=6.0 min CN=77 Runoff=1.10 cfs 2,250 cf

Subcatchment 143S: H4 Runoff Area=13,718 sf 0.00% Impervious Runoff Depth=3.34"
Tc=6.0 min CN=74 Runoff=1.88 cfs 3,815 cf

Subcatchment 144S: H5 Runoff Area=14,502 sf 0.00% Impervious Runoff Depth=3.34"
Tc=6.0 min CN=74 Runoff=1.98 cfs 4,033 cf

Subcatchment 145S: H6 Runoff Area=6,674 sf 0.00% Impervious Runoff Depth=3.34"
Tc=6.0 min CN=74 Runoff=0.91 cfs 1,856 cf

Subcatchment 146S: O2 Runoff Area=132,678 sf 2.29% Impervious Runoff Depth=3.44"
Flow Length=377' Tc=12.2 min CN=75 Runoff=14.77 cfs 37,990 cf

Subcatchment 147S: J Runoff Area=15,351 sf 8.86% Impervious Runoff Depth=3.54"
Tc=6.0 min CN=76 Runoff=2.21 cfs 4,523 cf

Reach 99R: East Swale (SE End) Avg. Flow Depth=0.94' Max Vel=5.32 fps Inflow=40.93 cfs 85,120 cf
n=0.018 L=570.0' S=0.0070 '/' Capacity=43.88 cfs Outflow=37.22 cfs 85,120 cf

Reach 106R: East Swale (North End) Avg. Flow Depth=0.20' Max Vel=5.42 fps Inflow=2.84 cfs 5,849 cf
n=0.018 L=140.0' S=0.0500 '/' Capacity=65.71 cfs Outflow=2.78 cfs 5,849 cf

Reach 108R: South Berm Swale Avg. Flow Depth=0.92' Max Vel=3.28 fps Inflow=11.54 cfs 36,509 cf
n=0.025 L=265.0' S=0.0075 '/' Capacity=13.80 cfs Outflow=10.65 cfs 36,509 cf

Reach 109R: SC Road East Ditch Avg. Flow Depth=0.57' Max Vel=2.50 fps Inflow=8.06 cfs 17,456 cf
n=0.022 L=415.0' S=0.0048 '/' Capacity=23.93 cfs Outflow=7.36 cfs 17,456 cf

Reach 111R: Western PL North Ditch Avg. Flow Depth=1.11' Max Vel=4.46 fps Inflow=17.17 cfs 37,255 cf
n=0.025 L=480.0' S=0.0133 '/' Capacity=26.79 cfs Outflow=15.72 cfs 37,255 cf

Reach 117R: SC Road West Ditch Avg. Flow Depth=0.64' Max Vel=2.50 fps Inflow=9.86 cfs 21,216 cf
n=0.022 L=475.0' S=0.0042 '/' Capacity=22.37 cfs Outflow=8.85 cfs 21,216 cf

Reach 134R: SC East Ditch Avg. Flow Depth=0.00' Max Vel=0.00 fps
n=0.018 L=141.0' S=0.0071 '/' Capacity=749.10 cfs Outflow=0.00 cfs 0 cf

Reach 136R: SC West Ditch Avg. Flow Depth=0.50' Max Vel=2.23 fps Inflow=2.92 cfs 5,957 cf
n=0.025 L=218.0' S=0.0092 '/' Capacity=17.70 cfs Outflow=2.64 cfs 5,957 cf

Reach 137R: SC East Ditch Avg. Flow Depth=0.00' Max Vel=0.00 fps
n=0.022 L=255.0' S=0.0157 '/' Capacity=911.51 cfs Outflow=0.00 cfs 0 cf

Reach 151R: Western PL North Ditch Avg. Flow Depth=0.43' Max Vel=2.13 fps Inflow=1.22 cfs 2,495 cf
n=0.025 L=227.0' S=0.0107 '/' Capacity=24.06 cfs Outflow=1.10 cfs 2,495 cf

Pond 33P: Rain Garden East Peak Elev=744.66' Storage=210 cf Inflow=0.44 cfs 903 cf
Outflow=0.29 cfs 835 cf

Pond 36P: Rain Garden West Peak Elev=744.19' Storage=218 cf Inflow=0.46 cfs 943 cf
Outflow=0.30 cfs 875 cf

Pond 41P: Reach Pipe Peak Elev=0.00'
24.0" Round Culvert n=0.011 L=105.0' S=0.0048 '/' Primary=0.00 cfs 0 cf

Pond 57P: Dry Pond 2 Peak Elev=751.63' Storage=32,844 cf Inflow=14.01 cfs 47,785 cf
Discarded=0.19 cfs 23,492 cf Primary=1.00 cfs 8,556 cf Outflow=1.19 cfs 32,048 cf

Pond 58P: Dry Pond 1 Peak Elev=752.49' Storage=76,288 cf Inflow=58.79 cfs 221,863 cf
Discarded=5.14 cfs 221,855 cf Primary=0.00 cfs 0 cf Outflow=5.14 cfs 221,855 cf

Pond 60P: Infiltration Basin #1 Peak Elev=744.61' Storage=1.054 af Inflow=29.49 cfs 78,734 cf
Outflow=2.30 cfs 78,734 cf

Pond 72P: UG 1 StormTrap Lowered Peak Elev=754.80' Storage=57,512 cf Inflow=41.97 cfs 90,941 cf
12.0" Round Culvert n=0.011 L=189.0' S=0.0025 '/' Outflow=2.87 cfs 87,404 cf

Pond 95P: Dry Pond 3 Peak Elev=741.77' Storage=0.767 af Inflow=21.74 cfs 53,790 cf
Discarded=0.38 cfs 27,995 cf Primary=0.84 cfs 25,796 cf Outflow=1.22 cfs 53,790 cf

Pond 101R: Reach Pipe Peak Elev=751.00' Inflow=0.00 cfs 0 cf
24.0" Round Culvert n=0.011 L=442.0' S=0.0023 '/' Outflow=0.00 cfs 0 cf

Pond 107P: SC East Ditch Peak Elev=746.67' Storage=7,187 cf Inflow=6.46 cfs 22,745 cf
Discarded=0.08 cfs 7,783 cf Primary=1.76 cfs 13,982 cf Outflow=1.84 cfs 21,765 cf

Pond 108P: SC East Ditch Peak Elev=748.66' Storage=842 cf Inflow=4.77 cfs 18,259 cf
Discarded=0.02 cfs 766 cf Primary=4.28 cfs 17,493 cf Outflow=4.30 cfs 18,259 cf

Pond 110R: Western Pipe Run Peak Elev=751.34' Inflow=16.82 cfs 39,750 cf
24.0" Round Culvert n=0.011 L=345.0' S=0.0119 '/' Outflow=16.82 cfs 39,750 cf

Pond 154P: Southeast Basin Peak Elev=731.65' Storage=11,621 cf Inflow=4.53 cfs 48,476 cf
Outflow=1.39 cfs 48,476 cf

Link 48L: TOTAL OUTFALL Inflow=3.92 cfs 8,020 cf
Primary=3.92 cfs 8,020 cf

Link 66L: Total Offsite
Primary=0.00 cfs 0 cf

Total Runoff Area = 1,432,175 sf Runoff Volume = 478,761 cf Average Runoff Depth = 4.01"
73.06% Pervious = 1,046,415 sf 26.94% Impervious = 385,760 sf

Summary for Subcatchment 35S: F6

3/3/21
Undetained portion of SE corner of SC that goes direct to SE low area (back yards of 3 home lots SE corner)

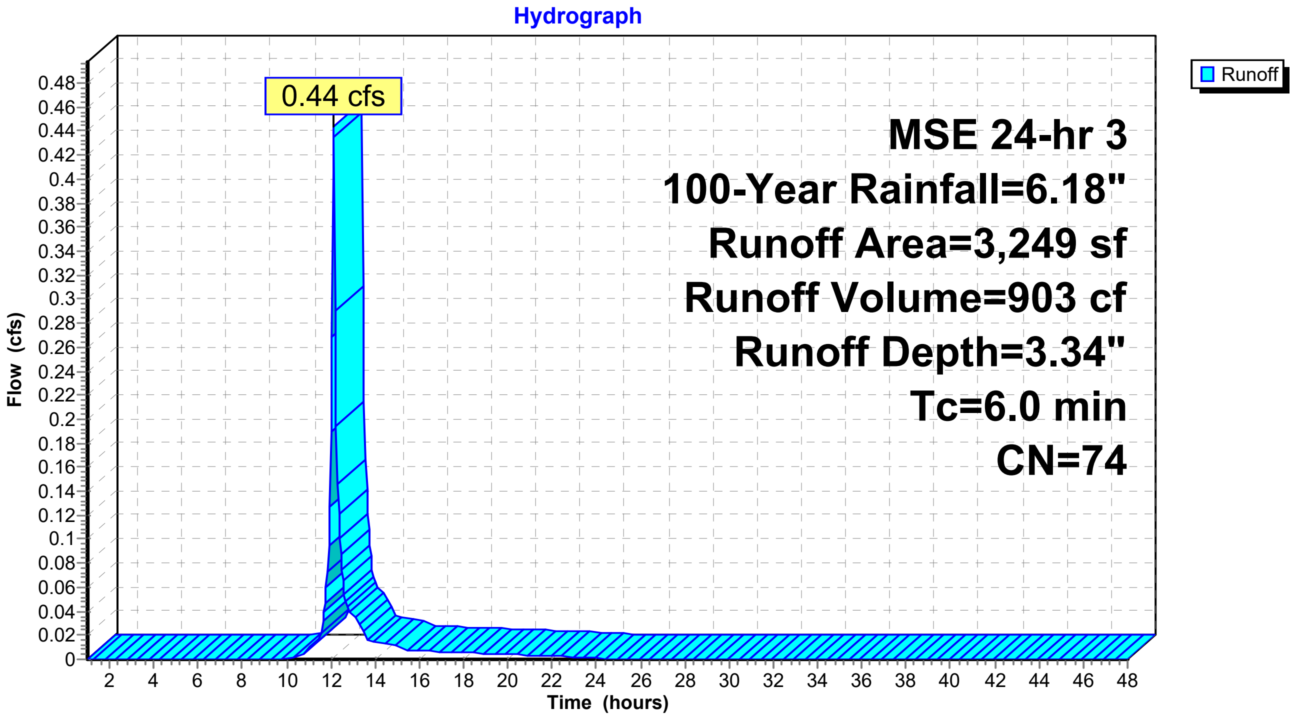
Runoff = 0.44 cfs @ 12.13 hrs, Volume= 903 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	3,249	74	landscape
	3,249		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 35S: F6



Summary for Subcatchment 37S: F6

3/3/21
Undetained portion of SE corner of SC that goes direct to SE low area (back yards of 3 home lots SE corner)

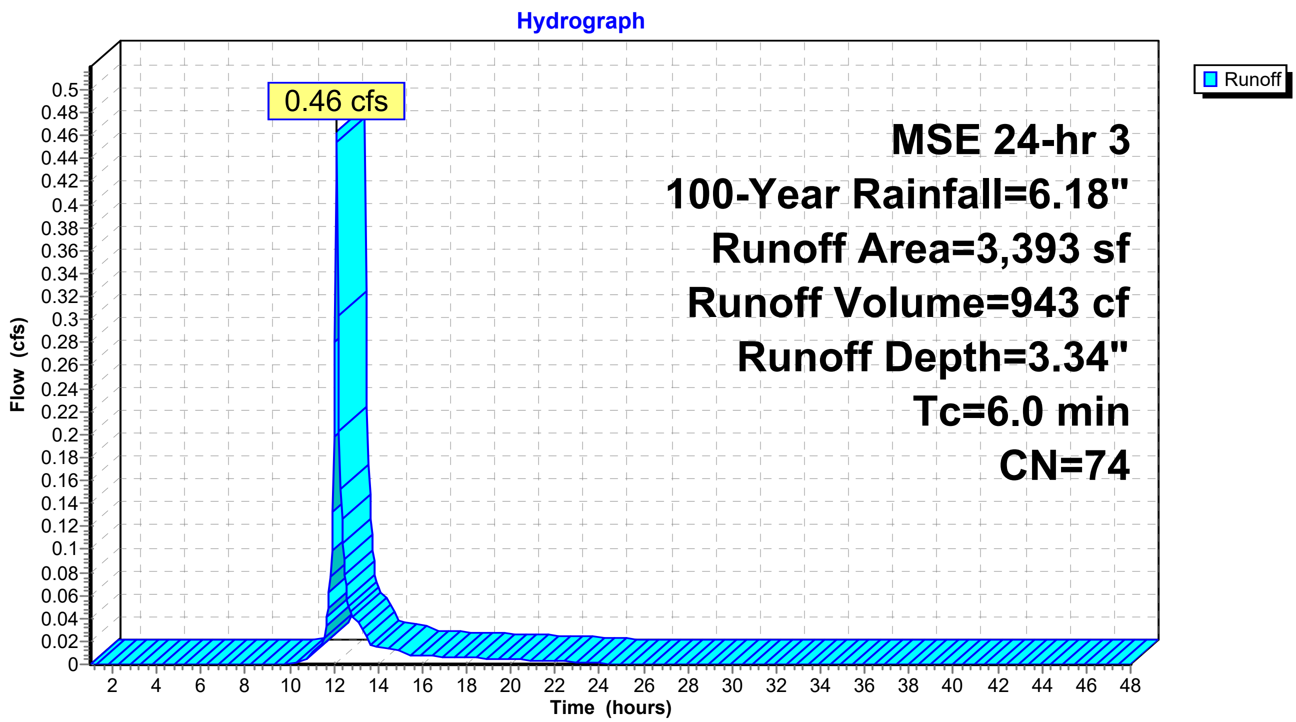
Runoff = 0.46 cfs @ 12.13 hrs, Volume= 943 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	3,393	74	landscape
	3,393		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 37S: F6



Summary for Subcatchment 39S: A

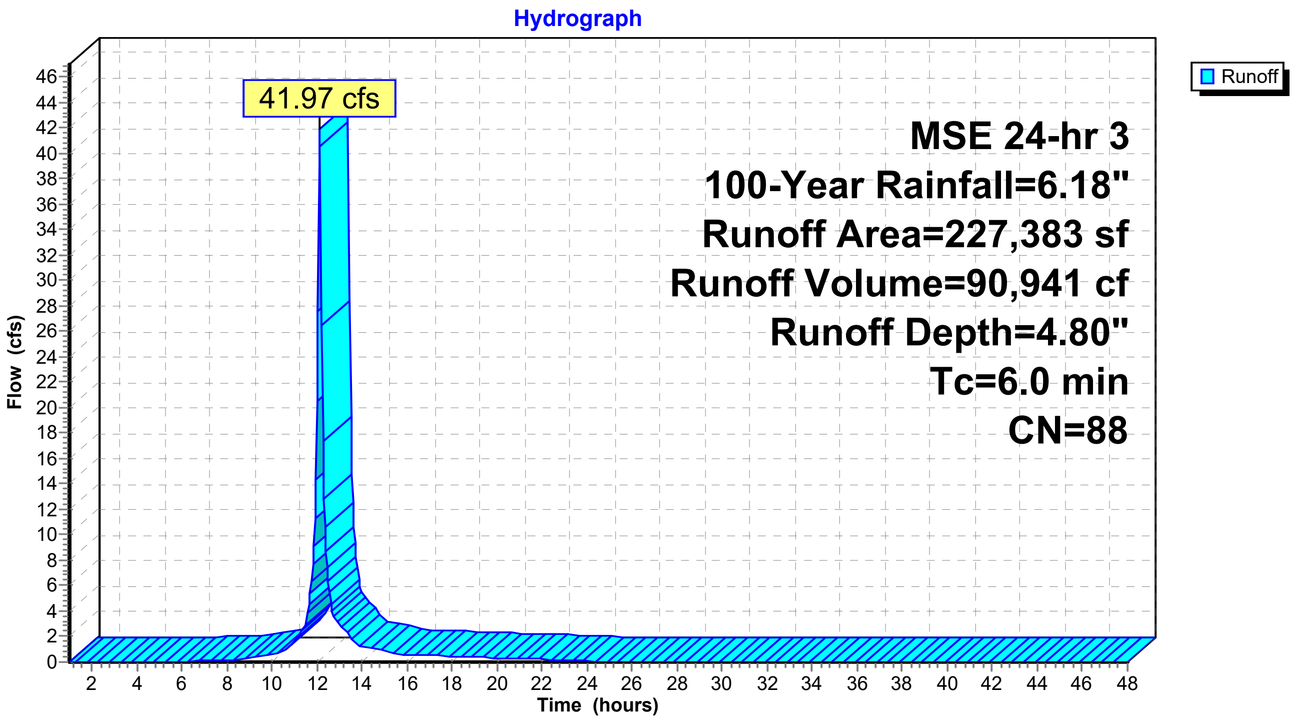
Runoff = 41.97 cfs @ 12.13 hrs, Volume= 90,941 cf, Depth= 4.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	46,354	98	walks/patio within courtyard and north
*	45,317	98	drives within courtyard
	96,978	74	>75% Grass cover, Good, HSG C
*	38,734	98	bldg 1 and 2 roof falling onto courtyard
	227,383	88	Weighted Average
	96,978		42.65% Pervious Area
	130,405		57.35% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 39S: A



Summary for Subcatchment 40S: F5 (Direct to Basin)

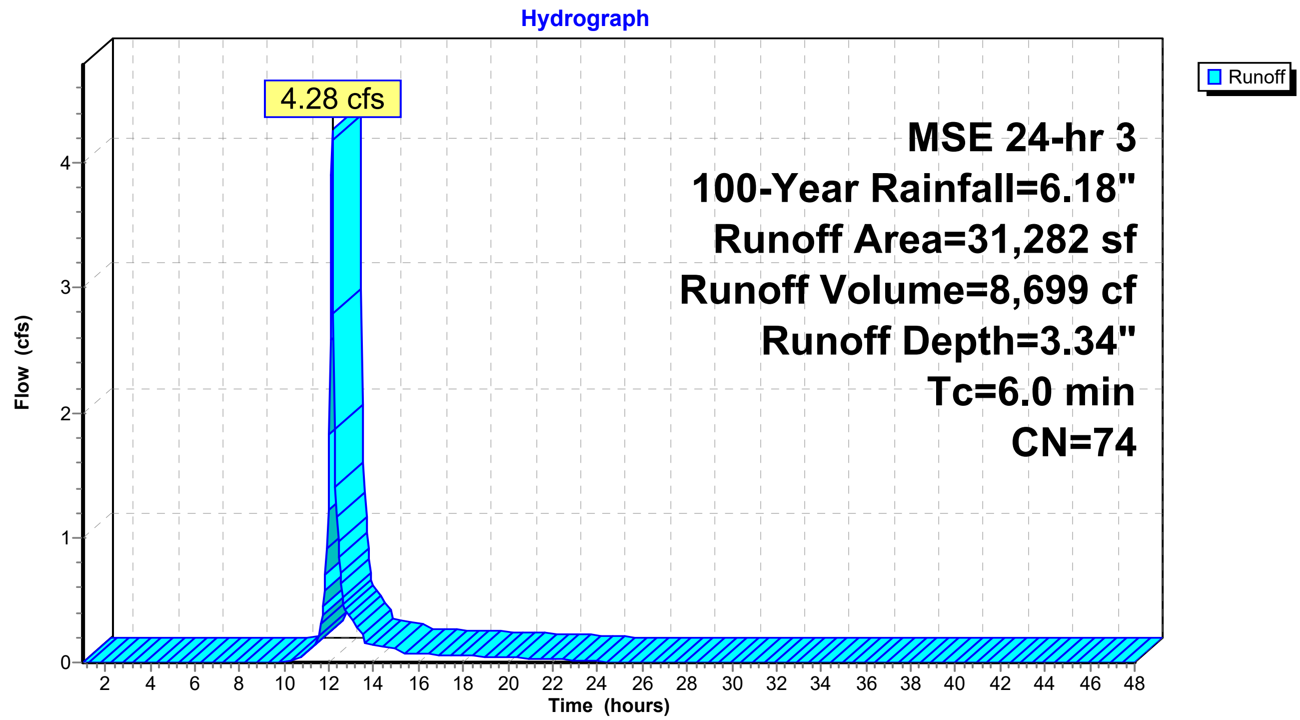
Runoff = 4.28 cfs @ 12.13 hrs, Volume= 8,699 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	31,282	74	landscape
	31,282		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, minimum**

Subcatchment 40S: F5 (Direct to Basin)



Summary for Subcatchment 49S: D2

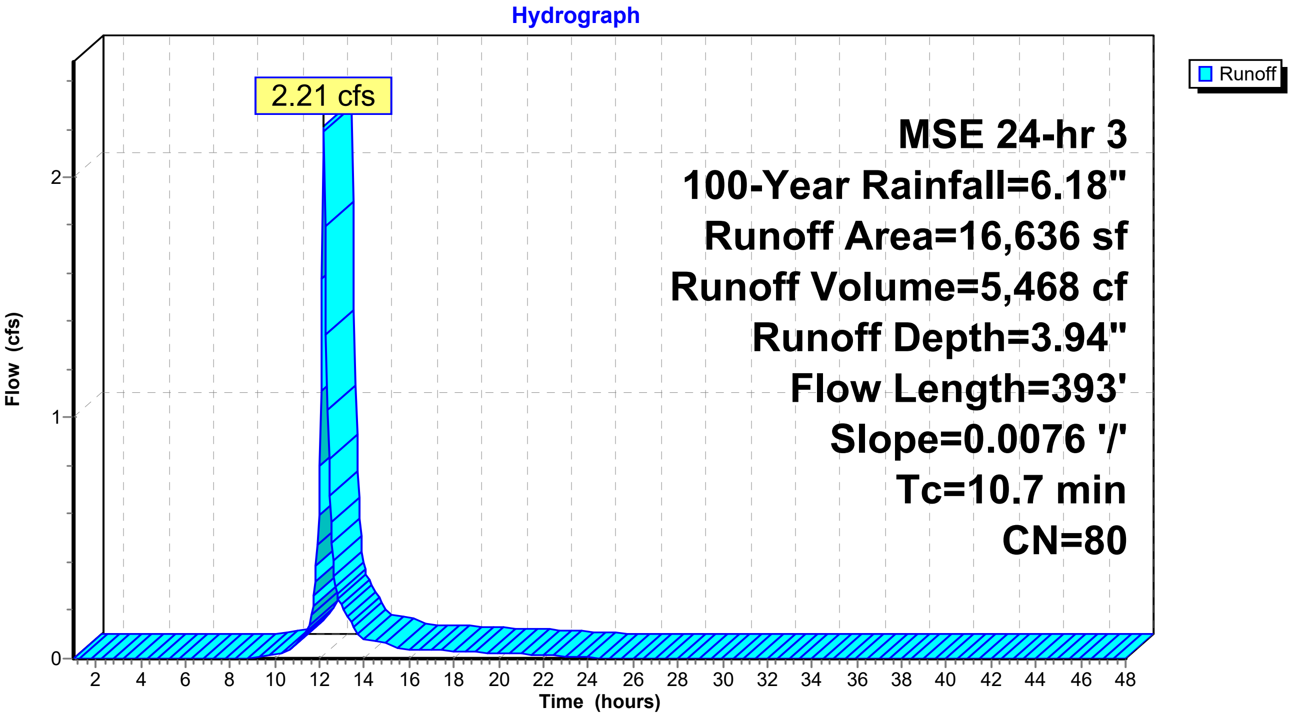
Runoff = 2.21 cfs @ 12.18 hrs, Volume= 5,468 cf, Depth= 3.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	4,215	98	roof
*	12,421	74	landscape
	16,636	80	Weighted Average
	12,421		74.66% Pervious Area
	4,215		25.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	393	0.0076	0.61		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps

Subcatchment 49S: D2



Summary for Subcatchment 52S: E1

3/3/21
Delineation NOT updated based on Justin's waterdrops, needs finalization, it routes to western property ditch that goes ultimately to IB. We are using Joe's SWMP2 Figure from December 2020.

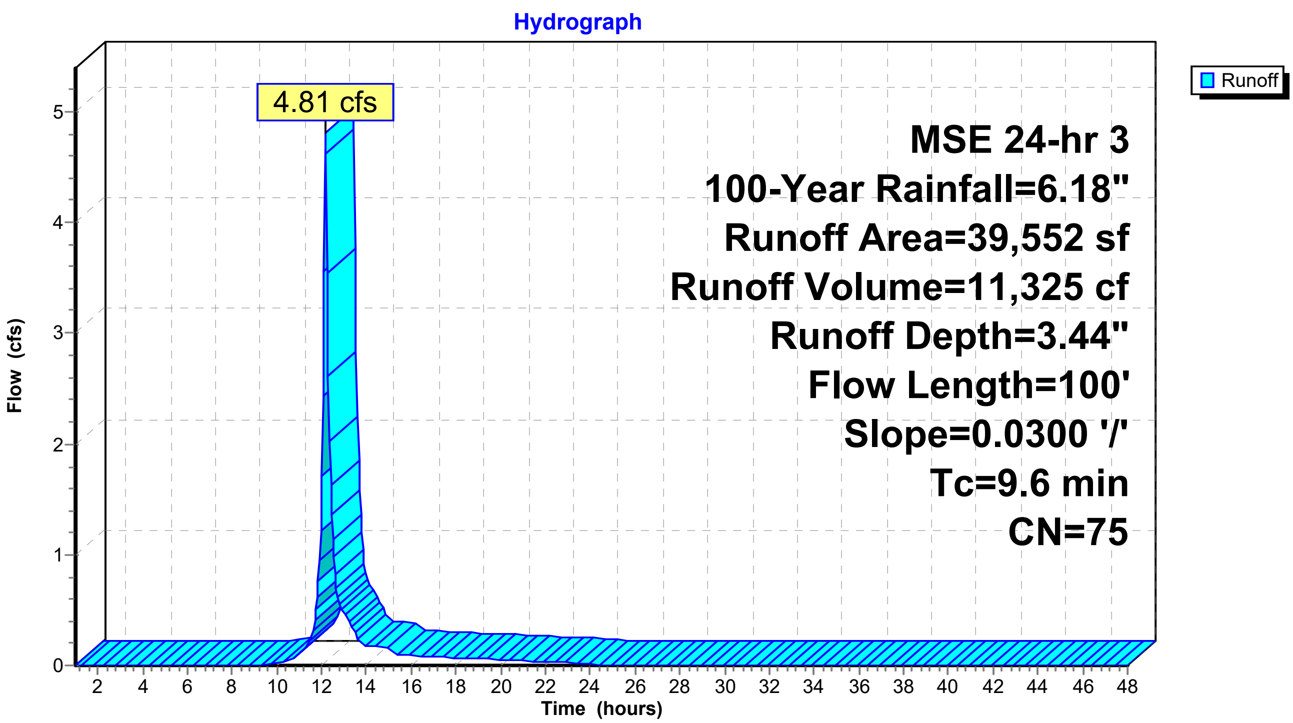
Runoff = 4.81 cfs @ 12.17 hrs, Volume= 11,325 cf, Depth= 3.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	2,161	98	Walks
	37,391	74	>75% Grass cover, Good, HSG C
	39,552	75	Weighted Average
	37,391		94.54% Pervious Area
	2,161		5.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0300	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"

Subcatchment 52S: E1



Summary for Subcatchment 55S: G

3/3/21
Needs to be delineated, this is from Joe's SWMP2

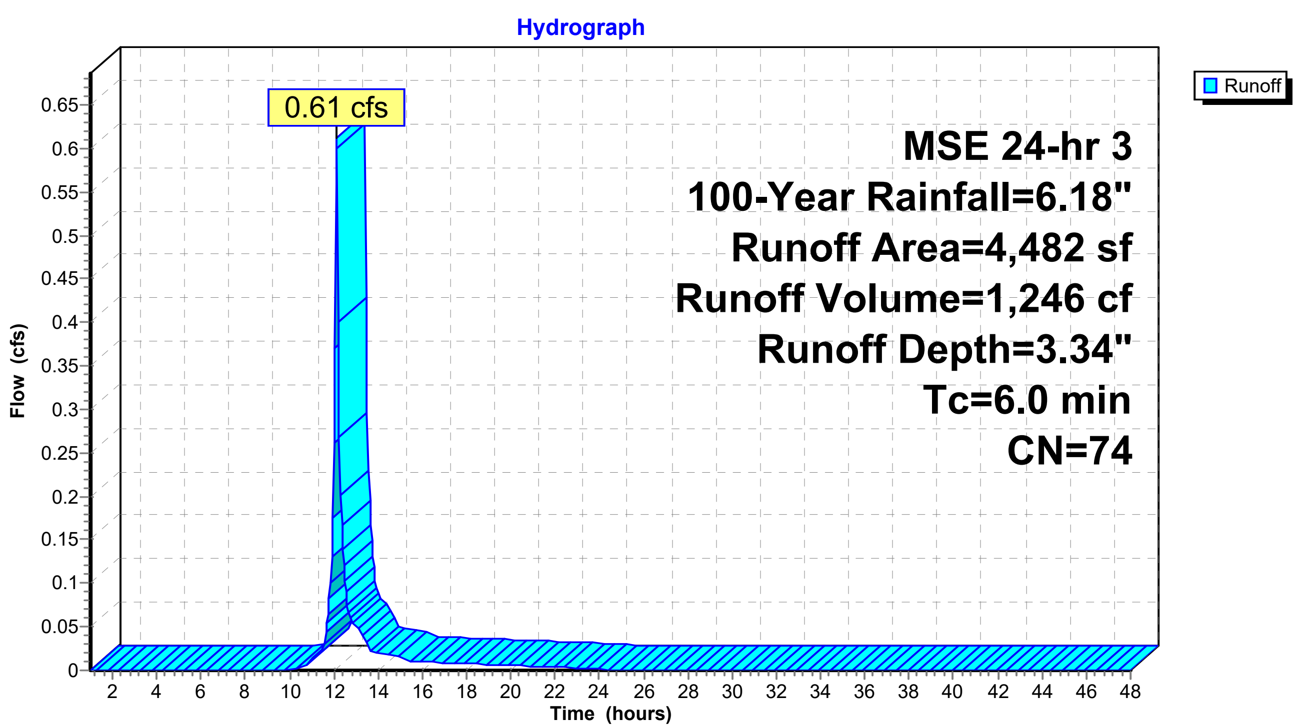
Runoff = 0.61 cfs @ 12.13 hrs, Volume= 1,246 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	4,482	74	landscape
	4,482		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 55S: G



Summary for Subcatchment 81S: O1

3/3/21
SW portion off-site flowing into IB

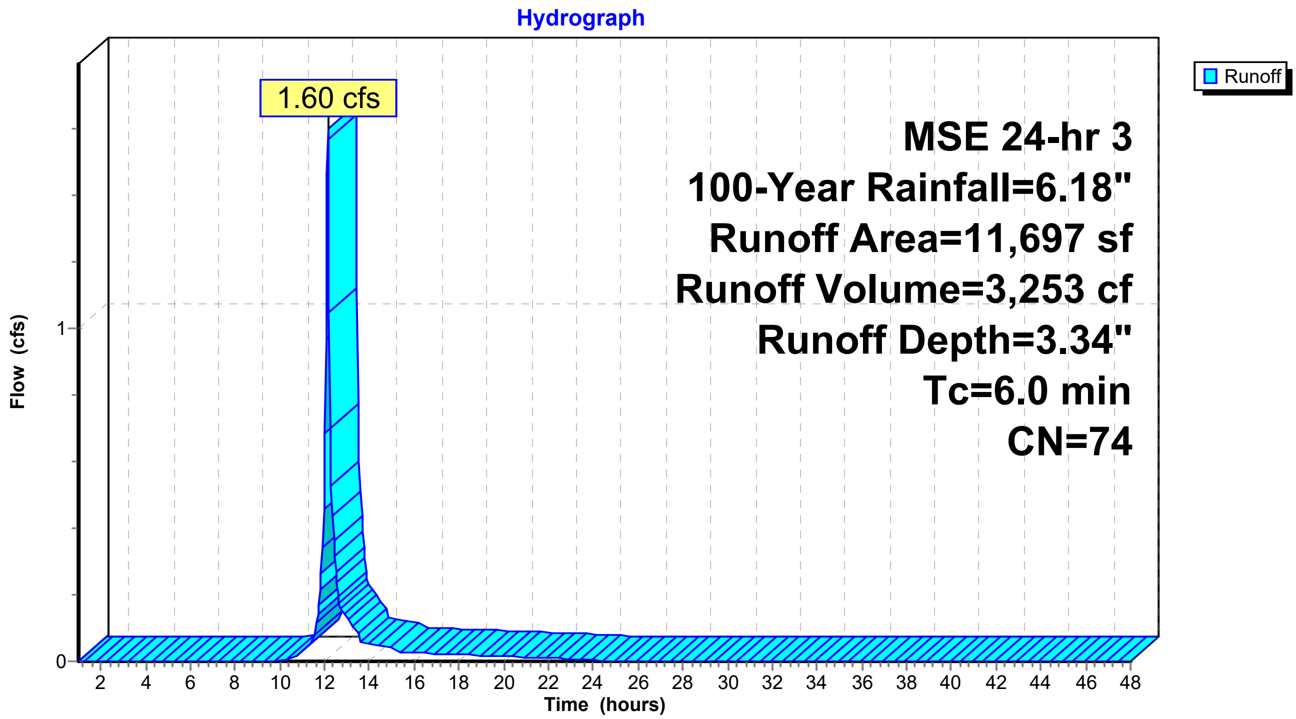
Runoff = 1.60 cfs @ 12.13 hrs, Volume= 3,253 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	11,697	74	PERV
	11,697		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 81S: O1



Summary for Subcatchment 82S: D1

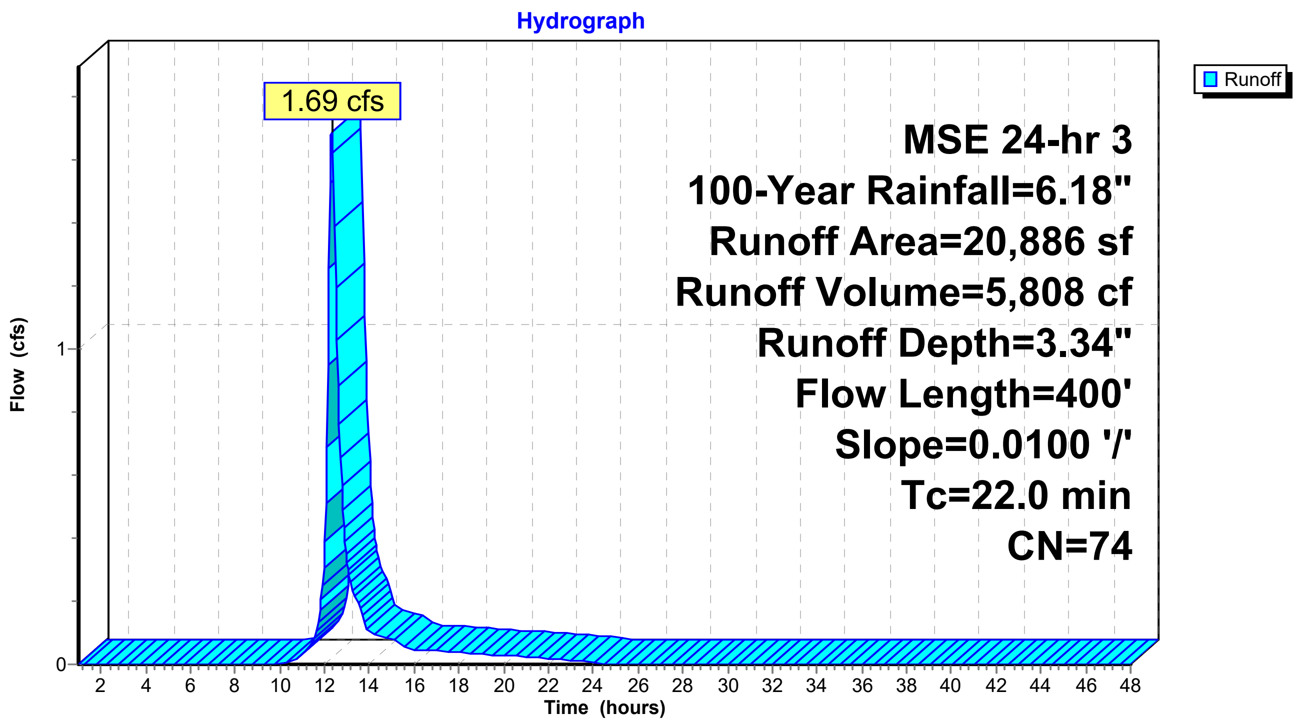
Runoff = 1.69 cfs @ 12.33 hrs, Volume= 5,808 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	20,886	74	landscape
	20,886		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow, BUILDING TO SWALE** Grass: Short n= 0.150 P2= 2.42"
7.1	300	0.0100	0.70		**Shallow Concentrated Flow, SWALE ALONG BACK** Short Grass Pasture Kv= 7.0 fps
22.0	400	Total			

Subcatchment 82S: D1



Summary for Subcatchment 87S: I

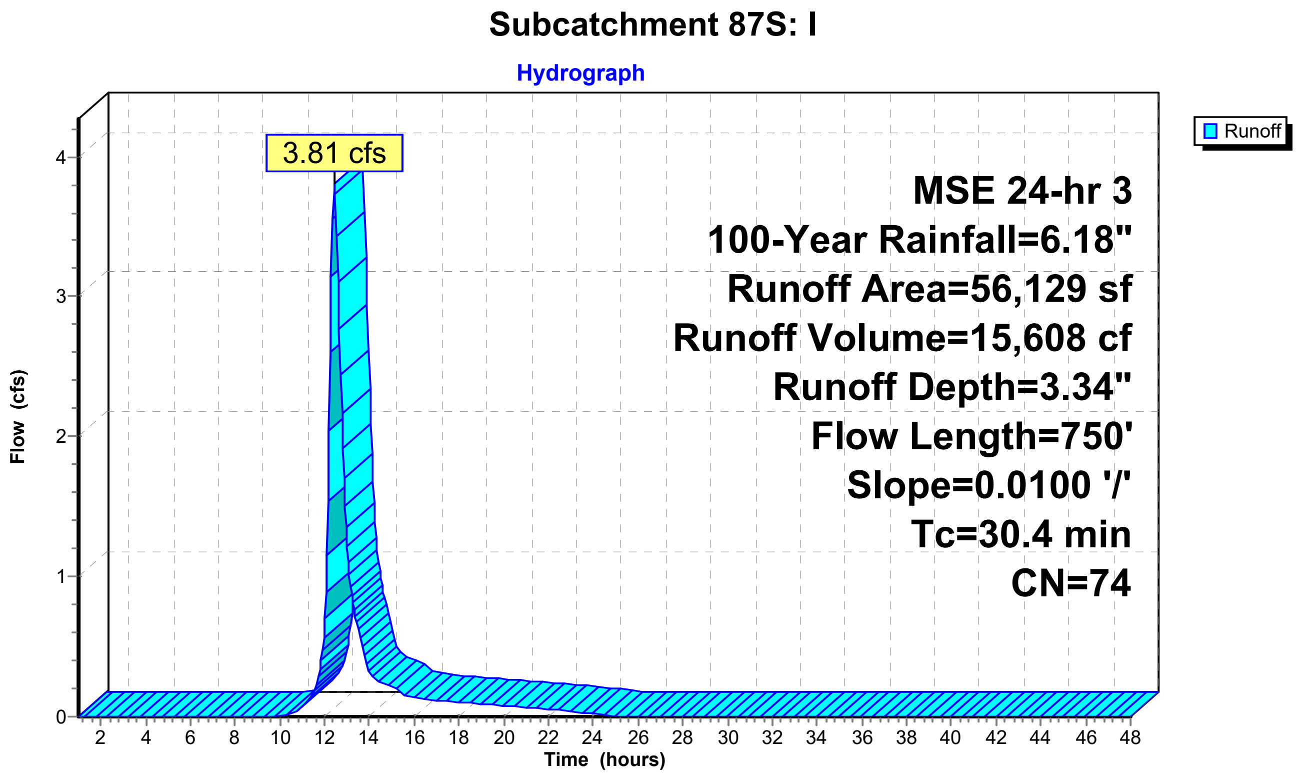
3/3/21
Wooded area

Runoff = 3.81 cfs @ 12.43 hrs, Volume= 15,608 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	56,129	74	landscape
	56,129		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
15.5	650	0.0100	0.70		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
30.4	750	Total			



Summary for Subcatchment 95S: C1

Area actually draining to east swale
3/3/21
Northern portion of East Roof, exterior east courtyard, 7 home lots

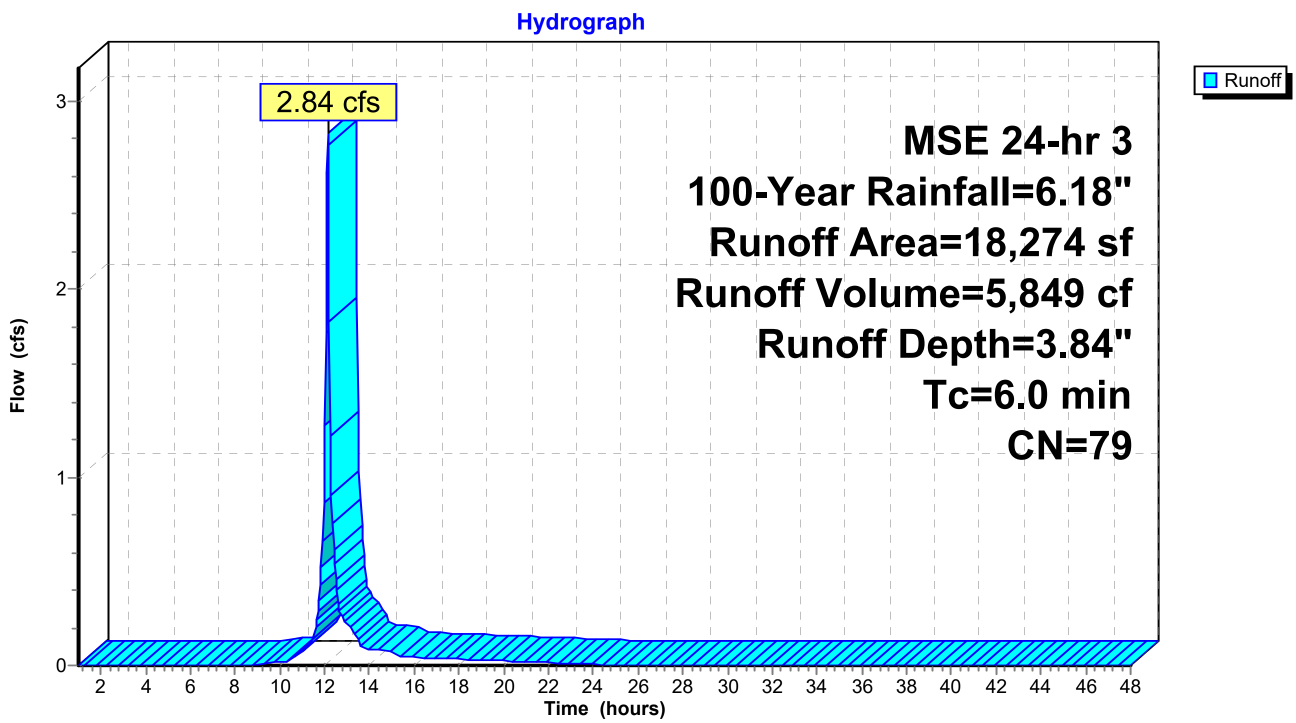
Runoff = 2.84 cfs @ 12.13 hrs, Volume= 5,849 cf, Depth= 3.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	2,210	98	walks
*	1,774	98	roads
*	14,290	74	landscape
	18,274	79	Weighted Average
	14,290		78.20% Pervious Area
	3,984		21.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 95S: C1



Summary for Subcatchment 96S: E2

3/3/21
Delineation needs updating, but it does route to IB
Portion of cemetary site that flows from north to south into IB

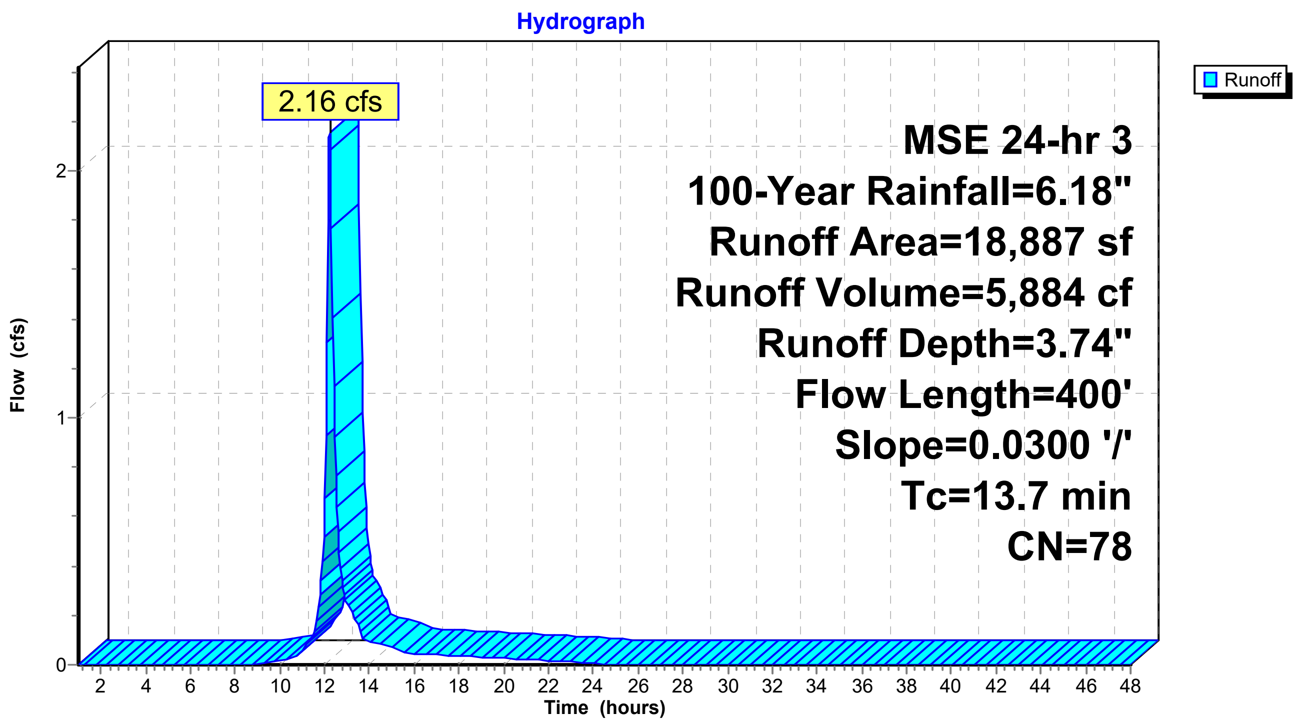
Runoff = 2.16 cfs @ 12.22 hrs, Volume= 5,884 cf, Depth= 3.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	15,384	74	landscape
*	3,503	98	roofs
	18,887	78	Weighted Average
	15,384		81.45% Pervious Area
	3,503		18.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	100	0.0300	0.17		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
4.1	300	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
13.7	400	Total			

Subcatchment 96S: E2



Summary for Subcatchment 97S: C2

Subset C - C1
3/3/21
Southern portion of East Building Roof, Southern Building (Middle one) roof, pond area
pipe from roofs not sized yet

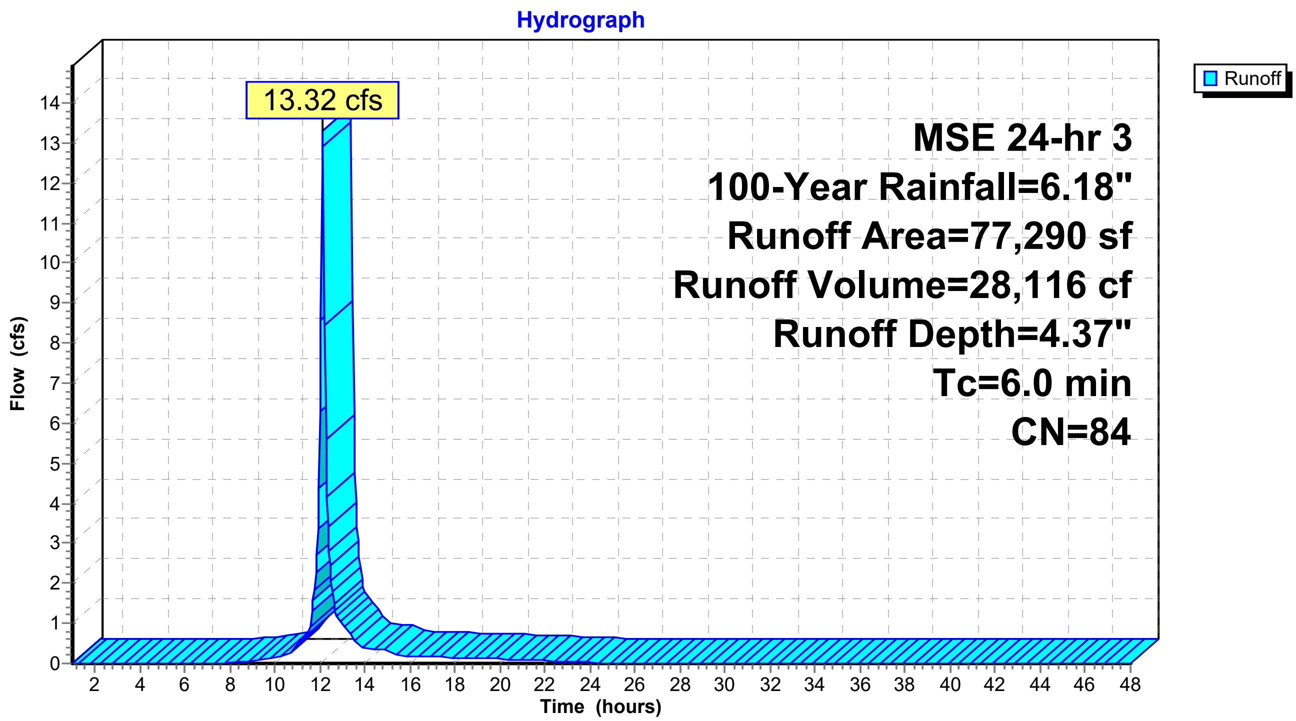
Runoff = 13.32 cfs @ 12.13 hrs, Volume= 28,116 cf, Depth= 4.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	9,728	98	walks and patios
*	23,739	98	roofs
*	43,823	74	landscape
	77,290	84	Weighted Average
	43,823		56.70% Pervious Area
	33,467		43.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 97S: C2



Summary for Subcatchment 98S: E3

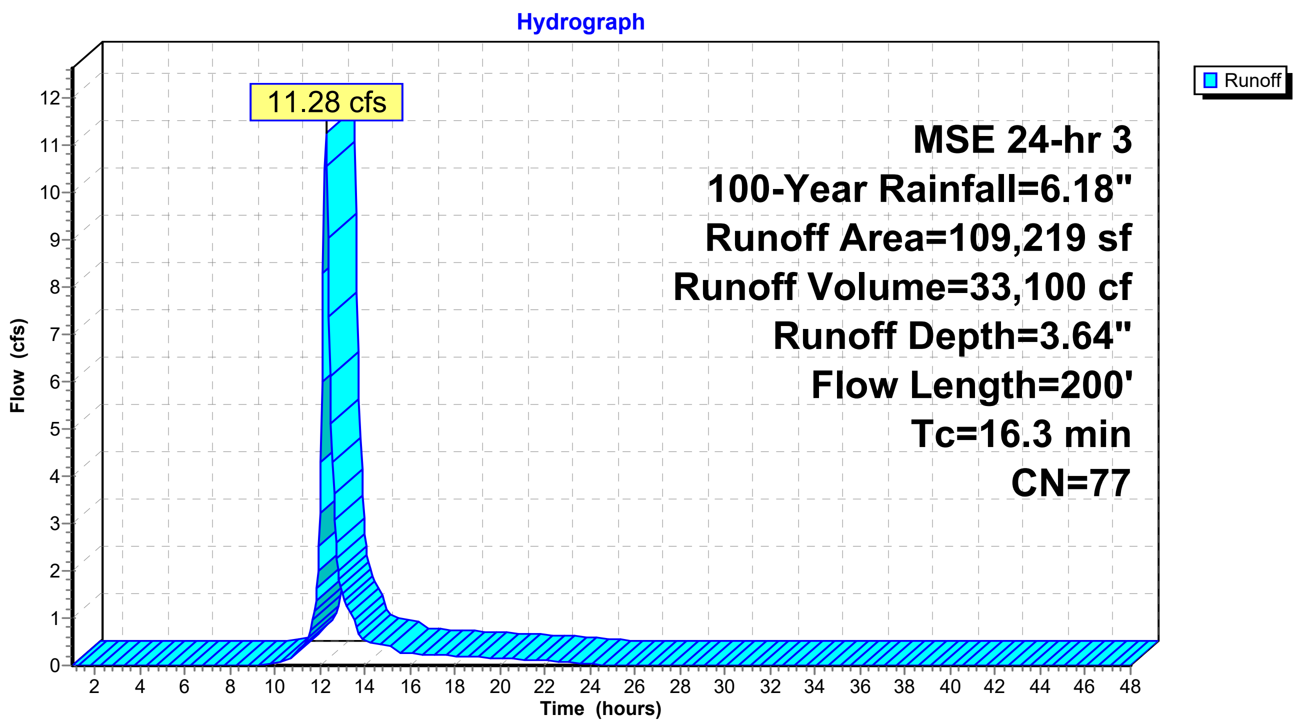
Runoff = 11.28 cfs @ 12.25 hrs, Volume= 33,100 cf, Depth= 3.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	6,532	98	walks
*	8,300	98	Roads
*	94,387	74	landscape
	109,219	77	Weighted Average
	94,387		86.42% Pervious Area
	14,832		13.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	100	0.0100	0.11		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.42"
1.4	100	0.0300	1.21		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
16.3	200	Total			

Subcatchment 98S: E3



Summary for Subcatchment 105S: C

Subset C - C1
3/3/21
Southern portion of East Building Roof, Southern Building (Middle one) roof, pond area
pipe from roofs not sized yet

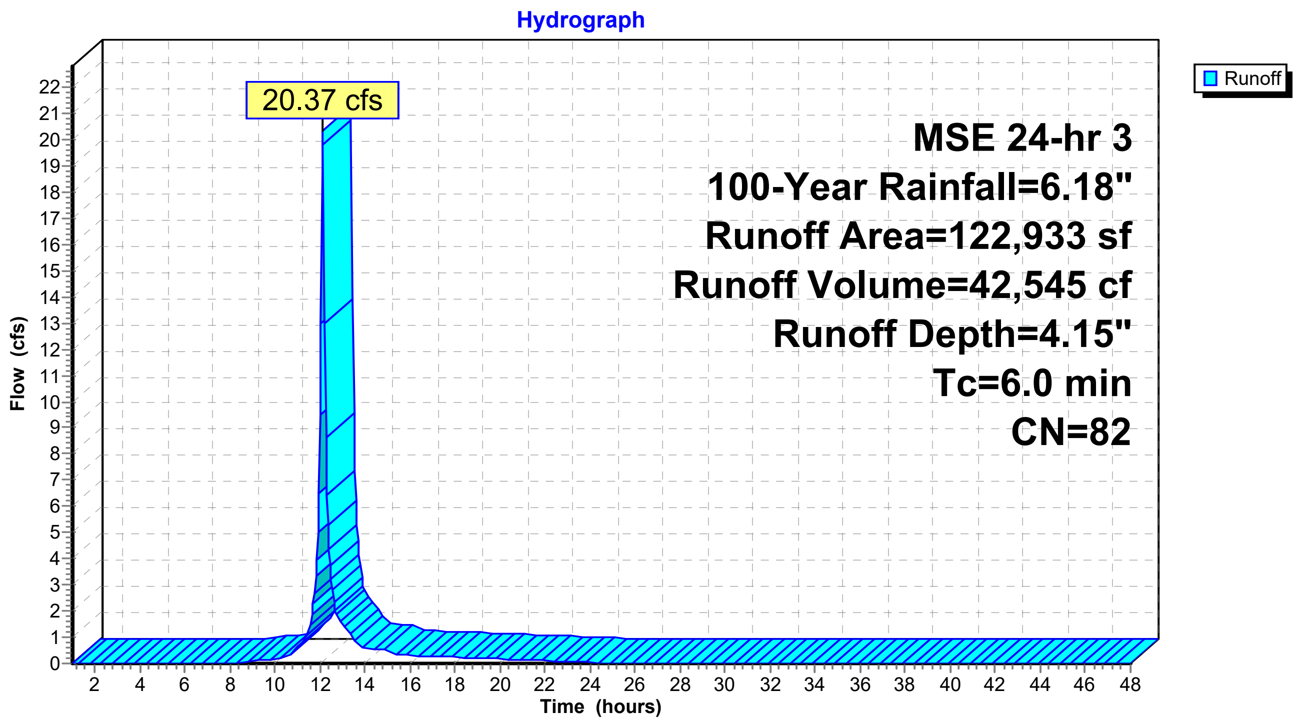
Runoff = 20.37 cfs @ 12.13 hrs, Volume= 42,545 cf, Depth= 4.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	8,648	98	walks and patios
*	32,913	98	roofs
*	81,372	74	landscape
	122,933	82	Weighted Average
	81,372		66.19% Pervious Area
	41,561		33.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 105S: C



Summary for Subcatchment 106S: B1

3/3/21
North face of West Building, Lawn Area south of WTP, Patios

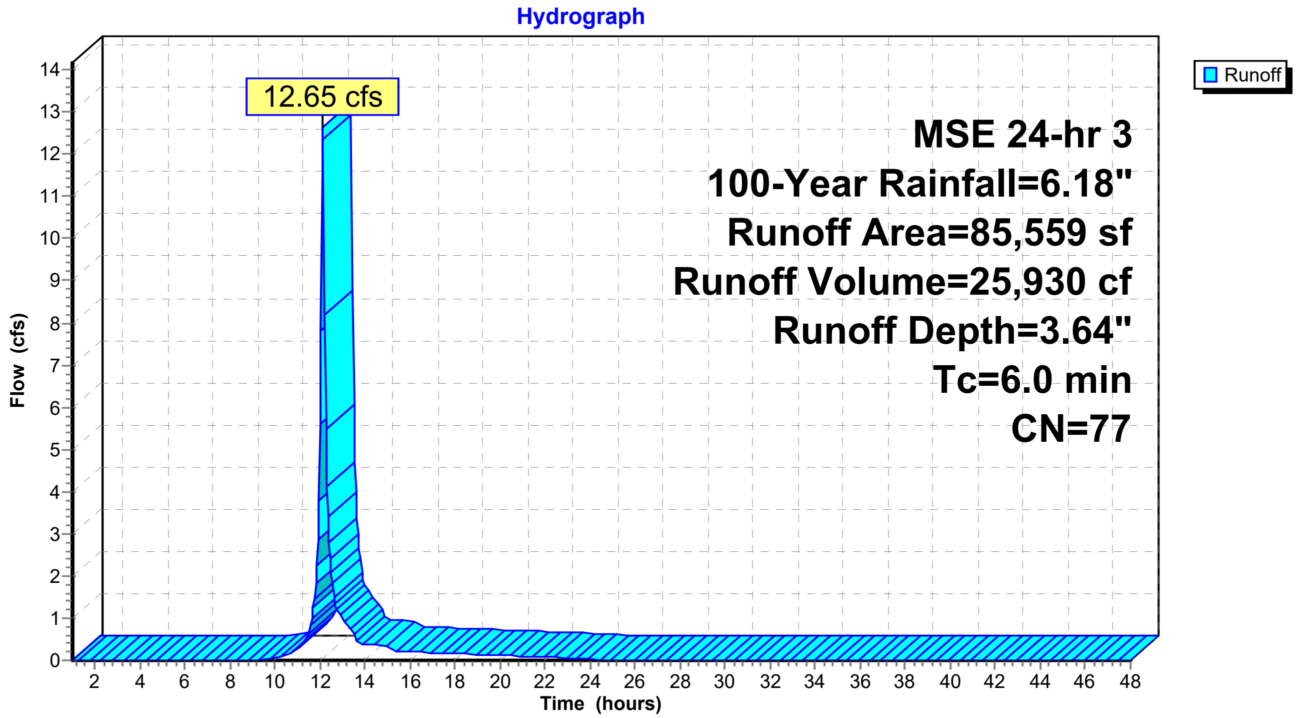
Runoff = 12.65 cfs @ 12.13 hrs, Volume= 25,930 cf, Depth= 3.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	76,242	74	landscape
*	9,317	98	walks
	85,559	77	Weighted Average
	76,242		89.11% Pervious Area
	9,317		10.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Check Later**

Subcatchment 106S: B1



Summary for Subcatchment 107S: F

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

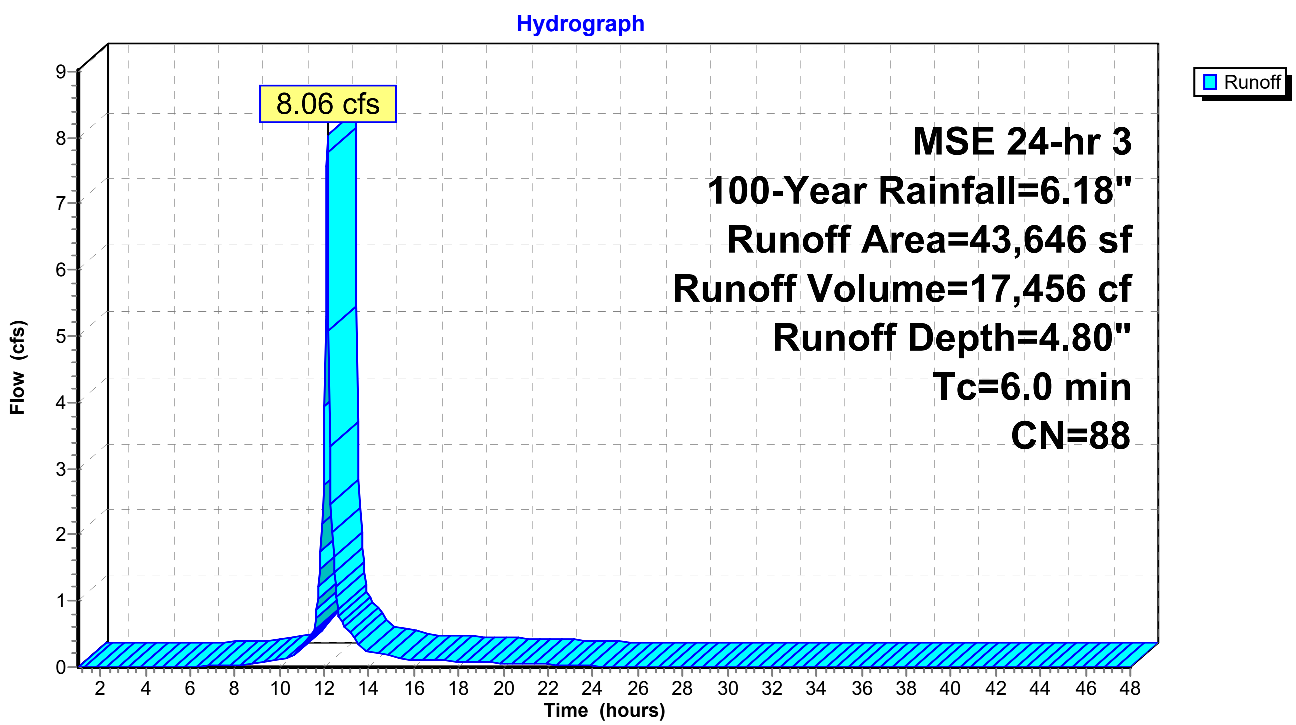
Runoff = 8.06 cfs @ 12.13 hrs, Volume= 17,456 cf, Depth= 4.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	14,227	98	roads
*	11,236	98	roof
*	18,183	74	landscape
	43,646	88	Weighted Average
	18,183		41.66% Pervious Area
	25,463		58.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 107S: F



Summary for Subcatchment 108S: B2

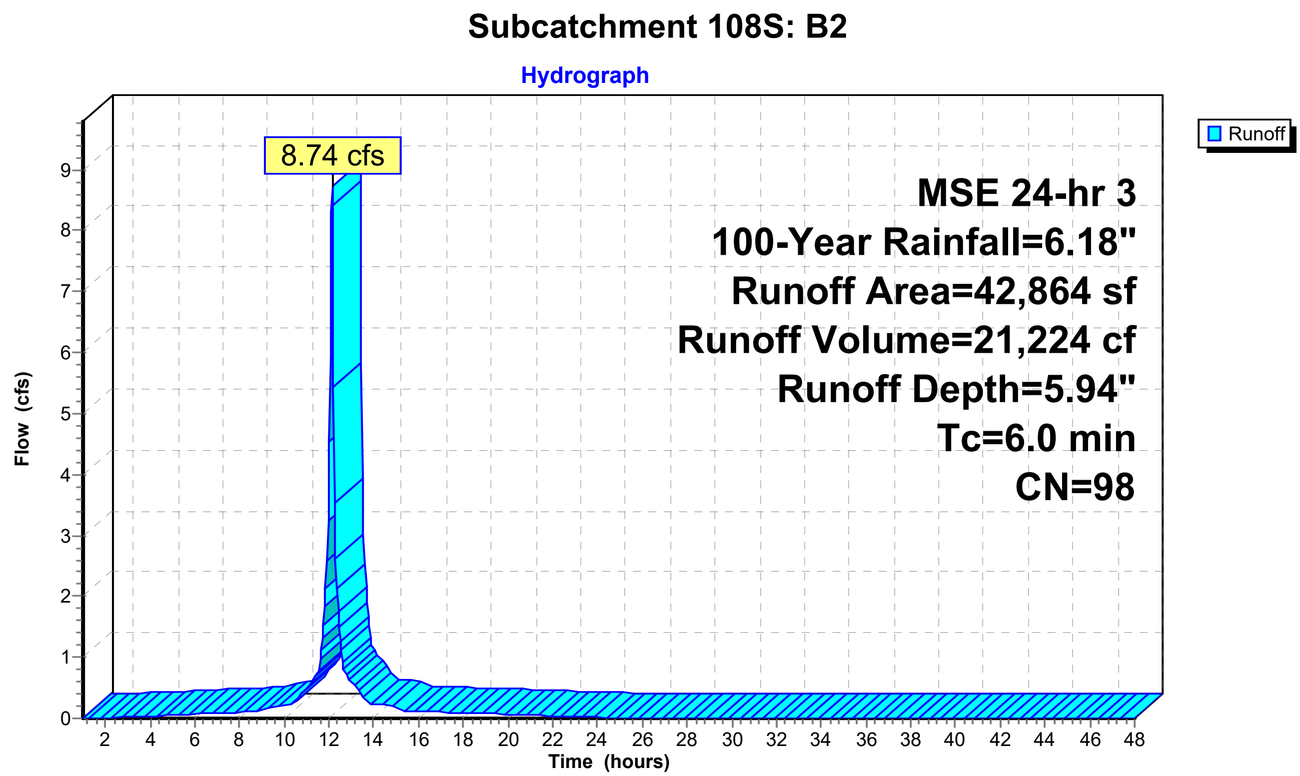
3/3/21
Northern portion of W building roof

Runoff = 8.74 cfs @ 12.13 hrs, Volume= 21,224 cf, Depth= 5.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	42,864	98	roof
	42,864		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**



Summary for Subcatchment 112S: D3

3/3/21
Western Building Courtyard (need to check that Joe's overall B works with B1-B4 in our update

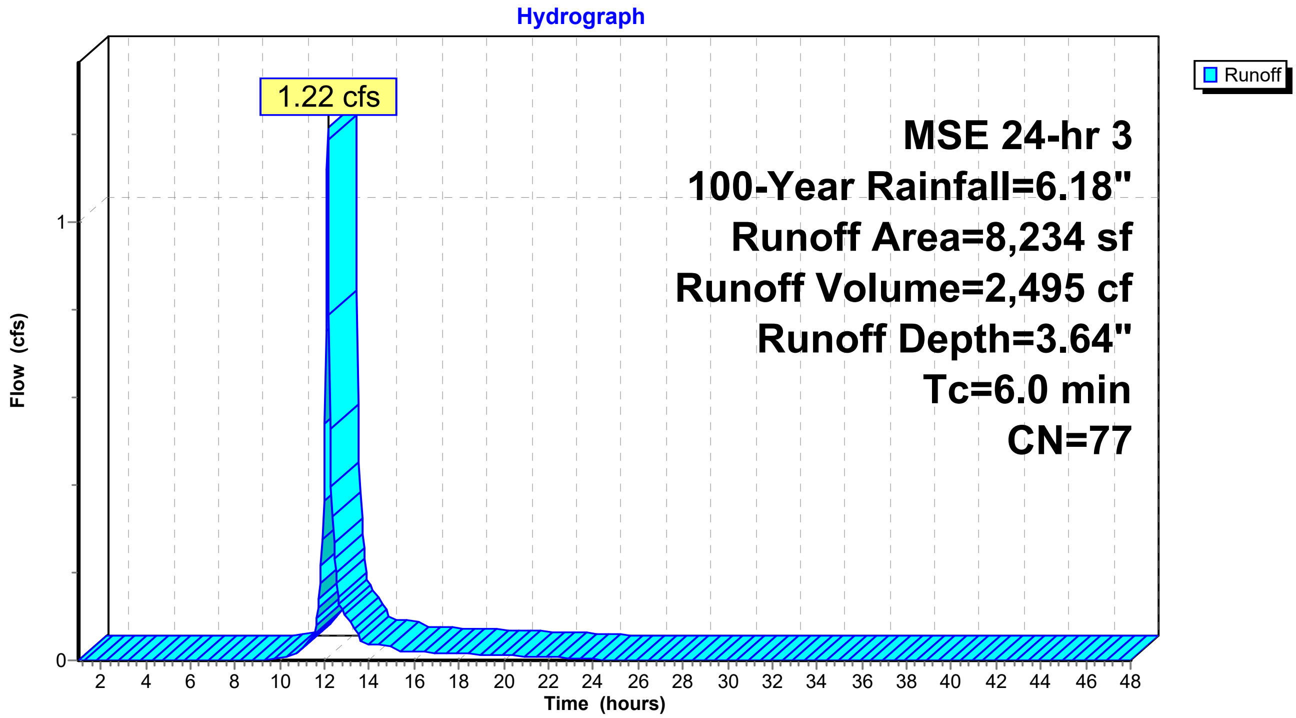
Runoff = 1.22 cfs @ 12.13 hrs, Volume= 2,495 cf, Depth= 3.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	1,062	98	walks
*	7,172	74	landscape
	8,234	77	Weighted Average
	7,172		87.10% Pervious Area
	1,062		12.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 112S: D3



Summary for Subcatchment 122S: F1

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

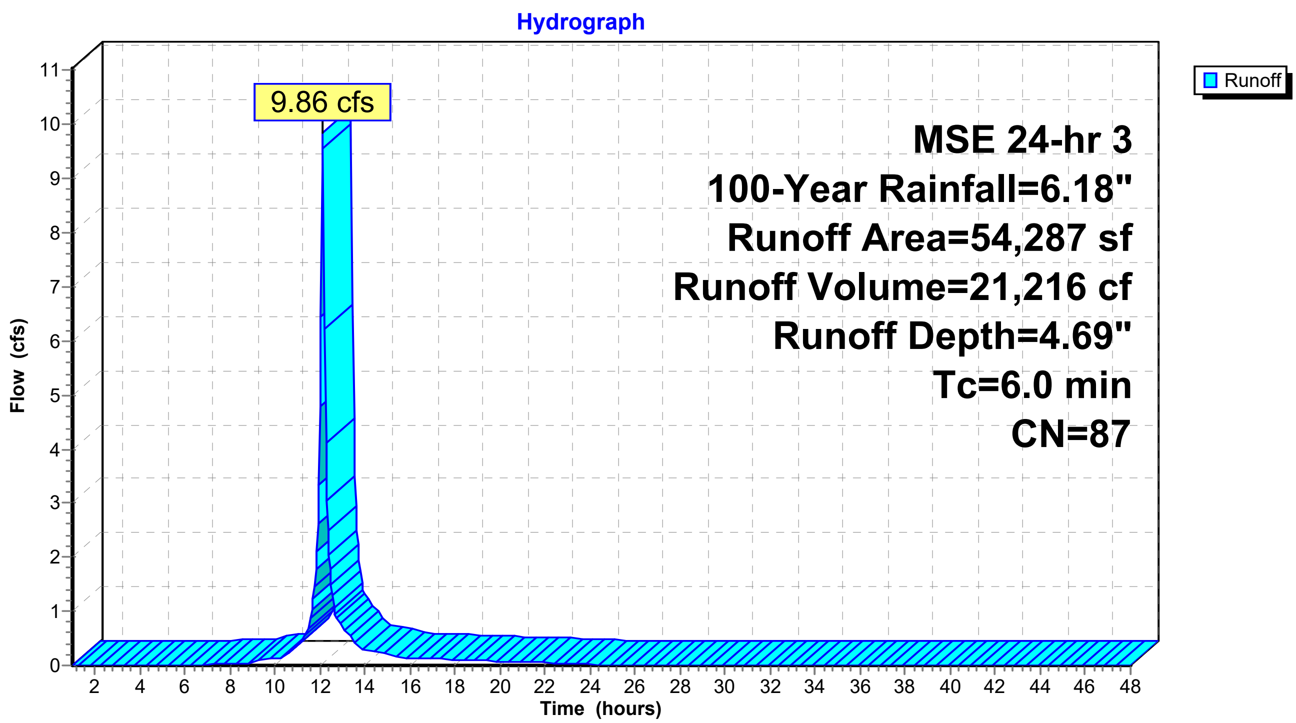
Runoff = 9.86 cfs @ 12.13 hrs, Volume= 21,216 cf, Depth= 4.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	504	98	walks
*	19,590	98	roads
*	9,863	98	roof
*	24,330	74	landscape
	54,287	87	Weighted Average
	24,330		44.82% Pervious Area
	29,957		55.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 122S: F1



Summary for Subcatchment 125S: F3

3/3/21
SW Lot that drains direct to SC Pond

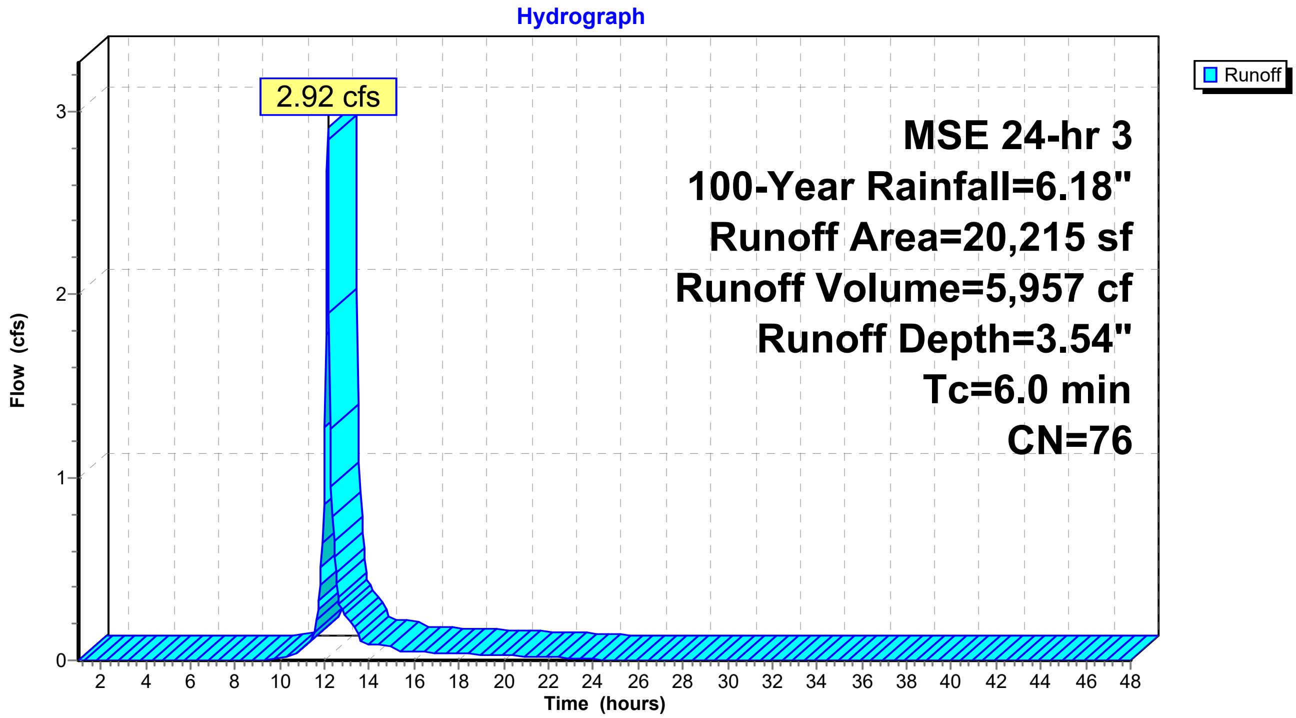
Runoff = 2.92 cfs @ 12.13 hrs, Volume= 5,957 cf, Depth= 3.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	2,087	98	roof
*	18,128	74	landscape
	20,215	76	Weighted Average
	18,128		89.68% Pervious Area
	2,087		10.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 125S: F3



Summary for Subcatchment 126S: F4

3/3/21
SC Pond itself

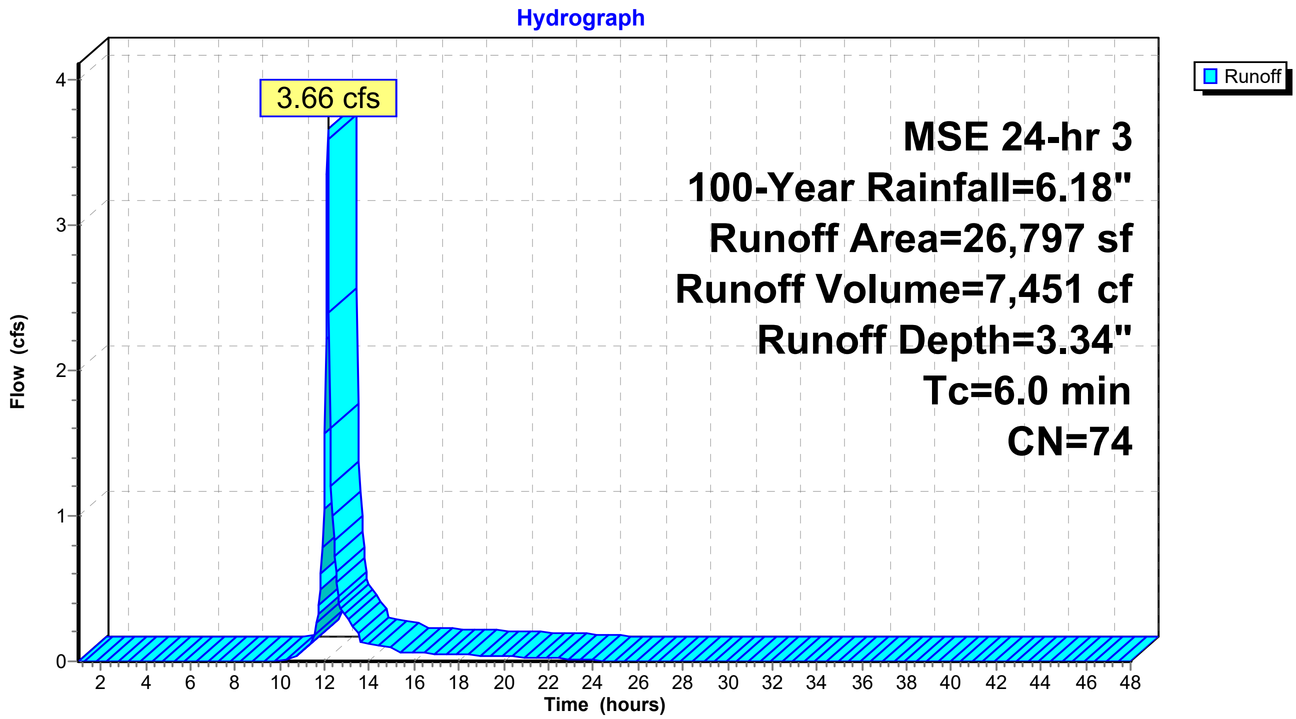
Runoff = 3.66 cfs @ 12.13 hrs, Volume= 7,451 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	26,797	74	landscape
	26,797		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 126S: F4



Summary for Subcatchment 138S: F2

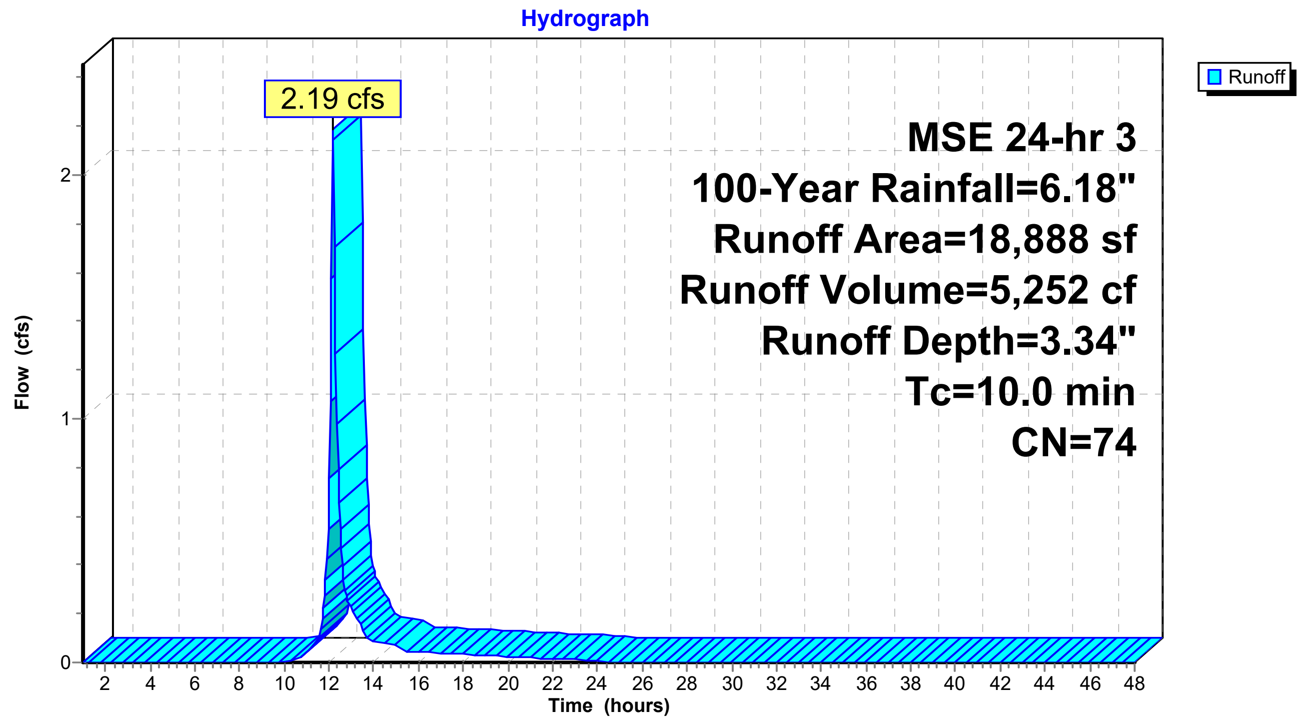
Runoff = 2.19 cfs @ 12.18 hrs, Volume= 5,252 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	18,888	74	Landscape
	18,888		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, minimum**

Subcatchment 138S: F2



Summary for Subcatchment 140S: H1

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

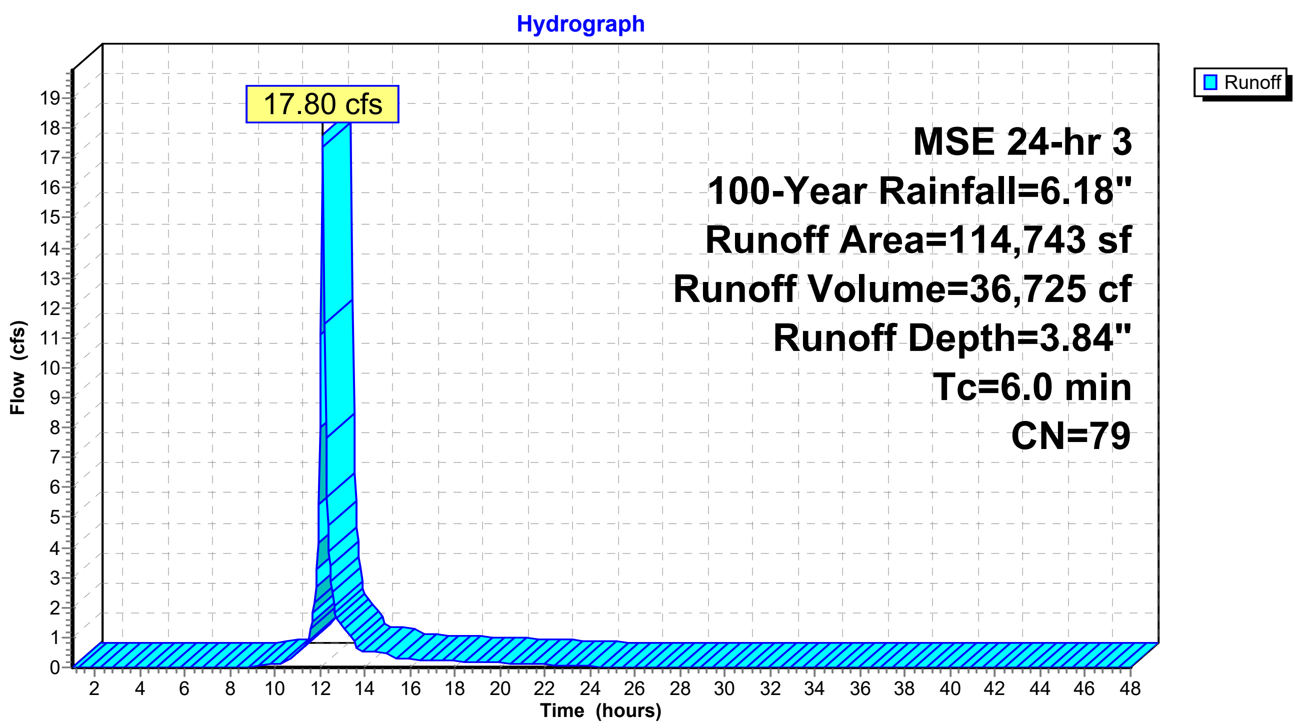
Runoff = 17.80 cfs @ 12.13 hrs, Volume= 36,725 cf, Depth= 3.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	9,481	98	roads
*	13,229	98	roof
*	92,033	74	landscape
	114,743	79	Weighted Average
	92,033		80.21% Pervious Area
	22,710		19.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 140S: H1



Summary for Subcatchment 141S: H2

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

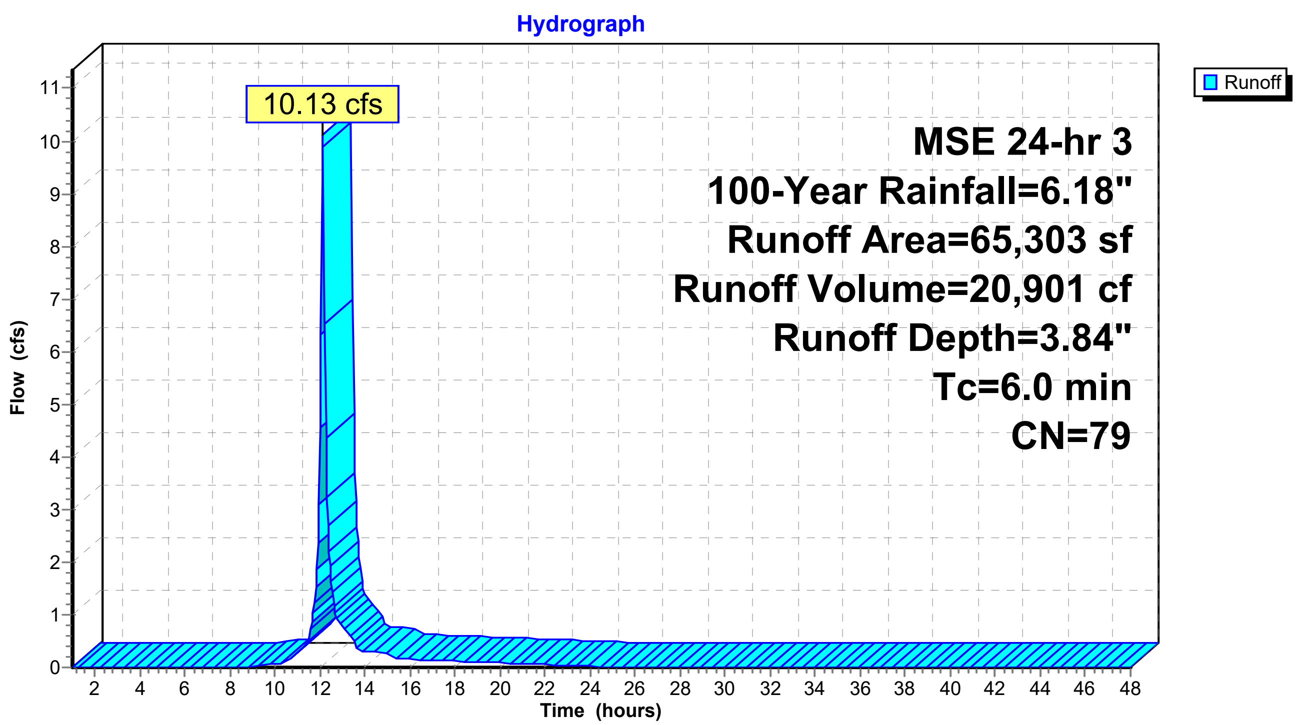
Runoff = 10.13 cfs @ 12.13 hrs, Volume= 20,901 cf, Depth= 3.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	4,833	98	roads
*	7,898	98	roof
*	52,572	74	landscape
	65,303	79	Weighted Average
	52,572		80.50% Pervious Area
	12,731		19.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 141S: H2



Summary for Subcatchment 142S: H3

3/3/21
Needs to be delineated, this is from Joe's SWMP2

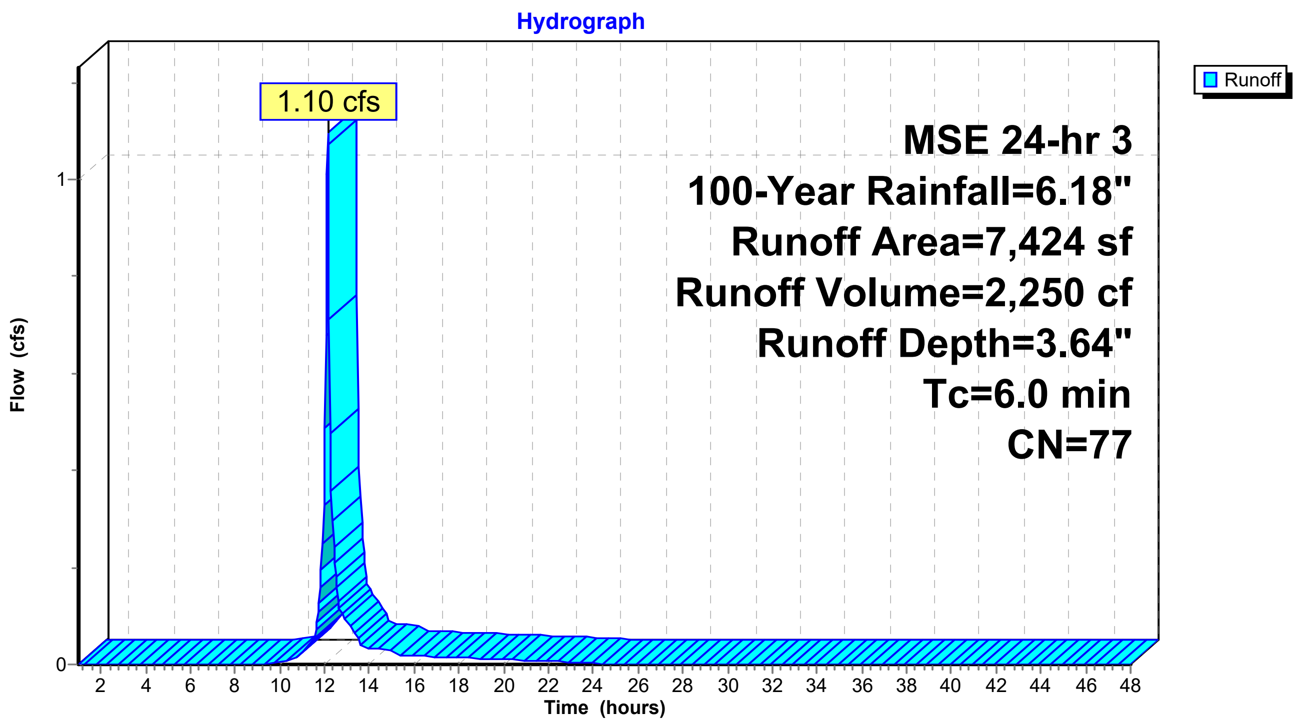
Runoff = 1.10 cfs @ 12.13 hrs, Volume= 2,250 cf, Depth= 3.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	1,041	98	roads
*	6,383	74	landscape
	7,424	77	Weighted Average
	6,383		85.98% Pervious Area
	1,041		14.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 142S: H3



Summary for Subcatchment 143S: H4

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

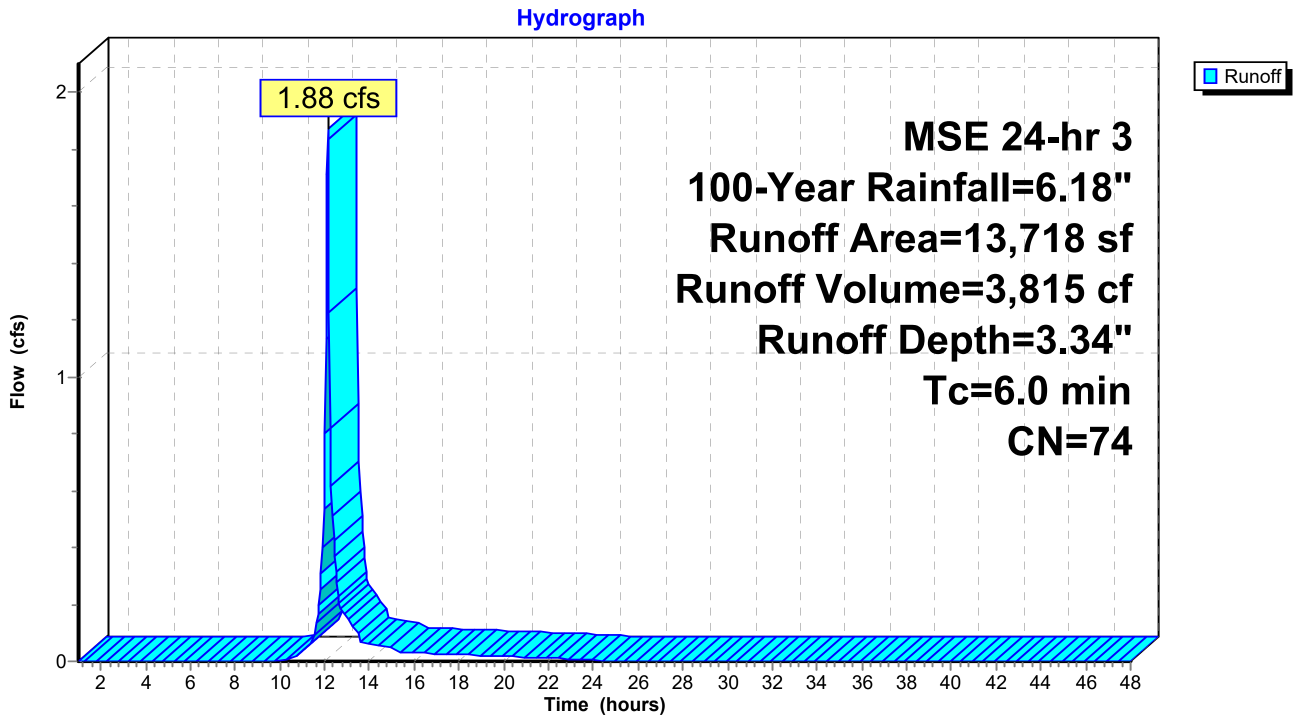
Runoff = 1.88 cfs @ 12.13 hrs, Volume= 3,815 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	13,718	74	landscape
	13,718		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 143S: H4



Summary for Subcatchment 144S: H5

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

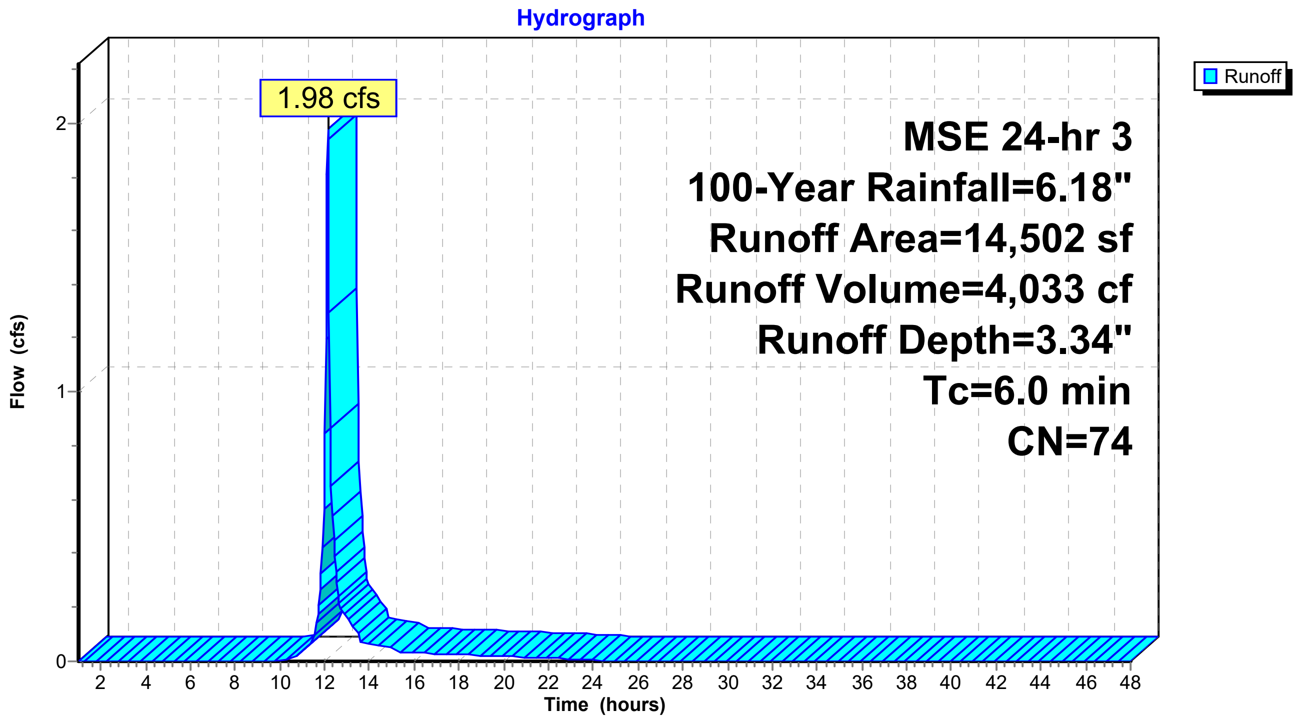
Runoff = 1.98 cfs @ 12.13 hrs, Volume= 4,033 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	14,502	74	landscape
	14,502		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 144S: H5



Summary for Subcatchment 145S: H6

3/3/21
Northern Berm north of cul-de-sac road, east side of SC

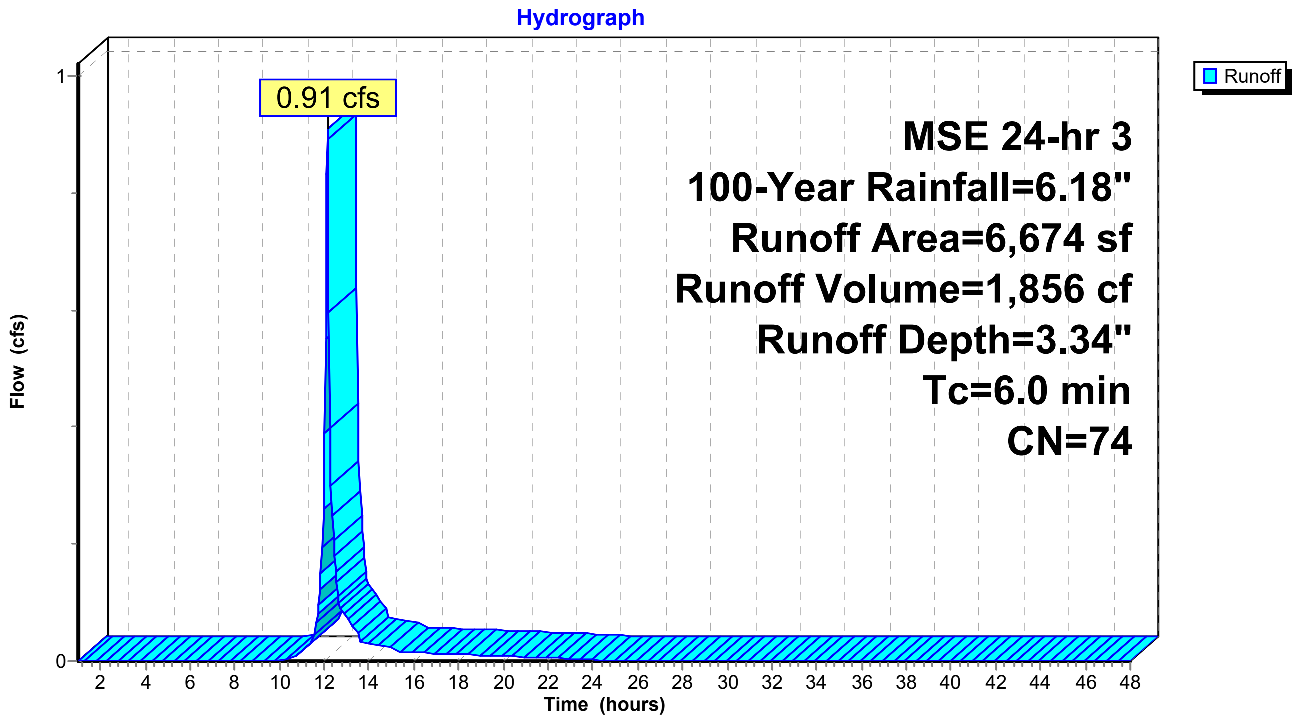
Runoff = 0.91 cfs @ 12.13 hrs, Volume= 1,856 cf, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	6,674	74	landscape
	6,674		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 145S: H6



Summary for Subcatchment 146S: O2

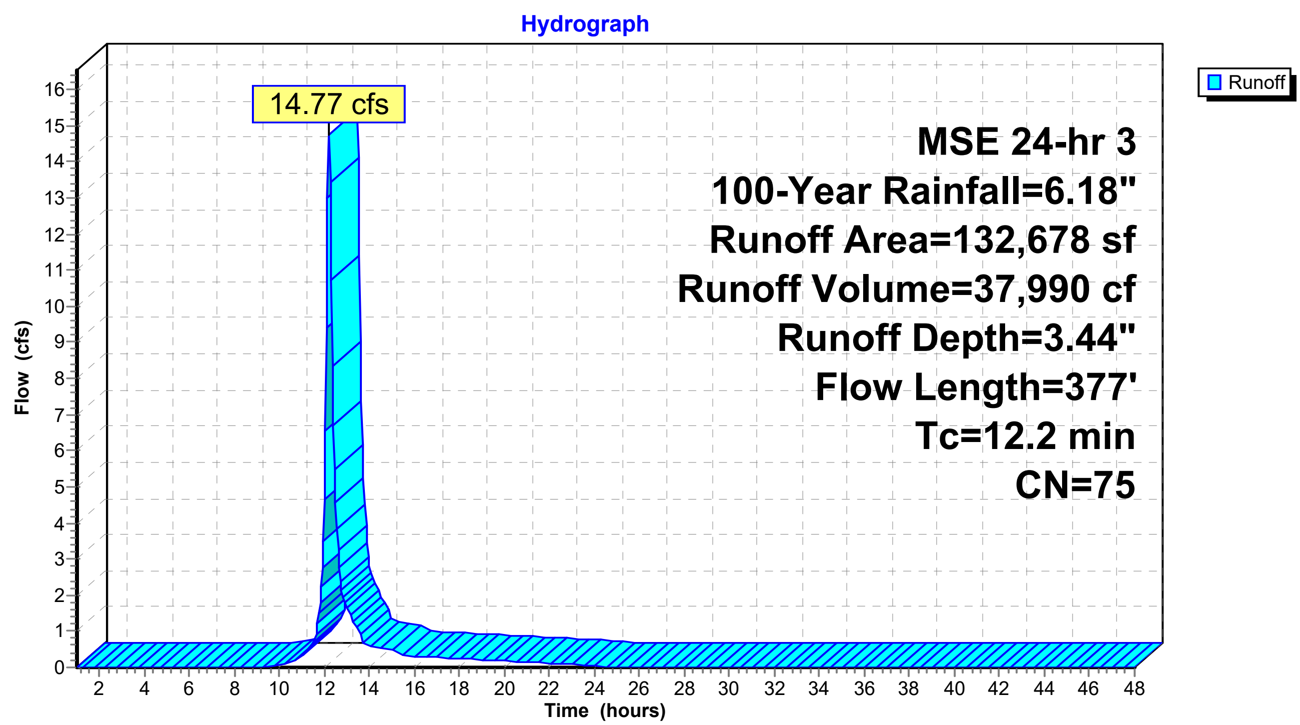
Runoff = 14.77 cfs @ 12.20 hrs, Volume= 37,990 cf, Depth= 3.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	129,638	74	PERV
*	3,040	98	IMPERV
	132,678	75	Weighted Average
	129,638		97.71% Pervious Area
	3,040		2.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	77	0.0288	0.16		**Sheet Flow, SF** Grass: Short n= 0.150 P2= 2.42"
4.3	300	0.0135	1.16		**Shallow Concentrated Flow, SHALLOW CONC** Nearly Bare & Untilled Kv= 10.0 fps
12.2	377	Total			

Subcatchment 146S: O2



Summary for Subcatchment 147S: J

3/3/21
Needs to be delineated, this is from Joe's SWMP2

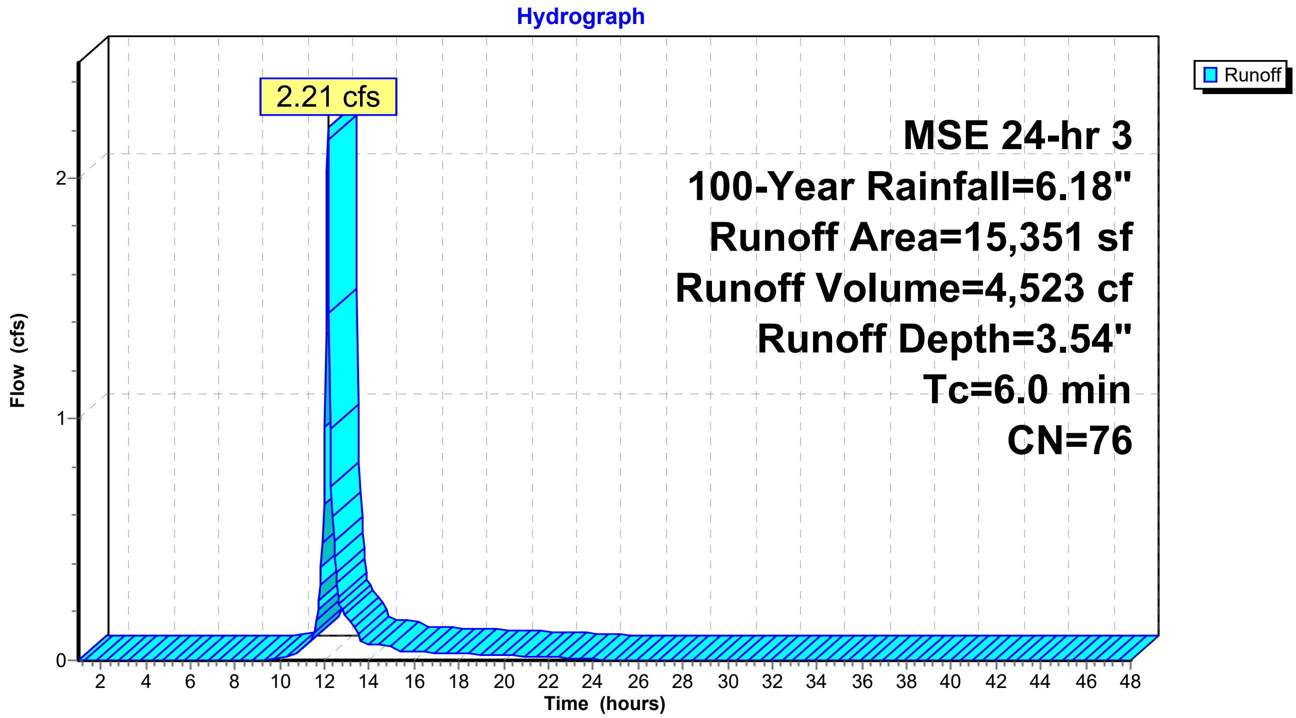
Runoff = 2.21 cfs @ 12.13 hrs, Volume= 4,523 cf, Depth= 3.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
MSE 24-hr 3 100-Year Rainfall=6.18"

	Area (sf)	CN	Description
*	1,360	98	walks
*	13,991	74	landscape
	15,351	76	Weighted Average
	13,991		91.14% Pervious Area
	1,360		8.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 147S: J



Summary for Reach 99R: East Swale (SE End)

[62] Hint: Exceeded Reach 106R OUTLET depth by 0.74' @ 12.15 hrs

Inflow Area = 255,950 sf, 26.67% Impervious, Inflow Depth = 3.99" for 100-Year event
Inflow = 40.93 cfs @ 12.13 hrs, Volume= 85,120 cf
Outflow = 37.22 cfs @ 12.18 hrs, Volume= 85,120 cf, Atten= 9%, Lag= 3.1 min

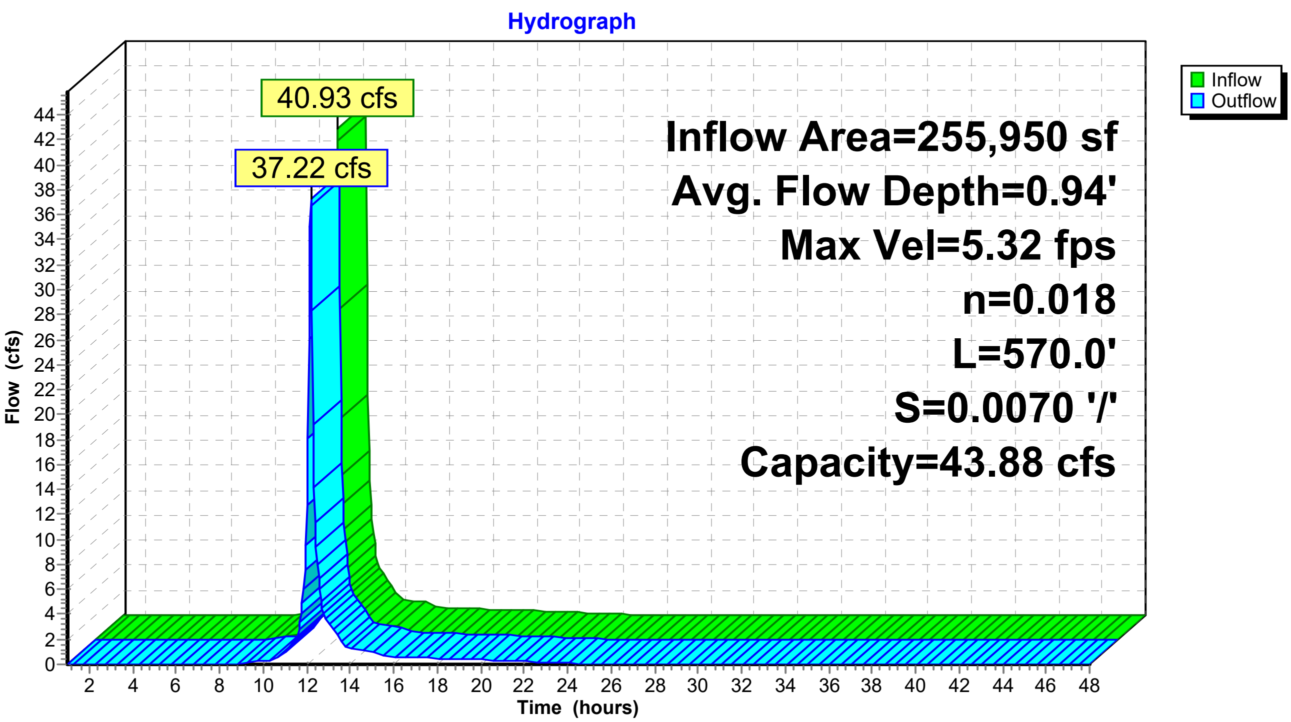
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.32 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.15 fps, Avg. Travel Time= 8.3 min

Peak Storage= 4,214 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.94'
Bank-Full Depth= 1.00' Flow Area= 8.0 sf, Capacity= 43.88 cfs

5.00' x 1.00' deep channel, n= 0.018
Side Slope Z-value= 3.0 '/' Top Width= 11.00'
Length= 570.0' Slope= 0.0070 '/'
Inlet Invert= 757.00', Outlet Invert= 753.00'

‡

Reach 99R: East Swale (SE End)



Summary for Reach 106R: East Swale (North End)

3/2/21
Slope Calc - (140' x 4.64%)

Inflow Area = 18,274 sf, 21.80% Impervious, Inflow Depth = 3.84" for 100-Year event
Inflow = 2.84 cfs @ 12.13 hrs, Volume= 5,849 cf
Outflow = 2.78 cfs @ 12.14 hrs, Volume= 5,849 cf, Atten= 2%, Lag= 0.7 min

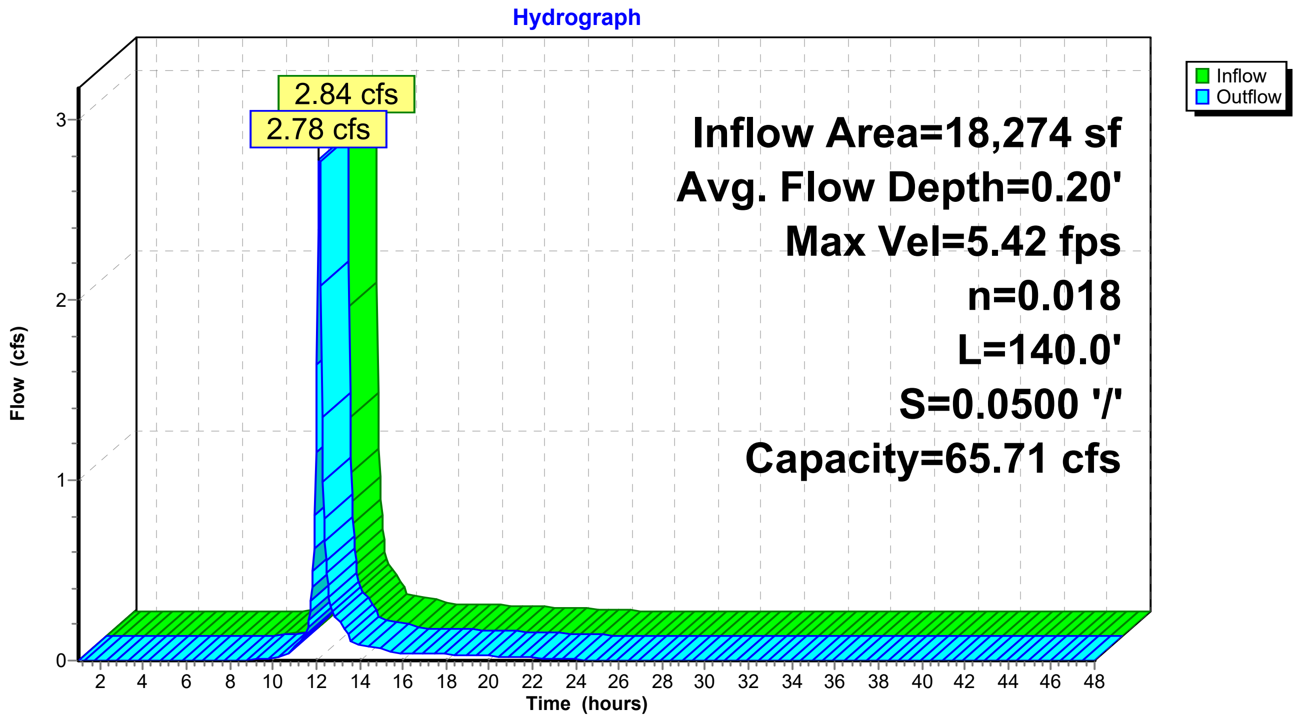
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.42 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.32 fps, Avg. Travel Time= 1.8 min

Peak Storage= 73 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.20'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 65.71 cfs

2.00' x 1.00' deep channel, n= 0.018 Earth, clean & straight
Side Slope Z-value= 3.0 '/' Top Width= 8.00'
Length= 140.0' Slope= 0.0500 '/'
Inlet Invert= 764.00', Outlet Invert= 757.00'

‡

Reach 106R: East Swale (North End)



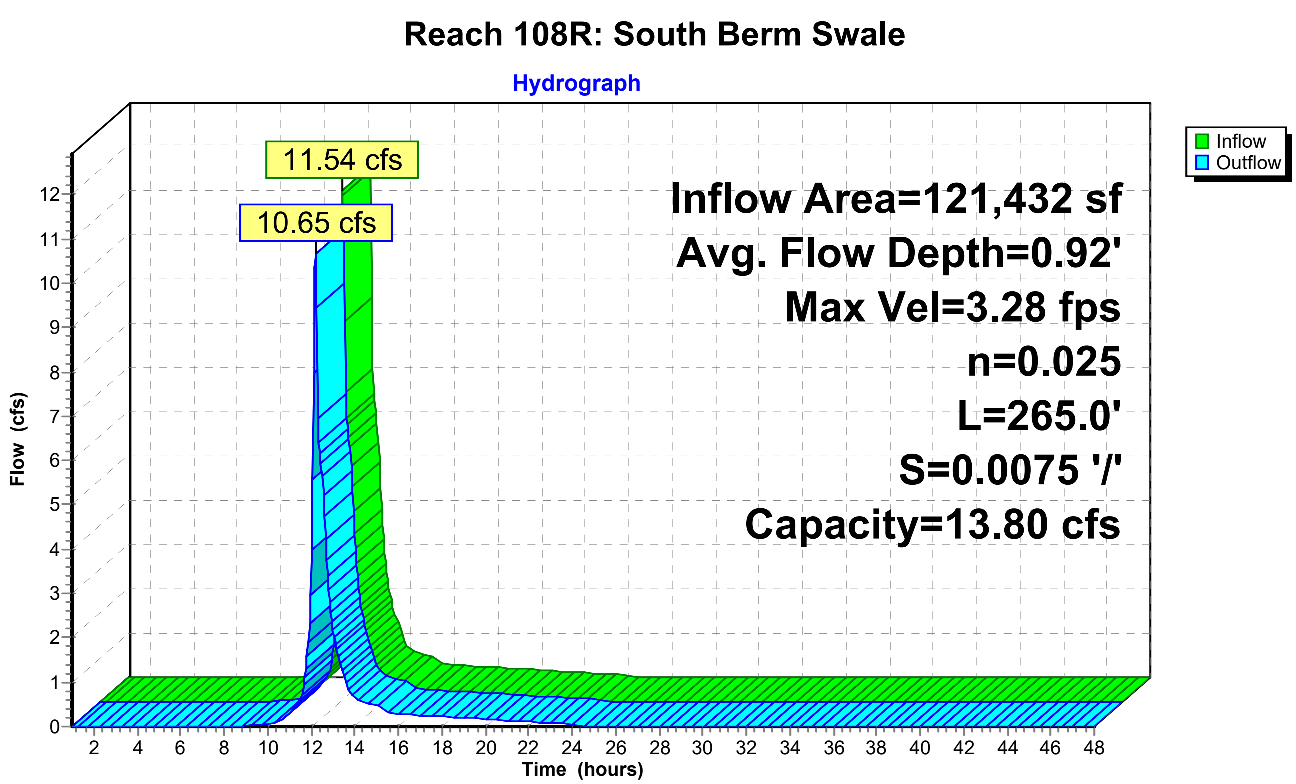
Summary for Reach 108R: South Berm Swale

Inflow Area = 121,432 sf, 10.48% Impervious, Inflow Depth = 3.61" for 100-Year event
Inflow = 11.54 cfs @ 12.14 hrs, Volume= 36,509 cf
Outflow = 10.65 cfs @ 12.18 hrs, Volume= 36,509 cf, Atten= 8%, Lag= 2.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.28 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 1.08 fps, Avg. Travel Time= 4.1 min

Peak Storage= 912 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.92'
Bank-Full Depth= 1.00' Flow Area= 4.0 sf, Capacity= 13.80 cfs

1.00' x 1.00' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.00'
Length= 265.0' Slope= 0.0075 '/'
Inlet Invert= 754.00', Outlet Invert= 752.00'



Summary for Reach 109R: SC Road East Ditch

3/3/21
Ditch on north and west side of cul-de-sac road

Inflow Area = 43,646 sf, 58.34% Impervious, Inflow Depth = 4.80" for 100-Year event
Inflow = 8.06 cfs @ 12.13 hrs, Volume= 17,456 cf
Outflow = 7.36 cfs @ 12.20 hrs, Volume= 17,456 cf, Atten= 9%, Lag= 4.5 min

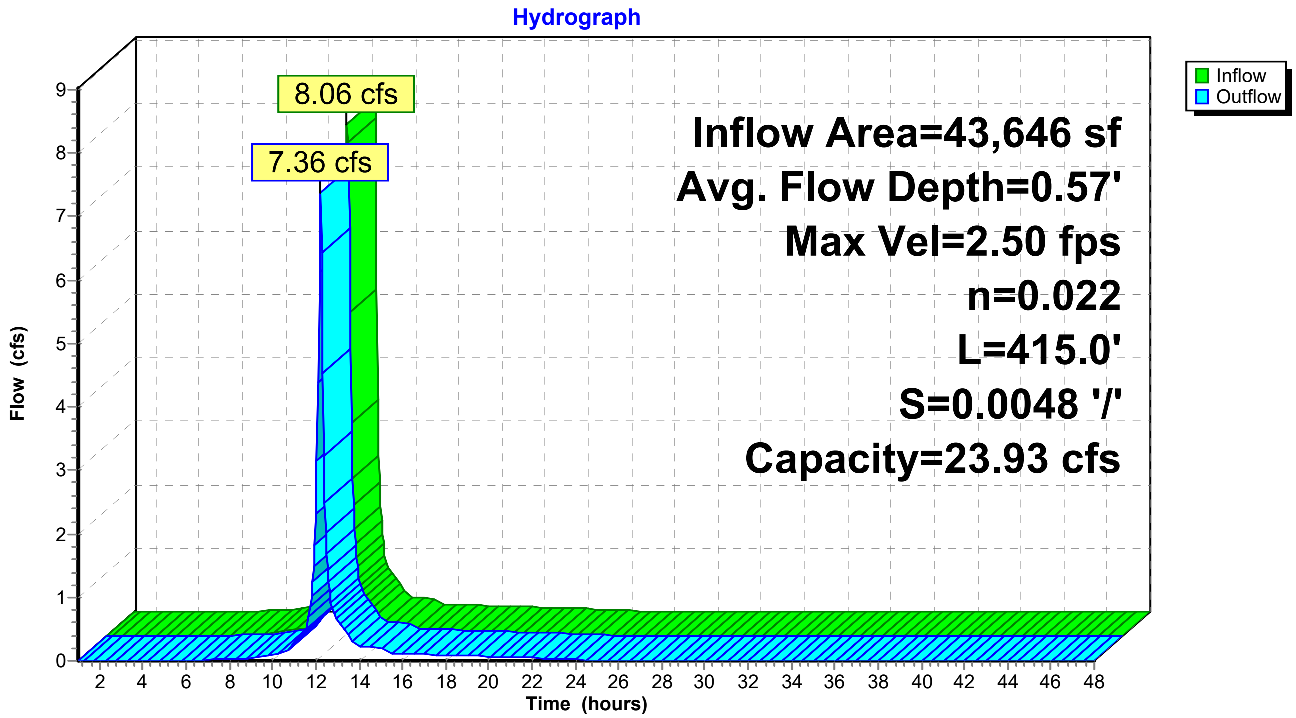
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.50 fps, Min. Travel Time= 2.8 min
Avg. Velocity = 0.58 fps, Avg. Travel Time= 12.0 min

Peak Storage= 1,236 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.57'
Bank-Full Depth= 1.00' Flow Area= 7.0 sf, Capacity= 23.93 cfs

3.00' x 1.00' deep channel, n= 0.022
Side Slope Z-value= 4.0 '/' Top Width= 11.00'
Length= 415.0' Slope= 0.0048 '/'
Inlet Invert= 747.00', Outlet Invert= 745.00'

‡

Reach 109R: SC Road East Ditch



Summary for Reach 111R: Western PL North Ditch

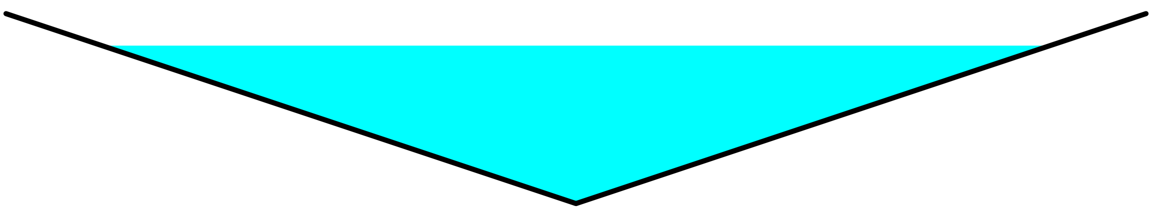
3/3/21
This is the western property line ditch that takes offsite flow and western building courtyard flow to IB
update length we shortened in screen share

Inflow Area = 125,111 sf, 9.17% Impervious, Inflow Depth = 3.57" for 100-Year event
Inflow = 17.17 cfs @ 12.14 hrs, Volume= 37,255 cf
Outflow = 15.72 cfs @ 12.19 hrs, Volume= 37,255 cf, Atten= 8%, Lag= 3.3 min

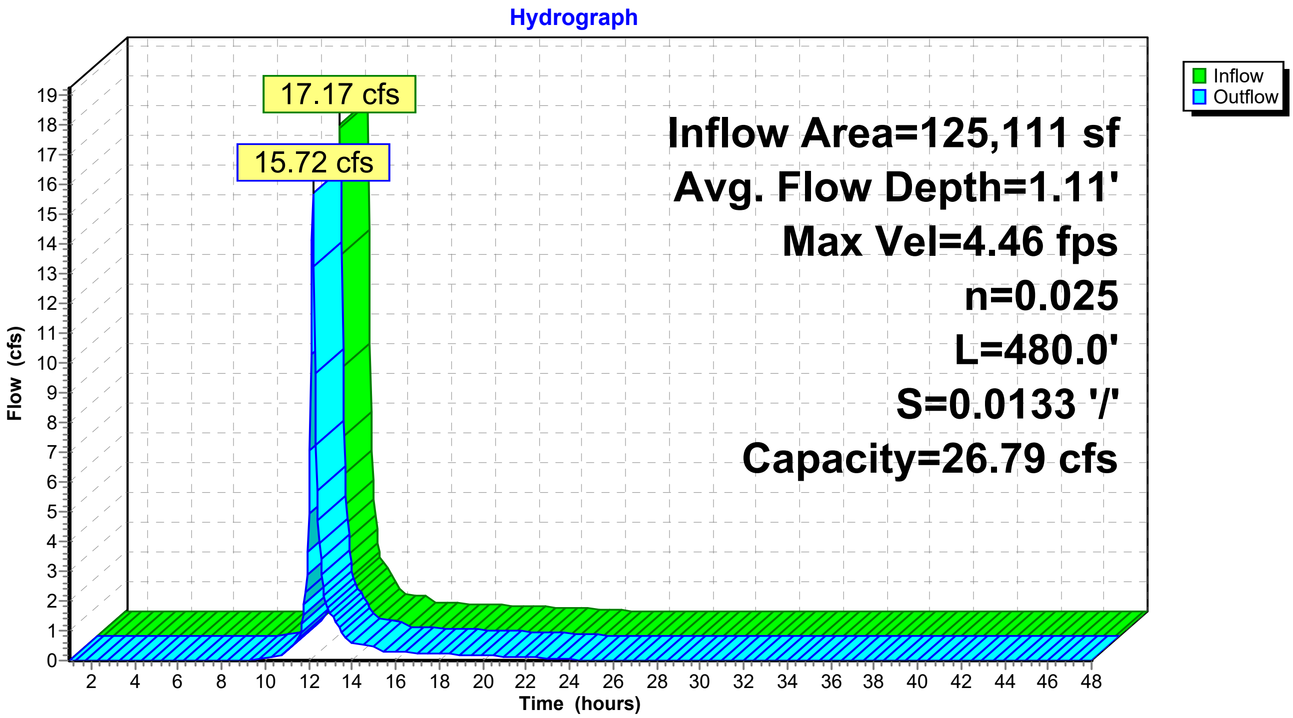
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.46 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 1.46 fps, Avg. Travel Time= 5.5 min

Peak Storage= 1,761 cf @ 12.16 hrs
Average Depth at Peak Storage= 1.11'
Bank-Full Depth= 1.33' Flow Area= 5.3 sf, Capacity= 26.79 cfs

0.00' x 1.33' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.98'
Length= 480.0' Slope= 0.0133 '/'
Inlet Invert= 755.50', Outlet Invert= 749.10'



Reach 111R: Western PL North Ditch



Summary for Reach 117R: SC Road West Ditch

3/3/21
Ditch on north and west side of cul-de-sac road

Inflow Area = 54,287 sf, 55.18% Impervious, Inflow Depth = 4.69" for 100-Year event
Inflow = 9.86 cfs @ 12.13 hrs, Volume= 21,216 cf
Outflow = 8.85 cfs @ 12.21 hrs, Volume= 21,216 cf, Atten= 10%, Lag= 5.0 min

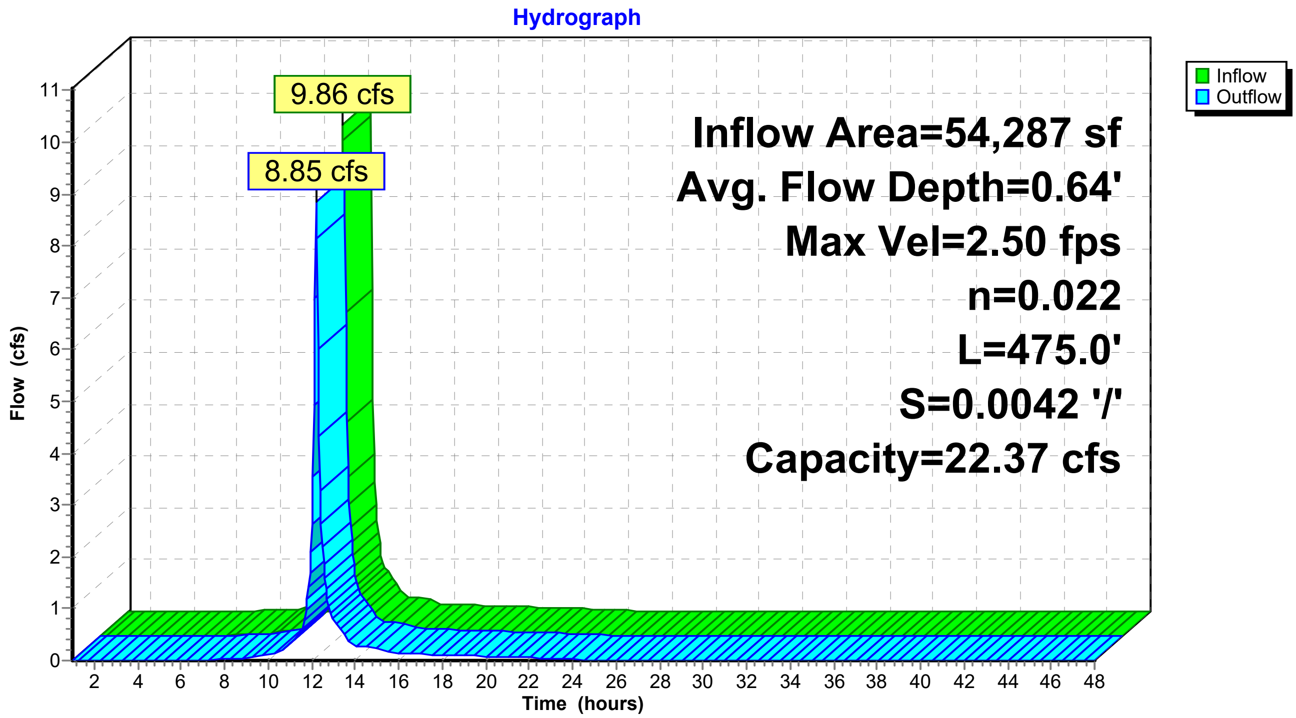
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.50 fps, Min. Travel Time= 3.2 min
Avg. Velocity = 0.58 fps, Avg. Travel Time= 13.7 min

Peak Storage= 1,697 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.64'
Bank-Full Depth= 1.00' Flow Area= 7.0 sf, Capacity= 22.37 cfs

3.00' x 1.00' deep channel, n= 0.022
Side Slope Z-value= 4.0 '/' Top Width= 11.00'
Length= 475.0' Slope= 0.0042 '/'
Inlet Invert= 747.00', Outlet Invert= 745.00'

‡

Reach 117R: SC Road West Ditch

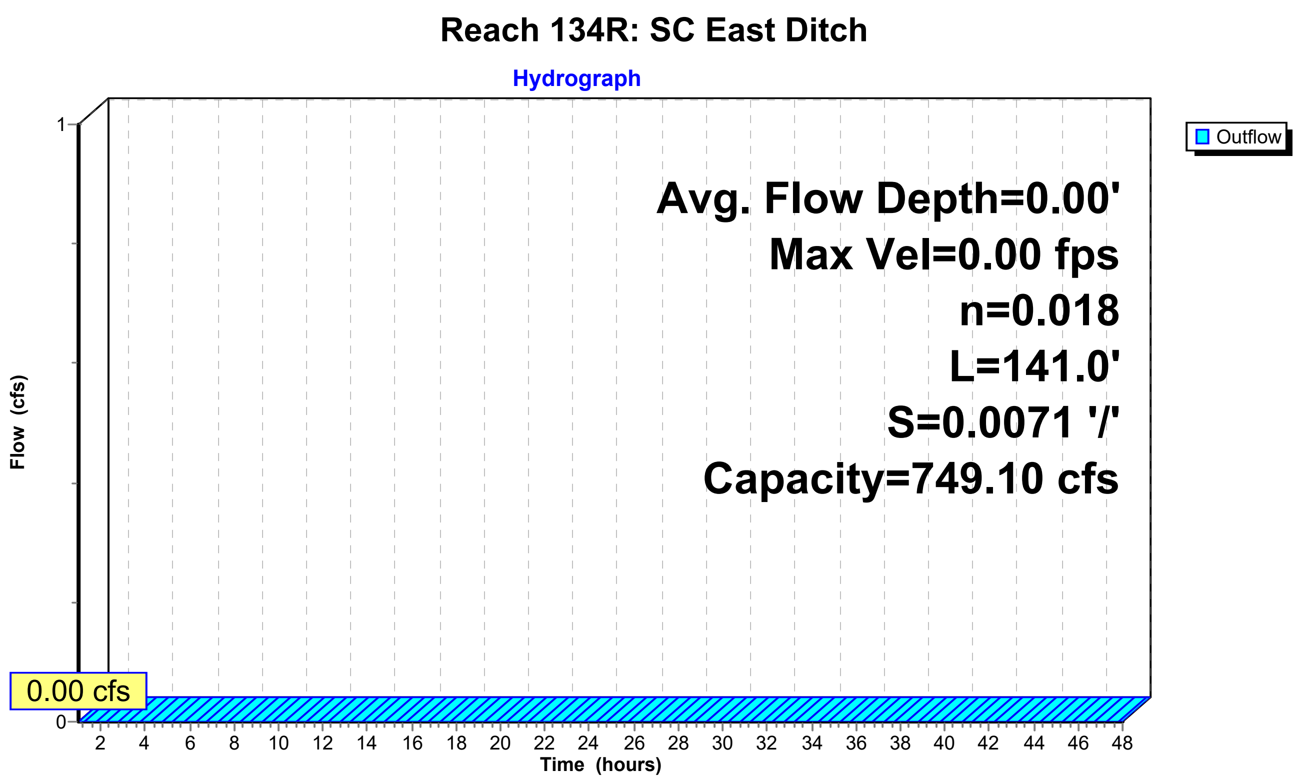


Summary for Reach 134R: SC East Ditch

[43] Hint: Has no inflow (Outflow=Zero)

Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 749.10 cfs

4.00' x 4.00' deep channel, n= 0.018
Side Slope Z-value= 3.0 '/' Top Width= 28.00'
Length= 141.0' Slope= 0.0071 '/'
Inlet Invert= 748.50', Outlet Invert= 747.50'



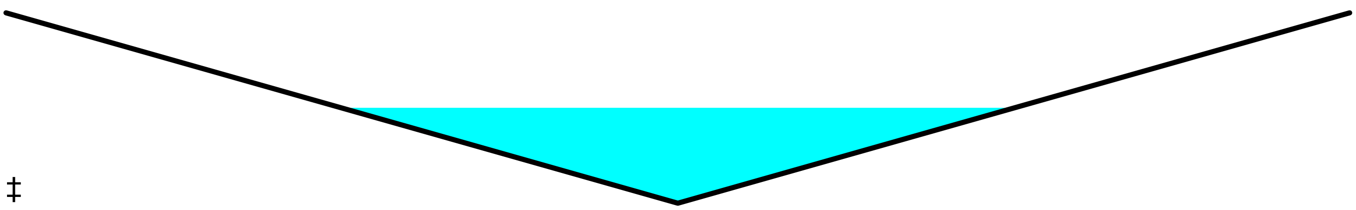
Summary for Reach 136R: SC West Ditch

Inflow Area = 281,666 sf, 11.70% Impervious, Inflow Depth = 0.25" for 100-Year event
Inflow = 2.92 cfs @ 12.13 hrs, Volume= 5,957 cf
Outflow = 2.64 cfs @ 12.18 hrs, Volume= 5,957 cf, Atten= 9%, Lag= 2.9 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.23 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 0.76 fps, Avg. Travel Time= 4.8 min

Peak Storage= 274 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.50'
Bank-Full Depth= 1.00' Flow Area= 5.0 sf, Capacity= 17.70 cfs

0.00' x 1.00' deep channel, n= 0.025
Side Slope Z-value= 5.0 '/' Top Width= 10.00'
Length= 218.0' Slope= 0.0092 '/'
Inlet Invert= 745.00', Outlet Invert= 743.00'



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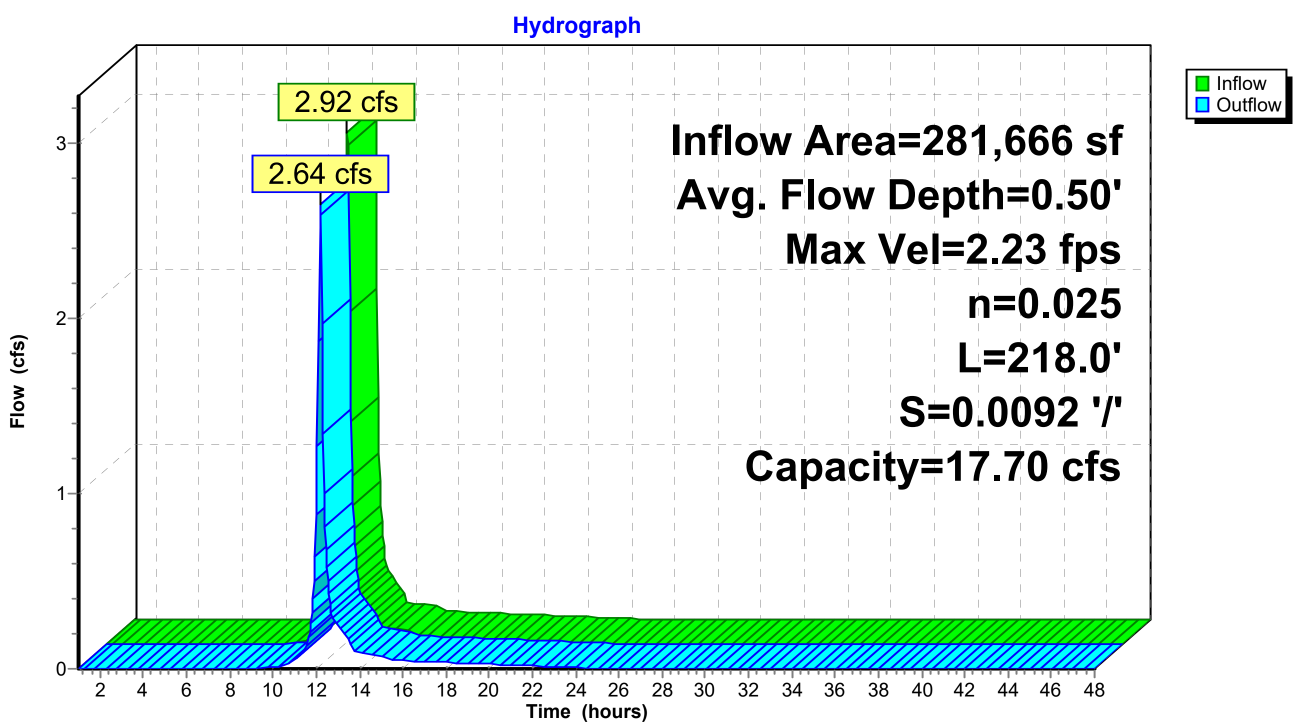
Reach 136R: SC West Ditch

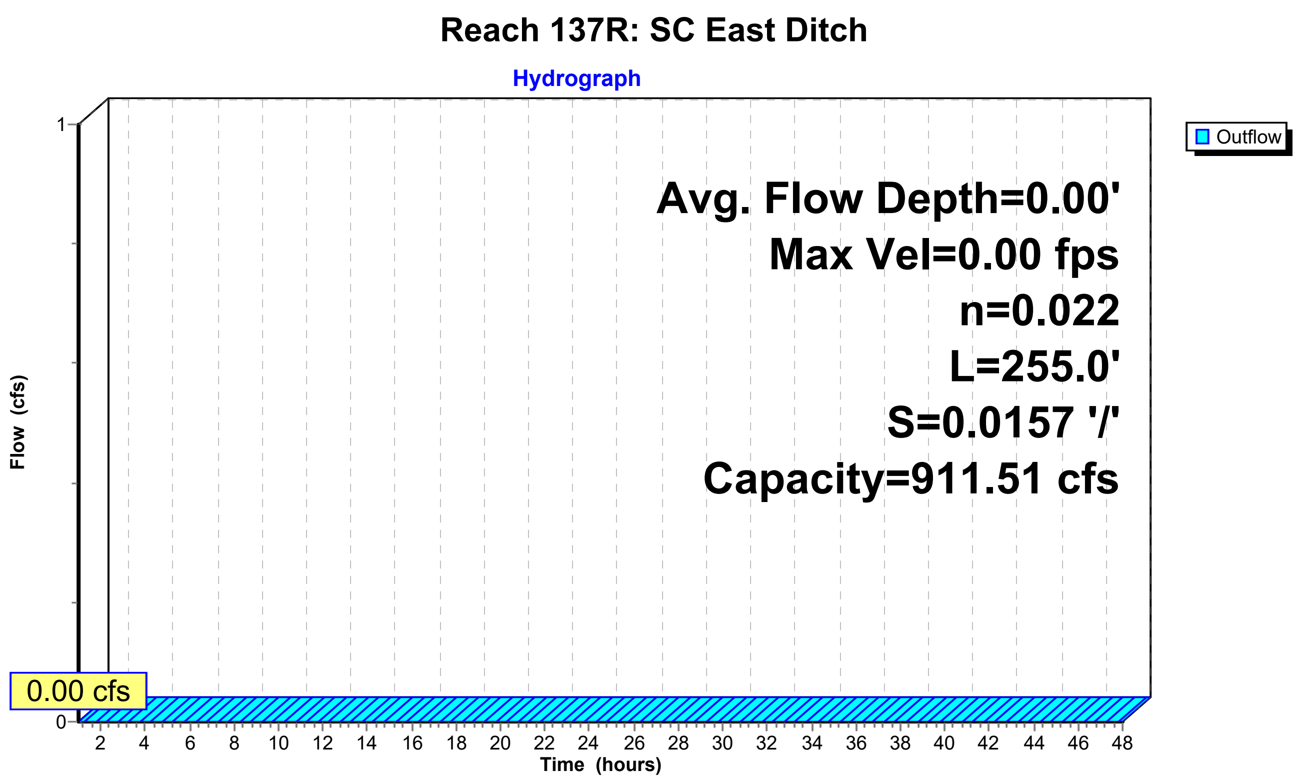


Summary for Reach 137R: SC East Ditch

[43] Hint: Has no inflow (Outflow=Zero)

Bank-Full Depth= 4.00' Flow Area= 64.0 sf, Capacity= 911.51 cfs

4.00' x 4.00' deep channel, n= 0.022
Side Slope Z-value= 3.0 '/' Top Width= 28.00'
Length= 255.0' Slope= 0.0157 '/'
Inlet Invert= 747.00', Outlet Invert= 743.00'



Summary for Reach 151R: Western PL North Ditch

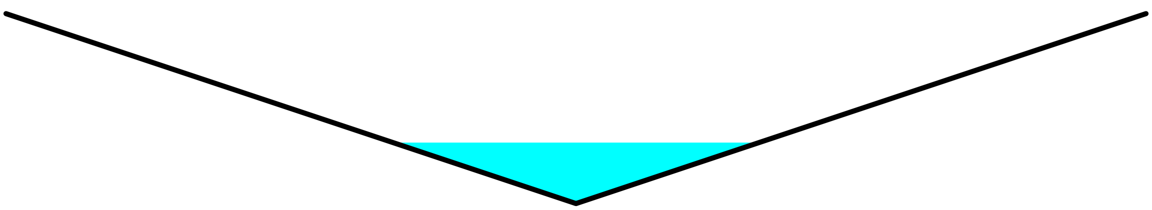
3/3/21
This is the western property line ditch that takes offsite flow and western building courtyard flow to IB
update length we shortened in screen share

Inflow Area = 8,234 sf, 12.90% Impervious, Inflow Depth = 3.64" for 100-Year event
Inflow = 1.22 cfs @ 12.13 hrs, Volume= 2,495 cf
Outflow = 1.10 cfs @ 12.18 hrs, Volume= 2,495 cf, Atten= 9%, Lag= 3.1 min

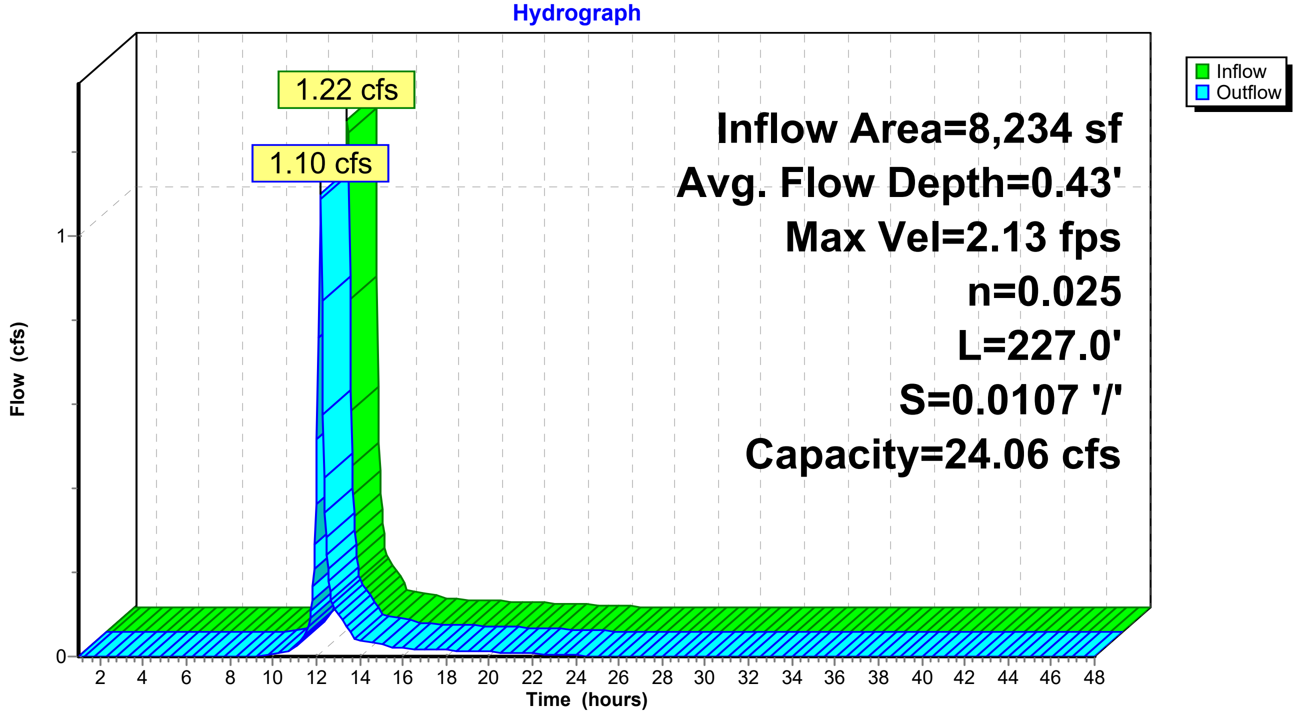
Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.13 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 0.73 fps, Avg. Travel Time= 5.2 min

Peak Storage= 124 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.43'
Bank-Full Depth= 1.33' Flow Area= 5.3 sf, Capacity= 24.06 cfs

0.00' x 1.33' deep channel, n= 0.025
Side Slope Z-value= 3.0 '/' Top Width= 7.98'
Length= 227.0' Slope= 0.0107 '/'
Inlet Invert= 751.54', Outlet Invert= 749.10'



Reach 151R: Western PL North Ditch



Summary for Pond 33P: Rain Garden East

Inflow Area = 3,249 sf, 0.00% Impervious, Inflow Depth = 3.34" for 100-Year event
Inflow = 0.44 cfs @ 12.13 hrs, Volume= 903 cf
Outflow = 0.29 cfs @ 12.21 hrs, Volume= 835 cf, Atten= 35%, Lag= 4.5 min
Primary = 0.29 cfs @ 12.21 hrs, Volume= 835 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 744.66' @ 12.21 hrs Surf.Area= 220 sf Storage= 210 cf

Plug-Flow detention time= 59.0 min calculated for 834 cf (92% of inflow)
Center-of-Mass det. time= 24.8 min (828.3 - 803.5)

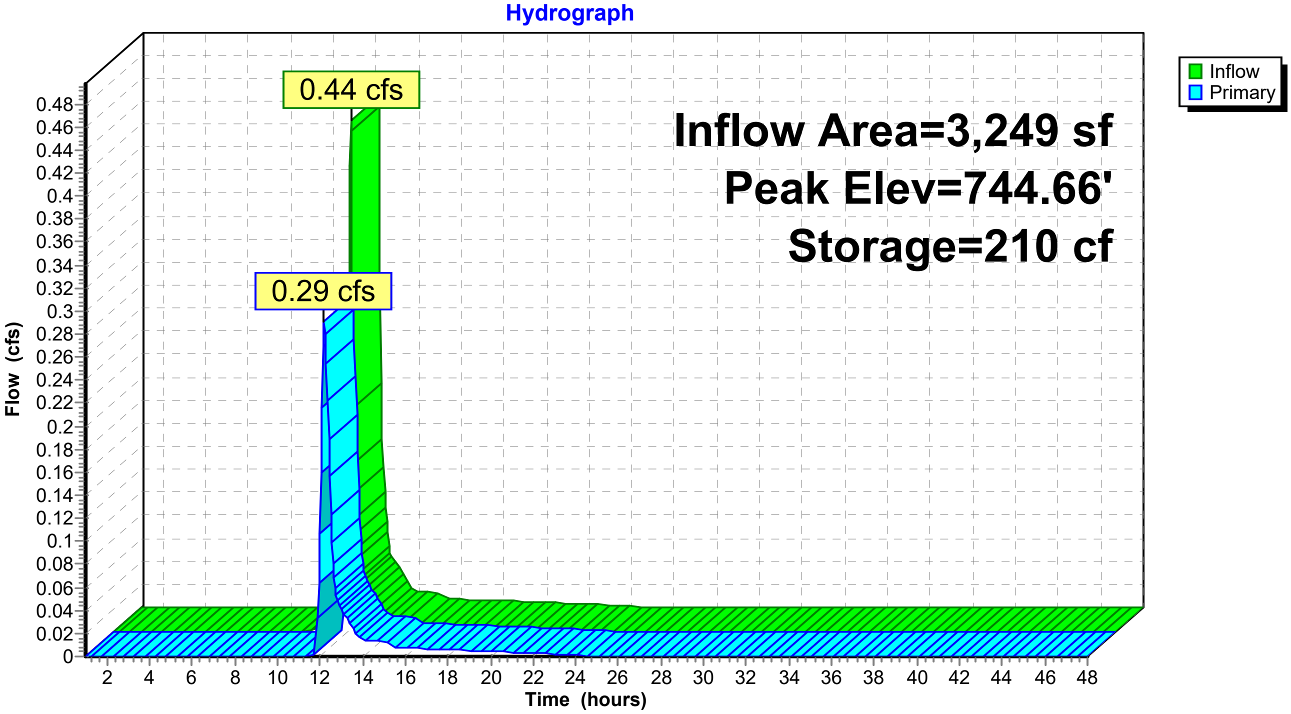
Volume	Invert	Avail.Storage	Storage Description
#1	743.00'	286 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
743.00	220	0.0	0	0
743.01	220	27.0	1	1
743.50	220	27.0	29	30
743.51	220	33.0	1	30
744.00	220	33.0	36	66
744.01	220	100.0	2	68
745.00	220	100.0	218	286

Device	Routing	Invert	Outlet Devices
#1	Primary	744.01'	**4.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	744.99'	**20.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.29 cfs @ 12.21 hrs HW=744.65' (Free Discharge)
1=Orifice/Grate (Orifice Controls 0.29 cfs @ 3.31 fps)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 33P: Rain Garden East



Summary for Pond 36P: Rain Garden West

Inflow Area = 3,393 sf, 0.00% Impervious, Inflow Depth = 3.34" for 100-Year event
Inflow = 0.46 cfs @ 12.13 hrs, Volume= 943 cf
Outflow = 0.30 cfs @ 12.21 hrs, Volume= 875 cf, Atten= 35%, Lag= 4.5 min
Primary = 0.30 cfs @ 12.21 hrs, Volume= 875 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 744.19' @ 12.21 hrs Surf.Area= 220 sf Storage= 218 cf

Plug-Flow detention time= 57.3 min calculated for 874 cf (93% of inflow)
Center-of-Mass det. time= 24.3 min (827.7 - 803.5)

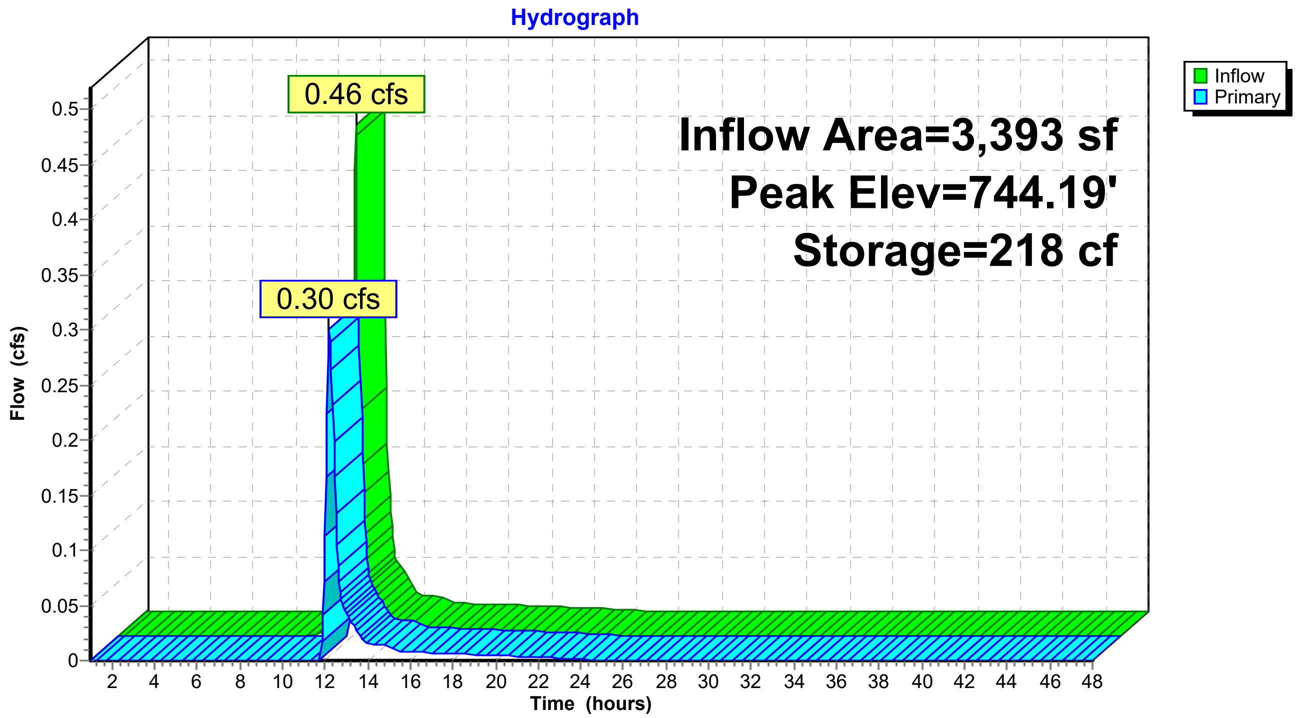
Volume	Invert	Avail.Storage	Storage Description
#1	742.50'	286 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
742.50	220	0.0	0	0
742.51	220	27.0	1	1
743.00	220	27.0	29	30
743.01	220	33.0	1	30
743.50	220	33.0	36	66
743.51	220	100.0	2	68
744.50	220	100.0	218	286

Device	Routing	Invert	Outlet Devices
#1	Primary	743.51'	**4.0" Vert. Orifice/Grate** C= 0.600
#2	Primary	744.49'	**10.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.30 cfs @ 12.21 hrs HW=744.18' (Free Discharge)
1=Orifice/Grate (Orifice Controls 0.30 cfs @ 3.42 fps)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 36P: Rain Garden West

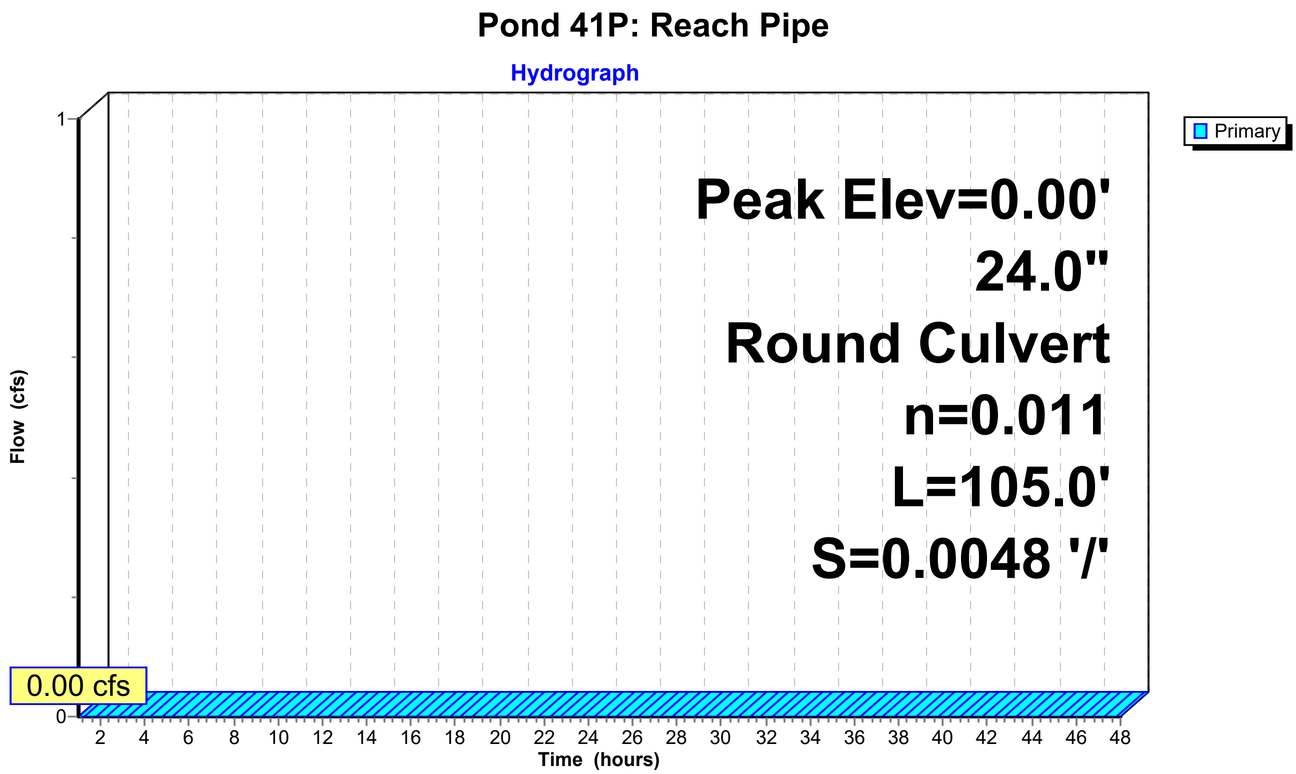


Summary for Pond 41P: Reach Pipe

[43] Hint: Has no inflow (Outflow=Zero)

Device	Routing	Invert	Outlet Devices
#1	Primary	747.50'	**24.0" Round Culvert** L= 105.0' Ke= 0.500 Inlet / Outlet Invert= 747.50' / 747.00' S= 0.0048 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)



Summary for Pond 57P: Dry Pond 2

Inflow Area = 158,954 sf, 10.66% Impervious, Inflow Depth = 3.61" for 100-Year event
Inflow = 14.01 cfs @ 12.18 hrs, Volume= 47,785 cf
Outflow = 1.19 cfs @ 13.66 hrs, Volume= 32,048 cf, Atten= 92%, Lag= 88.5 min
Discarded = 0.19 cfs @ 13.66 hrs, Volume= 23,492 cf
Primary = 1.00 cfs @ 13.66 hrs, Volume= 8,556 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 751.63' @ 13.66 hrs Surf.Area= 14,679 sf Storage= 32,844 cf

Plug-Flow detention time= 777.2 min calculated for 32,048 cf (67% of inflow)
Center-of-Mass det. time= 700.6 min (1,511.7 - 811.1)

Volume	Invert	Avail.Storage	Storage Description
#1	749.00'	38,350 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

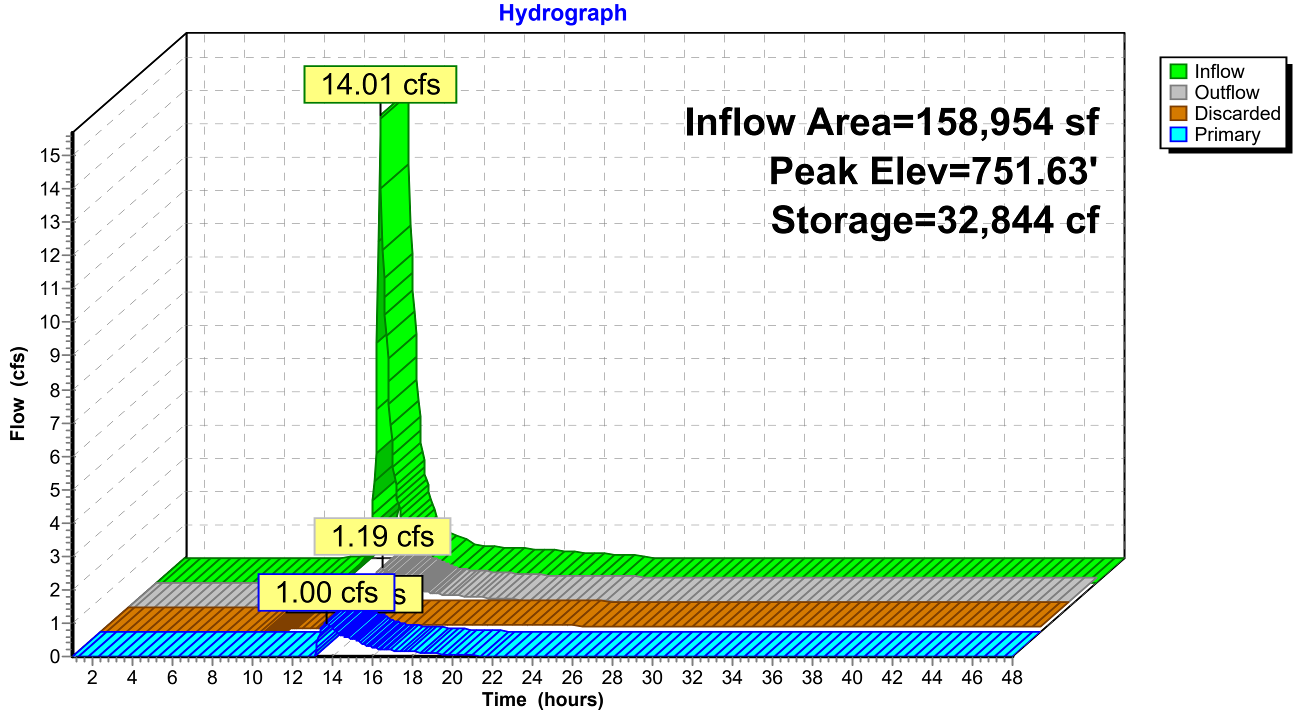
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
749.00	10,334	0	0
750.00	11,935	11,135	11,135
751.00	13,594	12,765	23,899
752.00	15,308	14,451	38,350

Device	Routing	Invert	Outlet Devices
#1	Primary	750.00'	**12.0" Round Culvert X 2.00** L= 75.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 750.00' / 749.00' S= 0.0133 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	751.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#3	Discarded	749.00'	**0.500 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.19 cfs @ 13.66 hrs HW=751.63' (Free Discharge)
└─**3=Exfiltration** (Controls 0.19 cfs)

Primary OutFlow Max=0.99 cfs @ 13.66 hrs HW=751.63' (Free Discharge)
└─**1=Culvert** (Passes 0.99 cfs of 6.35 cfs potential flow)
  └─**2=Orifice/Grate** (Weir Controls 0.99 cfs @ 1.19 fps)

Pond 57P: Dry Pond 2



Summary for Pond 58P: Dry Pond 1

Inflow Area = 603,487 sf, 45.57% Impervious, Inflow Depth > 4.41" for 100-Year event
Inflow = 58.79 cfs @ 12.16 hrs, Volume= 221,863 cf
Outflow = 5.14 cfs @ 13.66 hrs, Volume= 221,855 cf, Atten= 91%, Lag= 90.0 min
Discarded = 5.14 cfs @ 13.66 hrs, Volume= 221,855 cf
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 752.49' @ 13.66 hrs Surf.Area= 34,445 sf Storage= 76,288 cf

Plug-Flow detention time= 150.2 min calculated for 221,619 cf (100% of inflow)
Center-of-Mass det. time= 149.9 min (1,056.1 - 906.1)

Volume	Invert	Avail.Storage	Storage Description
#1	750.00'	131,829 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

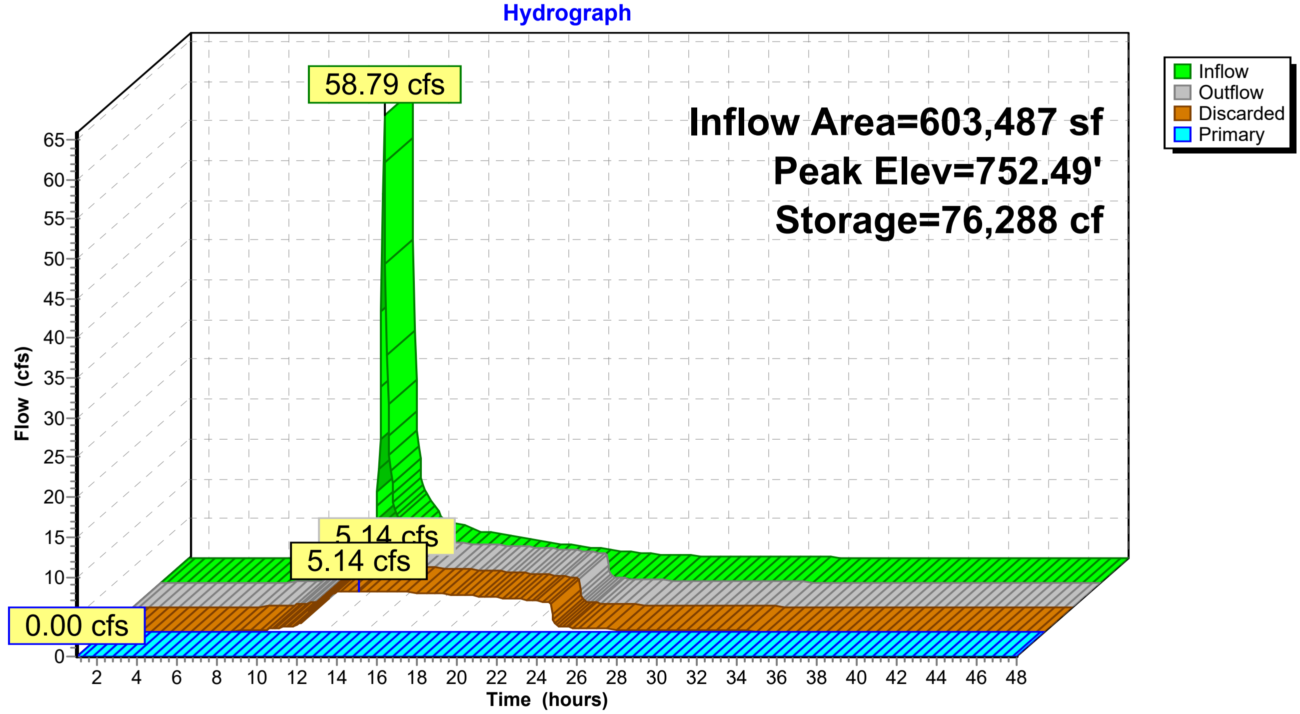
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
750.00	26,853	0	0
751.00	29,856	28,355	28,355
752.00	32,915	31,386	59,740
753.00	36,030	34,473	94,213
754.00	39,203	37,617	131,829

Device	Routing	Invert	Outlet Devices
#1	Primary	753.00'	**12.0" Round Culvert** L= 48.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 753.00' / 752.00' S= 0.0208 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf
#2	Device 1	753.00'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	753.00'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Discarded	750.00'	**6.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=5.14 cfs @ 13.66 hrs HW=752.49' (Free Discharge)
└─**4=Exfiltration** (Controls 5.14 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=750.00' (Free Discharge)
└─**1=Culvert** (Controls 0.00 cfs)
  ├─**2=Orifice/Grate** (Controls 0.00 cfs)
  └─**3=Orifice/Grate** (Controls 0.00 cfs)

Pond 58P: Dry Pond 1



Summary for Pond 60P: Infiltration Basin #1

Inflow Area = 261,451 sf, 11.81% Impervious, Inflow Depth = 3.61" for 100-Year event
Inflow = 29.49 cfs @ 12.21 hrs, Volume= 78,734 cf
Outflow = 2.30 cfs @ 13.45 hrs, Volume= 78,734 cf, Atten= 92%, Lag= 74.7 min
Discarded = 2.30 cfs @ 13.45 hrs, Volume= 78,734 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 744.61' @ 13.45 hrs Surf.Area= 0.226 ac Storage= 1.054 af

Plug-Flow detention time= 262.9 min calculated for 78,650 cf (100% of inflow)
Center-of-Mass det. time= 262.9 min (1,069.3 - 806.4)

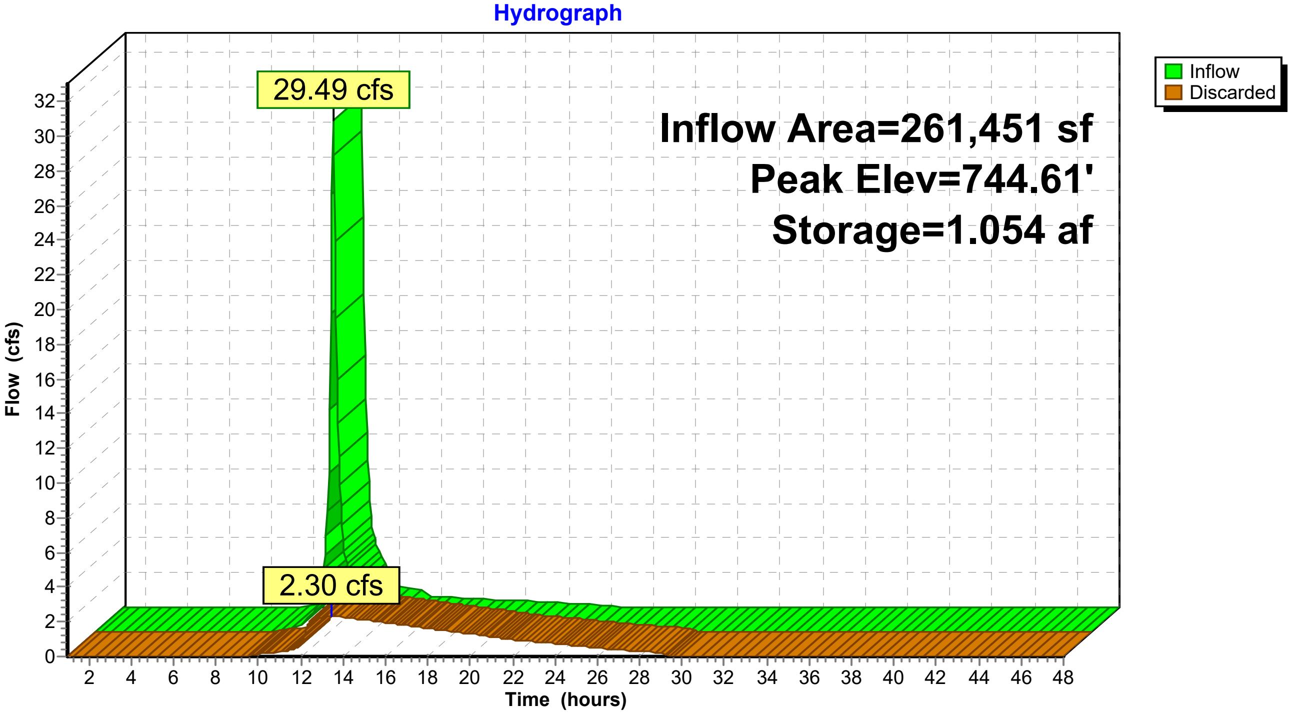
Volume	Invert	Avail.Storage	Storage Description
#1	735.00'	1.145 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
735.00	0.026	0.000	0.000
736.00	0.038	0.032	0.032
737.00	0.051	0.044	0.077
738.00	0.068	0.059	0.136
739.00	0.086	0.077	0.213
740.00	0.100	0.093	0.306
741.00	0.129	0.114	0.420
742.00	0.153	0.141	0.561
743.00	0.180	0.166	0.728
744.00	0.208	0.194	0.922
745.00	0.238	0.223	1.145

Device	Routing	Invert	Outlet Devices
#1	Discarded	735.00'	**8.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=2.30 cfs @ 13.45 hrs HW=744.61' (Free Discharge)
└─**1=Exfiltration** (Controls 2.30 cfs)

Pond 60P: Infiltration Basin #1



Summary for Pond 72P: UG 1 StormTrap Lowered

Inflow Area = 227,383 sf, 57.35% Impervious, Inflow Depth = 4.80" for 100-Year event
Inflow = 41.97 cfs @ 12.13 hrs, Volume= 90,941 cf
Outflow = 2.87 cfs @ 13.07 hrs, Volume= 87,404 cf, Atten= 93%, Lag= 56.7 min
Primary = 2.87 cfs @ 13.07 hrs, Volume= 87,404 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 754.80' @ 13.07 hrs Surf.Area= 36,225 sf Storage= 57,512 cf

Plug-Flow detention time= 332.6 min calculated for 87,404 cf (96% of inflow)
Center-of-Mass det. time= 312.2 min (1,089.6 - 777.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	753.00'	0 cf	**182.90'W x 198.06'L x 2.50'H Field A** 90,562 cf Overall - 90,562 cf Embedded = 0 cf
#2A	753.00'	63,969 cf	**StormTrap ST2 SingleTrap 2-0** x 240 Inside #1 Inside= 101.7"W x 24.0"H => 15.05 sf x 15.40'L = 231.7 cf Outside= 101.7"W x 30.0"H => 21.20 sf x 15.40'L = 326.4 cf 20 Rows of 12 Chambers 169.58' x 184.75' Core + 6.66' Border = 182.90' x 198.06' System
		63,969 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	753.00'	**12.0" Round Culvert** L= 189.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 753.00' / 752.52' S= 0.0025 '/' Cc= 0.900 n= 0.011, Flow Area= 0.79 sf

Primary OutFlow Max=2.87 cfs @ 13.07 hrs HW=754.80' (Free Discharge)
└─**1=Culvert** (Barrel Controls 2.87 cfs @ 3.66 fps)

Pond 72P: UG 1 StormTrap Lowered - Chamber Wizard Field A

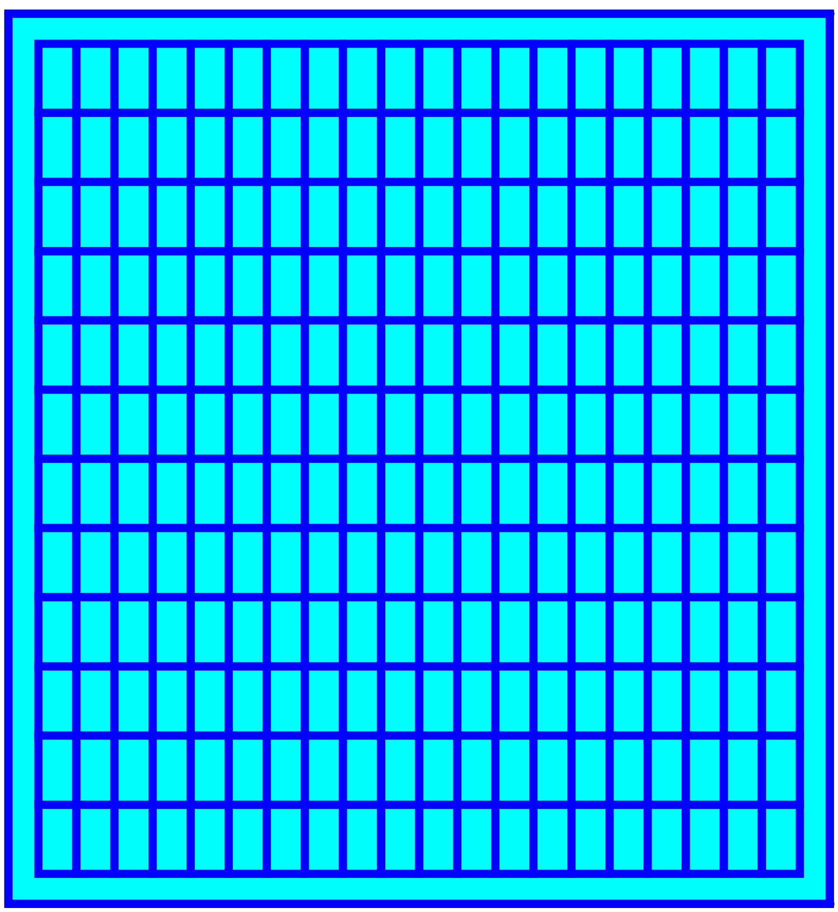
Chamber Model = StormTrap ST2 SingleTrap 2-0 (StormTrap ST2 SingleTrap® Type II+IV)
Inside= 101.7"W x 24.0"H => 15.05 sf x 15.40'L = 231.7 cf
Outside= 101.7"W x 30.0"H => 21.20 sf x 15.40'L = 326.4 cf

12 Chambers/Row x 15.40' Long = 184.75' Row Length +79.9" Border x 2 = 198.06' Base Length
20 Rows x 101.7" Wide + 79.9" Side Border x 2 = 182.90' Base Width
30.0" Chamber Height = 2.50' Field Height

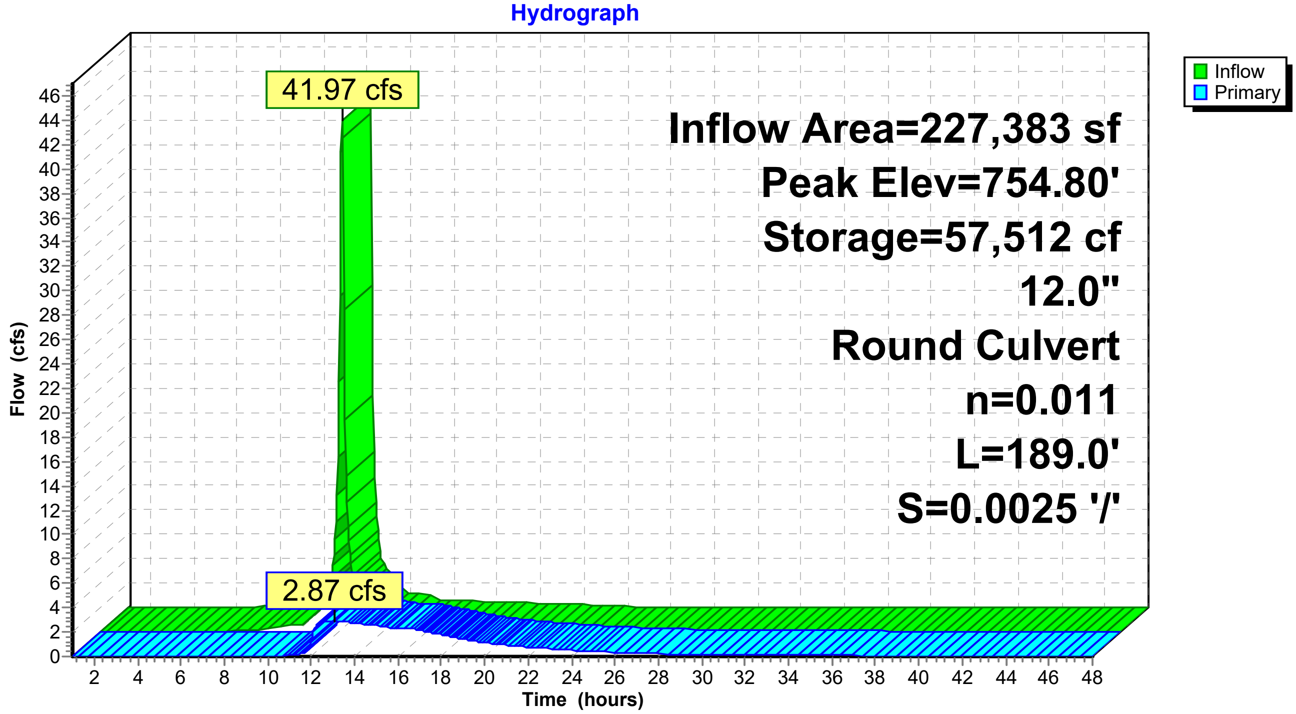
240 Chambers x 231.7 cf + 8,367.8 cf Border = 63,968.8 cf Chamber Storage
240 Chambers x 326.4 cf + 12,235.7 cf Border = 90,562.0 cf Displacement

Chamber Storage = 63,968.8 cf = 1.469 af
Overall Storage Efficiency = 70.6%
Overall System Size = 198.06' x 182.90' x 2.50'

240 Chambers (plus border)
3,354.1 cy Field



Pond 72P: UG 1 StormTrap Lowered



Summary for Pond 95P: Dry Pond 3

Inflow Area =	413,038 sf,	21.40% Impervious,	Inflow Depth = 1.56"	for 100-Year event	
Inflow =	21.74 cfs @	12.19 hrs,	Volume=	53,790 cf	
Outflow =	1.22 cfs @	13.57 hrs,	Volume=	53,790 cf,	Atten= 94%, Lag= 82.4 min
Discarded =	0.38 cfs @	13.57 hrs,	Volume=	27,995 cf	
Primary =	0.84 cfs @	13.57 hrs,	Volume=	25,796 cf	

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 741.77' @ 13.57 hrs Surf.Area= 0.336 ac Storage= 0.767 af

Plug-Flow detention time= 379.1 min calculated for 53,790 cf (100% of inflow)
Center-of-Mass det. time= 379.5 min (1,172.8 - 793.3)

Volume	Invert	Avail.Storage	Storage Description
#1	739.00'	1.214 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

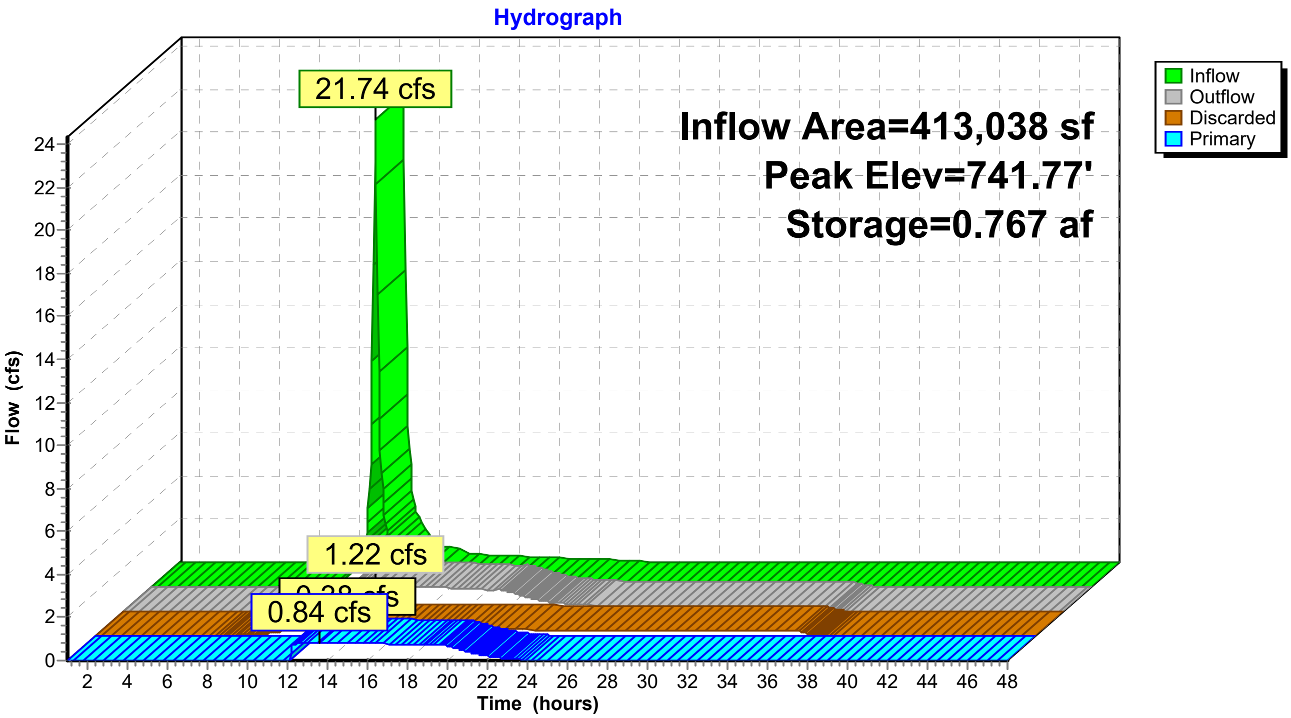
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
739.00	0.220	0.000	0.000
740.00	0.260	0.240	0.240
741.00	0.302	0.281	0.521
742.00	0.346	0.324	0.845
743.00	0.392	0.369	1.214

Device	Routing	Invert	Outlet Devices
#1	Primary	740.00'	**6.0" Round Culvert** L= 130.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 740.00' / 738.00' S= 0.0154 '/' Cc= 0.900 n= 0.013, Flow Area= 0.20 sf
#2	Primary	742.75'	**20.0' long x 20.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#3	Discarded	739.00'	**1.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=0.38 cfs @ 13.57 hrs HW=741.77' (Free Discharge)
└─**3=Exfiltration** (Controls 0.38 cfs)

Primary OutFlow Max=0.84 cfs @ 13.57 hrs HW=741.77' (Free Discharge)
├─**1=Culvert** (Barrel Controls 0.84 cfs @ 4.28 fps)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 95P: Dry Pond 3



Summary for Pond 101R: Reach Pipe

3/2/21
Reach Pipe 4

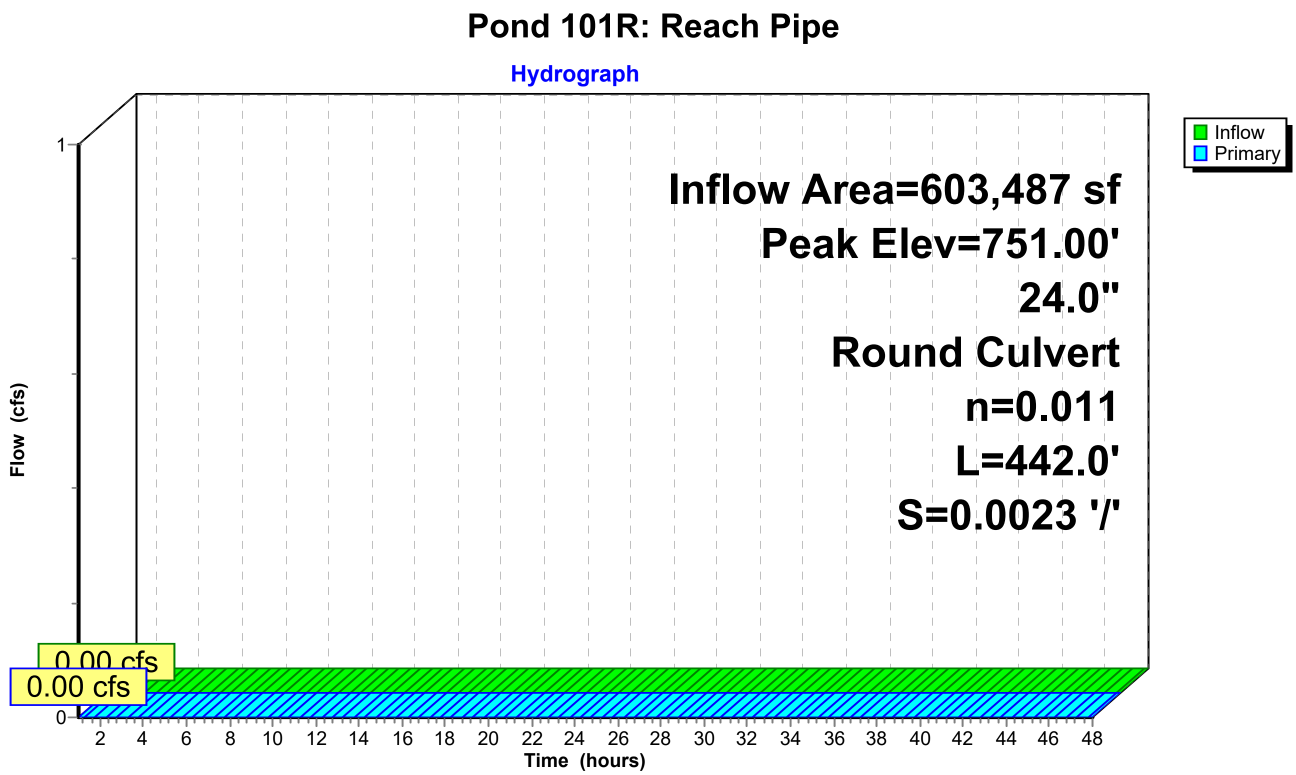
[57] Hint: Peaked at 751.00' (Flood elevation advised)

Inflow Area =	603,487 sf,	45.57% Impervious,	Inflow Depth = 0.00"	for 100-Year event
Inflow =	0.00 cfs @	1.00 hrs, Volume=	0 cf	
Outflow =	0.00 cfs @	1.00 hrs, Volume=	0 cf, Atten= 0%, Lag= 0.0 min	
Primary =	0.00 cfs @	1.00 hrs, Volume=	0 cf	

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs / 3
Peak Elev= 751.00' @ 1.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	751.00'	**24.0" Round Culvert** L= 442.0' Ke= 0.500 Inlet / Outlet Invert= 751.00' / 750.00' S= 0.0023 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=751.00' (Free Discharge)
1=Culvert (Controls 0.00 cfs)



Summary for Pond 107P: SC East Ditch

Inflow Area = 816,223 sf, 35.77% Impervious, Inflow Depth = 0.33" for 100-Year event
Inflow = 6.46 cfs @ 12.17 hrs, Volume= 22,745 cf
Outflow = 1.84 cfs @ 12.45 hrs, Volume= 21,765 cf, Atten= 71%, Lag= 16.8 min
Discarded = 0.08 cfs @ 12.45 hrs, Volume= 7,783 cf
Primary = 1.76 cfs @ 12.45 hrs, Volume= 13,982 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 746.67' @ 12.45 hrs Surf.Area= 2,893 sf Storage= 7,187 cf

Plug-Flow detention time= 335.2 min calculated for 21,765 cf (96% of inflow)
Center-of-Mass det. time= 316.7 min (1,163.0 - 846.3)

Volume	Invert	Avail.Storage	Storage Description
#1	743.00'	8,160 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

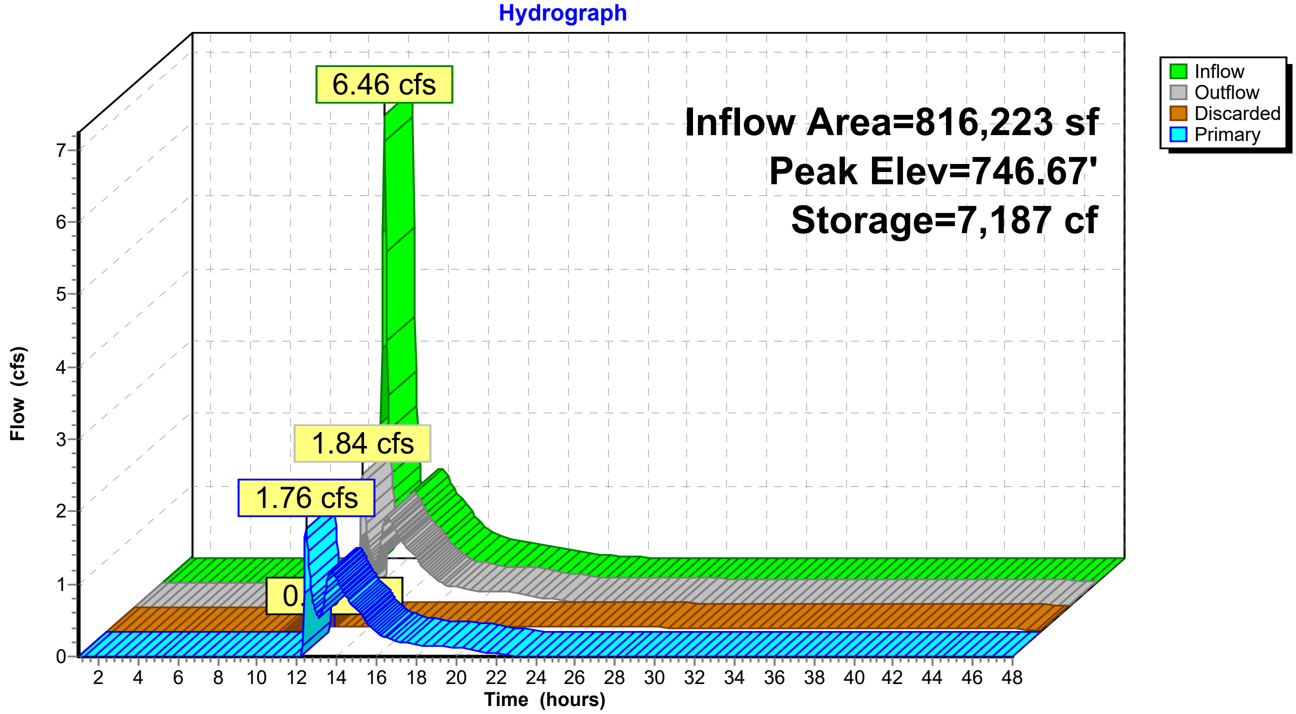
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
743.00	1,020	0	0
744.00	1,530	1,275	1,275
745.00	2,040	1,785	3,060
746.00	2,550	2,295	5,355
747.00	3,060	2,805	8,160

Device	Routing	Invert	Outlet Devices
#1	Primary	746.00'	**4.0" Round Culvert** L= 10.0' Ke= 0.900 Inlet / Outlet Invert= 746.00' / 745.90' S= 0.0100 '/' Cc= 0.900 n= 0.022, Flow Area= 0.09 sf
#2	Primary	746.50'	**6.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	746.50'	**24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Discarded	743.00'	**1.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.08 cfs @ 12.45 hrs HW=746.67' (Free Discharge)
└─**4=Exfiltration** (Controls 0.08 cfs)

Primary OutFlow Max=1.76 cfs @ 12.45 hrs HW=746.67' (Free Discharge)
├─**1=Culvert** (Barrel Controls 0.19 cfs @ 2.21 fps)
├─**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 1.42 fps)
└─**3=Orifice/Grate** (Weir Controls 1.48 cfs @ 1.36 fps)

Pond 107P: SC East Ditch



Summary for Pond 108P: SC East Ditch

Inflow Area = 797,335 sf, 36.61% Impervious, Inflow Depth = 0.27" for 100-Year event
Inflow = 4.77 cfs @ 12.13 hrs, Volume= 18,259 cf
Outflow = 4.30 cfs @ 12.16 hrs, Volume= 18,259 cf, Atten= 10%, Lag= 1.8 min
Discarded = 0.02 cfs @ 12.16 hrs, Volume= 766 cf
Primary = 4.28 cfs @ 12.16 hrs, Volume= 17,493 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 748.66' @ 12.16 hrs Surf.Area= 891 sf Storage= 842 cf

Plug-Flow detention time= 7.4 min calculated for 18,239 cf (100% of inflow)
Center-of-Mass det. time= 7.4 min (864.9 - 857.4)

Volume	Invert	Avail.Storage	Storage Description
#1	747.50'	4,512 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

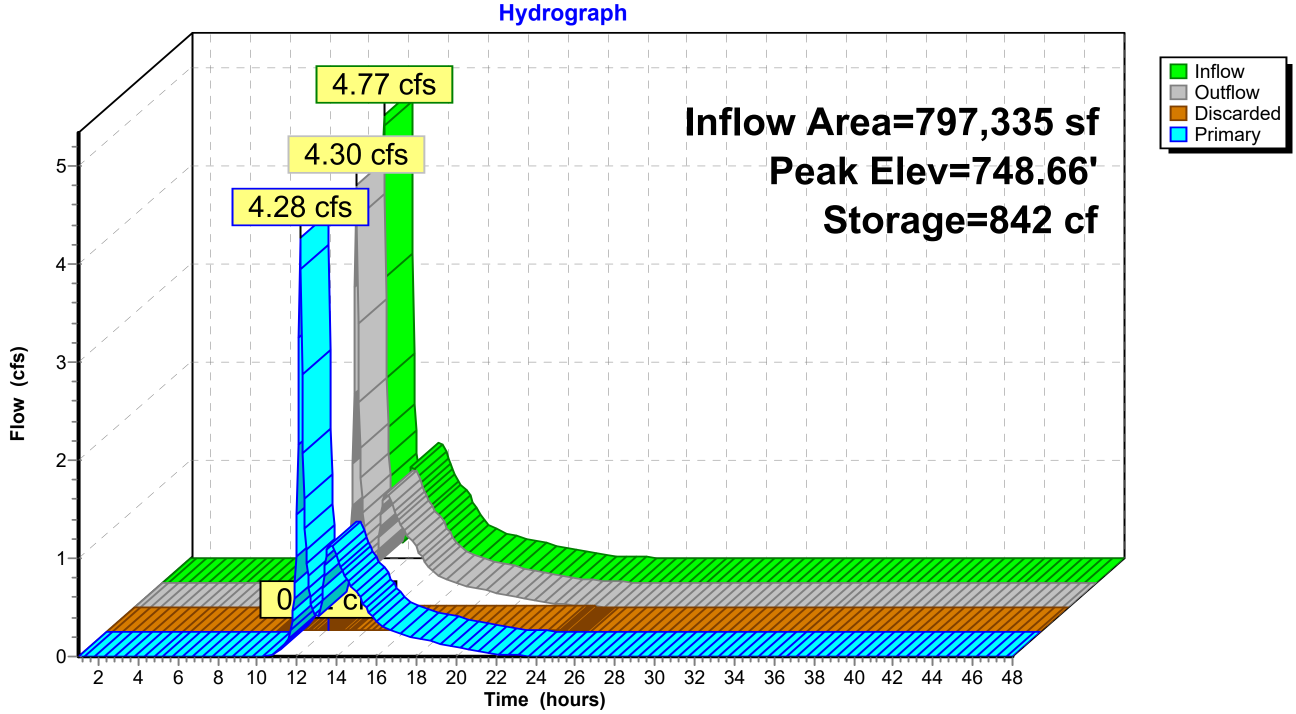
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
747.50	564	0	0
748.50	846	705	705
749.50	1,128	987	1,692
750.50	1,410	1,269	2,961
751.50	1,692	1,551	4,512

Device	Routing	Invert	Outlet Devices
#1	Primary	747.50'	**24.0" Round Culvert** L= 105.0' Ke= 0.900 Inlet / Outlet Invert= 747.50' / 747.00' S= 0.0048 '/' Cc= 0.900 n= 0.018 Corrugated PE, corrugated interior, Flow Area= 3.14 sf
#2	Discarded	747.50'	**1.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 730.00'

Discarded OutFlow Max=0.02 cfs @ 12.16 hrs HW=748.64' (Free Discharge)
└─**2=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=4.15 cfs @ 12.16 hrs HW=748.64' (Free Discharge)
└─**1=Culvert** (Barrel Controls 4.15 cfs @ 3.25 fps)

Pond 108P: SC East Ditch



Summary for Pond 110R: Western Pipe Run

3/3/21
Pipe that cuts through western exterior courtyard to collect ditch north of west building and northern portion of west building roof and conveys to DP1

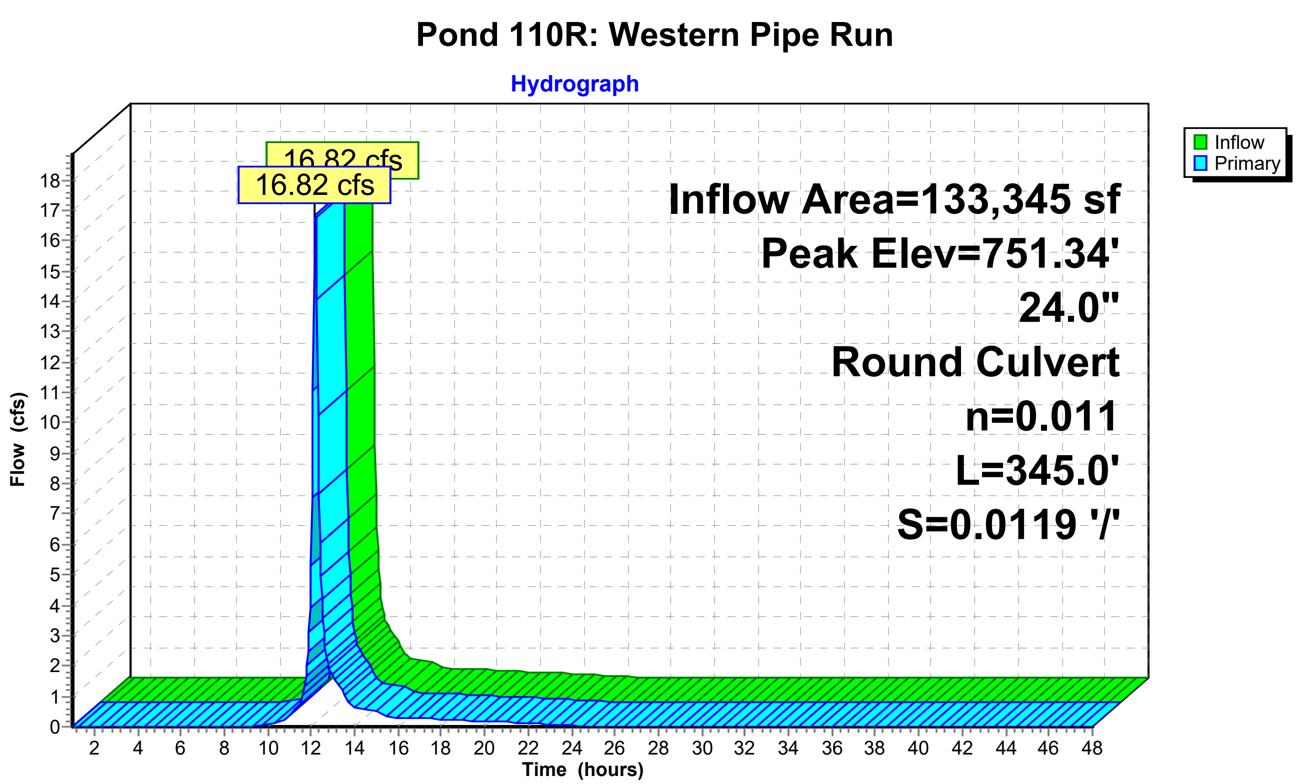
[57] Hint: Peaked at 751.34' (Flood elevation advised)
[62] Hint: Exceeded Reach 111R OUTLET depth by 1.16' @ 12.20 hrs
[62] Hint: Exceeded Reach 151R OUTLET depth by 1.83' @ 12.20 hrs

Inflow Area = 133,345 sf, 9.40% Impervious, Inflow Depth = 3.58" for 100-Year event
Inflow = 16.82 cfs @ 12.19 hrs, Volume= 39,750 cf
Outflow = 16.82 cfs @ 12.19 hrs, Volume= 39,750 cf, Atten= 0%, Lag= 0.0 min
Primary = 16.82 cfs @ 12.19 hrs, Volume= 39,750 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 751.34' @ 12.19 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	749.10'	**24.0" Round Culvert** L= 345.0' Ke= 0.500 Inlet / Outlet Invert= 749.10' / 745.00' S= 0.0119 '/' Cc= 0.900 n= 0.011, Flow Area= 3.14 sf

Primary OutFlow Max=16.59 cfs @ 12.19 hrs HW=751.30' (Free Discharge)
└─**1=Culvert** (Inlet Controls 16.59 cfs @ 5.28 fps)



Summary for Pond 154P: Southeast Basin

Inflow Area = 1,260,543 sf, 30.17% Impervious, Inflow Depth = 0.46" for 100-Year event
Inflow = 4.53 cfs @ 12.14 hrs, Volume= 48,476 cf
Outflow = 1.39 cfs @ 15.41 hrs, Volume= 48,476 cf, Atten= 69%, Lag= 196.0 min
Discarded = 1.39 cfs @ 15.41 hrs, Volume= 48,476 cf

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 731.65' @ 15.41 hrs Surf.Area= 10,901 sf Storage= 11,621 cf

Plug-Flow detention time= 110.6 min calculated for 48,425 cf (100% of inflow)
Center-of-Mass det. time= 110.6 min (1,047.8 - 937.2)

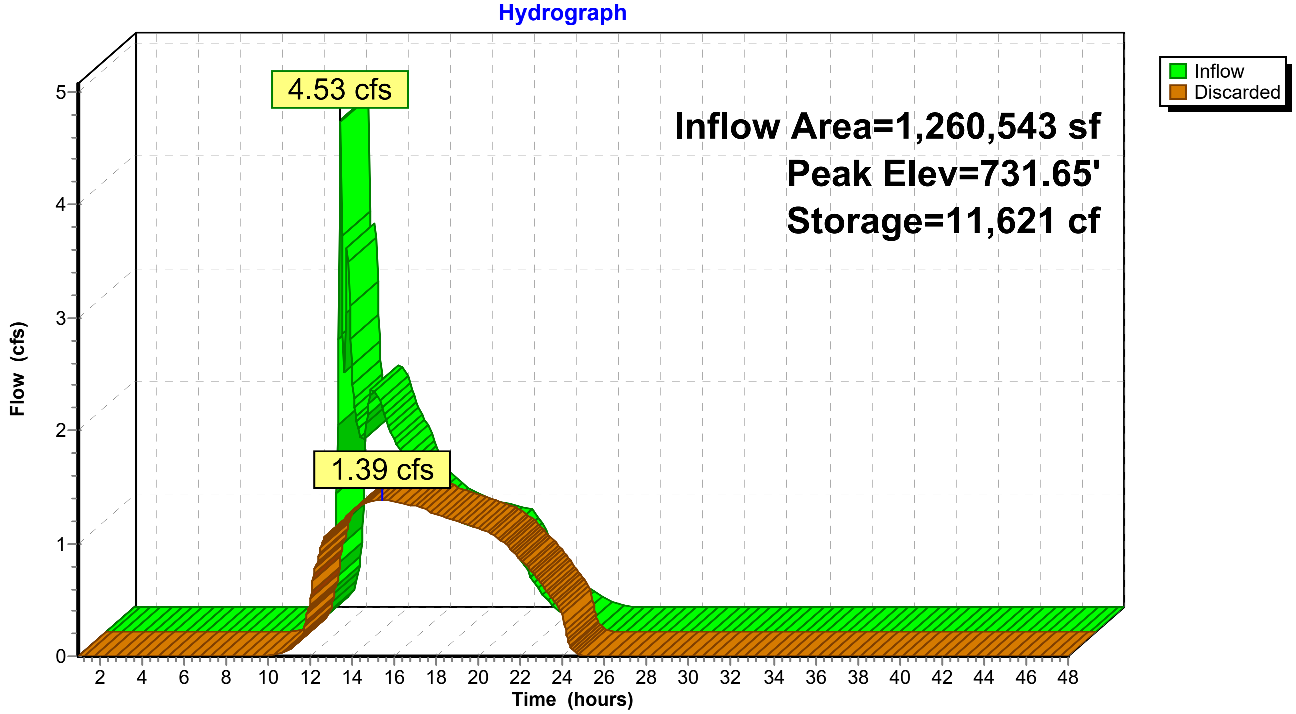
Volume	Invert	Avail.Storage	Storage Description
#1	730.00'	273,743 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
730.00	2,768	0	0
731.00	8,073	5,421	5,421
732.00	12,399	10,236	15,657
733.00	17,056	14,728	30,384
734.00	21,328	19,192	49,576
735.00	25,607	23,468	73,044
736.00	29,845	27,726	100,770
737.00	35,145	32,495	133,265
738.00	42,680	38,913	172,177
739.00	51,064	46,872	219,049
740.00	58,323	54,694	273,743

Device	Routing	Invert	Outlet Devices
#1	Discarded	730.00'	**5.000 in/hr Exfiltration over Horizontal area** Conductivity to Groundwater Elevation = 720.00'

Discarded OutFlow Max=1.39 cfs @ 15.41 hrs HW=731.65' (Free Discharge)
└─**1=Exfiltration** (Controls 1.39 cfs)

Pond 154P: Southeast Basin

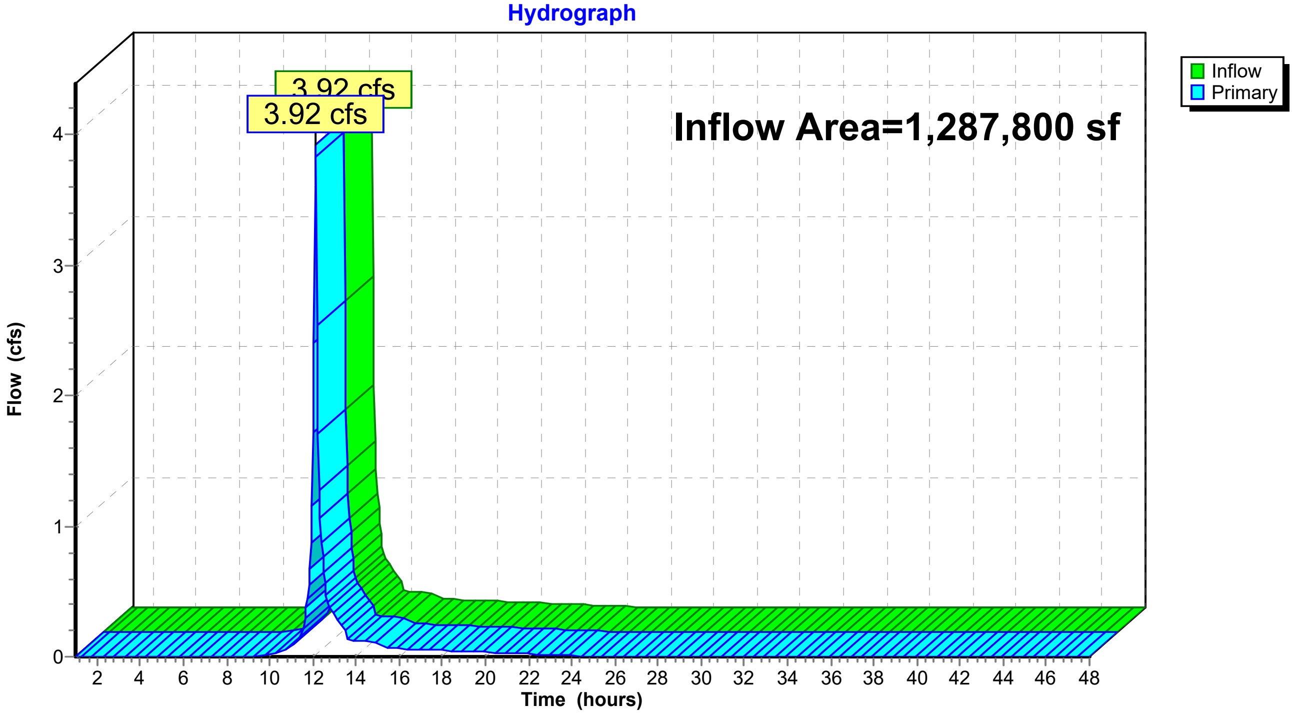


Summary for Link 48L: TOTAL OUTFALL

Inflow Area =	1,287,800 sf,	29.72% Impervious,	Inflow Depth = 0.07"	for 100-Year event
Inflow =	3.92 cfs @	12.13 hrs, Volume=	8,020 cf	
Primary =	3.92 cfs @	12.13 hrs, Volume=	8,020 cf,	Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Link 48L: TOTAL OUTFALL



Summary for Link 66L: Total Offsite

[43] Hint: Has no inflow (Outflow=Zero)

Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Primary outflow = Inflow, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Link 66L: Total Offsite