

Routing Diagram for 14017Hydrocad_2023-05-24
 Prepared by Nitsch Engineering, Printed 10/26/2023
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Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
5,719	69	50-75% Grass cover, Fair, HSG B (PRDA#5, PRDA#6)
364,480	61	>75% Grass cover, Good, HSG B (EXDA#1, EXDA#2, EXDA#3, PRDA#1, PRDA#2, PRDA#3, PRDA#4)
2,006	71	Grass Pave (PRDA#4)
5,345	98	Paved parking, HSG B (EXDA#3, PRDA#1, PRDA#2)
12,629	98	Unconnected pavement, HSG B (PRDA#3, PRDA#4, PRDA#5, PRDA#6)
517	98	Unconnected roofs, HSG B (PRDA#2, PRDA#3)
390,696	63	TOTAL AREA

Soil Listing (selected nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
388,690	HSG B	EXDA#1, EXDA#2, EXDA#3, PRDA#1, PRDA#2, PRDA#3, PRDA#4, PRDA#5, PRDA#6
0	HSG C	
0	HSG D	
2,006	Other	PRDA#4
390,696		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	5,719	0	0	0	5,719	50-75% Grass cover, Fair
0	364,480	0	0	0	364,480	>75% Grass cover, Good
0	0	0	0	2,006	2,006	Grass Pave
0	5,345	0	0	0	5,345	Paved parking
0	12,629	0	0	0	12,629	Unconnected pavement
0	517	0	0	0	517	Unconnected roofs
0	388,690	0	0	2,006	390,696	TOTAL AREA

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

SubcatchmentEXDA#1: EX DA#1	Runoff Area=78,065 sf 0.00% Impervious Runoff Depth>3.31" Tc=6.0 min CN=61 Runoff=7.43 cfs 21,511 cf
SubcatchmentEXDA#2: EX DA #2	Runoff Area=110,563 sf 0.00% Impervious Runoff Depth>3.31" Tc=6.0 min CN=61 Runoff=10.53 cfs 30,465 cf
SubcatchmentEXDA#3: EX DA #3	Runoff Area=7,219 sf 12.74% Impervious Runoff Depth>3.87" Tc=0.0 min CN=66 Runoff=0.91 cfs 2,327 cf
SubcatchmentPRDA#1: PR DA#1	Runoff Area=55,666 sf 5.45% Impervious Runoff Depth>3.53" Tc=6.0 min CN=63 Runoff=5.64 cfs 16,357 cf
SubcatchmentPRDA#2: PR DA#2	Runoff Area=28,819 sf 5.92% Impervious Runoff Depth>3.53" Tc=6.0 min CN=63 Runoff=2.92 cfs 8,468 cf
SubcatchmentPRDA#3: PR DA#3	Runoff Area=93,806 sf 5.85% Impervious Runoff Depth>3.42" Tc=6.0 min UI Adjusted CN=62 Runoff=9.22 cfs 26,705 cf
SubcatchmentPRDA#4: PR DA#4	Runoff Area=3,810 sf 8.22% Impervious Runoff Depth>4.08" Tc=6.0 min UI Adjusted CN=68 Runoff=0.44 cfs 1,296 cf
SubcatchmentPRDA#5: PR DA#5	Runoff Area=11,985 sf 54.26% Impervious Runoff Depth>6.02" Tc=6.0 min CN=85 Runoff=1.91 cfs 6,011 cf
SubcatchmentPRDA#6: PR DA#6	Runoff Area=763 sf 68.94% Impervious Runoff Depth>6.45" Tc=6.0 min CN=89 Runoff=0.13 cfs 410 cf
Reach EXDP#1: EXDP #1 (NORTH SITE WETLAND)	Inflow=7.43 cfs 21,511 cf Outflow=7.43 cfs 21,511 cf
Reach EXDP#2: EXDP #2 (SOUTH SITE WETLAND)	Inflow=10.53 cfs 30,465 cf Outflow=10.53 cfs 30,465 cf
Reach EXDP#3: EXDP #3 (OFFSITE)	Inflow=0.91 cfs 2,327 cf Outflow=0.91 cfs 2,327 cf
Reach EXDP#4: EXDP#4 CULVERT	Inflow=18.38 cfs 54,303 cf Outflow=18.38 cfs 54,303 cf
Reach PRDP#1: PRDP #1 (NORTH SITE WETLAND)	Inflow=5.64 cfs 16,357 cf Outflow=5.64 cfs 16,357 cf
Reach PRDP#2: PRDP #2 (SOUTH SITE WETLAND)	Inflow=10.03 cfs 30,456 cf Outflow=10.03 cfs 30,456 cf
Reach PRDP#3: PRDR #3 (OFFSITE)	Inflow=2.04 cfs 6,343 cf Outflow=2.04 cfs 6,343 cf

Reach PRDP#4: PRDP#4 CULVERT

Inflow=17.50 cfs 53,156 cf
Outflow=17.50 cfs 53,156 cf

Pond 12P: Recharge

Peak Elev=48.01' Storage=5,074 cf Inflow=9.22 cfs 26,705 cf
Discarded=0.10 cfs 3,883 cf Primary=0.00 cfs 0 cf Secondary=7.04 cfs 20,691 cf Outflow=7.15 cfs 24,574 cf

Pond 14P: Dry Well

Peak Elev=45.84' Storage=78 cf Inflow=0.13 cfs 410 cf
Outflow=0.13 cfs 332 cf

Total Runoff Area = 390,696 sf Runoff Volume = 113,551 cf Average Runoff Depth = 3.49"
95.27% Pervious = 372,205 sf 4.73% Impervious = 18,491 sf

Summary for Subcatchment EXDA#1: EX DA#1

Runoff = 7.43 cfs @ 12.13 hrs, Volume= 21,511 cf, Depth> 3.31"

Routed to Reach EXDP#1 : EXDP #1 (NORTH SITE WETLAND)

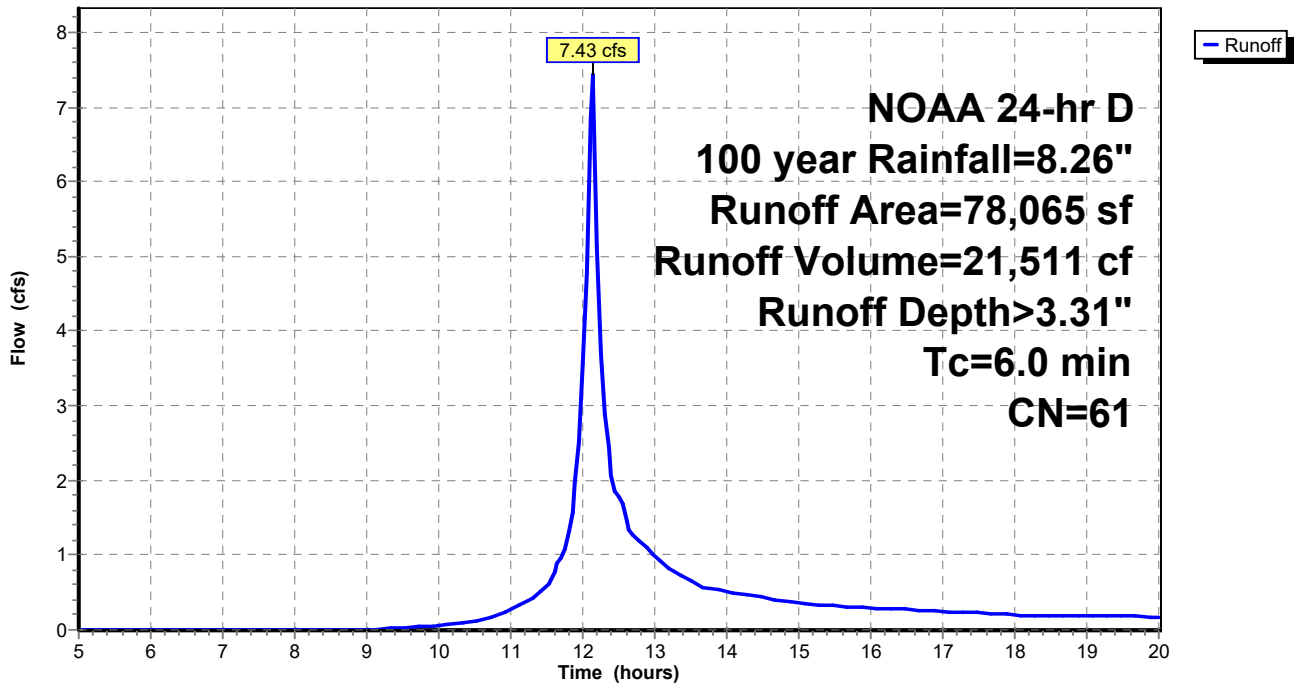
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100 year Rainfall=8.26"

Area (sf)	CN	Description
78,065	61	>75% Grass cover, Good, HSG B
78,065		100.00% Pervious Area

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

Subcatchment EXDA#1: EX DA#1

Hydrograph



Summary for Subcatchment EXDA#2: EX DA #2

Runoff = 10.53 cfs @ 12.13 hrs, Volume= 30,465 cf, Depth> 3.31"

Routed to Reach EXDP#2 : EXDP #2 (SOUTH SITE WETLAND)

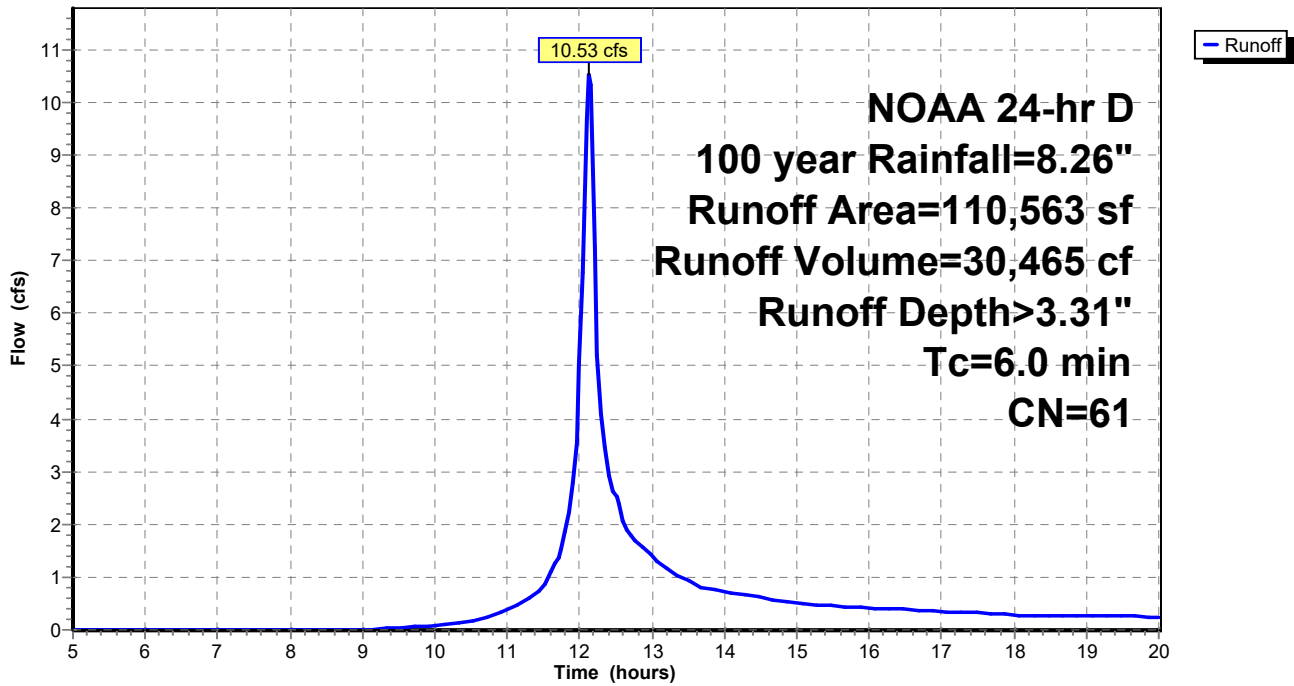
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100 year Rainfall=8.26"

Area (sf)	CN	Description
110,563	61	>75% Grass cover, Good, HSG B
110,563		100.00% Pervious Area

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

Subcatchment EXDA#2: EX DA #2

Hydrograph



Summary for Subcatchment EXDA#3: EX DA #3

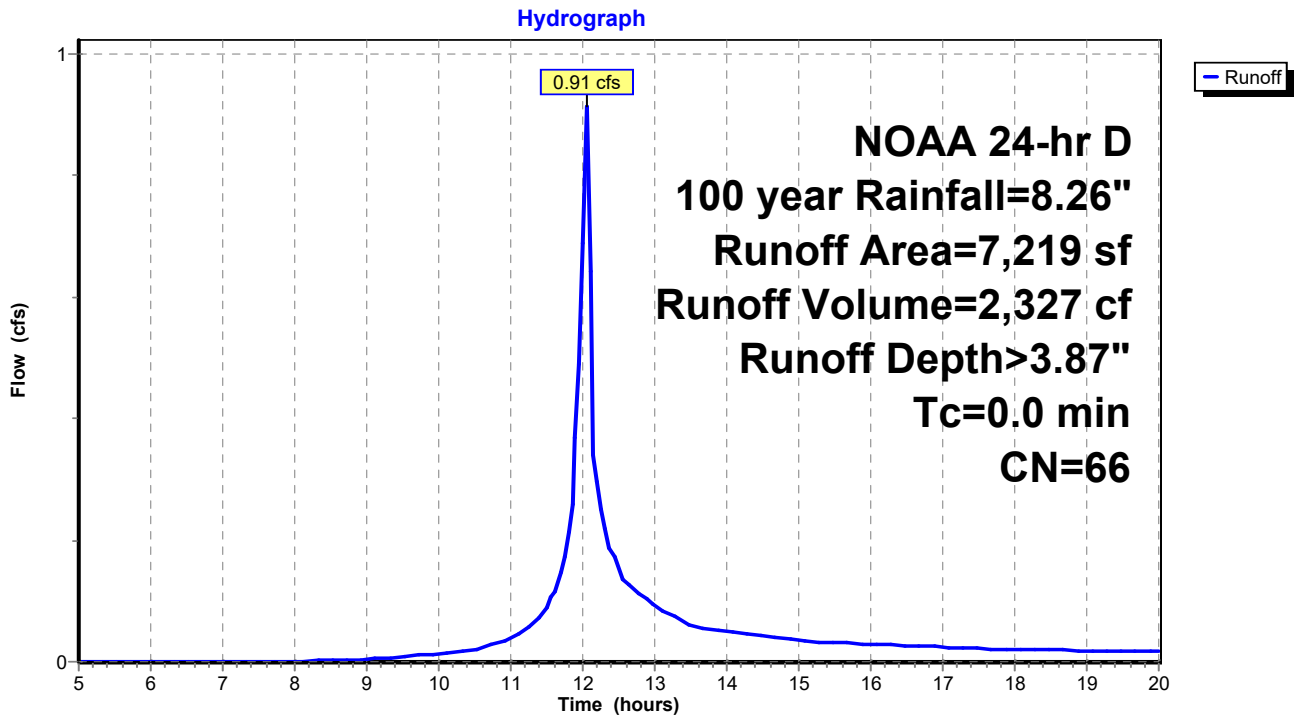
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 0.91 cfs @ 12.05 hrs, Volume= 2,327 cf, Depth> 3.87"
 Routed to Reach EXDP#3 : EXDP #3 (OFFSITE)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100 year Rainfall=8.26"

Area (sf)	CN	Description
6,299	61	>75% Grass cover, Good, HSG B
920	98	Paved parking, HSG B
7,219	66	Weighted Average
6,299		87.26% Pervious Area
920		12.74% Impervious Area

Subcatchment EXDA#3: EX DA #3



Summary for Subcatchment PRDA#1: PR DA#1

Runoff = 5.64 cfs @ 12.13 hrs, Volume= 16,357 cf, Depth> 3.53"

Routed to Reach PRDP#1 : PRDP #1 (NORTH SITE WETLAND)

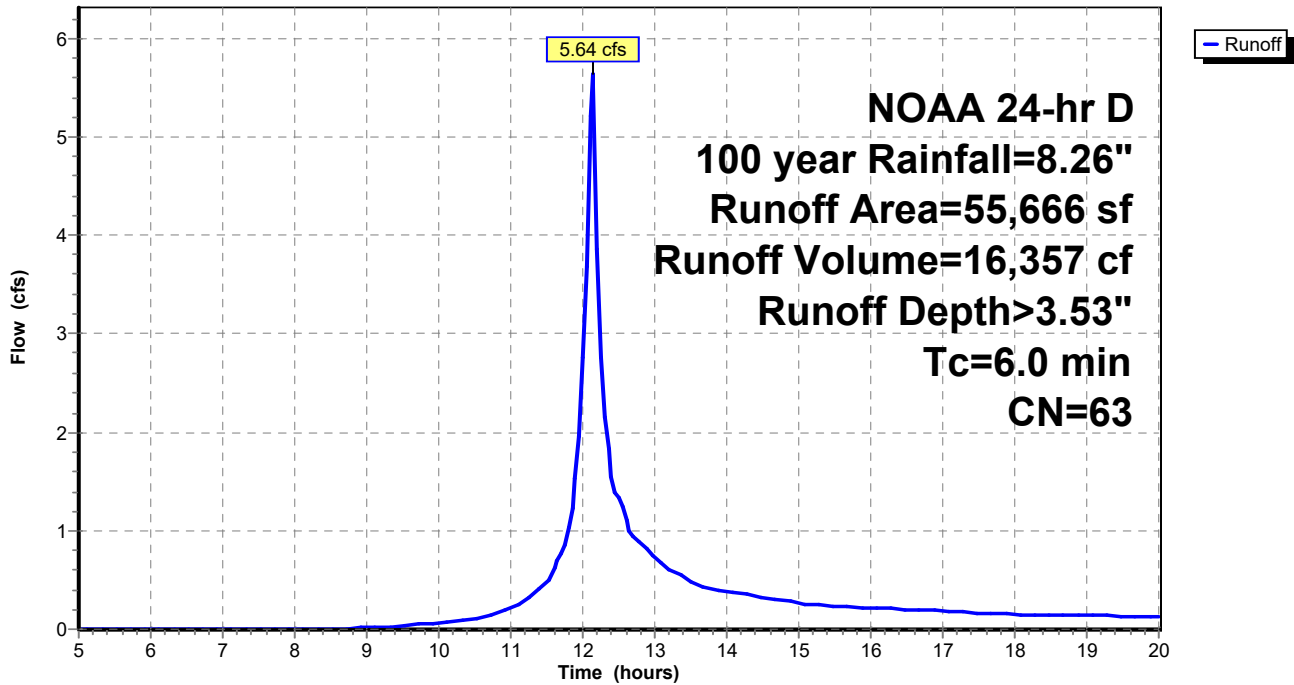
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100 year Rainfall=8.26"

Area (sf)	CN	Description
3,034	98	Paved parking, HSG B
52,632	61	>75% Grass cover, Good, HSG B
55,666	63	Weighted Average
52,632		94.55% Pervious Area
3,034		5.45% Impervious Area

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

Subcatchment PRDA#1: PR DA#1

Hydrograph



Summary for Subcatchment PRDA#2: PR DA#2

Runoff = 2.92 cfs @ 12.13 hrs, Volume= 8,468 cf, Depth> 3.53"

Routed to Reach PRDP#2 : PRDP #2 (SOUTH SITE WETLAND)

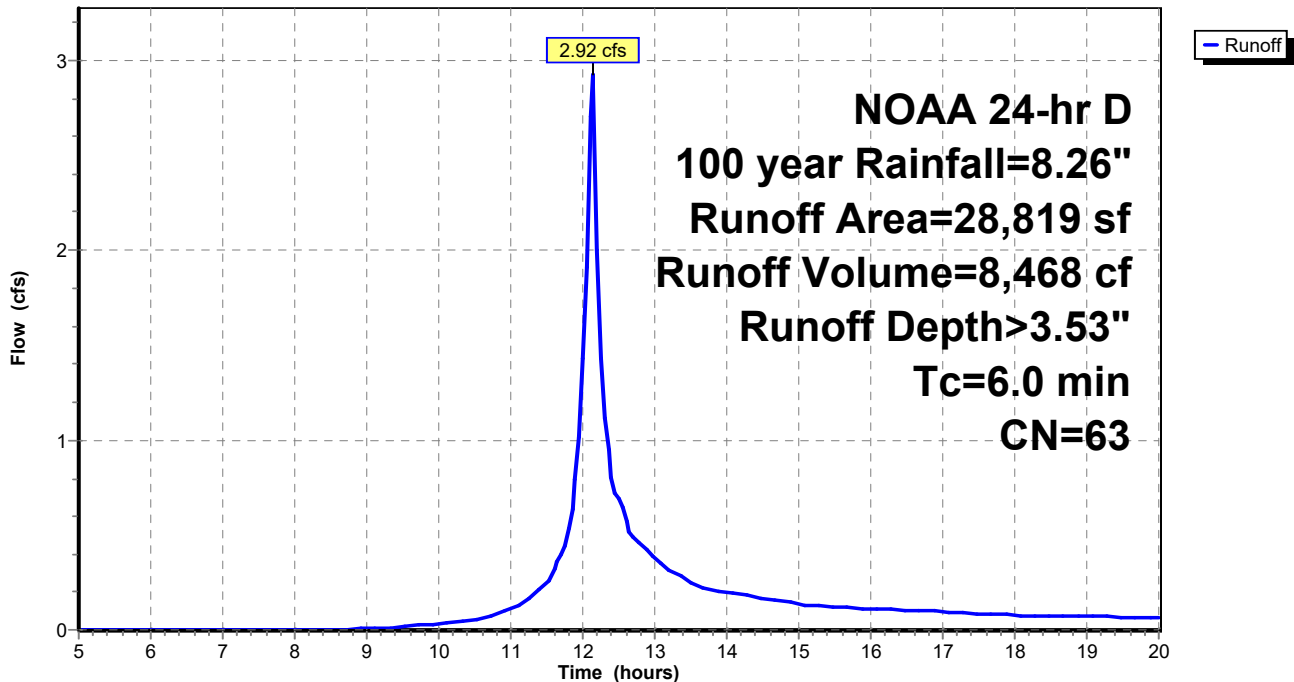
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100 year Rainfall=8.26"

Area (sf)	CN	Description
27,114	61	>75% Grass cover, Good, HSG B
314	98	Unconnected roofs, HSG B
1,391	98	Paved parking, HSG B
28,819	63	Weighted Average
27,114		94.08% Pervious Area
1,705		5.92% Impervious Area
314		18.42% Unconnected

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

Subcatchment PRDA#2: PR DA#2

Hydrograph



Summary for Subcatchment PRDA#3: PR DA#3

Runoff = 9.22 cfs @ 12.13 hrs, Volume= 26,705 cf, Depth> 3.42"
 Routed to Pond 12P : Recharge

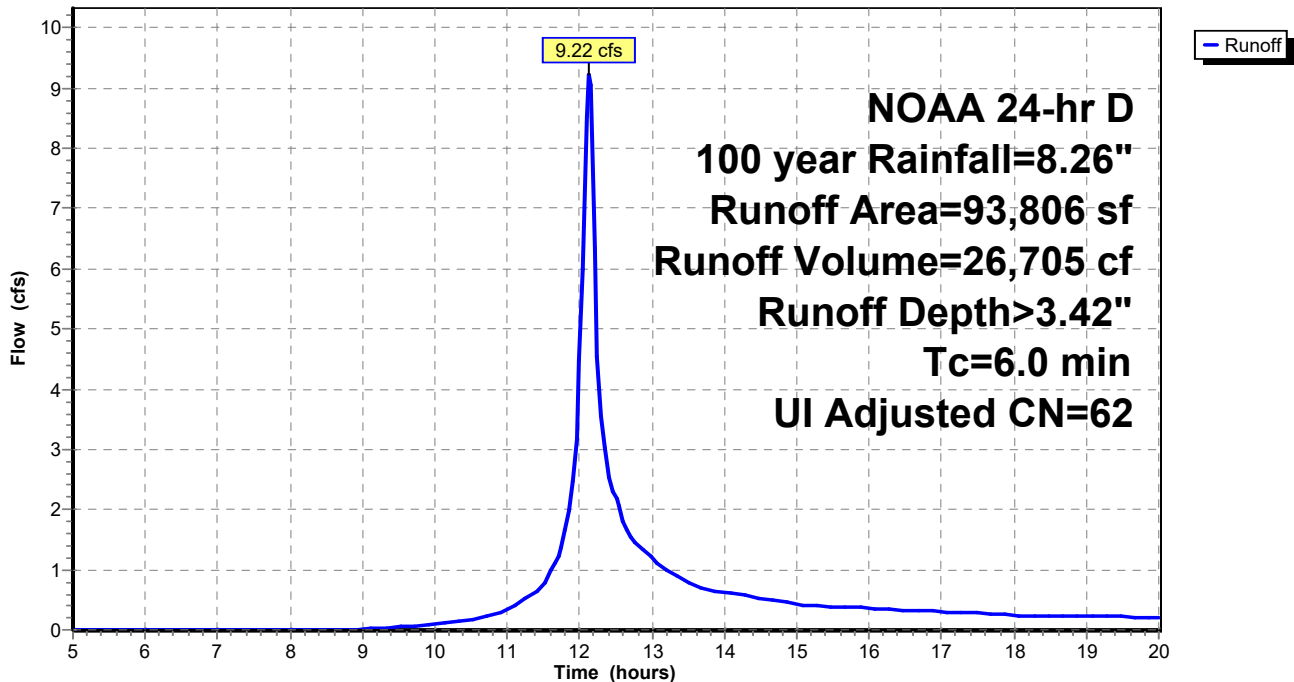
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100 year Rainfall=8.26"

Area (sf)	CN	Adj	Description
5,287	98		Unconnected pavement, HSG B
88,316	61		>75% Grass cover, Good, HSG B
203	98		Unconnected roofs, HSG B
93,806	63	62	Weighted Average, UI Adjusted
88,316			94.15% Pervious Area
5,490			5.85% Impervious Area
5,490			100.00% Unconnected

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

Subcatchment PRDA#3: PR DA#3

Hydrograph



Summary for Subcatchment PRDA#4: PR DA#4

Runoff = 0.44 cfs @ 12.13 hrs, Volume= 1,296 cf, Depth> 4.08"

Routed to Reach PRDP#2 : PRDP #2 (SOUTH SITE WETLAND)

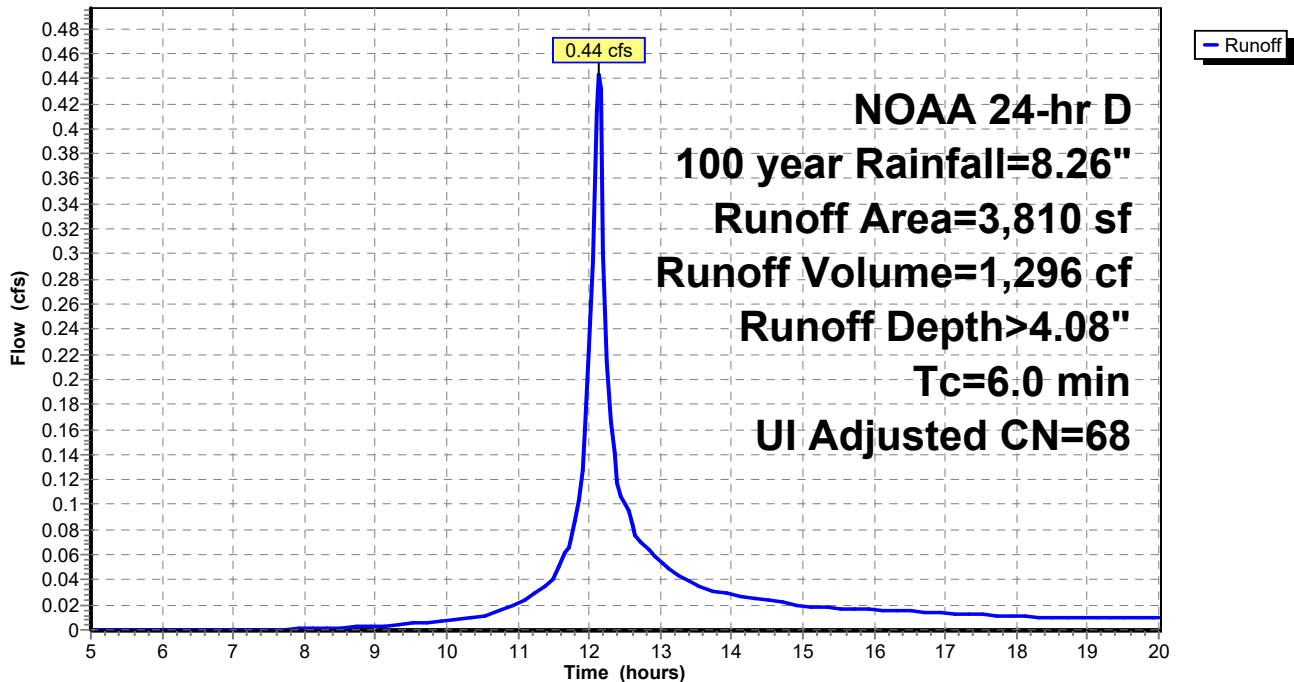
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100 year Rainfall=8.26"

	Area (sf)	CN	Adj	Description
	1,491	61		>75% Grass cover, Good, HSG B
*	2,006	71		Grass Pave
	313	98		Unconnected pavement, HSG B
	3,810	69	68	Weighted Average, UI Adjusted
	3,497			91.78% Pervious Area
	313			8.22% Impervious Area
	313			100.00% Unconnected

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

Subcatchment PRDA#4: PR DA#4

Hydrograph



Summary for Subcatchment PRDA#5: PR DA#5

Runoff = 1.91 cfs @ 12.13 hrs, Volume= 6,011 cf, Depth> 6.02"
 Routed to Reach PRDP#3 : PRDR #3 (OFFSITE)

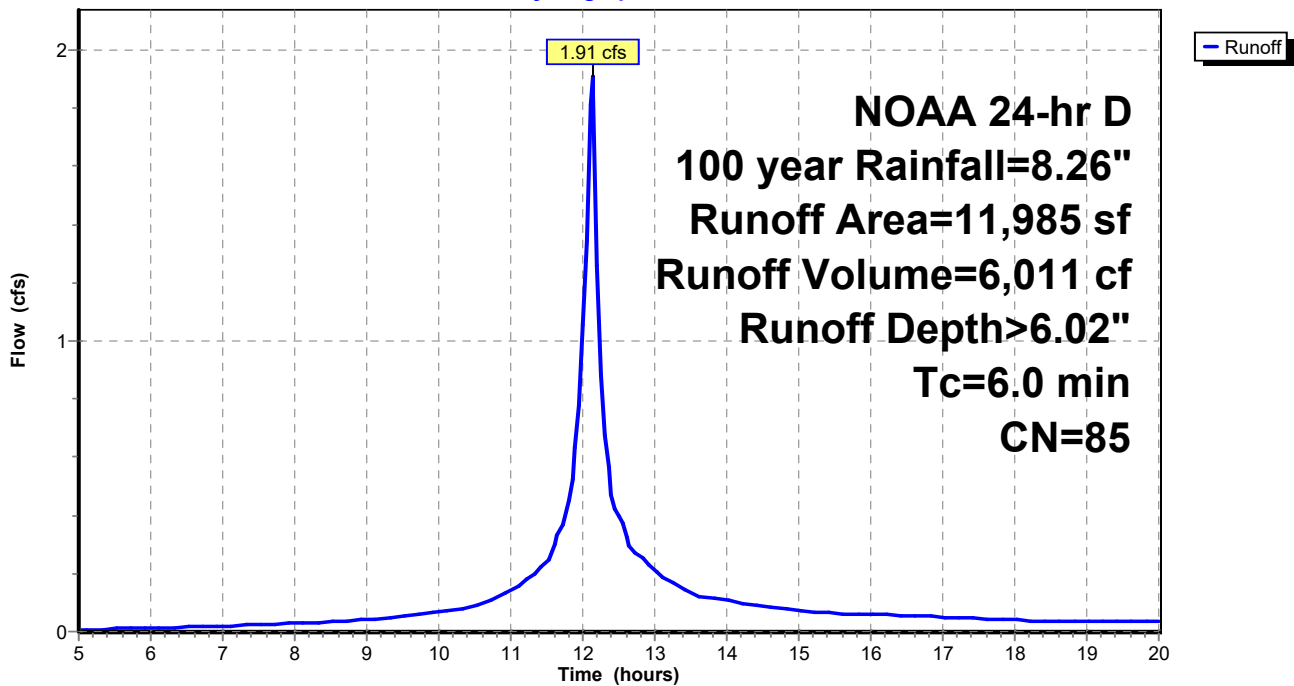
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100 year Rainfall=8.26"

Area (sf)	CN	Description
6,503	98	Unconnected pavement, HSG B
5,482	69	50-75% Grass cover, Fair, HSG B
11,985	85	Weighted Average
5,482		45.74% Pervious Area
6,503		54.26% Impervious Area
6,503		100.00% Unconnected

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

Subcatchment PRDA#5: PR DA#5

Hydrograph



Summary for Subcatchment PRDA#6: PR DA#6

Runoff = 0.13 cfs @ 12.13 hrs, Volume= 410 cf, Depth> 6.45"
 Routed to Pond 14P : Dry Well

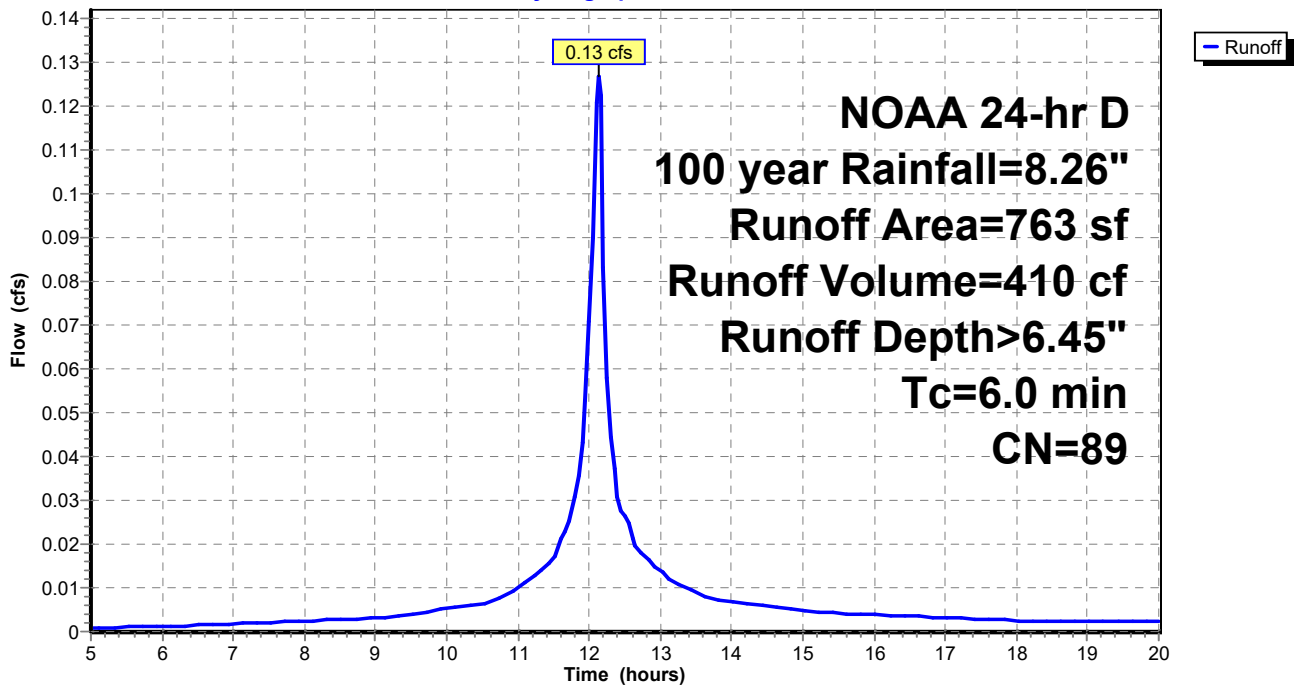
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 100 year Rainfall=8.26"

Area (sf)	CN	Description
526	98	Unconnected pavement, HSG B
237	69	50-75% Grass cover, Fair, HSG B
763	89	Weighted Average
237		31.06% Pervious Area
526		68.94% Impervious Area
526		100.00% Unconnected

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

Subcatchment PRDA#6: PR DA#6

Hydrograph



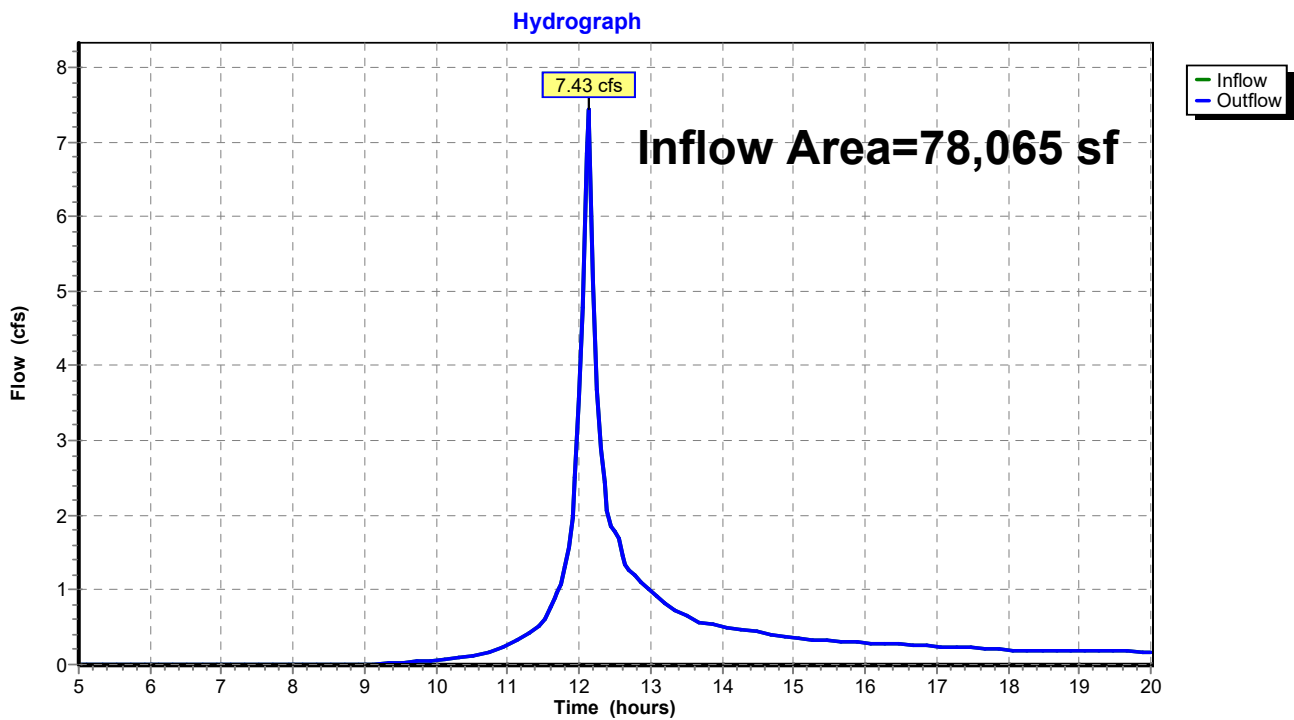
Summary for Reach EXDP#1: EXDP #1 (NORTH SITE WETLAND)

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

Inflow Area = 78,065 sf, 0.00% Impervious, Inflow Depth > 3.31" for 100 year event
Inflow = 7.43 cfs @ 12.13 hrs, Volume= 21,511 cf
Outflow = 7.43 cfs @ 12.13 hrs, Volume= 21,511 cf, Atten= 0%, Lag= 0.0 min
Routed to Reach EXDP#4 : EXDP#4 CULVERT

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

Reach EXDP#1: EXDP #1 (NORTH SITE WETLAND)



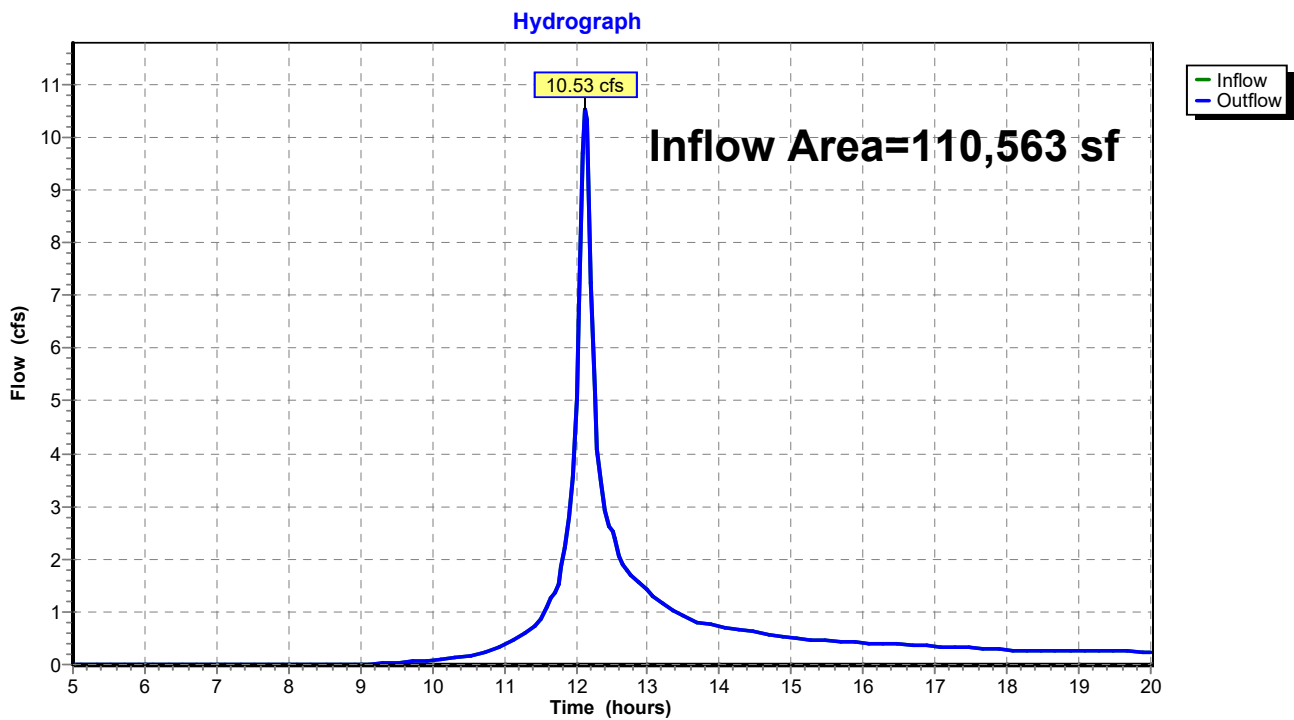
Summary for Reach EXDP#2: EXDP #2 (SOUTH SITE WETLAND)

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

Inflow Area = 110,563 sf, 0.00% Impervious, Inflow Depth > 3.31" for 100 year event
Inflow = 10.53 cfs @ 12.13 hrs, Volume= 30,465 cf
Outflow = 10.53 cfs @ 12.13 hrs, Volume= 30,465 cf, Atten= 0%, Lag= 0.0 min
Routed to Reach EXDP#4 : EXDP#4 CULVERT

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

Reach EXDP#2: EXDP #2 (SOUTH SITE WETLAND)



Summary for Reach EXDP#3: EXDP #3 (OFFSITE)

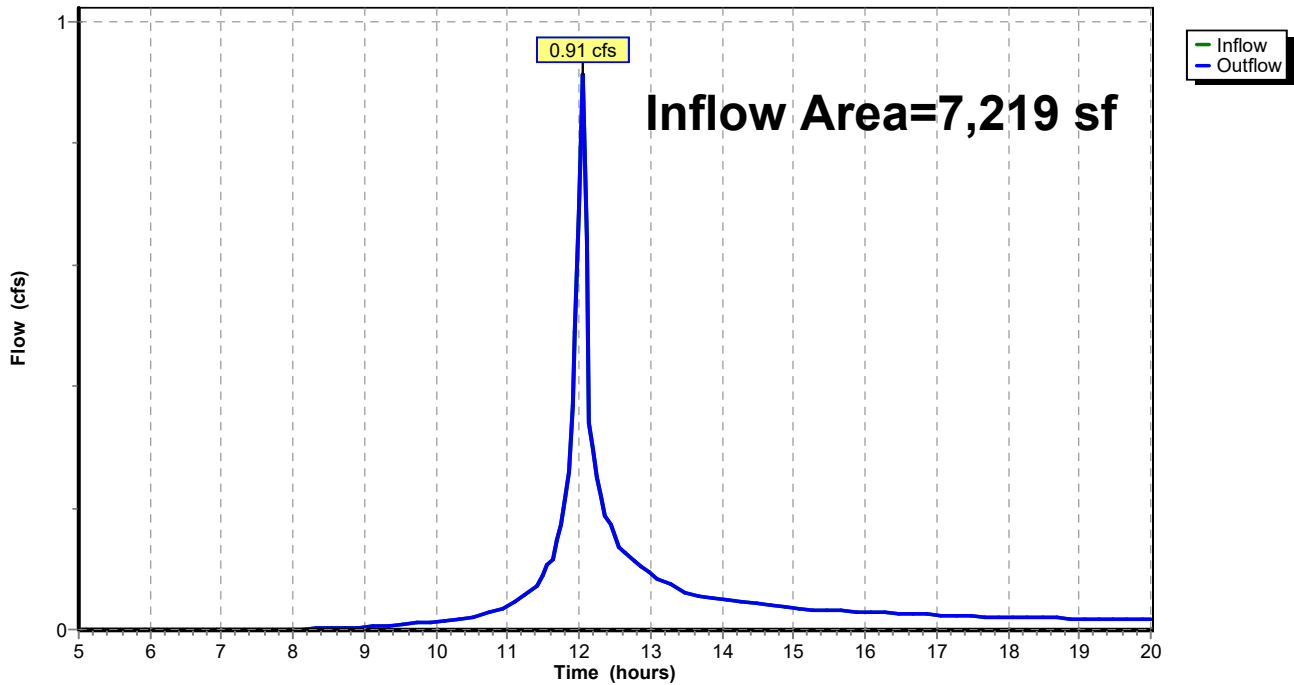
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7,219 sf, 12.74% Impervious, Inflow Depth > 3.87" for 100 year event
Inflow = 0.91 cfs @ 12.05 hrs, Volume= 2,327 cf
Outflow = 0.91 cfs @ 12.05 hrs, Volume= 2,327 cf, Atten= 0%, Lag= 0.0 min
Routed to Reach EXDP#4 : EXDP#4 CULVERT

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

Reach EXDP#3: EXDP #3 (OFFSITE)

Hydrograph



Summary for Reach EXDP#4: EXDP#4 CULVERT

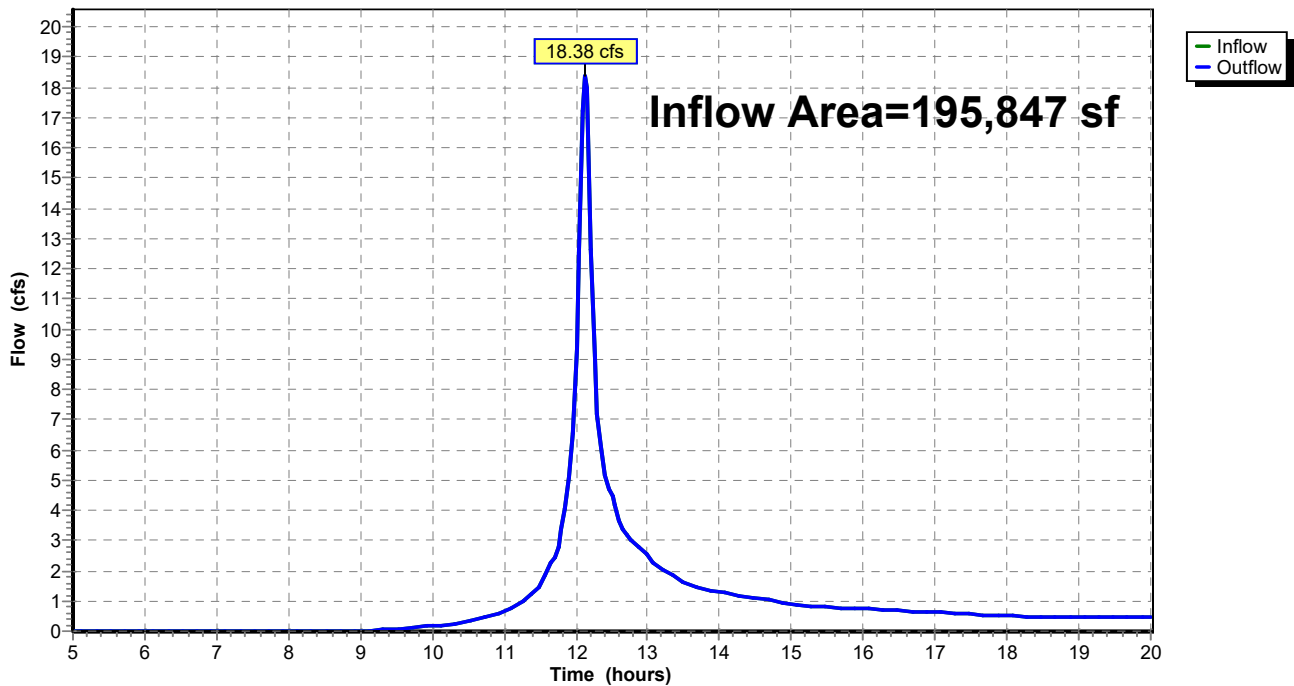
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 195,847 sf, 0.47% Impervious, Inflow Depth > 3.33" for 100 year event
Inflow = 18.38 cfs @ 12.13 hrs, Volume= 54,303 cf
Outflow = 18.38 cfs @ 12.13 hrs, Volume= 54,303 cf, Atten= 0%, Lag= 0.0 min

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

Reach EXDP#4: EXDP#4 CULVERT

Hydrograph



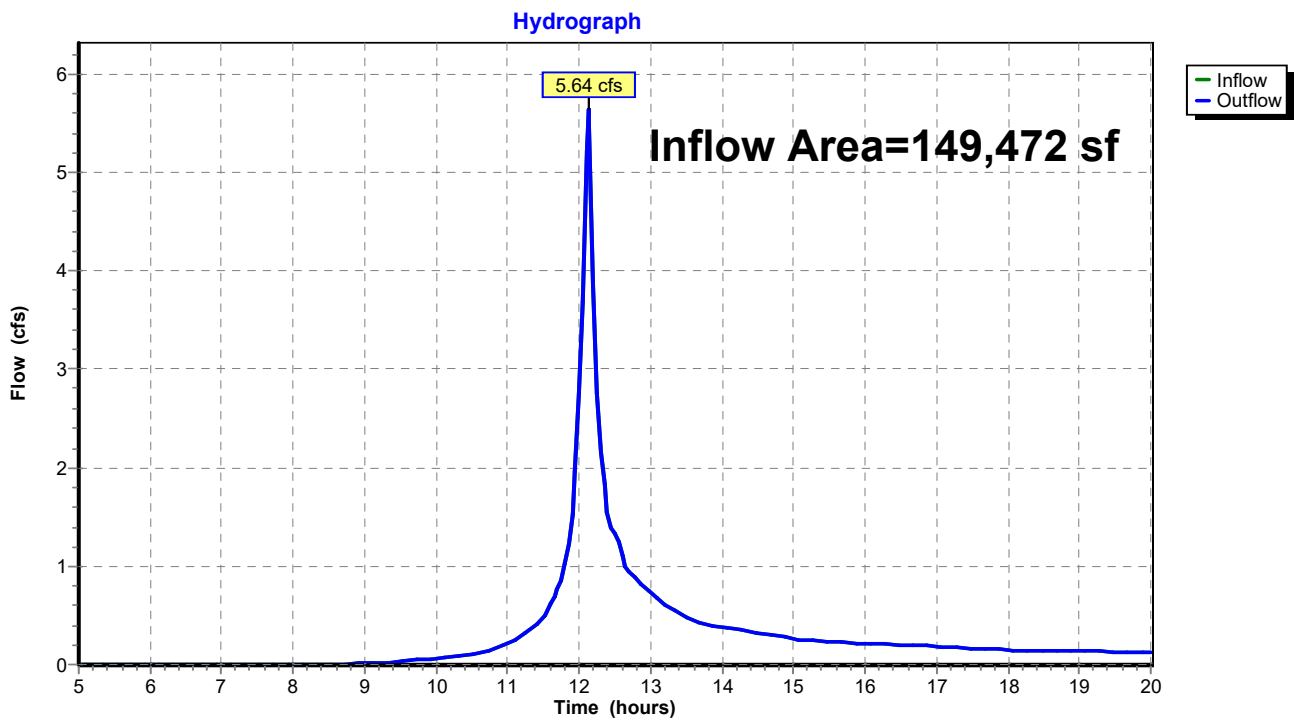
Summary for Reach PRDP#1: PRDP #1 (NORTH SITE WETLAND)

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

Inflow Area = 149,472 sf, 5.70% Impervious, Inflow Depth > 1.31" for 100 year event
Inflow = 5.64 cfs @ 12.13 hrs, Volume= 16,357 cf
Outflow = 5.64 cfs @ 12.13 hrs, Volume= 16,357 cf, Atten= 0%, Lag= 0.0 min
Routed to Reach PRDP#4 : PRDP#4 CULVERT

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

Reach PRDP#1: PRDP #1 (NORTH SITE WETLAND)



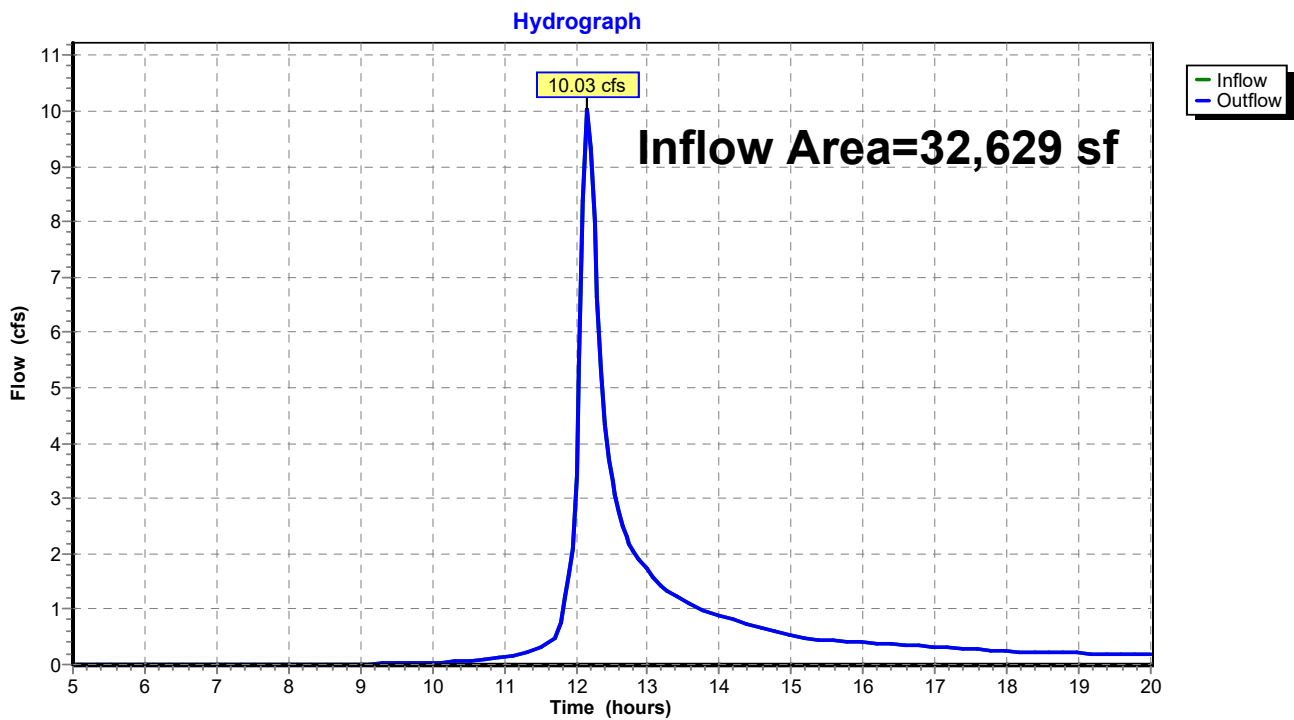
Summary for Reach PRDP#2: PRDP #2 (SOUTH SITE WETLAND)

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

Inflow Area = 32,629 sf, 6.18% Impervious, Inflow Depth > 11.20" for 100 year event
Inflow = 10.03 cfs @ 12.16 hrs, Volume= 30,456 cf
Outflow = 10.03 cfs @ 12.16 hrs, Volume= 30,456 cf, Atten= 0%, Lag= 0.0 min
Routed to Reach PRDP#4 : PRDP#4 CULVERT

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

Reach PRDP#2: PRDP #2 (SOUTH SITE WETLAND)



Summary for Reach PRDP#3: PRDR #3 (OFFSITE)

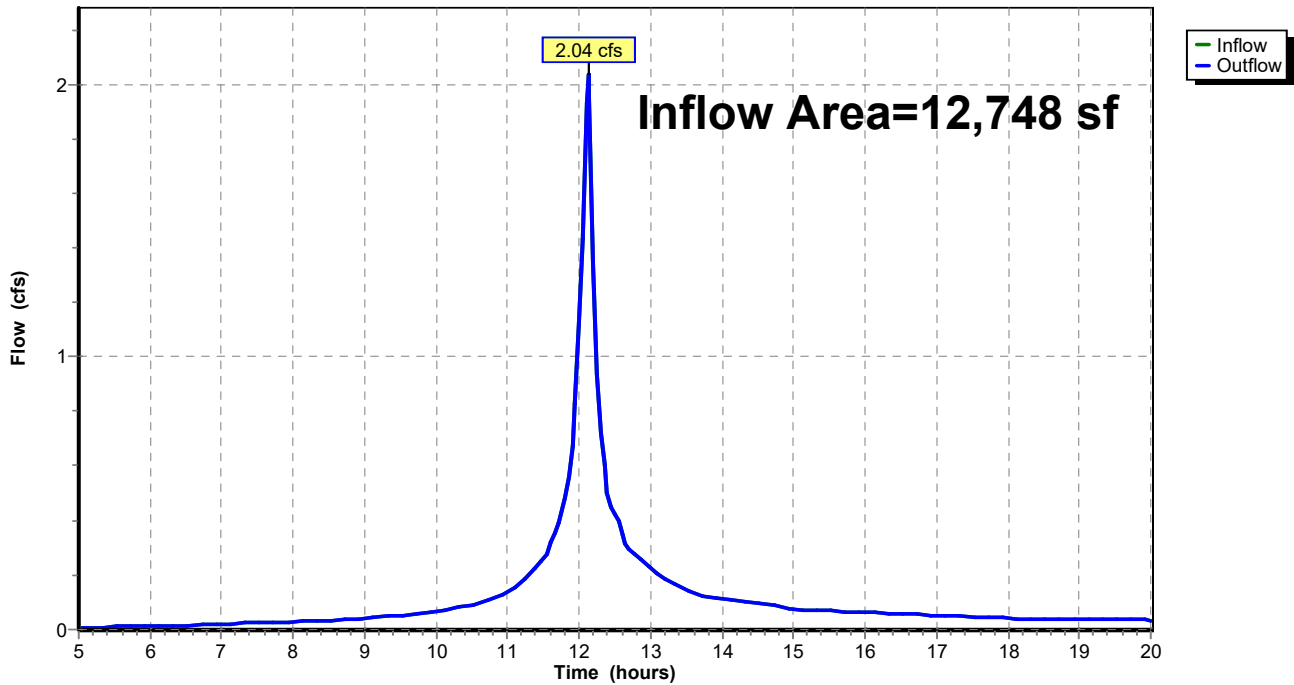
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 12,748 sf, 55.14% Impervious, Inflow Depth > 5.97" for 100 year event
Inflow = 2.04 cfs @ 12.13 hrs, Volume= 6,343 cf
Outflow = 2.04 cfs @ 12.13 hrs, Volume= 6,343 cf, Atten= 0%, Lag= 0.0 min
Routed to Reach PRDP#4 : PRDP#4 CULVERT

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

Reach PRDP#3: PRDR #3 (OFFSITE)

Hydrograph



Summary for Reach PRDP#4: PRDP#4 CULVERT

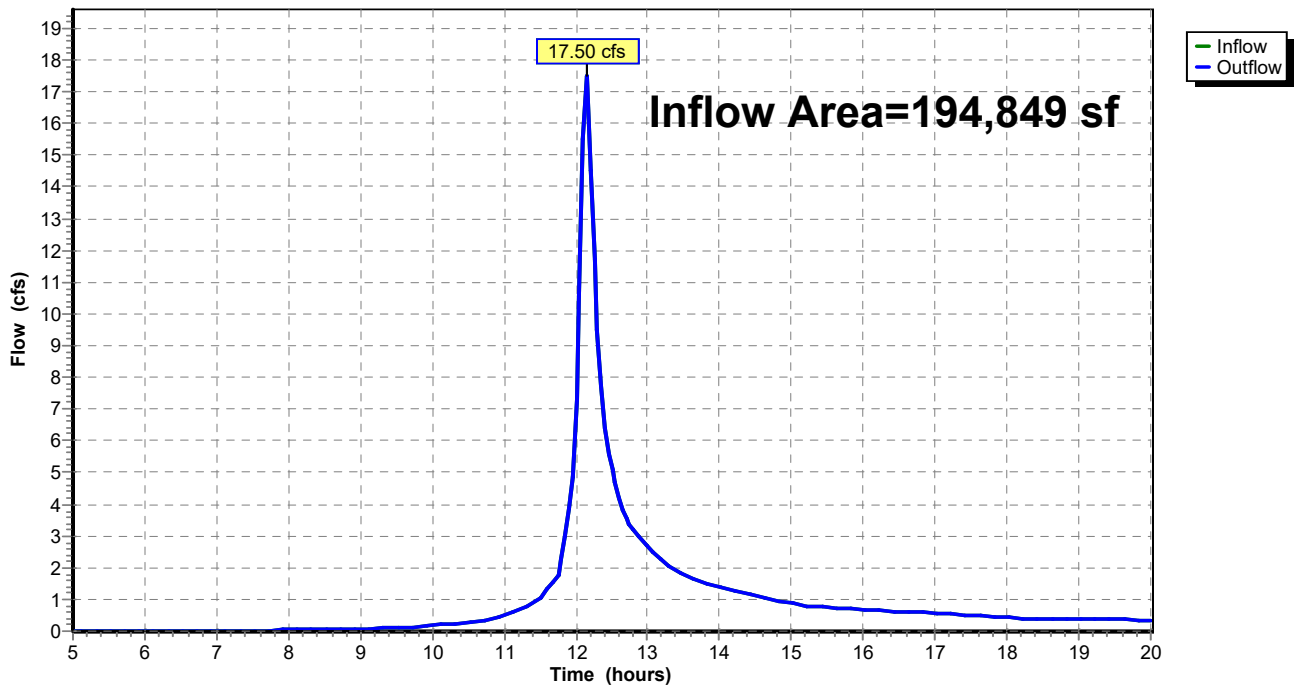
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 194,849 sf, 9.02% Impervious, Inflow Depth > 3.27" for 100 year event
Inflow = 17.50 cfs @ 12.14 hrs, Volume= 53,156 cf
Outflow = 17.50 cfs @ 12.14 hrs, Volume= 53,156 cf, Atten= 0%, Lag= 0.0 min

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

Reach PRDP#4: PRDP#4 CULVERT

Hydrograph



Summary for Pond 12P: Recharge

Inflow Area = 93,806 sf, 5.85% Impervious, Inflow Depth > 3.42" for 100 year event
 Inflow = 9.22 cfs @ 12.13 hrs, Volume= 26,705 cf
 Outflow = 7.15 cfs @ 12.19 hrs, Volume= 24,574 cf, Atten= 23%, Lag= 3.5 min
 Discarded = 0.10 cfs @ 11.95 hrs, Volume= 3,883 cf
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Routed to Reach PRDP#1 : PRDP #1 (NORTH SITE WETLAND)
 Secondary = 7.04 cfs @ 12.19 hrs, Volume= 20,691 cf
 Routed to Reach PRDP#2 : PRDP #2 (SOUTH SITE WETLAND)

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 48.01' @ 12.19 hrs Surf.Area= 4,426 sf Storage= 5,074 cf

Plug-Flow detention time= 46.5 min calculated for 24,574 cf (92% of inflow)
 Center-of-Mass det. time= 18.9 min (823.2 - 804.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	45.60'	3,220 cf	4.33'W x 1,020.00'L x 3.33'H Field A 14,734 cf Overall - 4,000 cf Embedded = 10,734 cf x 30.0% Voids
#2A	46.10'	3,162 cf	ADS N-12 24" Inside #1 Inside= 23.8"W x 23.8"H => 3.10 sf x 20.00'L = 62.0 cf Outside= 28.0"W x 28.0"H => 3.92 sf x 20.00'L = 78.4 cf Row Length Adjustment= +1,000.00' x 3.10 sf x 1 rows
#3	47.00'	15 cf	1.0" Round Pipe Storage L= 2,830.0' S= 0.0010 '/'
		6,398 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	48.10'	12.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Secondary	48.10'	12.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	46.80'	24.0" W x 2.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	47.20'	36.0" W x 6.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Discarded	45.60'	1.020 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.10 cfs @ 11.95 hrs HW=47.21' (Free Discharge)
 ↑5=Exfiltration (Exfiltration Controls 0.10 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=45.60' (Free Discharge)
 ↑1=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=6.98 cfs @ 12.19 hrs HW=48.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)
 ↓3=Orifice/Grate (Orifice Controls 1.69 cfs @ 5.08 fps)
 ↓4=Orifice/Grate (Orifice Controls 5.29 cfs @ 3.52 fps)

Pond 12P: Recharge - Chamber Wizard Field A

Chamber Model = ADS N-12 24" (ADS N-12® Pipe)

Inside= 23.8"W x 23.8"H => 3.10 sf x 20.00'L = 62.0 cf

Outside= 28.0"W x 28.0"H => 3.92 sf x 20.00'L = 78.4 cf

Row Length Adjustment= +1,000.00' x 3.10 sf x 1 rows

1 Chambers/Row x 20.00' Long +1,000.00' Row Adjustment = 1,020.00' Row Length

1 Rows x 28.0" Wide + 12.0" Side Stone x 2 = 4.33' Base Width

6.0" Stone Base + 28.0" Chamber Height + 6.0" Stone Cover = 3.33' Field Height

1 Chambers x 62.0 cf +1,000.00' Row Adjustment x 3.10 sf x 1 Rows = 3,162.0 cf Chamber Storage

1 Chambers x 78.4 cf +1,000.00' Row Adjustment x 3.92 sf x 1 Rows = 3,998.0 cf Displacement

14,733.7 cf Field - 3,998.0 cf Chambers = 10,735.7 cf Stone x 30.0% Voids = 3,220.7 cf Stone Storage

Chamber Storage + Stone Storage = 6,382.7 cf = 0.147 af

Overall Storage Efficiency = 43.3%

Overall System Size = 1,020.00' x 4.33' x 3.33'

1 Chambers

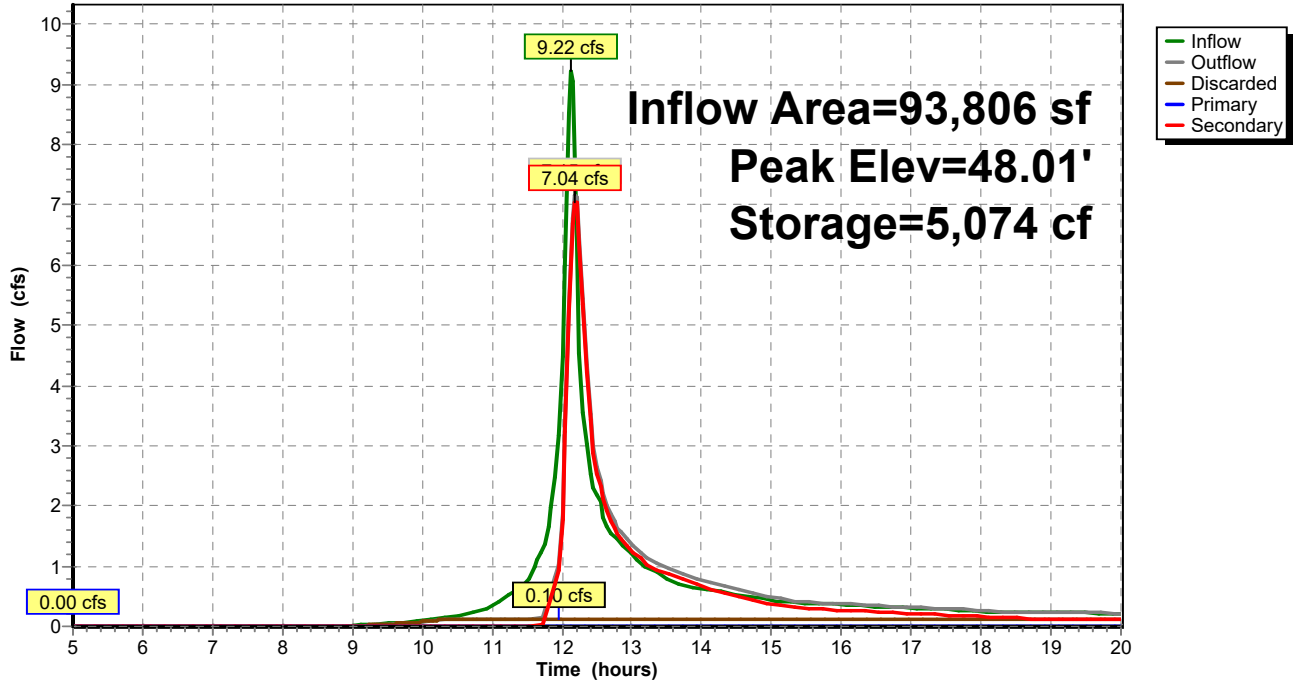
545.7 cy Field

397.6 cy Stone



Pond 12P: Recharge

Hydrograph



Summary for Pond 14P: Dry Well

- [82] Warning: Early inflow requires earlier time span
- [92] Warning: Device #1 is above defined storage
- [93] Warning: Storage range exceeded by 1.04'
- [85] Warning: Oscillations may require smaller dt or Finer Routing (severity=74)

Inflow Area = 763 sf, 68.94% Impervious, Inflow Depth > 6.45" for 100 year event
 Inflow = 0.13 cfs @ 12.13 hrs, Volume= 410 cf
 Outflow = 0.13 cfs @ 12.13 hrs, Volume= 332 cf, Atten= 0%, Lag= 0.1 min
 Primary = 0.13 cfs @ 12.13 hrs, Volume= 332 cf
 Routed to Reach PRDP#3 : PRDR #3 (OFFSITE)

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 45.84' @ 12.13 hrs Surf.Area= 28 sf Storage= 78 cf

Plug-Flow detention time= 98.3 min calculated for 332 cf (81% of inflow)
 Center-of-Mass det. time= 43.8 min (795.0 - 751.2)

Volume	Invert	Avail.Storage	Storage Description
#1	39.80'	27 cf	6.00'D x 5.00'H Stone for Drywell 141 cf Overall - 50 cf Embedded = 91 cf x 30.0% Voids
#2	40.80'	50 cf	4.00'D x 4.00'H Dry Well Structure Inside #1
		78 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	45.80'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=0.10 cfs @ 12.13 hrs HW=45.84' (Free Discharge)

↑1=Sharp-Crested Rectangular Weir (Weir Controls 0.10 cfs @ 0.64 fps)

Pond 14P: Dry Well

Hydrograph

