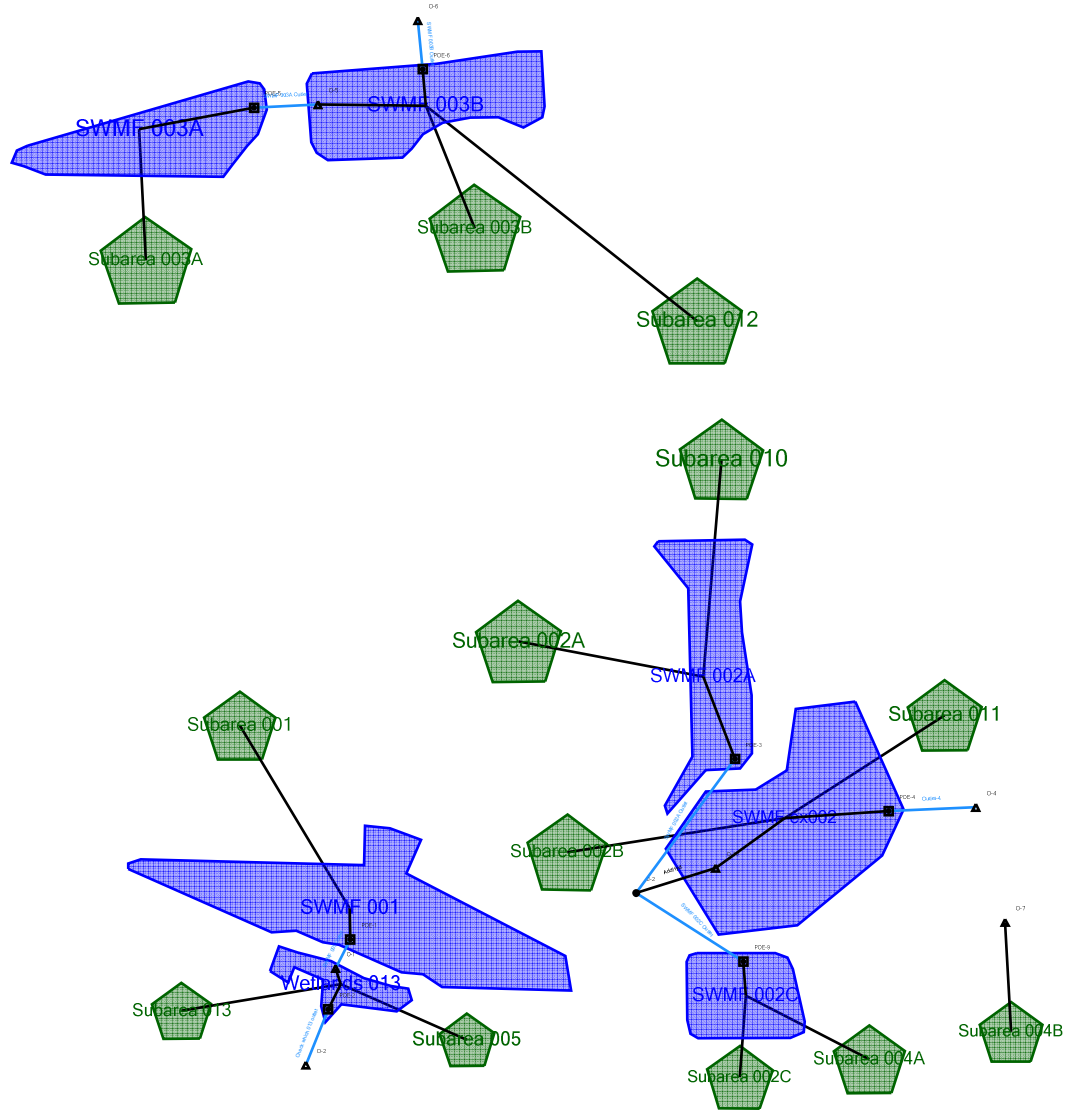


Scenario: 100Yr 18Hr



Scenario Calculation Summary

Scenario Summary	
ID	1
Label	100Yr 24 Hr
Notes	
Active Topology	Base Active Topology
Hydrology	Base Hydrology
Rainfall Runoff	100Yr 24Hr
Physical	Base Physical
Initial Condition	Base Initial Condition
Boundary Condition	Base Boundary Condition
Infiltration and Inflow	Base Infiltration and Inflow
Output	Base Output
User Data Extensions	Base User Data Extensions
PondPack Engine Calculation Options	120Hr

Output Summary			
Output Increment	0.010 hours	Duration	168.000 hours

Rainfall Summary			
Return Event Tag	100	Rainfall Type	Time-Depth Curve
Total Depth	8.6 in	Storm Event	100YR-24HR

ICPM Output Summary			
Target Convergence	0.00 ft ³ /s	ICPM Time Step	0.002 hours
Maximum Iterations	35		

Executive Summary (Nodes)

Label	Scenario	Return Event (years)	Truncation	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
J-2	100Yr 24 Hr	100	None	9.477	21.200	1.89	(N/A)	(N/A)
O-2	100Yr 24 Hr	100	None	34.126	16.130	13.08	(N/A)	(N/A)
O-4	100Yr 24 Hr	100	None	0.000	0.000	0.00	(N/A)	(N/A)
O-6	100Yr 24 Hr	100	None	24.546	24.440	4.31	(N/A)	(N/A)
O-7	100Yr 24 Hr	100	None	1.475	16.000	1.95	(N/A)	(N/A)
SWMF 001 (IN)	100Yr 24 Hr	100	None	27.397	16.000	34.08	(N/A)	(N/A)
SWMF 001 (OUT)	100Yr 24 Hr	100	None	27.221	24.280	4.35	793.35	22.744
SWMF 002A (IN)	100Yr 24 Hr	100	None	8.211	15.990	10.21	(N/A)	(N/A)
SWMF 002A (OUT)	100Yr 24 Hr	100	None	8.211	24.100	1.30	795.84	6.662
SWMF 002C (IN)	100Yr 24 Hr	100	None	1.266	16.000	1.69	(N/A)	(N/A)
SWMF 002C (OUT)	100Yr 24 Hr	100	None	1.266	20.110	0.60	795.66	0.690
SWMF 003A (IN)	100Yr 24 Hr	100	None	10.626	15.990	13.30	(N/A)	(N/A)
SWMF 003A (OUT)	100Yr 24 Hr	100	None	10.620	18.500	4.77	774.16	5.941
SWMF 003B (IN)	100Yr 24 Hr	100	None	24.760	16.010	21.86	(N/A)	(N/A)
SWMF 003B (OUT)	100Yr 24 Hr	100	None	24.546	24.440	4.31	769.83	14.738
SWMF ex002 (IN)	100Yr 24 Hr	100	None	18.617	16.010	13.63	(N/A)	(N/A)

Scenario Calculation Summary

Executive Summary (Nodes)

Label	Scenario	Return Event (years)	Truncation	Hydrograph Volume (ac-ft)	Time to Peak (hours)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
SWMF ex002 (OUT)	100Yr 24 Hr	100	None	0.000	0.000	0.00	790.25	18.617
Subarea 001	100Yr 24 Hr	100	None	27.397	16.000	34.08	(N/A)	(N/A)
Subarea 002A	100Yr 24 Hr	100	None	7.444	15.990	9.20	(N/A)	(N/A)
Subarea 002B	100Yr 24 Hr	100	None	1.378	16.000	1.96	(N/A)	(N/A)
Subarea 002C	100Yr 24 Hr	100	None	0.245	16.000	0.35	(N/A)	(N/A)
Subarea 003A	100Yr 24 Hr	100	None	10.626	15.990	13.30	(N/A)	(N/A)
Subarea 003B	100Yr 24 Hr	100	None	13.350	15.980	16.51	(N/A)	(N/A)
Subarea 004A	100Yr 24 Hr	100	None	1.021	16.020	1.34	(N/A)	(N/A)
Subarea 004B	100Yr 24 Hr	100	None	1.475	16.000	1.95	(N/A)	(N/A)
Subarea 005	100Yr 24 Hr	100	None	0.955	16.010	1.36	(N/A)	(N/A)
Subarea 010	100Yr 24 Hr	100	None	0.767	16.000	1.01	(N/A)	(N/A)
Subarea 011	100Yr 24 Hr	100	None	7.761	16.010	10.04	(N/A)	(N/A)
Subarea 012	100Yr 24 Hr	100	None	0.790	16.000	1.05	(N/A)	(N/A)
Subarea 013	100Yr 24 Hr	100	None	5.952	16.030	8.34	(N/A)	(N/A)
Wetlands 013 (IN)	100Yr 24 Hr	100	None	34.128	16.030	13.22	(N/A)	(N/A)
Wetlands 013 (OUT)	100Yr 24 Hr	100	None	34.126	16.130	13.08	788.71	1.092

Executive Summary (Links)

Label	Type	Location	Hydrograph Volume (ac-ft)	Peak Time (hours)	Peak Flow (ft ³ /s)	End Point	Node Flow Direction
AddHyd	Channel	Upstream	9.477	21.200	1.89	J-2	
AddHyd	Channel	Link	9.477	21.300	1.89		
AddHyd	Channel	Downstream	18.617	16.010	13.63	SWMF ex002	
Check which 013 outlet	Pond Outlet	Upstream	34.128	16.030	13.22	Wetlands 013	Pond Inflow
Check which 013 outlet	Pond Outlet	Outflow	34.126	16.130	13.08	Wetlands 013	Pond Outflow
Check which 013 outlet	Pond Outlet	Link	34.126	16.130	13.08		
Check which 013 outlet	Pond Outlet	Downstream	34.126	16.130	13.08	O-2	
Outlet-4	Pond Outlet	Upstream	18.617	16.010	13.63	SWMF ex002	Pond Inflow
Outlet-4	Pond Outlet	Outflow	0.000	0.000	0.00	SWMF ex002	Pond Outflow
Outlet-4	Pond Outlet	Link	0.000	0.000	0.00		
Outlet-4	Pond Outlet	Downstream	0.000	0.000	0.00	O-4	
SWMF 001 Outlet	Pond Outlet	Upstream	27.397	16.000	34.08	SWMF 001	Pond Inflow
SWMF 001 Outlet	Pond Outlet	Outflow	27.221	24.280	4.35	SWMF 001	Pond Outflow
SWMF 001 Outlet	Pond Outlet	Link	27.221	24.280	4.35		
SWMF 001 Outlet	Pond Outlet	Downstream	34.128	16.030	13.22	Wetlands 013	
SWMF 002A Outlet	Pond Outlet	Upstream	8.211	15.990	10.21	SWMF 002A	Pond Inflow
SWMF 002A Outlet	Pond Outlet	Outflow	8.211	24.100	1.30	SWMF 002A	Pond Outflow
SWMF 002A Outlet	Pond Outlet	Link	8.211	24.100	1.30		
SWMF 002A Outlet	Pond Outlet	Downstream	9.477	21.200	1.89	J-2	

Scenario Calculation Summary

Executive Summary (Links)

Label	Type	Location	Hydrograph Volume (ac-ft)	Peak Time (hours)	Peak Flow (ft ³ /s)	End Point	Node Flow Direction
SWMF 002C Outlet	Pond Outlet	Upstream	1.266	16.000	1.69	SWMF 002C	Pond Inflow
SWMF 002C Outlet	Pond Outlet	Outflow	1.266	20.110	0.60	SWMF 002C	Pond Outflow
SWMF 002C Outlet	Pond Outlet	Link	1.266	20.110	0.60		
SWMF 002C Outlet	Pond Outlet	Downstream	9.477	21.200	1.89	J-2	
SWMF 003A Outlet	Pond Outlet	Upstream	10.626	15.990	13.30	SWMF 003A	Pond Inflow
SWMF 003A Outlet	Pond Outlet	Outflow	10.620	18.500	4.77	SWMF 003A	Pond Outflow
SWMF 003A Outlet	Pond Outlet	Link	10.620	18.500	4.77		
SWMF 003A Outlet	Pond Outlet	Downstream	24.760	16.010	21.86	SWMF 003B	
SWMF 003B Outlet	Pond Outlet	Upstream	24.760	16.010	21.86	SWMF 003B	Pond Inflow
SWMF 003B Outlet	Pond Outlet	Outflow	24.546	24.440	4.31	SWMF 003B	Pond Outflow
SWMF 003B Outlet	Pond Outlet	Link	24.546	24.440	4.31		
SWMF 003B Outlet	Pond Outlet	Downstream	24.546	24.440	4.31	O-6	

Messages

Message Id	15
Scenario	100Yr 1Hr
Element Type	Composite Outlet Structure
Element Id	118
Label	Wetlands 013 Outlet
Time	(N/A)
Message	Kr (reverse flow entrance loss coefficient) was not specified. Kr was set to same value as Ke= 0.200 .
Source	Warning
Message Id	67
Scenario	100Yr 1Hr
Element Type	Composite Outlet Structure
Element Id	118
Label	Wetlands 013 Outlet
Time	(N/A)
Message	Flow direction set to reverse for one ore more structures in composite outlet structure Wetlands 013 Outlet. To eliminate this warning, edit outlet data and select forward only. If reverse flow analysis is required, then the tailwater conditions must be set to interconnected pond.
Source	Warning
Message Id	15
Scenario	100Yr 1Hr
Element Type	Composite Outlet Structure
Element Id	124
Label	SWMF 003B Outlet
Time	(N/A)
Message	Kr (reverse flow entrance loss coefficient) was not specified. Kr was set to same value as Ke= 0.200 .
Source	Warning

Scenario Calculation Summary

Messages

Message Id	2
Scenario	100Yr 1Hr
Element Type	Junction
Element Id	153
Label	J-2
Time	(N/A)
Message	Junction node J-2 is a confluence node. For possible alternatives, see help topic 'Network Configuration for Tailwater Analyses'.
Source	Warning

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	Unit Hydrograph Summary, 100 years	6
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Wetlands 013		

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SWMF 003A Outlet		
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SWMF 003B Outlet		
	Outlet Input Data, 100 years	30
SWMF ex002 Outlet		
	Outlet Input Data, 100 years	33
Wetlands 013 Outlet		
	Outlet Input Data, 100 years	35

Time-Depth Curve: 100YR-24HR

Label	100YR-24HR
Start Time	0.000 hours
Increment	1.000 hours
End Time	24.000 hours
Return Event	100 years

CUMULATIVE RAINFALL (in)
Output Time Increment = 1.000 hours
Time on left represents time for first value in each row.

Time (hours)	Depth (in)	Depth (in)	Depth (in)	Depth (in)	Depth (in)
0.000	0.0	0.2	0.4	0.6	0.8
5.000	1.0	1.2	1.4	1.7	2.0
10.000	2.3	2.7	3.1	3.8	4.5
15.000	5.2	6.0	6.7	7.3	7.7
20.000	8.0	8.2	8.3	8.4	8.6

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.600 hours
Area (User Defined)	46.450 acres
<hr/>	
Computational Time Increment	0.080 hours
Time to Peak (Computed)	16.000 hours
Flow (Peak, Computed)	34.08 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	16.000 hours
Flow (Peak Interpolated Output)	34.08 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	87.600
Area (User Defined)	46.450 acres
Maximum Retention (Pervious)	1.4 in
Maximum Retention (Pervious, 20 percent)	0.3 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	7.1 in
Runoff Volume (Pervious)	27.397 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	27.397 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.600 hours
Computational Time Increment	0.080 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	87.72 ft ³ /s
Unit peak time, Tp	0.400 hours
Unit receding limb, Tr	1.600 hours
Total unit time, Tb	2.000 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.220 hours
Area (User Defined)	12.430 acres
<hr/>	
Computational Time Increment	0.029 hours
Time to Peak (Computed)	15.987 hours
Flow (Peak, Computed)	9.20 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	15.990 hours
Flow (Peak Interpolated Output)	9.20 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	88.500
Area (User Defined)	12.430 acres
Maximum Retention (Pervious)	1.3 in
Maximum Retention (Pervious, 20 percent)	0.3 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	7.2 in
Runoff Volume (Pervious)	7.444 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	7.444 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.220 hours
Computational Time Increment	0.029 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	64.02 ft ³ /s
Unit peak time, Tp	0.147 hours
Unit receding limb, Tr	0.587 hours
Total unit time, Tb	0.733 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.083 hours
Area (User Defined)	3.040 acres
<hr/>	
Computational Time Increment	0.011 hours
Time to Peak (Computed)	16.000 hours
Flow (Peak, Computed)	1.96 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	16.000 hours
Flow (Peak Interpolated Output)	1.96 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	3.040 acres
Maximum Retention (Pervious)	3.5 in
Maximum Retention (Pervious, 20 percent)	0.7 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.4 in
Runoff Volume (Pervious)	1.378 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	1.378 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.083 hours
Computational Time Increment	0.011 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	41.33 ft ³ /s
Unit peak time, Tp	0.056 hours
Unit receding limb, Tr	0.222 hours
Total unit time, Tb	0.278 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.120 hours
Area (User Defined)	0.540 acres
<hr/>	
Computational Time Increment	0.016 hours
Time to Peak (Computed)	16.000 hours
Flow (Peak, Computed)	0.35 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	16.000 hours
Flow (Peak Interpolated Output)	0.35 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	74.000
Area (User Defined)	0.540 acres
Maximum Retention (Pervious)	3.5 in
Maximum Retention (Pervious, 20 percent)	0.7 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.4 in
Runoff Volume (Pervious)	0.245 ac-ft
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Hydrograph Volume (Area under Hydrograph curve)	
Volume	0.245 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.120 hours
Computational Time Increment	0.016 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	5.10 ft ³ /s
Unit peak time, Tp	0.080 hours
Unit receding limb, Tr	0.320 hours
Total unit time, Tb	0.400 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.270 hours
Area (User Defined)	18.140 acres
<hr/>	
Computational Time Increment	0.036 hours
Time to Peak (Computed)	15.984 hours
Flow (Peak, Computed)	13.31 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	15.990 hours
Flow (Peak Interpolated Output)	13.30 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	87.200
Area (User Defined)	18.140 acres
Maximum Retention (Pervious)	1.5 in
Maximum Retention (Pervious, 20 percent)	0.3 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	7.0 in
Runoff Volume (Pervious)	10.626 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	10.626 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.270 hours
Computational Time Increment	0.036 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	76.12 ft ³ /s
Unit peak time, Tp	0.180 hours
Unit receding limb, Tr	0.720 hours
Total unit time, Tb	0.900 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.260 hours
Area (User Defined)	22.330 acres
<hr/>	
Computational Time Increment	0.035 hours
Time to Peak (Computed)	15.981 hours
Flow (Peak, Computed)	16.51 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	15.980 hours
Flow (Peak Interpolated Output)	16.51 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	88.400
Area (User Defined)	22.330 acres
Maximum Retention (Pervious)	1.3 in
Maximum Retention (Pervious, 20 percent)	0.3 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	7.2 in
Runoff Volume (Pervious)	13.350 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	13.350 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.260 hours
Computational Time Increment	0.035 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	97.31 ft ³ /s
Unit peak time, Tp	0.173 hours
Unit receding limb, Tr	0.693 hours
Total unit time, Tb	0.867 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.270 hours
Area (User Defined)	1.900 acres
<hr/>	
Computational Time Increment	0.036 hours
Time to Peak (Computed)	16.020 hours
Flow (Peak, Computed)	1.34 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	16.020 hours
Flow (Peak Interpolated Output)	1.34 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	82.400
Area (User Defined)	1.900 acres
Maximum Retention (Pervious)	2.1 in
Maximum Retention (Pervious, 20 percent)	0.4 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.5 in
Runoff Volume (Pervious)	1.021 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	1.021 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.270 hours
Computational Time Increment	0.036 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	7.97 ft ³ /s
Unit peak time, Tp	0.180 hours
Unit receding limb, Tr	0.720 hours
Total unit time, Tb	0.900 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.240 hours
Area (User Defined)	2.770 acres
<hr/>	
Computational Time Increment	0.032 hours
Time to Peak (Computed)	16.000 hours
Flow (Peak, Computed)	1.95 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	16.000 hours
Flow (Peak Interpolated Output)	1.95 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	81.900
Area (User Defined)	2.770 acres
Maximum Retention (Pervious)	2.2 in
Maximum Retention (Pervious, 20 percent)	0.4 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.4 in
Runoff Volume (Pervious)	1.475 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	1.475 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.240 hours
Computational Time Increment	0.032 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	13.08 ft ³ /s
Unit peak time, Tp	0.160 hours
Unit receding limb, Tr	0.640 hours
Total unit time, Tb	0.800 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.210 hours
Area (User Defined)	2.140 acres
<hr/>	
Computational Time Increment	0.028 hours
Time to Peak (Computed)	16.016 hours
Flow (Peak, Computed)	1.36 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	16.010 hours
Flow (Peak Interpolated Output)	1.36 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	73.300
Area (User Defined)	2.140 acres
Maximum Retention (Pervious)	3.6 in
Maximum Retention (Pervious, 20 percent)	0.7 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.4 in
Runoff Volume (Pervious)	0.955 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	0.955 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.210 hours
Computational Time Increment	0.028 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	11.55 ft ³ /s
Unit peak time, Tp	0.140 hours
Unit receding limb, Tr	0.560 hours
Total unit time, Tb	0.700 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.240 hours
Area (User Defined)	1.430 acres
<hr/>	
Computational Time Increment	0.032 hours
Time to Peak (Computed)	16.000 hours
Flow (Peak, Computed)	1.01 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	16.000 hours
Flow (Peak Interpolated Output)	1.01 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	82.300
Area (User Defined)	1.430 acres
Maximum Retention (Pervious)	2.2 in
Maximum Retention (Pervious, 20 percent)	0.4 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.4 in
Runoff Volume (Pervious)	0.767 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	0.767 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.240 hours
Computational Time Increment	0.032 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	6.75 ft ³ /s
Unit peak time, Tp	0.160 hours
Unit receding limb, Tr	0.640 hours
Total unit time, Tb	0.800 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.330 hours
Area (User Defined)	14.070 acres
<hr/>	
Computational Time Increment	0.044 hours
Time to Peak (Computed)	16.016 hours
Flow (Peak, Computed)	10.05 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	16.010 hours
Flow (Peak Interpolated Output)	10.04 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	83.800
Area (User Defined)	14.070 acres
Maximum Retention (Pervious)	1.9 in
Maximum Retention (Pervious, 20 percent)	0.4 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.6 in
Runoff Volume (Pervious)	7.761 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	7.761 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.330 hours
Computational Time Increment	0.044 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	48.31 ft ³ /s
Unit peak time, Tp	0.220 hours
Unit receding limb, Tr	0.880 hours
Total unit time, Tb	1.100 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.240 hours
Area (User Defined)	1.500 acres
<hr/>	
Computational Time Increment	0.032 hours
Time to Peak (Computed)	16.000 hours
Flow (Peak, Computed)	1.05 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	16.000 hours
Flow (Peak Interpolated Output)	1.05 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	81.300
Area (User Defined)	1.500 acres
Maximum Retention (Pervious)	2.3 in
Maximum Retention (Pervious, 20 percent)	0.5 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	6.3 in
Runoff Volume (Pervious)	0.790 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	0.790 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.240 hours
Computational Time Increment	0.032 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	7.08 ft ³ /s
Unit peak time, Tp	0.160 hours
Unit receding limb, Tr	0.640 hours
Total unit time, Tb	0.800 hours

Storm Event	100YR-24HR
Return Event	100 years
Duration	168.000 hours
Depth	8.6 in
Time of Concentration (Composite)	0.240 hours
Area (User Defined)	12.820 acres
<hr/>	
Computational Time Increment	0.032 hours
Time to Peak (Computed)	16.032 hours
Flow (Peak, Computed)	8.34 ft ³ /s
Output Increment	0.010 hours
Time to Flow (Peak Interpolated Output)	16.030 hours
Flow (Peak Interpolated Output)	8.34 ft ³ /s
<hr/>	
Drainage Area	
SCS CN (Composite)	75.100
Area (User Defined)	12.820 acres
Maximum Retention (Pervious)	3.3 in
Maximum Retention (Pervious, 20 percent)	0.7 in
<hr/>	
Cumulative Runoff	
Cumulative Runoff Depth (Pervious)	5.6 in
Runoff Volume (Pervious)	5.952 ac-ft
<hr/>	
Hydrograph Volume (Area under Hydrograph curve)	
Volume	5.952 ac-ft
<hr/>	
SCS Unit Hydrograph Parameters	
Time of Concentration (Composite)	0.240 hours
Computational Time Increment	0.032 hours
Unit Hydrograph Shape Factor	483.432
K Factor	0.749
Receding/Rising, Tr/Tp	1.670
Unit peak, qp	60.52 ft ³ /s
Unit peak time, Tp	0.160 hours
Unit receding limb, Tr	0.640 hours
Total unit time, Tb	0.800 hours

Elevation-Volume

Pond Elevation (ft)	Pond Volume (ac-ft)
788.50	0.000
789.00	2.061
790.00	6.374
791.00	10.944
792.00	15.774
793.00	20.870
793.50	23.519
794.00	26.236

Elevation-Volume

Pond Elevation (ft)	Pond Volume (ac-ft)
792.20	0.000
793.00	1.279
794.00	3.018
795.00	4.924
795.80	6.574
796.50	8.140

Elevation-Volume

Pond Elevation (ft)	Pond Volume (ac-ft)
792.20	0.000
793.00	0.124
794.00	0.307
795.00	0.526
795.70	0.701
796.70	0.986

Elevation-Volume

Pond Elevation (ft)	Pond Volume (ac-ft)
769.00	0.000
770.00	0.901
771.00	1.917
772.00	3.052
773.00	4.310
774.00	5.694
775.00	7.213

Elevation-Volume

Pond Elevation (ft)	Pond Volume (ac-ft)
764.00	0.000
765.00	2.174
766.00	4.491
767.00	6.955
768.00	9.566
769.00	12.329
770.00	15.247

Elevation-Volume

Pond Elevation (ft)	Pond Volume (ac-ft)
785.50	0.000
786.00	0.261
787.00	2.212
788.00	5.646
789.00	10.487
790.00	16.697
791.00	24.382
792.00	33.762
793.00	44.618

Elevation-Volume

Pond Elevation (ft)	Pond Volume (ac-ft)
783.89	0.000
785.50	0.013
786.00	0.023
787.00	0.086
788.00	0.351
788.20	0.478
789.00	1.434
790.00	3.253

Requested Pond Water Surface Elevations

Minimum (Headwater)	788.50 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	794.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward + Reverse	TW	788.51	794.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Orifice - 1	
Structure Type: Orifice-Circular	
<hr/>	
Number of Openings	1
Elevation	788.30 ft
Orifice Diameter	8.75 in
Orifice Coefficient	0.600

Requested Pond Water Surface Elevations	
Minimum (Headwater)	792.20 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	796.50 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular Tailwater Settings	Orifice - 1 Tailwater	Forward	TW	792.21 (N/A)	796.50 (N/A)

Structure ID: Orifice - 1	
Structure Type: Orifice-Circular	

Number of Openings	1
Elevation	791.70 ft
Orifice Diameter	5.00 in
Orifice Coefficient	0.600

Structure ID: TW	
Structure Type: TW Setup, DS Channel	

Tailwater Type	Free Outfall
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Convergence Tolerances	
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Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s

Requested Pond Water Surface Elevations

Minimum (Headwater)	792.20 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	796.70 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular Tailwater Settings	Orifice - 1 Tailwater	Forward	TW	792.21 (N/A)	796.70 (N/A)

Structure ID: Orifice - 1	
Structure Type: Orifice-Circular	

Number of Openings	1
Elevation	792.00 ft
Orifice Diameter	3.50 in
Orifice Coefficient	0.600

Structure ID: TW	
Structure Type: TW Setup, DS Channel	

Tailwater Type	Free Outfall
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Convergence Tolerances	
------------------------	--

Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s

Requested Pond Water Surface Elevations	
Minimum (Headwater)	769.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	775.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward + Reverse	TW	770.00	775.00
Culvert-Circular	Culvert - 1	Forward + Reverse	TW	769.00	770.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Orifice - 1	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	768.60 ft
Orifice Diameter	9.00 in
Orifice Coefficient	0.600

Structure ID: Culvert - 1	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	12.00 in
Length	30.00 ft
Length (Computed Barrel)	30.00 ft
Slope (Computed)	0.010 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.031
Kr	0.000
Convergence Tolerance	0.00 ft

Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.090
T2 ratio (HW/D)	1.192
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.
 Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	770.09 ft	T1 Flow	2.75 ft ³ /s
T2 Elevation	770.19 ft	T2 Flow	3.14 ft ³ /s

Requested Pond Water Surface Elevations	
Minimum (Headwater)	764.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	770.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	TW	765.00	770.00
Culvert-Circular	Culvert - 1	Forward	TW	764.00	765.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Orifice - 1	
Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	762.90 ft
Orifice Diameter	8.00 in
Orifice Coefficient	0.600

Structure ID: Culvert - 1	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	12.00 in
Length	35.00 ft
Length (Computed Barrel)	35.01 ft
Slope (Computed)	0.020 ft/ft

Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.031
Kr	0.000
Convergence Tolerance	0.00 ft

Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.085
T2 ratio (HW/D)	1.187
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.
 Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	765.09 ft	T1 Flow	2.75 ft ³ /s
T2 Elevation	765.19 ft	T2 Flow	3.14 ft ³ /s

Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall

Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s

Requested Pond Water Surface Elevations

Minimum (Headwater)	786.00 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	793.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Irregular Weir Tailwater Settings	Weir - 1 Tailwater	Forward	TW	792.20 (N/A)	793.00 (N/A)

Structure ID: Weir - 1
Structure Type: Irregular Weir

Station (ft)	Elevation (ft)
0.00	793.00
51.90	792.20
72.20	793.00

Lowest Elevation 792.20 ft
 Weir Coefficient 3.00 (ft^{0.5})/s

Structure ID: TW
 Structure Type: TW Setup, DS Channel

Tailwater Type Free Outfall

Convergence Tolerances

Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s

Requested Pond Water Surface Elevations

Minimum (Headwater)	783.89 ft
Increment (Headwater)	0.10 ft
Maximum (Headwater)	790.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Culvert-Circular	Culvert - 1	Forward	TW	783.89	790.00
Irregular Weir	Weir - 1	Forward	TW	788.30	790.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Structure ID: Culvert - 1	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	10.00 in
Length	45.00 ft
Length (Computed Barrel)	45.00 ft
Slope (Computed)	0.006 ft/ft
Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.040
Kr	0.000
Convergence Tolerance	0.00 ft
Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.092
T2 ratio (HW/D)	1.194
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.
 Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	784.80 ft	T1 Flow	1.74 ft ³ /s
T2 Elevation	784.88 ft	T2 Flow	1.99 ft ³ /s

Structure ID: Weir - 1
Structure Type: Irregular Weir

Station (ft)	Elevation (ft)
0.00	790.00
6.50	789.00
11.10	788.30
52.50	789.00
87.40	790.00

Lowest Elevation 788.30 ft
 Weir Coefficient 3.00 (ft^{0.5})/s

Structure ID: TW
 Structure Type: TW Setup, DS Channel

Tailwater Type Free Outfall

Convergence Tolerances

Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s

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