

Summary for Pond 100.2: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.11 cfs @ 12.00 hrs, Volume= 0.008 af
 Outflow = 0.11 cfs @ 12.00 hrs, Volume= 0.008 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 3.01 hrs, Volume= 0.002 af
 Primary = 0.11 cfs @ 12.00 hrs, Volume= 0.006 af
 Routed to Pond 101 : 2 x 24" Pipe

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 28 sf Storage= 21 cf

Plug-Flow detention time= 72.2 min calculated for 0.008 af (100% of inflow)
 Center-of-Mass det. time= 72.2 min (807.1 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 3.01 hrs HW=997.04' (Free Discharge)
 ↕ **1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.11 cfs @ 12.00 hrs HW=1,000.10' TW=228.96' (Dynamic Tailwater)
 ↕ **2=Dome Grate** (Weir Controls 0.11 cfs @ 1.04 fps)

Summary for Pond 101: 2 x 24" Pipe

Inflow Area = 6.696 ac, 23.36% Impervious, Inflow Depth = 4.68" for 100-Year event
 Inflow = 29.48 cfs @ 12.12 hrs, Volume= 2.612 af
 Outflow = 29.48 cfs @ 12.12 hrs, Volume= 2.612 af, Atten= 0%, Lag= 0.0 min
 Primary = 29.48 cfs @ 12.12 hrs, Volume= 2.612 af
 Routed to Reach 102A : Swale A

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 229.77' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	227.56'	24.00" Round Culvert X 2.00 L= 86.3' Ke= 0.500 Inlet / Outlet Invert= 227.56' / 227.10' S= 0.0053 ' S= 0.0053 ' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=29.44 cfs @ 12.12 hrs HW=229.77' TW=228.25' (Dynamic Tailwater)
 ↑**1=Culvert** (Barrel Controls 29.44 cfs @ 5.29 fps)

Summary for Pond 103.2: Drywell A (1.02 in/hr) (2' Deep)

Inflow Area = 0.023 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af
 Outflow = 0.22 cfs @ 12.01 hrs, Volume= 0.016 af, Atten= 4%, Lag= 0.6 min
 Discarded = 0.00 cfs @ 2.98 hrs, Volume= 0.003 af
 Primary = 0.22 cfs @ 12.01 hrs, Volume= 0.012 af
 Routed to Reach 102B : Swale A

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.28' @ 12.01 hrs Surf.Area= 58 sf Storage= 44 cf

Plug-Flow detention time= 71.4 min calculated for 0.016 af (100% of inflow)
 Center-of-Mass det. time= 71.4 min (806.3 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#2	997.00'	38 cf	Drywell Storage (Prismatic) Listed below (Recalc) 116 cf Overall x 33.0% Voids
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		48 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	58	0	0
999.00	58	116	116

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Orifice C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.98 hrs HW=997.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.22 cfs @ 12.01 hrs HW=1,000.28' TW=225.32' (Dynamic Tailwater)
 ↑2=Dome Orifice (Orifice Controls 0.22 cfs @ 2.55 fps)

Summary for Pond 103.4: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.023 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af
 Outflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 2.87 hrs, Volume= 0.003 af
 Primary = 0.23 cfs @ 12.00 hrs, Volume= 0.012 af
 Routed to Reach 102B : Swale A

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 56 sf Storage= 41 cf

Plug-Flow detention time= 69.7 min calculated for 0.016 af (100% of inflow)
 Center-of-Mass det. time= 69.8 min (804.7 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	x 2.00 = 57 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.87 hrs HW=997.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.23 cfs @ 12.00 hrs HW=1,000.10' TW=225.31' (Dynamic Tailwater)
 ↑2=Dome Grate (Weir Controls 0.23 cfs @ 1.05 fps)

Summary for Pond 105: Forebay A (219.5, 224.6)

Inflow Area = 9.676 ac, 16.64% Impervious, Inflow Depth = 4.26" for 100-Year event
 Inflow = 37.78 cfs @ 12.15 hrs, Volume= 3.438 af
 Outflow = 37.78 cfs @ 12.15 hrs, Volume= 3.438 af, Atten= 0%, Lag= 0.0 min
 Primary = 37.78 cfs @ 12.15 hrs, Volume= 3.438 af
 Routed to Pond 108 : WQ Pond A (219.5, 224.50)(1.02 in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 224.12' @ 12.33 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	222.50'	10.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=35.68 cfs @ 12.15 hrs HW=223.73' TW=223.24' (Dynamic Tailwater)
 ↳ **1=Broad-Crested Rectangular Weir** (Weir Controls 35.68 cfs @ 2.89 fps)

Summary for Pond 108: WQ Pond A (219.5, 224.50)(1.02 in/hr)

Inflow Area = 10.118 ac, 15.91% Impervious, Inflow Depth = 4.23" for 100-Year event
 Inflow = 39.05 cfs @ 12.15 hrs, Volume= 3.569 af
 Outflow = 31.39 cfs @ 12.15 hrs, Volume= 3.557 af, Atten= 20%, Lag= 0.0 min
 Discarded = 0.08 cfs @ 12.35 hrs, Volume= 0.269 af
 Primary = 31.33 cfs @ 12.15 hrs, Volume= 3.288 af
 Routed to Pond 111 : QP Pond A (220, 224.5)(1.02in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 224.04' @ 12.35 hrs Surf.Area= 3,478 sf Storage= 9,539 cf

Plug-Flow detention time= 99.9 min calculated for 3.557 af (100% of inflow)
 Center-of-Mass det. time= 97.7 min (936.8 - 839.0)

Volume	Invert	Avail.Storage	Storage Description
#1	219.50'	11,197 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
219.50	883	0	0
220.00	1,111	499	499
222.00	2,165	3,276	3,775
224.00	3,446	5,611	9,386
224.50	3,801	1,812	11,197

Device	Routing	Invert	Outlet Devices
#1	Discarded	219.50'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	222.20'	51.5' long x 16.0' 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

Discarded OutFlow Max=0.08 cfs @ 12.35 hrs HW=224.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 12.15 hrs HW=223.18' TW=223.26' (Dynamic Tailwater)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 111: QP Pond A (220, 224.5)(1.02in/hr)

Inflow Area = 11.385 ac, 14.14% Impervious, Inflow Depth = 3.92" for 100-Year event
 Inflow = 35.23 cfs @ 12.15 hrs, Volume= 3.715 af
 Outflow = 27.27 cfs @ 12.34 hrs, Volume= 3.715 af, Atten= 23%, Lag= 11.6 min
 Discarded = 0.33 cfs @ 12.34 hrs, Volume= 1.258 af
 Secondary = 26.94 cfs @ 12.34 hrs, Volume= 2.458 af
 Routed to Link 117 : DP-1: NW Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 224.04' @ 12.34 hrs Surf.Area= 14,054 sf Storage= 45,915 cf

Plug-Flow detention time= 462.7 min calculated for 3.715 af (100% of inflow)
 Center-of-Mass det. time= 462.8 min (1,305.2 - 842.4)

Volume	Invert	Avail.Storage	Storage Description
#1	220.00'	52,485 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
220.00	8,776	0	0
222.00	11,271	20,047	20,047
224.00	13,992	25,263	45,310
224.50	14,707	7,175	52,485

Device	Routing	Invert	Outlet Devices
#1	Secondary	223.50'	25.0' long x 14.0' breadth Emergency Overflow Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.64 2.67 2.70 2.65 2.64 2.65 2.65 2.63
#2	Discarded	220.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'

Discarded OutFlow Max=0.33 cfs @ 12.34 hrs HW=224.04' (Free Discharge)
 ↑2=Exfiltration (Exfiltration Controls 0.33 cfs)

Secondary OutFlow Max=26.93 cfs @ 12.34 hrs HW=224.04' TW=0.00' (Dynamic Tailwater)
 ↑1=Emergency Overflow Weir (Weir Controls 26.93 cfs @ 1.98 fps)

Summary for Pond 114.2: Drywell B (1.02 in/hr) (1' Deep)

1193-001-ALLS-PHCD-INHS DP-1,2,4 EMERGENCY Type III 24-hr 100-Year Rainfall=8.50"

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Inflow Area = 0.023 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af
 Outflow = 0.22 cfs @ 12.01 hrs, Volume= 0.016 af, Atten= 4%, Lag= 0.6 min
 Discarded = 0.00 cfs @ 4.97 hrs, Volume= 0.005 af
 Primary = 0.22 cfs @ 12.01 hrs, Volume= 0.011 af
 Routed to Reach 114A : E-Series Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.28' @ 12.01 hrs Surf.Area= 95 sf Storage= 37 cf

Plug-Flow detention time= 49.0 min calculated for 0.016 af (100% of inflow)
 Center-of-Mass det. time= 49.1 min (784.0 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	998.00'	31 cf	Drywell Storage (Prismatic) Listed below (Recalc) 95 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		41 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
998.00	95	0	0
999.00	95	95	95

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	998.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 4.97 hrs HW=998.03' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.22 cfs @ 12.01 hrs HW=1,000.28' TW=247.68' (Dynamic Tailwater)

↑**2=Dome Grate** (Orifice Controls 0.22 cfs @ 2.54 fps)

Summary for Pond 114.4: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.069 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.70 cfs @ 12.00 hrs, Volume= 0.047 af
 Outflow = 0.69 cfs @ 12.00 hrs, Volume= 0.047 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 2.87 hrs, Volume= 0.010 af
 Primary = 0.69 cfs @ 12.00 hrs, Volume= 0.037 af
 Routed to Reach 114A : E-Series Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

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Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 168 sf Storage= 124 cf

Plug-Flow detention time= 69.7 min calculated for 0.047 af (100% of inflow)

Center-of-Mass det. time= 69.8 min (804.7 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	x 6.00 = 172 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 6.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.87 hrs HW=997.04' (Free Discharge)

↑1=**Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.69 cfs @ 12.00 hrs HW=1,000.10' TW=247.68' (Dynamic Tailwater)

↑2=**Dome Grate** (Weir Controls 0.69 cfs @ 1.05 fps)

Summary for Pond 116.1: Drywell A (1.02 in/hr) (2' Deep)

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.47 cfs @ 12.00 hrs, Volume= 0.032 af
 Outflow = 0.45 cfs @ 12.01 hrs, Volume= 0.032 af, Atten= 4%, Lag= 0.6 min
 Discarded = 0.00 cfs @ 2.98 hrs, Volume= 0.007 af
 Primary = 0.45 cfs @ 12.01 hrs, Volume= 0.025 af
 Routed to Link 117 : DP-1: NW Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

Peak Elev= 1,000.28' @ 12.01 hrs Surf.Area= 116 sf Storage= 88 cf

Plug-Flow detention time= 71.4 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 71.4 min (806.3 - 734.9)

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Volume	Invert	Avail.Storage	Storage Description
#1	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#2	997.00'	38 cf	Drywell Storage (Prismatic) Listed below (Recalc) 116 cf Overall x 33.0% Voids
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		48 cf	x 2.00 = 97 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	58	0	0
999.00	58	116	116

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Orifice X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.98 hrs HW=997.04' (Free Discharge)

↑1=**Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.44 cfs @ 12.01 hrs HW=1,000.28' TW=0.00' (Dynamic Tailwater)

↑2=**Dome Orifice** (Orifice Controls 0.44 cfs @ 2.55 fps)

Summary for Pond 116.3: Drywell B (1.02 in/hr) (1' Deep)

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.47 cfs @ 12.00 hrs, Volume= 0.032 af
 Outflow = 0.45 cfs @ 12.01 hrs, Volume= 0.032 af, Atten= 4%, Lag= 0.6 min
 Discarded = 0.00 cfs @ 4.97 hrs, Volume= 0.009 af
 Primary = 0.44 cfs @ 12.01 hrs, Volume= 0.022 af
 Routed to Link 117 : DP-1: NW Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.28' @ 12.01 hrs Surf.Area= 190 sf Storage= 74 cf

Plug-Flow detention time= 49.0 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 49.1 min (784.0 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	998.00'	31 cf	Drywell Storage (Prismatic) Listed below (Recalc) 95 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		41 cf	x 2.00 = 83 cf Total Available Storage

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
998.00	95	0	0
999.00	95	95	95

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	998.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 4.97 hrs HW=998.03' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.44 cfs @ 12.01 hrs HW=1,000.28' TW=0.00' (Dynamic Tailwater)

↑**2=Dome Grate** (Orifice Controls 0.44 cfs @ 2.54 fps)

Summary for Pond 116.5: Drywell C (1.02 in/hr) (0.5' Deep)

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.47 cfs @ 12.00 hrs, Volume= 0.032 af
 Outflow = 0.42 cfs @ 12.02 hrs, Volume= 0.032 af, Atten= 10%, Lag= 1.1 min
 Discarded = 0.01 cfs @ 7.26 hrs, Volume= 0.014 af
 Primary = 0.42 cfs @ 12.02 hrs, Volume= 0.018 af
 Routed to Link 117 : DP-1: NW Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

Peak Elev= 1,000.24' @ 12.02 hrs Surf.Area= 310 sf Storage= 131 cf

Plug-Flow detention time= 63.9 min calculated for 0.032 af (100% of inflow)

Center-of-Mass det. time= 63.9 min (798.8 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	998.50'	26 cf	Drywell Storage (Prismatic) Listed below (Recalc) 78 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	42 cf	6.00'D x 1.50'H Pipe Storage -Impervious
		78 cf	x 2.00 = 156 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
998.50	155	0	0
999.00	155	78	78

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	998.50'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 7.26 hrs HW=998.52' (Free Discharge)

↳ **1=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.41 cfs @ 12.02 hrs HW=1,000.24' TW=0.00' (Dynamic Tailwater)

↳ **2=Dome Grate** (Orifice Controls 0.41 cfs @ 2.38 fps)

Summary for Pond 116.7: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.310 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 3.16 cfs @ 12.00 hrs, Volume= 0.213 af
 Outflow = 3.12 cfs @ 12.00 hrs, Volume= 0.213 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.02 cfs @ 2.88 hrs, Volume= 0.045 af
 Primary = 3.10 cfs @ 12.00 hrs, Volume= 0.168 af
 Routed to Link 117 : DP-1: NW Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 756 sf Storage= 558 cf

Plug-Flow detention time= 69.8 min calculated for 0.213 af (100% of inflow)

Center-of-Mass det. time= 69.8 min (804.8 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	x 27.00 = 772 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 27.00 C= 0.600

Limited to weir flow at low heads

Discarded OutFlow Max=0.02 cfs @ 2.88 hrs HW=997.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=3.08 cfs @ 12.00 hrs HW=1,000.10' TW=0.00' (Dynamic Tailwater)
 ↑2=Dome Grate (Weir Controls 3.08 cfs @ 1.05 fps)

Summary for Pond 116.9: Drywell E (1.02 in/hr) (1' Deep)

Inflow Area = 0.023 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af
 Outflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 4.65 hrs, Volume= 0.005 af
 Primary = 0.23 cfs @ 12.00 hrs, Volume= 0.011 af
 Routed to Link 117 : DP-1: NW Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 90 sf Storage= 34 cf

Plug-Flow detention time= 47.7 min calculated for 0.016 af (100% of inflow)
 Center-of-Mass det. time= 47.7 min (782.6 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	998.00'	15 cf	Drywell Storage (Prismatic) Listed below (Recalc) 45 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		25 cf	x 2.00 = 50 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
998.00	45	0	0
999.00	45	45	45

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	998.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 4.65 hrs HW=998.03' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.23 cfs @ 12.00 hrs HW=1,000.10' TW=0.00' (Dynamic Tailwater)
 ↑2=Dome Grate (Weir Controls 0.23 cfs @ 1.05 fps)

Summary for Pond 201: 12" Pipe

Inflow Area = 0.150 ac, 41.07% Impervious, Inflow Depth = 4.18" for 100-Year event
 Inflow = 0.73 cfs @ 12.09 hrs, Volume= 0.052 af
 Outflow = 0.73 cfs @ 12.09 hrs, Volume= 0.052 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.73 cfs @ 12.09 hrs, Volume= 0.052 af
 Routed to Pond 204 : Forebay B (162.5, 166.25)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 165.72' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	164.57'	12.00" Round Culvert L= 64.8' Ke= 0.500 Inlet / Outlet Invert= 164.57' / 164.25' S= 0.0049 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.63 cfs @ 12.09 hrs HW=165.69' TW=165.65' (Dynamic Tailwater)
 ←1=Culvert (Outlet Controls 0.63 cfs @ 0.90 fps)

Summary for Pond 203.2: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.023 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af
 Outflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 2.87 hrs, Volume= 0.003 af
 Primary = 0.23 cfs @ 12.00 hrs, Volume= 0.012 af
 Routed to Pond 204 : Forebay B (162.5, 166.25)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 56 sf Storage= 41 cf

Plug-Flow detention time= 69.7 min calculated for 0.016 af (100% of inflow)
 Center-of-Mass det. time= 69.8 min (804.7 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	x 2.00 = 57 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

1193-001-ALLS-PHCD-INHS DP-1,2,4 EMERGENCY Type III 24-hr 100-Year Rainfall=8.50"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.87 hrs HW=997.04' (Free Discharge)

↳ **1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.23 cfs @ 12.00 hrs HW=1,000.10' TW=165.54' (Dynamic Tailwater)

↳ **2=Dome Grate** (Weir Controls 0.23 cfs @ 1.05 fps)

Summary for Pond 204: Forebay B (162.5, 166.25)

Inflow Area = 3.518 ac, 28.13% Impervious, Inflow Depth = 4.75" for 100-Year event
 Inflow = 16.81 cfs @ 12.14 hrs, Volume= 1.392 af
 Outflow = 16.81 cfs @ 12.14 hrs, Volume= 1.392 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.63 cfs @ 12.14 hrs, Volume= 0.772 af
 Routed to Pond 206 : WQ Pond B (164, 165.5) (2.41 in/hr)
 Secondary = 15.17 cfs @ 12.14 hrs, Volume= 0.619 af
 Routed to Pond 209 : QP Pond B (163.5, 165.5) (2.41in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

Peak Elev= 165.68' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	164.50'	6.00" Round Culvert X 2.00 L= 15.5' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 164.50' / 164.50' S= 0.0000 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Secondary	165.30'	22.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.63 cfs @ 12.14 hrs HW=165.68' TW=164.53' (Dynamic Tailwater)

↳ **1=Culvert** (Barrel Controls 1.63 cfs @ 4.16 fps)

Secondary OutFlow Max=15.17 cfs @ 12.14 hrs HW=165.68' TW=164.26' (Dynamic Tailwater)

↳ **2=Broad-Crested Rectangular Weir** (Weir Controls 15.17 cfs @ 1.80 fps)

Summary for Pond 206: WQ Pond B (164, 165.5) (2.41 in/hr)

Inflow Area = 3.658 ac, 27.05% Impervious, Inflow Depth = 2.73" for 100-Year event
 Inflow = 2.50 cfs @ 12.00 hrs, Volume= 0.833 af
 Outflow = 2.38 cfs @ 12.03 hrs, Volume= 0.833 af, Atten= 5%, Lag= 1.8 min
 Discarded = 0.22 cfs @ 12.03 hrs, Volume= 0.308 af
 Primary = 2.16 cfs @ 12.03 hrs, Volume= 0.526 af
 Routed to Pond 209 : QP Pond B (163.5, 165.5) (2.41in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

Peak Elev= 164.53' @ 12.03 hrs Surf.Area= 3,878 sf Storage= 1,962 cf

Plug-Flow detention time= 42.3 min calculated for 0.833 af (100% of inflow)

Center-of-Mass det. time= 42.3 min (935.9 - 893.6)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	6,065 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	3,471	0	0
165.50	4,615	6,065	6,065

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	2.410 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	164.45'	35.0' long x 11.3' 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) 2.54 2.60 2.70 2.68 2.67 2.68 2.66 2.64

Discarded OutFlow Max=0.22 cfs @ 12.03 hrs HW=164.53' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.22 cfs)

Primary OutFlow Max=2.16 cfs @ 12.03 hrs HW=164.53' TW=164.12' (Dynamic Tailwater)
 ↑2=Broad-Crested Rectangular Weir (Weir Controls 2.16 cfs @ 0.74 fps)

Summary for Pond 209: QP Pond B (163.5, 165.5) (2.41in/hr)

Inflow Area = 4.703 ac, 21.04% Impervious, Inflow Depth = 3.30" for 100-Year event
 Inflow = 18.11 cfs @ 12.14 hrs, Volume= 1.294 af
 Outflow = 17.71 cfs @ 12.17 hrs, Volume= 1.294 af, Atten= 2%, Lag= 1.5 min
 Discarded = 0.27 cfs @ 12.17 hrs, Volume= 0.225 af
 Primary = 17.44 cfs @ 12.17 hrs, Volume= 1.069 af
 Routed to Link 231 : DP-2: Brushy Brook

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 164.27' @ 12.17 hrs Surf.Area= 4,850 sf Storage= 3,004 cf

Plug-Flow detention time= 13.6 min calculated for 1.294 af (100% of inflow)
 Center-of-Mass det. time= 13.6 min (820.9 - 807.3)

Volume	Invert	Avail.Storage	Storage Description
#1	163.50'	9,797 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.50	2,374	0	0
164.00	4,553	1,732	1,732
165.50	6,201	8,066	9,797

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.50'	2.410 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	163.80'	20.0' long x 20.2' 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

Discarded OutFlow Max=0.27 cfs @ 12.17 hrs HW=164.27' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.27 cfs)

Primary OutFlow Max=17.42 cfs @ 12.17 hrs HW=164.27' TW=0.00' (Dynamic Tailwater)
 ↑2=Broad-Crested Rectangular Weir (Weir Controls 17.42 cfs @ 1.85 fps)

Summary for Pond 211: 12" Pipe

Inflow Area = 0.247 ac, 35.43% Impervious, Inflow Depth = 4.18" for 100-Year event
 Inflow = 1.21 cfs @ 12.09 hrs, Volume= 0.086 af
 Outflow = 1.21 cfs @ 12.09 hrs, Volume= 0.086 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.21 cfs @ 12.09 hrs, Volume= 0.086 af
 Routed to Pond 215 : Forebay C (146, 150.5)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 149.29' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	148.32'	12.00" Round Culvert L= 64.1' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 148.32' / 148.00' S= 0.0050 1' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.07 cfs @ 12.09 hrs HW=149.21' TW=149.05' (Dynamic Tailwater)
 ↑1=Culvert (Outlet Controls 1.07 cfs @ 1.92 fps)

Summary for Pond 215: Forebay C (146, 150.5)

Inflow Area = 0.648 ac, 26.08% Impervious, Inflow Depth = 3.73" for 100-Year event
 Inflow = 2.77 cfs @ 12.09 hrs, Volume= 0.201 af
 Outflow = 2.77 cfs @ 12.09 hrs, Volume= 0.201 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.201 af
 Routed to Pond 218 : WQ Pond C (147.5, 150.5) (8.27in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 149.17' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	148.00'	6.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=149.05' TW=149.08' (Dynamic Tailwater)
 ↑1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 218: WQ Pond C (147.5, 150.5) (8.27in/hr)

Inflow Area = 1.084 ac, 15.60% Impervious, Inflow Depth = 3.04" for 100-Year event
 Inflow = 3.61 cfs @ 12.09 hrs, Volume= 0.275 af
 Outflow = 3.22 cfs @ 12.14 hrs, Volume= 0.275 af, Atten= 11%, Lag= 2.6 min
 Discarded = 0.12 cfs @ 12.14 hrs, Volume= 0.082 af
 Primary = 3.10 cfs @ 12.14 hrs, Volume= 0.193 af
 Routed to Pond 224 : 15" Pipe

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 149.17' @ 12.14 hrs Surf.Area= 638 sf Storage= 699 cf

Plug-Flow detention time= 12.7 min calculated for 0.275 af (100% of inflow)
 Center-of-Mass det. time= 12.8 min (864.4 - 851.7)

Volume	Invert	Avail.Storage	Storage Description
#1	147.50'	1,795 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
147.50	224	0	0
148.00	323	137	137
150.00	862	1,185	1,322
150.50	1,032	474	1,795

Device	Routing	Invert	Outlet Devices
#1	Discarded	147.50'	8.270 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Device 3	148.00'	12.00" Round Culvert L= 45.0' Ke= 0.500 Inlet / Outlet Invert= 148.00' / 147.61' S= 0.0087 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#3	Device 4	147.61'	12.00" Round Culvert L= 129.8' Ke= 0.500 Inlet / Outlet Invert= 147.61' / 144.09' S= 0.0271 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#4	Primary	144.09'	12.00" Round Culvert L= 57.9' Ke= 0.500 Inlet / Outlet Invert= 144.09' / 143.80' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Discarded OutFlow Max=0.12 cfs @ 12.14 hrs HW=149.17' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.12 cfs)

Primary OutFlow Max=3.09 cfs @ 12.14 hrs HW=149.17' TW=144.99' (Dynamic Tailwater)
 ↑4=Culvert (Passes 3.09 cfs of 7.38 cfs potential flow)
 ↑3=Culvert (Passes 3.09 cfs of 3.89 cfs potential flow)
 ↑2=Culvert (Inlet Controls 3.09 cfs @ 3.94 fps)

Summary for Pond 220: 12" Pipe

Inflow Area = 0.144 ac, 25.35% Impervious, Inflow Depth = 4.78" for 100-Year event
 Inflow = 0.81 cfs @ 12.09 hrs, Volume= 0.057 af
 Outflow = 0.81 cfs @ 12.09 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.81 cfs @ 12.09 hrs, Volume= 0.057 af
 Routed to Pond 223A : Bypass

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 146.96' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	146.50'	12.00" Round Culvert L= 38.9' Ke= 0.500 Inlet / Outlet Invert= 146.50' / 145.34' S= 0.0298 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.81 cfs @ 12.09 hrs HW=146.96' TW=144.98' (Dynamic Tailwater)
 ↑**1=Culvert** (Inlet Controls 0.81 cfs @ 2.30 fps)

Summary for Pond 222: 12" Pipe

Inflow Area = 0.166 ac, 22.11% Impervious, Inflow Depth = 4.66" for 100-Year event
 Inflow = 0.85 cfs @ 12.11 hrs, Volume= 0.064 af
 Outflow = 0.85 cfs @ 12.11 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.85 cfs @ 12.11 hrs, Volume= 0.064 af
 Routed to Pond 223A : Bypass

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 146.97' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	146.50'	12.00" Round Culvert L= 17.1' Ke= 0.500 Inlet / Outlet Invert= 146.50' / 144.95' S= 0.0906 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.85 cfs @ 12.11 hrs HW=146.97' TW=145.06' (Dynamic Tailwater)
 ↑**1=Culvert** (Inlet Controls 0.85 cfs @ 2.33 fps)

Summary for Pond 223A: Bypass

Inflow Area = 0.310 ac, 23.62% Impervious, Inflow Depth = 4.71" for 100-Year event
 Inflow = 1.64 cfs @ 12.10 hrs, Volume= 0.122 af
 Outflow = 1.64 cfs @ 12.10 hrs, Volume= 0.122 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.69 cfs @ 12.10 hrs, Volume= 0.069 af
 Routed to Pond 223B : JF4-2-1
 Secondary = 0.97 cfs @ 12.13 hrs, Volume= 0.052 af
 Routed to Pond 224 : 15" Pipe

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 145.07' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	144.17'	12.00" Round WQ Outlet L= 11.9' Ke= 0.500 Inlet / Outlet Invert= 144.17' / 144.17' S= 0.0000 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 3	144.35'	5.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Secondary	143.87'	12.00" Round QP Outlet L= 14.0' Ke= 0.500 Inlet / Outlet Invert= 143.87' / 143.80' S= 0.0050 '/ Cc= 0.900

n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.35 cfs @ 12.10 hrs HW=145.02' TW=145.00' (Dynamic Tailwater)

↑**1=WQ Outlet** (Outlet Controls 0.35 cfs @ 0.67 fps)

Secondary OutFlow Max=1.00 cfs @ 12.13 hrs HW=145.07' TW=145.00' (Dynamic Tailwater)

↑**3=QP Outlet** (Inlet Controls 1.00 cfs @ 1.27 fps)

↑**2=Sharp-Crested Rectangular Weir** (Passes 1.00 cfs of 4.56 cfs potential flow)

Summary for Pond 223B: JF4-2-1

Inflow Area = 0.310 ac, 23.62% Impervious, Inflow Depth = 2.69" for 100-Year event
 Inflow = 0.69 cfs @ 12.10 hrs, Volume= 0.069 af
 Outflow = 0.69 cfs @ 12.10 hrs, Volume= 0.069 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.69 cfs @ 12.10 hrs, Volume= 0.069 af
 Routed to Pond 224 : 15" Pipe

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 145.04' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	144.17'	12.00" Round Culvert L= 12.9' Ke= 0.500 Inlet / Outlet Invert= 144.17' / 143.67' S= 0.0388 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.46 cfs @ 12.10 hrs HW=145.00' TW=144.98' (Dynamic Tailwater)

↑**1=Culvert** (Outlet Controls 0.46 cfs @ 0.88 fps)

Summary for Pond 224: 15" Pipe

Inflow Area = 1.394 ac, 17.38% Impervious, Inflow Depth = 2.71" for 100-Year event
 Inflow = 4.67 cfs @ 12.12 hrs, Volume= 0.314 af
 Outflow = 4.67 cfs @ 12.12 hrs, Volume= 0.314 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.67 cfs @ 12.12 hrs, Volume= 0.314 af
 Routed to Link 231 : DP-2: Brushy Brook

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 145.00' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	143.67'	15.00" Round Culvert L= 69.9' Ke= 0.500 Inlet / Outlet Invert= 143.67' / 143.22' S= 0.0064 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=4.67 cfs @ 12.12 hrs HW=145.00' TW=0.00' (Dynamic Tailwater)

↑**1=Culvert** (Barrel Controls 4.67 cfs @ 4.43 fps)

Summary for Pond 225.2: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.230 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 2.34 cfs @ 12.00 hrs, Volume= 0.158 af
 Outflow = 2.32 cfs @ 12.00 hrs, Volume= 0.158 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.01 cfs @ 2.87 hrs, Volume= 0.033 af
 Primary = 2.30 cfs @ 12.00 hrs, Volume= 0.125 af
 Routed to Pond 226 : Existing Depression Filled in (STA 7+00)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 560 sf Storage= 413 cf

Plug-Flow detention time= 69.7 min calculated for 0.158 af (100% of inflow)
 Center-of-Mass det. time= 69.8 min (804.7 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
			29 cf x 20.00 = 572 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 20.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 2.87 hrs HW=997.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=2.29 cfs @ 12.00 hrs HW=1,000.10' TW=166.03' (Dynamic Tailwater)
 ↑2=Dome Grate (Weir Controls 2.29 cfs @ 1.05 fps)

Summary for Pond 226: Existing Depression Filled in (STA 7+00)

Inflow Area = 4.759 ac, 4.83% Impervious, Inflow Depth = 3.43" for 100-Year event
 Inflow = 12.43 cfs @ 12.26 hrs, Volume= 1.359 af
 Outflow = 7.34 cfs @ 12.55 hrs, Volume= 1.359 af, Atten= 41%, Lag= 17.1 min
 Discarded = 0.06 cfs @ 12.55 hrs, Volume= 0.094 af
 Primary = 7.28 cfs @ 12.55 hrs, Volume= 1.265 af
 Routed to Pond 233 : Existing Depression (STA 6+00)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 166.97' @ 12.55 hrs Surf.Area= 10,233 sf Storage= 13,859 cf

Plug-Flow detention time= 53.9 min calculated for 1.359 af (100% of inflow)
 Center-of-Mass det. time= 53.9 min (906.7 - 852.8)

Volume	Invert	Avail.Storage	Storage Description
#1	165.50'	24,953 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	8,574	0	0
168.00	11,388	24,953	24,953

Device	Routing	Invert	Outlet Devices
#1	Primary	165.50'	18.00" Round Culvert L= 105.7' Ke= 0.500 Inlet / Outlet Invert= 165.50' / 160.00' S= 0.0520 '/ Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Discarded	165.50'	0.270 in/hr Exfiltration TH #95-111 over Surface area Phase-In= 0.01'

Discarded OutFlow Max=0.06 cfs @ 12.55 hrs HW=166.97' (Free Discharge)
 ↖**2=Exfiltration TH #95-111** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=7.28 cfs @ 12.55 hrs HW=166.97' TW=157.69' (Dynamic Tailwater)
 ↖**1=Culvert** (Inlet Controls 7.28 cfs @ 4.13 fps)

Summary for Pond 230.2: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.11 cfs @ 12.00 hrs, Volume= 0.008 af
 Outflow = 0.11 cfs @ 12.00 hrs, Volume= 0.008 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 3.01 hrs, Volume= 0.002 af
 Primary = 0.11 cfs @ 12.00 hrs, Volume= 0.006 af
 Routed to Link 231 : DP-2: Brushy Brook

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 28 sf Storage= 21 cf

Plug-Flow detention time= 72.2 min calculated for 0.008 af (100% of inflow)
 Center-of-Mass det. time= 72.2 min (807.1 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	Total Available Storage

1193-001-ALLS-PHCD-INHS DP-1,2,4 EMERGENCY Type III 24-hr 100-Year Rainfall=8.50"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 3.01 hrs HW=997.04' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.11 cfs @ 12.00 hrs HW=1,000.10' TW=0.00' (Dynamic Tailwater)

↑**2=Dome Grate** (Weir Controls 0.11 cfs @ 1.04 fps)

Summary for Pond 233: Existing Depression (STA 6+00)

Inflow Area = 5.241 ac, 4.39% Impervious, Inflow Depth = 3.01" for 100-Year event
 Inflow = 7.46 cfs @ 12.52 hrs, Volume= 1.316 af
 Outflow = 0.12 cfs @ 24.89 hrs, Volume= 0.670 af, Atten= 98%, Lag= 742.2 min
 Discarded = 0.12 cfs @ 24.89 hrs, Volume= 0.670 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 231 : DP-2: Brushy Brook

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 164.42' @ 24.89 hrs Surf.Area= 10,026 sf Storage= 52,234 cf

Plug-Flow detention time= 2,395.2 min calculated for 0.670 af (51% of inflow)
 Center-of-Mass det. time= 2,266.5 min (3,156.9 - 890.4)

Volume	Invert	Avail.Storage	Storage Description
#1	152.00'	70,779 cf	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
152.00	140	45.0	0	0	140
154.00	1,344	144.0	1,279	1,279	1,641
156.00	2,942	203.0	4,183	5,462	3,307
158.00	4,034	248.0	6,947	12,409	4,983
160.00	5,104	274.0	9,117	21,526	6,183
162.00	6,330	305.0	11,412	32,938	7,724
164.00	9,050	395.0	15,299	48,237	12,786
165.00	11,460	513.0	10,231	58,468	21,325
166.00	13,181	524.0	12,310	70,779	22,370

Device	Routing	Invert	Outlet Devices
#1	Discarded	152.00'	0.520 in/hr Exfiltration TH #95-105 over Surface area Phase-In= 0.01'
#2	Primary	165.00'	Grass Weir, Cv= 2.62 (C= 3.28) Head (feet) 0.00 1.00 2.00 Width (feet) 4.00 36.00 85.00

Discarded OutFlow Max=0.12 cfs @ 24.89 hrs HW=164.42' (Free Discharge)
 ↳1=Exfiltration TH #95-105 (Exfiltration Controls 0.12 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=152.00' TW=0.00' (Dynamic Tailwater)
 ↳2=Grass Weir (Controls 0.00 cfs)

Summary for Pond 235: Existing Depression (STA 4+00)

Inflow Area = 0.442 ac, 0.00% Impervious, Inflow Depth = 1.37" for 100-Year event
 Inflow = 0.51 cfs @ 12.11 hrs, Volume= 0.051 af
 Outflow = 0.02 cfs @ 19.78 hrs, Volume= 0.051 af, Atten= 96%, Lag= 459.9 min
 Discarded = 0.02 cfs @ 19.78 hrs, Volume= 0.051 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 231 : DP-2: Brushy Brook

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 148.88' @ 19.78 hrs Surf.Area= 1,800 sf Storage= 1,343 cf

Plug-Flow detention time= 716.0 min calculated for 0.051 af (100% of inflow)
 Center-of-Mass det. time= 716.0 min (1,620.8 - 904.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	148.00'	18,588 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
148.00	1,274	143.0	0	0	1,274
150.00	2,605	198.0	3,800	3,800	2,805
152.00	3,640	228.0	6,216	10,017	3,908
154.00	4,966	280.0	8,572	18,588	6,070

Device	Routing	Invert	Outlet Devices
#1	Discarded	148.00'	0.520 in/hr Exfiltration TH #95-100 over Surface area Phase-In= 0.01'
#2	Primary	153.00'	Grass Weir, Cv= 2.62 (C= 3.28) Head (feet) 0.00 1.00 3.00 Width (feet) 1.00 17.00 99.00

Discarded OutFlow Max=0.02 cfs @ 19.78 hrs HW=148.88' (Free Discharge)
 ↳1=Exfiltration TH #95-100 (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=148.00' TW=0.00' (Dynamic Tailwater)
 ↳2=Grass Weir (Controls 0.00 cfs)

Summary for Pond 363.2: Drywell A (1.02 in/hr) (2' Deep)

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.47 cfs @ 12.00 hrs, Volume= 0.032 af
 Outflow = 0.45 cfs @ 12.01 hrs, Volume= 0.032 af, Atten= 4%, Lag= 0.6 min
 Discarded = 0.00 cfs @ 2.98 hrs, Volume= 0.007 af
 Primary = 0.45 cfs @ 12.01 hrs, Volume= 0.025 af
 Routed to Pond 364 : Existing Depression (STA 19+00)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.28' @ 12.01 hrs Surf.Area= 116 sf Storage= 88 cf

Plug-Flow detention time= 71.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 71.4 min (806.3 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#2	997.00'	38 cf	Drywell Storage (Prismatic) Listed below (Recalc) 116 cf Overall x 33.0% Voids
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		48 cf	x 2.00 = 97 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	58	0	0
999.00	58	116	116

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Orifice X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.98 hrs HW=997.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.44 cfs @ 12.01 hrs HW=1,000.28' TW=202.64' (Dynamic Tailwater)
 ↑2=Dome Orifice (Orifice Controls 0.44 cfs @ 2.55 fps)

Summary for Pond 363.4: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.080 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.81 cfs @ 12.00 hrs, Volume= 0.055 af
 Outflow = 0.81 cfs @ 12.00 hrs, Volume= 0.055 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 2.89 hrs, Volume= 0.012 af
 Primary = 0.80 cfs @ 12.00 hrs, Volume= 0.043 af
 Routed to Pond 364 : Existing Depression (STA 19+00)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 196 sf Storage= 145 cf

Plug-Flow detention time= 70.1 min calculated for 0.055 af (100% of inflow)
 Center-of-Mass det. time= 70.1 min (805.0 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	x 7.00 = 200 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 7.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.89 hrs HW=997.04' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.80 cfs @ 12.00 hrs HW=1,000.10' TW=202.62' (Dynamic Tailwater)
 ↑**2=Dome Grate** (Weir Controls 0.80 cfs @ 1.05 fps)

Summary for Pond 364: Existing Depression (STA 19+00)

Inflow Area = 7.066 ac, 1.78% Impervious, Inflow Depth = 3.30" for 100-Year event
 Inflow = 17.14 cfs @ 12.31 hrs, Volume= 1.946 af
 Outflow = 4.94 cfs @ 12.90 hrs, Volume= 1.946 af, Atten= 71%, Lag= 35.5 min
 Primary = 4.94 cfs @ 12.90 hrs, Volume= 1.946 af
 Routed to Reach 364A : To DP-2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 204.87' @ 12.90 hrs Surf.Area= 17,633 sf Storage= 24,875 cf

Plug-Flow detention time= 44.5 min calculated for 1.946 af (100% of inflow)
 Center-of-Mass det. time= 44.5 min (906.5 - 862.0)

Volume	Invert	Avail.Storage	Storage Description
#1	201.53'	50,140 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
201.53	12	0	0
204.00	10,279	12,709	12,709
206.00	27,152	37,431	50,140

Device	Routing	Invert	Outlet Devices
#1	Device 2	201.53'	12.00" Round Culvert L= 124.4' Ke= 0.500 Inlet / Outlet Invert= 201.53' / 200.91' S= 0.0050 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 3	200.91'	12.00" Round Culvert L= 169.0' Ke= 0.500 Inlet / Outlet Invert= 200.91' / 197.00' S= 0.0231 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#3	Device 4	197.00'	12.00" Round Culvert L= 160.0' Ke= 0.500 Inlet / Outlet Invert= 197.00' / 193.80' S= 0.0200 '/ Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#4	Primary	193.80'	12.00" Round Culvert L= 146.7' Ke= 0.500 Inlet / Outlet Invert= 193.80' / 193.21' S= 0.0040 '/ Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=4.94 cfs @ 12.90 hrs HW=204.87' TW=196.00' (Dynamic Tailwater)

- ↑ **4=Culvert** (Passes 4.94 cfs of 8.06 cfs potential flow)
- ↑ **3=Culvert** (Passes 4.94 cfs of 7.81 cfs potential flow)
- ↑ **2=Culvert** (Passes 4.94 cfs of 6.73 cfs potential flow)
- ↑ **1=Culvert** (Barrel Controls 4.94 cfs @ 6.29 fps)

Summary for Pond 400.2: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.069 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.70 cfs @ 12.00 hrs, Volume= 0.047 af
 Outflow = 0.69 cfs @ 12.00 hrs, Volume= 0.047 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 2.87 hrs, Volume= 0.010 af
 Primary = 0.69 cfs @ 12.00 hrs, Volume= 0.037 af
 Routed to Link 401 : DP-4: NE Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 168 sf Storage= 124 cf

Plug-Flow detention time= 69.7 min calculated for 0.047 af (100% of inflow)
 Center-of-Mass det. time= 69.8 min (804.7 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	x 6.00 = 172 cf Total Available Storage

1193-001-ALLS-PHCD-INHS DP-1,2,4 EMERGENCY Type III 24-hr 100-Year Rainfall=8.50"

Prepared by DiPrete Engineering

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 6.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.87 hrs HW=997.04' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.69 cfs @ 12.00 hrs HW=1,000.10' TW=0.00' (Dynamic Tailwater)

↑**2=Dome Grate** (Weir Controls 0.69 cfs @ 1.05 fps)

Summary for Pond 505: Culvert

Inflow Area = 239.082 ac, 3.23% Impervious, Inflow Depth = 3.00" for 100-Year event
 Inflow = 347.30 cfs @ 12.88 hrs, Volume= 59.725 af
 Outflow = 347.30 cfs @ 12.88 hrs, Volume= 59.725 af, Atten= 0%, Lag= 0.0 min
 Primary = 85.24 cfs @ 12.88 hrs, Volume= 39.622 af
 Routed to Link 506 : Site Convergence
 Secondary = 262.06 cfs @ 12.88 hrs, Volume= 20.103 af
 Routed to Link 506 : Site Convergence

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

Peak Elev= 141.92' @ 12.88 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	128.00'	18.00" Round Culvert L= 30.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 128.00' / 125.00' S= 0.1000 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Primary	128.00'	24.00" Round Culvert L= 30.0' RCP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 128.00' / 125.00' S= 0.1000 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#3	Secondary	139.00'	20.0' long x 24.0' breadth Road 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

1193-001-ALLS-PHCD-INHS DP-1,2,4 EMERGENCY Type III 24-hr 100-Year Rainfall=8.50"

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Primary OutFlow Max=85.24 cfs @ 12.88 hrs HW=141.92' TW=0.00' (Dynamic Tailwater)

└─**1=Culvert** (Inlet Controls 30.88 cfs @ 17.47 fps)

└─**2=Culvert** (Inlet Controls 54.37 cfs @ 17.31 fps)

Secondary OutFlow Max=262.03 cfs @ 12.88 hrs HW=141.92' TW=0.00' (Dynamic Tailwater)

└─**3=Road** (Weir Controls 262.03 cfs @ 4.49 fps)

1193-001-ALLS-PHCD-INHS DP-3 EMERGENCY

Type III 24-hr 100-Year Rainfall=8.50"

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Time span=0.00-100.00 hrs, dt=0.01 hrs, 10001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 301.2: Drywell A (1.02 in/hr) (2' Deep) Peak Elev=1,000.28' Storage=88 cf Inflow=0.47 cfs 0.032 af
 Discarded=0.00 cfs 0.007 af Primary=0.45 cfs 0.025 af Outflow=0.45 cfs 0.032 af

Pond 301.4: Drywell B (1.02 in/hr) (1' Deep) Peak Elev=1,000.28' Storage=111 cf Inflow=0.70 cfs 0.047 af
 Discarded=0.01 cfs 0.014 af Primary=0.67 cfs 0.033 af Outflow=0.67 cfs 0.047 af

Pond 301.6: Drywell D (1.02 in/hr) (2' Deep) Peak Elev=1,000.10' Storage=103 cf Inflow=0.58 cfs 0.039 af
 Discarded=0.00 cfs 0.008 af Primary=0.57 cfs 0.031 af Outflow=0.57 cfs 0.039 af

Pond 302: 3 x 15" Pipe Peak Elev=379.58' Inflow=15.19 cfs 2.052 af
 15.00" Round Culvert x 3.00 n=0.012 L=42.0' S=0.0050 '/' Outflow=15.19 cfs 2.052 af

Pond 304.2: Drywell D (1.02 in/hr) (2' Deep) Peak Elev=1,000.10' Storage=103 cf Inflow=0.58 cfs 0.039 af
 Discarded=0.00 cfs 0.008 af Primary=0.57 cfs 0.031 af Outflow=0.57 cfs 0.039 af

Pond 306: Forebay D North (367.5, 371) Peak Elev=370.30' Inflow=18.47 cfs 2.689 af
 Primary=2.07 cfs 1.050 af Secondary=16.95 cfs 1.639 af Outflow=18.47 cfs 2.689 af

Pond 308: 2 x 18" Pipe Peak Elev=369.71' Inflow=6.75 cfs 0.482 af
 18.00" Round Culvert x 2.00 n=0.013 L=59.0' S=0.0049 '/' Outflow=6.75 cfs 0.482 af

Pond 311: Forebay D South (364, 370) Peak Elev=369.70' Inflow=12.29 cfs 0.890 af
 Outflow=12.29 cfs 0.888 af

Pond 313.2: Drywell D (1.02 in/hr) (2' Deep) Peak Elev=1,000.10' Storage=41 cf Inflow=0.23 cfs 0.016 af
 Discarded=0.00 cfs 0.003 af Primary=0.23 cfs 0.012 af Outflow=0.23 cfs 0.016 af

Pond 314: WQ Pond D (365.5, Peak Elev=369.70' Storage=16,505 cf Inflow=16.90 cfs 2.158 af
 Discarded=0.34 cfs 0.661 af Primary=7.49 cfs 1.495 af Outflow=7.75 cfs 2.156 af

Pond 317: QP Pond D (366.5, 370.25) (2.41 Peak Elev=369.70' Storage=37,536 cf Inflow=25.37 cfs 3.431 af
 Discarded=0.88 cfs 1.551 af Secondary=21.32 cfs 1.880 af Outflow=22.20 cfs 3.431 af

Pond 319: 15" Pipe Peak Elev=381.74' Inflow=2.99 cfs 0.213 af
 15.00" Round Culvert n=0.013 L=100.5' S=0.0343 '/' Outflow=2.99 cfs 0.213 af

Pond 321.2: Drywell D (1.02 in/hr) (2' Deep) Peak Elev=1,000.10' Storage=21 cf Inflow=0.11 cfs 0.008 af
 Discarded=0.00 cfs 0.002 af Primary=0.11 cfs 0.006 af Outflow=0.11 cfs 0.008 af

Pond 322: 24" Pipe Peak Elev=296.66' Inflow=16.26 cfs 1.237 af
 24.00" Round Culvert n=0.013 L=110.5' S=0.0308 '/' Outflow=16.26 cfs 1.237 af

Pond 325.2: Drywell E (1.02 in/hr) (1' Deep) Peak Elev=1,000.10' Storage=68 cf Inflow=0.47 cfs 0.032 af
 Discarded=0.00 cfs 0.009 af Primary=0.46 cfs 0.023 af Outflow=0.46 cfs 0.032 af

Pond 326: Forebay E (277.5, 282) Peak Elev=281.03' Inflow=28.37 cfs 2.163 af
 Primary=11.43 cfs 1.479 af Secondary=16.93 cfs 0.684 af Outflow=28.37 cfs 2.163 af

- Pond 328.2: Drywell A (1.02 in/hr) (2' Deep)** Peak Elev=1,000.28' Storage=44 cf Inflow=0.23 cfs 0.016 af
 Discarded=0.00 cfs 0.003 af Primary=0.22 cfs 0.012 af Outflow=0.22 cfs 0.016 af
- Pond 328.4: Drywell D (1.02 in/hr) (2' Deep)** Peak Elev=1,000.10' Storage=62 cf Inflow=0.35 cfs 0.023 af
 Discarded=0.00 cfs 0.005 af Primary=0.34 cfs 0.018 af Outflow=0.34 cfs 0.023 af
- Pond 329: WQ Pond E (279, 282)(1.02in/hr)** Peak Elev=280.79' Storage=4,916 cf Inflow=15.16 cfs 1.793 af
 Discarded=0.08 cfs 0.202 af Primary=15.04 cfs 1.590 af Outflow=15.12 cfs 1.793 af
- Pond 332: QP Pond E (276.50, 281.33)** Peak Elev=280.30' Storage=50,413 cf Inflow=33.99 cfs 2.546 af
 Discarded=0.39 cfs 1.473 af Secondary=10.98 cfs 1.073 af Outflow=11.37 cfs 2.546 af
- Pond 334.2: Drywell A (1.02 in/hr) (2' Deep)** Peak Elev=1,000.28' Storage=264 cf Inflow=1.41 cfs 0.095 af
 Discarded=0.01 cfs 0.021 af Primary=1.34 cfs 0.074 af Outflow=1.34 cfs 0.095 af
- Pond 334.4: Drywell B (1.02 in/hr) (1' Deep)** Peak Elev=1,000.28' Storage=37 cf Inflow=0.23 cfs 0.016 af
 Discarded=0.00 cfs 0.005 af Primary=0.22 cfs 0.011 af Outflow=0.22 cfs 0.016 af
- Pond 334.6: Drywell D (1.02 in/hr) (2' Deep)** Peak Elev=1,000.10' Storage=620 cf Inflow=3.51 cfs 0.237 af
 Discarded=0.02 cfs 0.050 af Primary=3.45 cfs 0.187 af Outflow=3.47 cfs 0.237 af
- Pond 334.8: Drywell E (1.02 in/hr) (1' Deep)** Peak Elev=1,000.10' Storage=34 cf Inflow=0.23 cfs 0.016 af
 Discarded=0.00 cfs 0.005 af Primary=0.23 cfs 0.011 af Outflow=0.23 cfs 0.016 af
- Pond 336: 3 x 30" Pipe** Peak Elev=311.14' Inflow=58.83 cfs 4.785 af
 30.00" Round Culvert x 3.00 n=0.012 L=42.2' S=0.0751 '/' Outflow=58.83 cfs 4.785 af
- Pond 339.2: Drywell D (1.02 in/hr) (2' Deep)** Peak Elev=1,000.10' Storage=21 cf Inflow=0.11 cfs 0.008 af
 Discarded=0.00 cfs 0.002 af Primary=0.11 cfs 0.006 af Outflow=0.11 cfs 0.008 af
- Pond 341: Forebay F East (284.0, 289)** Peak Elev=288.07' Inflow=64.82 cfs 5.297 af
 Primary=2.57 cfs 1.751 af Secondary=62.25 cfs 3.546 af Outflow=64.82 cfs 5.297 af
- Pond 342.2: Drywell C (1.02 in/hr) (0.5' Deep)** Peak Elev=1,000.10' Storage=117 cf Inflow=0.23 cfs 0.016 af
 Discarded=0.01 cfs 0.010 af Primary=0.22 cfs 0.005 af Outflow=0.23 cfs 0.016 af
- Pond 343: 2X 15" Pipe** Peak Elev=309.86' Inflow=12.27 cfs 0.901 af
 15.00" Round Culvert x 2.00 n=0.012 L=44.8' S=0.0049 '/' Outflow=12.27 cfs 0.901 af
- Pond 347: Forebay F West (278, 287)** Peak Elev=286.81' Inflow=15.17 cfs 1.178 af
 Primary=1.07 cfs 0.092 af Secondary=15.17 cfs 1.084 af Outflow=15.17 cfs 1.176 af
- Pond 349.2: Drywell A (1.02 in/hr) (2' Deep)** Peak Elev=1,000.28' Storage=44 cf Inflow=0.23 cfs 0.016 af
 Discarded=0.00 cfs 0.003 af Primary=0.22 cfs 0.012 af Outflow=0.22 cfs 0.016 af
- Pond 349.4: Drywell D (1.02 in/hr) (2' Deep)** Peak Elev=1,000.10' Storage=83 cf Inflow=0.47 cfs 0.032 af
 Discarded=0.00 cfs 0.007 af Primary=0.46 cfs 0.025 af Outflow=0.46 cfs 0.032 af
- Pond 350: WQ Pond F (283, 287)(2.41in/hr)** Peak Elev=286.79' Storage=18,154 cf Inflow=6.89 cfs 2.204 af
 Discarded=0.37 cfs 0.744 af Primary=7.03 cfs 1.460 af Outflow=7.40 cfs 2.204 af
- Pond 352: QP Pond F (280, 287.1) (2.41** Peak Elev=286.81' Storage=94,693 cf Inflow=83.39 cfs 6.308 af
 Discarded=0.00 cfs 0.000 af Secondary=39.81 cfs 4.503 af Outflow=39.81 cfs 4.503 af

- Pond 352.2: Drywell D (1.02 in/hr) (2' Deep)** Peak Elev=1,000.10' Storage=124 cf Inflow=0.70 cfs 0.047 af
Discarded=0.00 cfs 0.010 af Primary=0.69 cfs 0.037 af Outflow=0.69 cfs 0.047 af
- Pond 352.4: Drywell H (1.02 in/hr) (2' Deep)** Peak Elev=1,000.10' Storage=1,487 cf Inflow=4.44 cfs 0.300 af
Discarded=0.05 cfs 0.119 af Primary=4.34 cfs 0.181 af Outflow=4.39 cfs 0.300 af
- Pond 353.2: Drywell B (1.02 in/hr) (1' Deep)** Peak Elev=1,000.28' Storage=111 cf Inflow=0.70 cfs 0.047 af
Discarded=0.01 cfs 0.014 af Primary=0.67 cfs 0.033 af Outflow=0.67 cfs 0.047 af
- Pond 356.2: Drywell A (1.02 in/hr) (2' Deep)** Peak Elev=1,000.28' Storage=132 cf Inflow=0.70 cfs 0.047 af
Discarded=0.00 cfs 0.010 af Primary=0.67 cfs 0.037 af Outflow=0.67 cfs 0.047 af
- Pond 356.4: Drywell C (1.02 in/hr) (0.5' Deep)** Peak Elev=1,000.24' Storage=66 cf Inflow=0.23 cfs 0.016 af
Discarded=0.00 cfs 0.007 af Primary=0.21 cfs 0.009 af Outflow=0.21 cfs 0.016 af
- Pond 356.6: Drywell D (1.02 in/hr) (2' Deep)** Peak Elev=1,000.07' Storage=596 cf Inflow=1.75 cfs 0.118 af
Discarded=0.02 cfs 0.047 af Primary=1.71 cfs 0.072 af Outflow=1.73 cfs 0.118 af
- Pond 357: Forebay G (162.5, 167.5)** Peak Elev=166.20' Inflow=36.60 cfs 4.101 af
Primary=9.43 cfs 2.293 af Secondary=27.17 cfs 1.808 af Outflow=36.60 cfs 4.101 af
- Pond 359: WQ Pond G (162, 165.75)** Peak Elev=164.97' Storage=9,764 cf Inflow=9.85 cfs 2.356 af
Discarded=0.24 cfs 0.448 af Primary=9.50 cfs 1.907 af Outflow=9.68 cfs 2.356 af
- Pond 362: QP Pond G (161, 165.75) (2.41** Peak Elev=164.97' Storage=106,329 cf Inflow=44.59 cfs 4.866 af
Discarded=1.71 cfs 3.891 af Secondary=5.39 cfs 0.976 af Outflow=7.10 cfs 4.866 af
- Pond 365.2: Drywell G (1.02 in/hr) (1' Deep)** Peak Elev=1,000.27' Storage=68 cf Inflow=0.23 cfs 0.016 af
Discarded=0.00 cfs 0.008 af Primary=0.22 cfs 0.008 af Outflow=0.22 cfs 0.016 af
- Pond 365.4: Drywell F (1.02 in/hr) (2' Deep)** Peak Elev=1,000.28' Storage=575 cf Inflow=1.64 cfs 0.111 af
Discarded=0.02 cfs 0.045 af Primary=1.55 cfs 0.066 af Outflow=1.57 cfs 0.111 af

Summary for Pond 301.2: Drywell A (1.02 in/hr) (2' Deep)

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.47 cfs @ 12.00 hrs, Volume= 0.032 af
 Outflow = 0.45 cfs @ 12.01 hrs, Volume= 0.032 af, Atten= 4%, Lag= 0.6 min
 Discarded = 0.00 cfs @ 2.98 hrs, Volume= 0.007 af
 Primary = 0.45 cfs @ 12.01 hrs, Volume= 0.025 af
 Routed to Pond 302 : 3 x 15" Pipe

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.28' @ 12.01 hrs Surf.Area= 116 sf Storage= 88 cf

Plug-Flow detention time= 71.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 71.4 min (806.3 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#2	997.00'	38 cf	Drywell Storage (Prismatic) Listed below (Recalc) 116 cf Overall x 33.0% Voids
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		48 cf	x 2.00 = 97 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	58	0	0
999.00	58	116	116

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Orifice X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.98 hrs HW=997.04' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.44 cfs @ 12.01 hrs HW=1,000.28' TW=378.93' (Dynamic Tailwater)
 ↑**2=Dome Orifice** (Orifice Controls 0.44 cfs @ 2.55 fps)

Summary for Pond 301.4: Drywell B (1.02 in/hr) (1' Deep)

Inflow Area = 0.069 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.70 cfs @ 12.00 hrs, Volume= 0.047 af
 Outflow = 0.67 cfs @ 12.01 hrs, Volume= 0.047 af, Atten= 4%, Lag= 0.6 min
 Discarded = 0.01 cfs @ 4.97 hrs, Volume= 0.014 af
 Primary = 0.67 cfs @ 12.01 hrs, Volume= 0.033 af
 Routed to Pond 302 : 3 x 15" Pipe

1193-001-ALLS-PHCD-INHS DP-3 EMERGENCY

Type III 24-hr 100-Year Rainfall=8.50"

Prepared by DiPrete Engineering

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.28' @ 12.01 hrs Surf.Area= 285 sf Storage= 111 cf

Plug-Flow detention time= 49.0 min calculated for 0.047 af (100% of inflow)
 Center-of-Mass det. time= 49.1 min (784.0 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	998.00'	31 cf	Drywell Storage (Prismatic) Listed below (Recalc) 95 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		41 cf	x 3.00 = 124 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
998.00	95	0	0
999.00	95	95	95

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	998.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 3.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 4.97 hrs HW=998.03' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.66 cfs @ 12.01 hrs HW=1,000.28' TW=378.93' (Dynamic Tailwater)
 ↑2=Dome Grate (Orifice Controls 0.66 cfs @ 2.54 fps)

Summary for Pond 301.6: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.057 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.58 cfs @ 12.00 hrs, Volume= 0.039 af
 Outflow = 0.57 cfs @ 12.00 hrs, Volume= 0.039 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 2.90 hrs, Volume= 0.008 af
 Primary = 0.57 cfs @ 12.00 hrs, Volume= 0.031 af
 Routed to Pond 302 : 3 x 15" Pipe

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 140 sf Storage= 103 cf

Plug-Flow detention time= 70.2 min calculated for 0.039 af (100% of inflow)
 Center-of-Mass det. time= 70.2 min (805.1 - 734.9)

1193-001-ALLS-PHCD-INHS DP-3 EMERGENCY

Type III 24-hr 100-Year Rainfall=8.50"

Prepared by DiPrete Engineering

Printed 4/5/2022

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Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	x 5.00 = 143 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 5.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.90 hrs HW=997.04' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.57 cfs @ 12.00 hrs HW=1,000.10' TW=378.91' (Dynamic Tailwater)

↑**2=Dome Grate** (Weir Controls 0.57 cfs @ 1.05 fps)

Summary for Pond 302: 3 x 15" Pipe

Inflow Area = 7.045 ac, 5.31% Impervious, Inflow Depth = 3.49" for 100-Year event
 Inflow = 15.19 cfs @ 12.38 hrs, Volume= 2.052 af
 Outflow = 15.19 cfs @ 12.38 hrs, Volume= 2.052 af, Atten= 0%, Lag= 0.0 min
 Primary = 15.19 cfs @ 12.38 hrs, Volume= 2.052 af
 Routed to Reach 303A : Swale D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 379.58' @ 12.38 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	378.00'	15.00" Round Culvert X 3.00 L= 42.0' CMP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 378.00' / 377.79' S= 0.0050 '/ Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=15.19 cfs @ 12.38 hrs HW=379.58' TW=378.50' (Dynamic Tailwater)

↑**1=Culvert** (Barrel Controls 15.19 cfs @ 4.21 fps)

1193-001-ALLS-PHCD-INHS DP-3 EMERGENCY

Type III 24-hr 100-Year Rainfall=8.50"

Prepared by DiPrete Engineering

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Summary for Pond 304.2: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.057 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.58 cfs @ 12.00 hrs, Volume= 0.039 af
 Outflow = 0.57 cfs @ 12.00 hrs, Volume= 0.039 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 2.90 hrs, Volume= 0.008 af
 Primary = 0.57 cfs @ 12.00 hrs, Volume= 0.031 af
 Routed to Reach 303B : Swale D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 140 sf Storage= 103 cf

Plug-Flow detention time= 70.2 min calculated for 0.039 af (100% of inflow)
 Center-of-Mass det. time= 70.2 min (805.1 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	x 5.00 = 143 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 5.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.90 hrs HW=997.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.57 cfs @ 12.00 hrs HW=1,000.10' TW=370.91' (Dynamic Tailwater)
 ↑2=Dome Grate (Weir Controls 0.57 cfs @ 1.05 fps)

Summary for Pond 306: Forebay D North (367.5, 371)

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Type III 24-hr 100-Year Rainfall=8.50"

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Inflow Area = 8.943 ac, 6.53% Impervious, Inflow Depth = 3.61" for 100-Year event
 Inflow = 18.47 cfs @ 12.36 hrs, Volume= 2.689 af
 Outflow = 18.47 cfs @ 12.36 hrs, Volume= 2.689 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.07 cfs @ 12.11 hrs, Volume= 1.050 af
 Routed to Pond 314 : WQ Pond D (365.5, 370.25)(2.41in/hr)
 Secondary = 16.95 cfs @ 12.37 hrs, Volume= 1.639 af
 Routed to Pond 317 : QP Pond D (366.5, 370.25) (2.41 in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 370.30' @ 12.37 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	369.50'	6.00" Round Culvert X 3.00 L= 73.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 369.50' / 365.50' S= 0.0548 '/ Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Secondary	369.85'	19.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.07 cfs @ 12.11 hrs HW=370.28' TW=368.68' (Dynamic Tailwater)
 ↑1=Culvert (Inlet Controls 2.07 cfs @ 3.52 fps)

Secondary OutFlow Max=16.95 cfs @ 12.37 hrs HW=370.30' TW=369.67' (Dynamic Tailwater)
 ↑2=Broad-Crested Rectangular Weir (Weir Controls 16.95 cfs @ 1.98 fps)

Summary for Pond 308: 2 x 18" Pipe

Inflow Area = 1.076 ac, 34.01% Impervious, Inflow Depth = 5.38" for 100-Year event
 Inflow = 6.75 cfs @ 12.09 hrs, Volume= 0.482 af
 Outflow = 6.75 cfs @ 12.09 hrs, Volume= 0.482 af, Atten= 0%, Lag= 0.0 min
 Primary = 6.75 cfs @ 12.09 hrs, Volume= 0.482 af
 Routed to Pond 311 : Forebay D South (364, 370)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 369.71' @ 12.47 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	366.29'	18.00" Round Culvert X 2.00 L= 59.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 366.29' / 366.00' S= 0.0049 '/ Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=5.06 cfs @ 12.09 hrs HW=368.55' TW=368.46' (Dynamic Tailwater)
 ↑1=Culvert (Inlet Controls 5.06 cfs @ 1.43 fps)

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Type III 24-hr 100-Year Rainfall=8.50"

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Summary for Pond 311: Forebay D South (364, 370)

Inflow Area = 2.019 ac, 32.39% Impervious, Inflow Depth = 5.29" for 100-Year event
 Inflow = 12.29 cfs @ 12.09 hrs, Volume= 0.890 af
 Outflow = 12.29 cfs @ 12.09 hrs, Volume= 0.887 af, Atten= 0%, Lag= 0.0 min
 Primary = 12.29 cfs @ 12.09 hrs, Volume= 0.887 af
 Routed to Pond 314 : WQ Pond D (365.5, 370.25)(2.41in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 369.70' @ 12.48 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	366.00'	8.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.00 cfs @ 12.09 hrs HW=368.47' TW=368.53' (Dynamic Tailwater)
 ↑ **1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 313.2: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.023 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af
 Outflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 2.87 hrs, Volume= 0.003 af
 Primary = 0.23 cfs @ 12.00 hrs, Volume= 0.012 af
 Routed to Pond 314 : WQ Pond D (365.5, 370.25)(2.41in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 56 sf Storage= 41 cf

Plug-Flow detention time= 69.7 min calculated for 0.016 af (100% of inflow)
 Center-of-Mass det. time= 69.8 min (804.7 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	x 2.00 = 57 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

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Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.87 hrs HW=997.04' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.23 cfs @ 12.00 hrs HW=1,000.10' TW=367.99' (Dynamic Tailwater)
 ↑**2=Dome Grate** (Weir Controls 0.23 cfs @ 1.05 fps)

Summary for Pond 314: WQ Pond D (365.5, 370.25)(2.41in/hr)

Inflow Area = 11.623 ac, 10.85% Impervious, Inflow Depth = 2.23" for 100-Year event
 Inflow = 16.90 cfs @ 12.08 hrs, Volume= 2.157 af
 Outflow = 7.75 cfs @ 12.07 hrs, Volume= 2.155 af, Atten= 54%, Lag= 0.0 min
 Discarded = 0.34 cfs @ 12.47 hrs, Volume= 0.661 af
 Primary = 7.49 cfs @ 12.07 hrs, Volume= 1.494 af
 Routed to Pond 317 : QP Pond D (366.5, 370.25) (2.41 in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 369.70' @ 12.47 hrs Surf.Area= 6,017 sf Storage= 16,505 cf

Plug-Flow detention time= 176.8 min calculated for 2.155 af (100% of inflow)
 Center-of-Mass det. time= 176.2 min (1,070.0 - 893.8)

Volume	Invert	Avail.Storage	Storage Description
#1	365.50'	19,959 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
365.50	1,976	0	0
368.00	4,255	7,789	7,789
370.00	6,332	10,587	18,376
370.25	6,332	1,583	19,959

Device	Routing	Invert	Outlet Devices
#1	Discarded	365.50'	2.410 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	366.50'	20.0' long x 27.2' 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

Discarded OutFlow Max=0.34 cfs @ 12.47 hrs HW=369.70' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.34 cfs)

Primary OutFlow Max=0.00 cfs @ 12.07 hrs HW=368.43' TW=368.50' (Dynamic Tailwater)
 ↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Summary for Pond 317: QP Pond D (366.5, 370.25) (2.41 in/hr)

Inflow Area = 12.311 ac, 10.24% Impervious, Inflow Depth = 3.34" for 100-Year event
 Inflow = 25.37 cfs @ 12.08 hrs, Volume= 3.430 af
 Outflow = 22.20 cfs @ 12.46 hrs, Volume= 3.430 af, Atten= 12%, Lag= 22.3 min
 Discarded = 0.88 cfs @ 12.46 hrs, Volume= 1.550 af
 Secondary = 21.32 cfs @ 12.46 hrs, Volume= 1.880 af
 Routed to Reach 317A : Wetland/Stream

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 369.70' @ 12.46 hrs Surf.Area= 15,863 sf Storage= 37,536 cf

Plug-Flow detention time= 220.9 min calculated for 3.429 af (100% of inflow)
 Center-of-Mass det. time= 221.0 min (1,062.2 - 841.2)

Volume	Invert	Avail.Storage	Storage Description
#1	366.50'	46,661 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
366.50	7,152	0	0
367.00	9,228	4,095	4,095
369.00	13,857	23,085	27,180
370.00	16,736	15,297	42,477
370.25	16,736	4,184	46,661

Device	Routing	Invert	Outlet Devices
#1	Discarded	366.50'	2.410 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Secondary	369.25'	26.5' long x 14.5' breadth Emergency Overflow Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.66 2.69 2.70 2.65 2.63 2.65 2.64 2.63

Discarded OutFlow Max=0.88 cfs @ 12.46 hrs HW=369.70' (Free Discharge)

↑1=Exfiltration (Exfiltration Controls 0.88 cfs)

Secondary OutFlow Max=21.31 cfs @ 12.46 hrs HW=369.70' TW=360.40' (Dynamic Tailwater)

↑2=Emergency Overflow Weir (Weir Controls 21.31 cfs @ 1.80 fps)

Summary for Pond 319: 15" Pipe

Inflow Area = 0.486 ac, 32.51% Impervious, Inflow Depth = 5.26" for 100-Year event
 Inflow = 2.99 cfs @ 12.09 hrs, Volume= 0.213 af
 Outflow = 2.99 cfs @ 12.09 hrs, Volume= 0.213 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.99 cfs @ 12.09 hrs, Volume= 0.213 af
 Routed to Reach 320 : Road Swale

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 381.74' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	380.85'	15.00" Round Culvert

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L= 100.5' RCP, end-section conforming to fill, Ke= 0.500
 Inlet / Outlet Invert= 380.85' / 377.40' S= 0.0343 ' /' Cc= 0.900
 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.98 cfs @ 12.09 hrs HW=381.74' TW=378.54' (Dynamic Tailwater)
 ↑**1=Culvert** (Inlet Controls 2.98 cfs @ 3.21 fps)

Summary for Pond 321.2: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.11 cfs @ 12.00 hrs, Volume= 0.008 af
 Outflow = 0.11 cfs @ 12.00 hrs, Volume= 0.008 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 3.01 hrs, Volume= 0.002 af
 Primary = 0.11 cfs @ 12.00 hrs, Volume= 0.006 af
 Routed to Pond 322 : 24" Pipe

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 28 sf Storage= 21 cf

Plug-Flow detention time= 72.2 min calculated for 0.008 af (100% of inflow)
 Center-of-Mass det. time= 72.2 min (807.1 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 3.01 hrs HW=997.04' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.11 cfs @ 12.00 hrs HW=1,000.10' TW=295.79' (Dynamic Tailwater)
 ↑**2=Dome Grate** (Weir Controls 0.11 cfs @ 1.04 fps)

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Summary for Pond 322: 24" Pipe

Inflow Area = 2.821 ac, 32.68% Impervious, Inflow Depth = 5.26" for 100-Year event
 Inflow = 16.26 cfs @ 12.12 hrs, Volume= 1.237 af
 Outflow = 16.26 cfs @ 12.12 hrs, Volume= 1.237 af, Atten= 0%, Lag= 0.0 min
 Primary = 16.26 cfs @ 12.12 hrs, Volume= 1.237 af
 Routed to Reach 323 : Swale E

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 296.66' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	294.50'	24.00" Round Culvert L= 110.5' Ke= 0.500 Inlet / Outlet Invert= 294.50' / 291.10' S= 0.0308 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf

Primary OutFlow Max=16.25 cfs @ 12.12 hrs HW=296.65' TW=291.70' (Dynamic Tailwater)
 ↑ **1=Culvert** (Inlet Controls 16.25 cfs @ 5.17 fps)

Summary for Pond 325.2: Drywell E (1.02 in/hr) (1' Deep)

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.47 cfs @ 12.00 hrs, Volume= 0.032 af
 Outflow = 0.46 cfs @ 12.00 hrs, Volume= 0.032 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 4.65 hrs, Volume= 0.009 af
 Primary = 0.46 cfs @ 12.00 hrs, Volume= 0.023 af
 Routed to Pond 326 : Forebay E (277.5, 282)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 180 sf Storage= 68 cf

Plug-Flow detention time= 47.7 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 47.7 min (782.6 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	998.00'	15 cf	Drywell Storage (Prismatic) Listed below (Recalc) 45 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		25 cf	x 4.00 = 100 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
998.00	45	0	0
999.00	45	45	45

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

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Device	Routing	Invert	Outlet Devices
#1	Discarded	998.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 4.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 4.65 hrs HW=998.03' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.46 cfs @ 12.00 hrs HW=1,000.10' TW=280.90' (Dynamic Tailwater)↑**2=Dome Grate** (Weir Controls 0.46 cfs @ 1.05 fps)**Summary for Pond 326: Forebay E (277.5, 282)**

Inflow Area = 5.139 ac, 29.93% Impervious, Inflow Depth = 5.05" for 100-Year event
 Inflow = 28.37 cfs @ 12.11 hrs, Volume= 2.163 af
 Outflow = 28.37 cfs @ 12.11 hrs, Volume= 2.163 af, Atten= 0%, Lag= 0.0 min
 Primary = 11.43 cfs @ 12.11 hrs, Volume= 1.479 af
 Routed to Pond 329 : WQ Pond E (279, 282)(1.02in/hr)
 Secondary = 16.93 cfs @ 12.11 hrs, Volume= 0.684 af
 Routed to Pond 332 : QP Pond E (276.50, 281.33) (1.02 in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

Peak Elev= 281.03' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	280.50'	12.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Secondary	280.65'	25.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=11.41 cfs @ 12.11 hrs HW=281.03' TW=280.79' (Dynamic Tailwater)↑**1=Broad-Crested Rectangular Weir** (Weir Controls 11.41 cfs @ 1.80 fps)**Secondary OutFlow** Max=16.92 cfs @ 12.11 hrs HW=281.03' TW=279.00' (Dynamic Tailwater)↑**2=Broad-Crested Rectangular Weir** (Weir Controls 16.92 cfs @ 1.79 fps)**Summary for Pond 328.2: Drywell A (1.02 in/hr) (2' Deep)**

Inflow Area = 0.023 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af
 Outflow = 0.22 cfs @ 12.01 hrs, Volume= 0.016 af, Atten= 4%, Lag= 0.6 min
 Discarded = 0.00 cfs @ 2.98 hrs, Volume= 0.003 af
 Primary = 0.22 cfs @ 12.01 hrs, Volume= 0.012 af
 Routed to Pond 329 : WQ Pond E (279, 282)(1.02in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

Peak Elev= 1,000.28' @ 12.01 hrs Surf.Area= 58 sf Storage= 44 cf

Plug-Flow detention time= 71.4 min calculated for 0.016 af (100% of inflow)

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Center-of-Mass det. time= 71.4 min (806.3 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#2	997.00'	38 cf	Drywell Storage (Prismatic) Listed below (Recalc) 116 cf Overall x 33.0% Voids
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		48 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	58	0	0
999.00	58	116	116

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Orifice C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.98 hrs HW=997.04' (Free Discharge)

↑1=Exfiltration (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.22 cfs @ 12.01 hrs HW=1,000.28' TW=280.75' (Dynamic Tailwater)

↑2=Dome Orifice (Orifice Controls 0.22 cfs @ 2.55 fps)

Summary for Pond 328.4: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.034 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.35 cfs @ 12.00 hrs, Volume= 0.023 af
 Outflow = 0.34 cfs @ 12.00 hrs, Volume= 0.023 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 2.92 hrs, Volume= 0.005 af
 Primary = 0.34 cfs @ 12.00 hrs, Volume= 0.018 af
 Routed to Pond 329 : WQ Pond E (279, 282)(1.02in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 84 sf Storage= 62 cf

Plug-Flow detention time= 70.6 min calculated for 0.023 af (100% of inflow)
 Center-of-Mass det. time= 70.6 min (805.5 - 734.9)

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Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	x 3.00 = 86 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 3.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 2.92 hrs HW=997.04' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.34 cfs @ 12.00 hrs HW=1,000.10' TW=280.74' (Dynamic Tailwater)

↑**2=Dome Grate** (Weir Controls 0.34 cfs @ 1.05 fps)

Summary for Pond 329: WQ Pond E (279, 282)(1.02in/hr)

Inflow Area = 6.130 ac, 26.02% Impervious, Inflow Depth = 3.51" for 100-Year event
 Inflow = 15.16 cfs @ 12.10 hrs, Volume= 1.793 af
 Outflow = 15.12 cfs @ 12.11 hrs, Volume= 1.793 af, Atten= 0%, Lag= 0.5 min
 Discarded = 0.08 cfs @ 12.11 hrs, Volume= 0.202 af
 Primary = 15.04 cfs @ 12.11 hrs, Volume= 1.590 af
 Routed to Pond 332 : QP Pond E (276.50, 281.33) (1.02 in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 280.79' @ 12.11 hrs Surf.Area= 3,483 sf Storage= 4,916 cf

Plug-Flow detention time= 77.2 min calculated for 1.793 af (100% of inflow)
 Center-of-Mass det. time= 77.3 min (931.7 - 854.4)

Volume	Invert	Avail.Storage	Storage Description
#1	279.00'	9,770 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
279.00	2,014	0	0
281.00	3,656	5,670	5,670
282.00	4,544	4,100	9,770

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Device	Routing	Invert	Outlet Devices
#1	Discarded	279.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	280.60'	70.0' long x 13.4' 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) 2.62 2.66 2.70 2.66 2.65 2.66 2.65 2.63

Discarded OutFlow Max=0.08 cfs @ 12.11 hrs HW=280.79' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=15.03 cfs @ 12.11 hrs HW=280.79' TW=279.00' (Dynamic Tailwater)

↑**2=Broad-Crested Rectangular Weir** (Weir Controls 15.03 cfs @ 1.14 fps)

Summary for Pond 332: QP Pond E (276.50, 281.33) (1.02 in/hr)

Inflow Area = 6.691 ac, 23.84% Impervious, Inflow Depth = 4.57" for 100-Year event
 Inflow = 33.99 cfs @ 12.11 hrs, Volume= 2.546 af
 Outflow = 11.37 cfs @ 12.45 hrs, Volume= 2.546 af, Atten= 67%, Lag= 20.7 min
 Discarded = 0.39 cfs @ 12.45 hrs, Volume= 1.473 af
 Secondary = 10.98 cfs @ 12.45 hrs, Volume= 1.073 af
 Routed to Reach 332A : Wetland

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 280.30' @ 12.45 hrs Surf.Area= 16,533 sf Storage= 50,413 cf

Plug-Flow detention time= 775.0 min calculated for 2.546 af (100% of inflow)
 Center-of-Mass det. time= 775.2 min (1,598.5 - 823.4)

Volume	Invert	Avail.Storage	Storage Description
#1	276.50'	66,884 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
276.50	10,145	0	0
277.00	10,921	5,267	5,267
279.00	14,242	25,163	30,430
281.00	17,770	32,012	62,442
281.25	17,770	4,443	66,884

Device	Routing	Invert	Outlet Devices
#1	Discarded	276.50'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Secondary	280.00'	25.0' long x 16.0' breadth Emergency Overflow 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

Discarded OutFlow Max=0.39 cfs @ 12.45 hrs HW=280.30' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.39 cfs)

Secondary OutFlow Max=10.98 cfs @ 12.45 hrs HW=280.30' TW=268.15' (Dynamic Tailwater)

↑**2=Emergency Overflow Weir** (Weir Controls 10.98 cfs @ 1.47 fps)

Summary for Pond 334.2: Drywell A (1.02 in/hr) (2' Deep)

Inflow Area = 0.138 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 1.41 cfs @ 12.00 hrs, Volume= 0.095 af
 Outflow = 1.34 cfs @ 12.01 hrs, Volume= 0.095 af, Atten= 4%, Lag= 0.6 min
 Discarded = 0.01 cfs @ 2.98 hrs, Volume= 0.021 af
 Primary = 1.34 cfs @ 12.01 hrs, Volume= 0.074 af
 Routed to Reach 335 : Road Swale

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.28' @ 12.01 hrs Surf.Area= 348 sf Storage= 264 cf

Plug-Flow detention time= 71.4 min calculated for 0.095 af (100% of inflow)
 Center-of-Mass det. time= 71.4 min (806.3 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#2	997.00'	38 cf	Drywell Storage (Prismatic) Listed below (Recalc) 116 cf Overall x 33.0% Voids
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		48 cf	x 6.00 = 290 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	58	0	0
999.00	58	116	116

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Orifice X 6.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.01 cfs @ 2.98 hrs HW=997.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=1.33 cfs @ 12.01 hrs HW=1,000.28' TW=314.34' (Dynamic Tailwater)
 ↑2=Dome Orifice (Orifice Controls 1.33 cfs @ 2.55 fps)

Summary for Pond 334.4: Drywell B (1.02 in/hr) (1' Deep)

Inflow Area = 0.023 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af
 Outflow = 0.22 cfs @ 12.01 hrs, Volume= 0.016 af, Atten= 4%, Lag= 0.6 min
 Discarded = 0.00 cfs @ 4.97 hrs, Volume= 0.005 af
 Primary = 0.22 cfs @ 12.01 hrs, Volume= 0.011 af
 Routed to Reach 335 : Road Swale

1193-001-ALLS-PHCD-INHS DP-3 EMERGENCY

Type III 24-hr 100-Year Rainfall=8.50"

Prepared by DiPrete Engineering

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

Peak Elev= 1,000.28' @ 12.01 hrs Surf.Area= 95 sf Storage= 37 cf

Plug-Flow detention time= 49.0 min calculated for 0.016 af (100% of inflow)

Center-of-Mass det. time= 49.1 min (784.0 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	998.00'	31 cf	Drywell Storage (Prismatic) Listed below (Recalc) 95 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		41 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
998.00	95	0	0
999.00	95	95	95

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	998.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 4.97 hrs HW=998.03' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.22 cfs @ 12.01 hrs HW=1,000.28' TW=314.34' (Dynamic Tailwater)↑**2=Dome Grate** (Orifice Controls 0.22 cfs @ 2.54 fps)**Summary for Pond 334.6: Drywell D (1.02 in/hr) (2' Deep)**

Inflow Area = 0.345 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 3.51 cfs @ 12.00 hrs, Volume= 0.237 af
 Outflow = 3.47 cfs @ 12.00 hrs, Volume= 0.237 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.02 cfs @ 2.87 hrs, Volume= 0.050 af
 Primary = 3.45 cfs @ 12.00 hrs, Volume= 0.187 af
 Routed to Reach 335 : Road Swale

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 840 sf Storage= 620 cf

Plug-Flow detention time= 69.7 min calculated for 0.237 af (100% of inflow)

Center-of-Mass det. time= 69.8 min (804.7 - 734.9)

1193-001-ALLS-PHCD-INHS DP-3 EMERGENCY

Type III 24-hr 100-Year Rainfall=8.50"

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Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
			29 cf x 30.00 = 858 cf Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 30.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.02 cfs @ 2.87 hrs HW=997.04' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=3.43 cfs @ 12.00 hrs HW=1,000.10' TW=314.32' (Dynamic Tailwater)

↑**2=Dome Grate** (Weir Controls 3.43 cfs @ 1.05 fps)

Summary for Pond 334.8: Drywell E (1.02 in/hr) (1' Deep)

Inflow Area = 0.023 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af
 Outflow = 0.23 cfs @ 12.00 hrs, Volume= 0.016 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 4.65 hrs, Volume= 0.005 af
 Primary = 0.23 cfs @ 12.00 hrs, Volume= 0.011 af
 Routed to Reach 335 : Road Swale

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 90 sf Storage= 34 cf

Plug-Flow detention time= 47.7 min calculated for 0.016 af (100% of inflow)
 Center-of-Mass det. time= 47.7 min (782.6 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	998.00'	15 cf	Drywell Storage (Prismatic) Listed below (Recalc) 45 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
			25 cf x 2.00 = 50 cf Total Available Storage

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Type III 24-hr 100-Year Rainfall=8.50"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
998.00	45	0	0
999.00	45	45	45

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	998.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 4.65 hrs HW=998.03' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.23 cfs @ 12.00 hrs HW=1,000.10' TW=314.32' (Dynamic Tailwater)

↑**2=Dome Grate** (Weir Controls 0.23 cfs @ 1.05 fps)

Summary for Pond 336: 3 x 30" Pipe

Inflow Area = 15.051 ac, 7.96% Impervious, Inflow Depth = 3.81" for 100-Year event
 Inflow = 58.83 cfs @ 12.12 hrs, Volume= 4.785 af
 Outflow = 58.83 cfs @ 12.12 hrs, Volume= 4.785 af, Atten= 0%, Lag= 0.0 min
 Primary = 58.83 cfs @ 12.12 hrs, Volume= 4.785 af
 Routed to Reach 338A : Swale F

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs
 Peak Elev= 311.14' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	309.00'	30.00" Round Culvert X 3.00 L= 42.2' CMP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 309.00' / 305.83' S= 0.0751 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=58.82 cfs @ 12.12 hrs HW=311.14' TW=306.89' (Dynamic Tailwater)

↑**1=Culvert** (Inlet Controls 58.82 cfs @ 4.39 fps)

Summary for Pond 339.2: Drywell D (1.02 in/hr) (2' Deep)

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.26" for 100-Year event
 Inflow = 0.11 cfs @ 12.00 hrs, Volume= 0.008 af
 Outflow = 0.11 cfs @ 12.00 hrs, Volume= 0.008 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.00 cfs @ 3.01 hrs, Volume= 0.002 af
 Primary = 0.11 cfs @ 12.00 hrs, Volume= 0.006 af
 Routed to Reach 338B : Swale F

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-Year Rainfall=8.50"

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Peak Elev= 1,000.10' @ 12.00 hrs Surf.Area= 28 sf Storage= 21 cf

Plug-Flow detention time= 72.2 min calculated for 0.008 af (100% of inflow)

Center-of-Mass det. time= 72.2 min (807.1 - 734.9)

Volume	Invert	Avail.Storage	Storage Description
#1	997.00'	18 cf	Drywell Storage (Prismatic) Listed below (Recalc) 56 cf Overall x 33.0% Voids
#2	1,000.00'	10 cf	Above Drywell (Prismatic) Listed below (Recalc) -Impervious
#3	999.00'	0 cf	0.33'D x 1.50'H Pipe Storage -Impervious
		29 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
997.00	28	0	0
999.00	28	56	56

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,000.00	20	0	0
1,000.50	20	10	10

Device	Routing	Invert	Outlet Devices
#1	Discarded	997.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	1,000.00'	4.00" Horiz. Dome Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 3.01 hrs HW=997.04' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.11 cfs @ 12.00 hrs HW=1,000.10' TW=297.79' (Dynamic Tailwater)

↑**2=Dome Grate** (Weir Controls 0.11 cfs @ 1.04 fps)

Summary for Pond 341: Forebay F East (284.0, 289)

Inflow Area = 16.416 ac, 8.73% Impervious, Inflow Depth = 3.87" for 100-Year event
 Inflow = 64.82 cfs @ 12.12 hrs, Volume= 5.297 af
 Outflow = 64.82 cfs @ 12.12 hrs, Volume= 5.297 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.57 cfs @ 12.12 hrs, Volume= 1.751 af
 Routed to Pond 350 : WQ Pond F (283, 287)(2.41in/hr)
 Secondary = 62.25 cfs @ 12.12 hrs, Volume= 3.546 af
 Routed to Pond 352 : QP Pond F (280, 287.1) (2.41 in/hr)

Routing by Dyn-Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.01 hrs

Peak Elev= 288.07' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	287.00'	6.00" Round Culvert X 3.00 L= 32.0' CPP, end-section conforming to fill, Ke= 0.500 Inlet / Outlet Invert= 287.00' / 281.00' S= 0.1875 ' / Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Secondary	287.50'	47.0' long x 0.5' breadth Broad-Crested Rectangular Weir