

Stormwater Detention and Infiltration Design Data Sheet

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Worksheet Protected

Stormwater Facility Name: **Pond P-2**

Facility Location & Jurisdiction: **Cloverleaf Suvdivision Filing 2 / El Paso County**

User Input: Watershed Characteristics

Watershed Slope =	0.030	ft/ft
Watershed Length =	1500	ft
Watershed Area =	30.60	acres
Watershed Imperviousness =	57.6%	percent
Percentage Hydrologic Soil Group A =	0.0%	percent
Percentage Hydrologic Soil Group B =	100.0%	percent
Percentage Hydrologic Soil Groups C/D =	0.0%	percent

Location for 1-hr Rainfall Depths (use dropdown):
 User Input ▼

WQCV Treatment Method = Extended Detention ▼

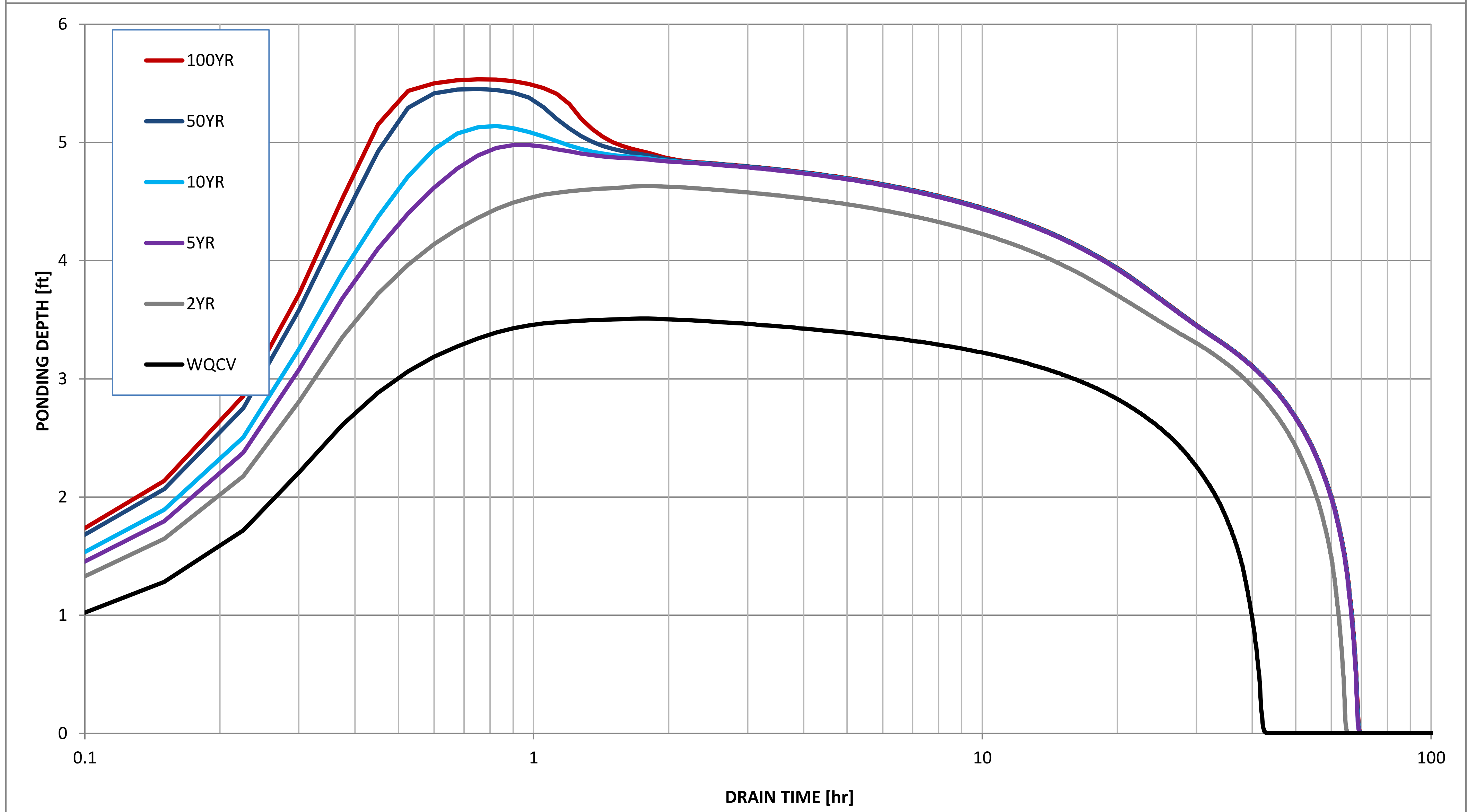
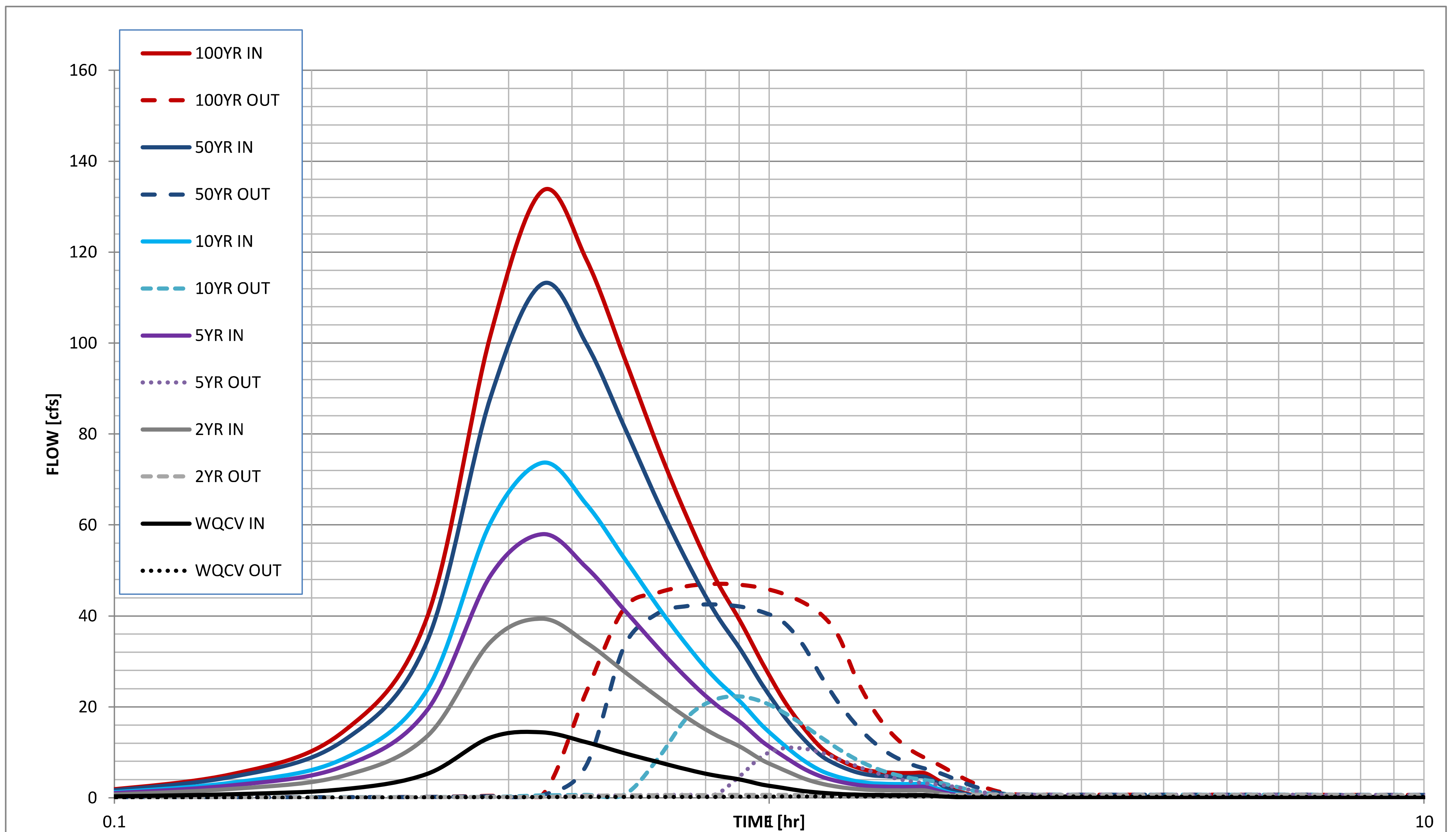
User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	27	0.00	0.00
0.33	45	0.33	0.01
0.83	328	0.83	0.03
1.33	1,337	1.33	0.08
1.83	3,850	1.83	0.12
2.33	8,225	2.33	0.16
2.83	14,074	2.83	0.18
3.33	22,376	3.33	0.20
3.83	33,595	3.83	0.50
4.33	43,221	4.33	0.60
4.83	50,079	4.83	0.70
5.33	52,861	5.33	36.00
5.83	548,080	5.83	63.30
6.33	56,806	6.33	117.90
6.83	58,870	6.83	120.00
7.33	60,967	7.33	125.00
7.83	63,116	7.83	130.00
8.33	65,275	8.33	135.00

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<https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>
 create a new stormwater facility, and
 attach the pdf of this worksheet to that record.

Routed Hydrograph Results

	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
Design Storm Return Period =	0.53	1.19	1.50	1.75	2.25	2.52	in
One-Hour Rainfall Depth =	0.582	1.601	2.357	2.985	4.560	5.380	acre-ft
Calculated Runoff Volume =							acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.582	1.601	2.357	2.984	4.559	5.379	acre-ft
Time to Drain 97% of Inflow Volume =	37.7	56.8	58.9	57.4	53.9	52.1	hours
Time to Drain 99% of Inflow Volume =	39.6	60.3	63.6	62.8	61.3	60.6	hours
Maximum Ponding Depth =	3.51	4.63	4.98	5.14	5.45	5.54	ft
Maximum Poned Area =	0.60	1.08	1.17	1.19	3.94	5.70	acres
Maximum Volume Stored =	0.543	1.515	1.910	2.094	2.644	3.021	acre-ft

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Stormwater Facility Name: Pond P-3 (Basin L)

Facility Location & Jurisdiction: Cloverleaf Suvdivision Filing 2 / El Paso County

User Input: Watershed Characteristics

Watershed Slope = 0.050 ft/ft
Watershed Length = 431 ft
Watershed Area = 1.97 acres
Watershed Imperviousness = 42.3% percent
Percentage Hydrologic Soil Group A = 0.0% percent
Percentage Hydrologic Soil Group B = 100.0% percent
Percentage Hydrologic Soil Groups C/D = 0.0% percent
Location for 1-hr Rainfall Depths (use dropdown):
 ▼

WQCV Treatment Method = ▼

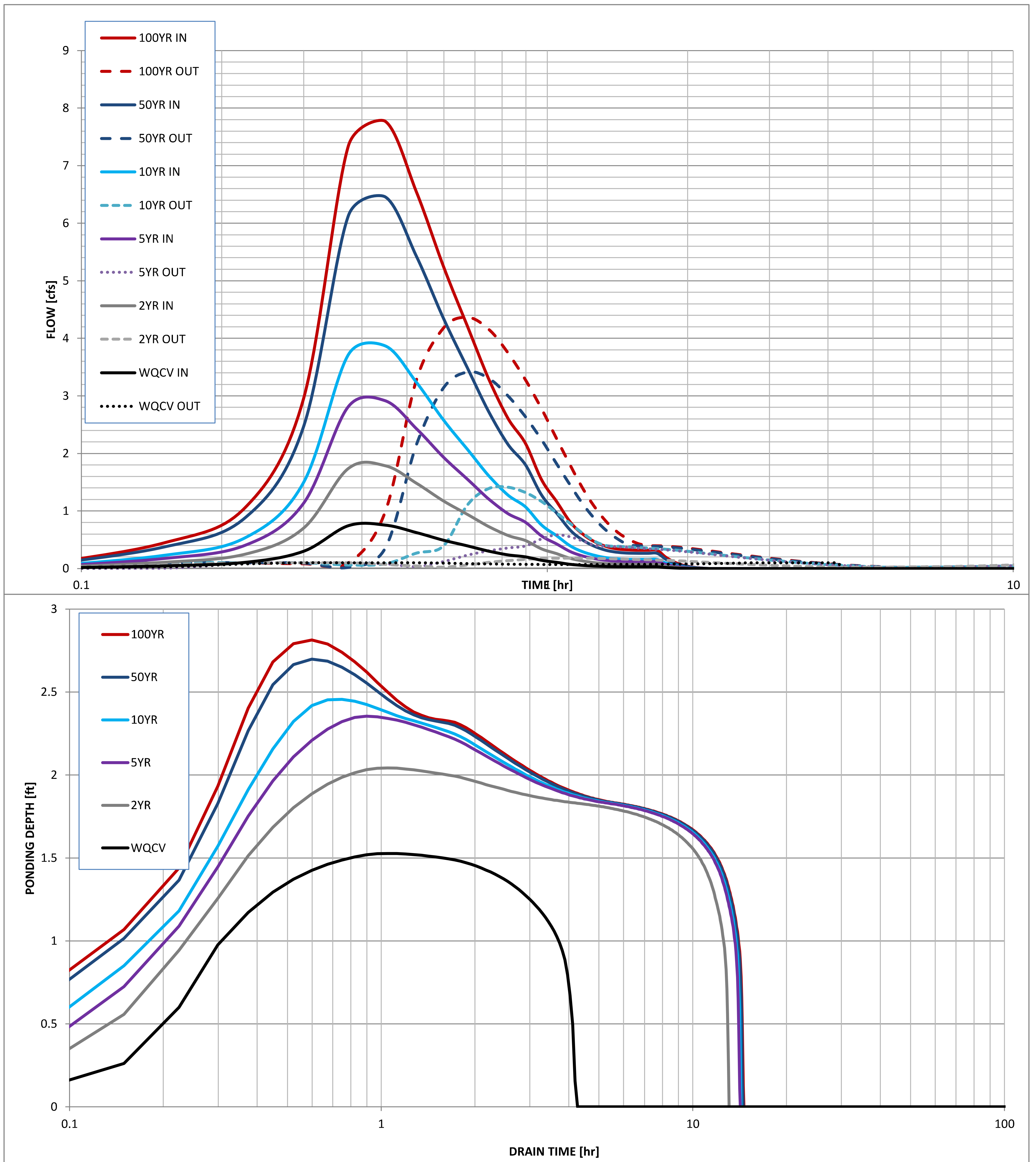
User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	27	0.00	0.00
0.33	44	0.33	0.10
0.83	259	0.83	0.10
1.33	1,573	1.33	0.10
1.83	3,255	1.83	0.02
2.33	4,392	2.33	0.40
2.83	5,543	2.83	4.50
3.33	6,809	3.33	4.80
3.83	8,127	3.83	5.00
4.08	8,733	4.08	5.00

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Routed Hydrograph Results

	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
Design Storm Return Period =							
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.031	0.072	0.117	0.156	0.260	0.314	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.030	0.071	0.117	0.155	0.260	0.313	acre-ft
Time to Drain 97% of Inflow Volume =	4.1	12.8	13.8	13.7	13.5	13.4	hours
Time to Drain 99% of Inflow Volume =	4.2	13.0	14.0	14.1	14.1	14.1	hours
Maximum Ponding Depth =	1.53	2.04	2.35	2.46	2.70	2.81	ft
Maximum Poned Area =	0.05	0.09	0.10	0.11	0.12	0.13	acres
Maximum Volume Stored =	0.021	0.057	0.086	0.097	0.125	0.139	acre-ft

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Stormwater Facility Name: Pond P-2

Facility Location & Jurisdiction: Cloverleaf Subdivision Filing 2 / El Paso County

User Input: Watershed Characteristics

Watershed Slope = 0.030 ft/ft

Watershed Length = 3888 ft

Watershed Area = 136.00 acres

Watershed Imperviousness = 10.0% percent

Percentage Hydrologic Soil Group A = 0.0% percent

Percentage Hydrologic Soil Group B = 100.0% percent

Percentage Hydrologic Soil Groups C/D = 0.0% percent

Location for 1-hr Rainfall Depths (use dropdown):

WQCV Treatment Method =

User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	27	0.00	1.00
0.33	45	0.33	15.00
0.83	1,365	0.83	30.00
1.33	6,766	1.33	40.00
1.83	17,125	1.83	42.00
2.33	29,022	2.33	45.00
2.83	41,461	2.83	50.00
3.33	54,510	3.33	55.00
3.83	61,487	3.83	65.00
4.33	64,849	4.33	75.00
4.83	67,830	4.83	80.00
5.33	70,631	5.33	84.80
5.83	73,866	5.83	110.00
6.08	75,401	6.08	120.00
6.33	76,992	6.33	130.00

JR - This is a Pond in series and was designed with SWMM.

update quantities to closely reflect the drainage reports results. Typical for all.

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Routed Hydrograph Results

	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
Design Storm Return Period =							
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.759	0.913	2.999	5.450	13.127	16.896	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.759	0.913	2.998	5.448	13.122	16.888	acre-ft
Time to Drain 97% of Inflow Volume =	0.5	0.5	0.9	1.4	2.2	2.4	hours
Time to Drain 99% of Inflow Volume =	0.5	0.5	1.0	1.5	2.3	2.4	hours
Maximum Ponding Depth =	0.39	0.50	2.21	3.46	6.04	7.13	WARNING!
Maximum Poned Area =	0.00	0.01	0.60	1.29	1.72	1.77	acres
Maximum Volume Stored =	0.000	0.001	0.376	1.571	5.541	6.050	acre-ft

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