JR - Addressed, Pond 4 added.

Please also complete one of these forms for Pond 4 as well even though it is not FSD and just for water quality. We still need to show the state that it is not holding water longer than is allowable. SDI forms are NOT required for sand filter basins.

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

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

Facility Location & Jurisdiction: **Cloverleaf Sudivision 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

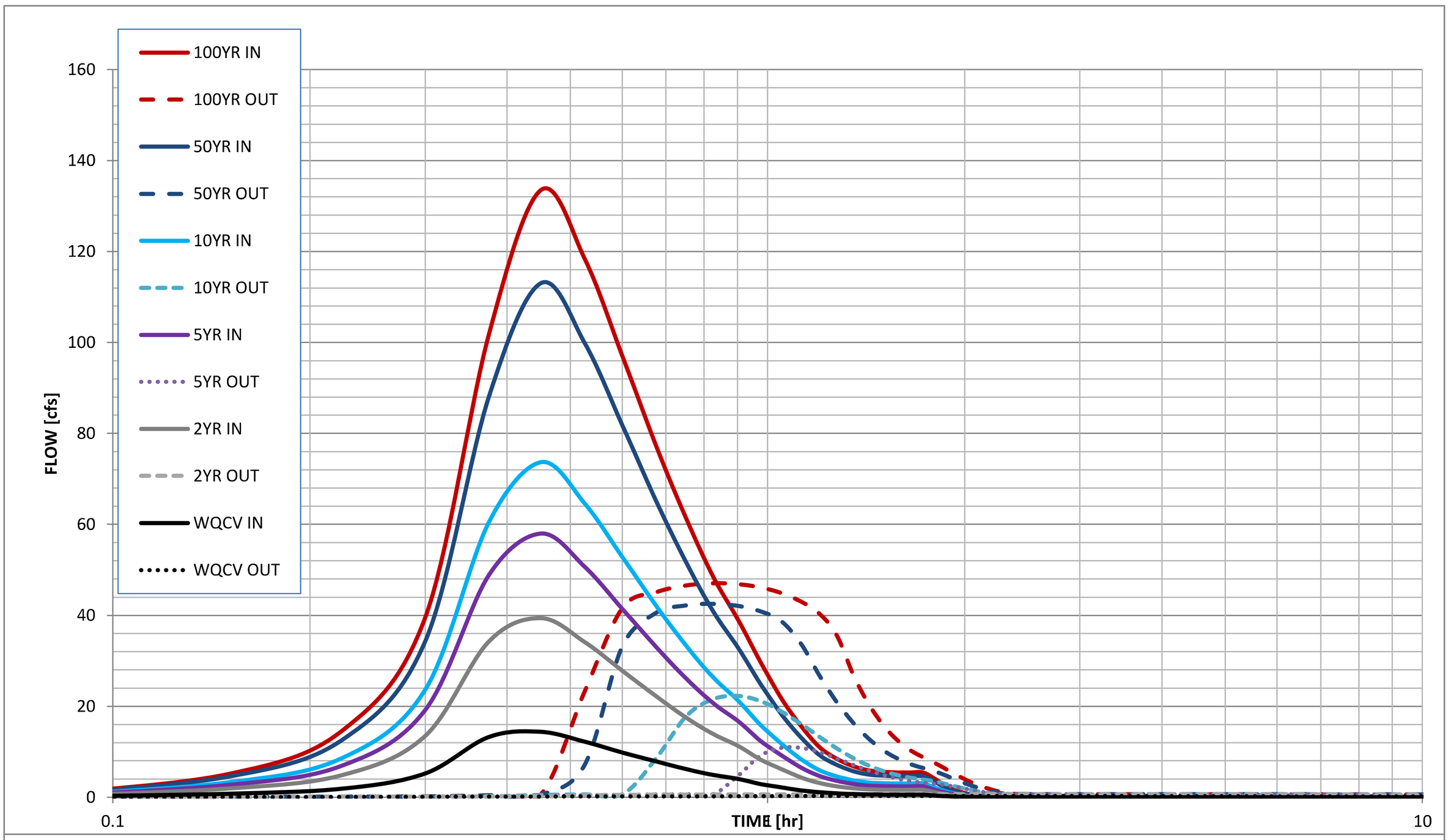
User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	27	0.00	0.00
0.33	45	0.33	0.01
0.83	328	0.83	0.03
1.33	1,337	1.33	0.08
1.83	3,850	1.83	0.12
2.33	8,225	2.33	0.16
2.83	14,074	2.83	0.18
3.33	22,376	3.33	0.20
3.83	33,595	3.83	0.50
4.33	43,221	4.33	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

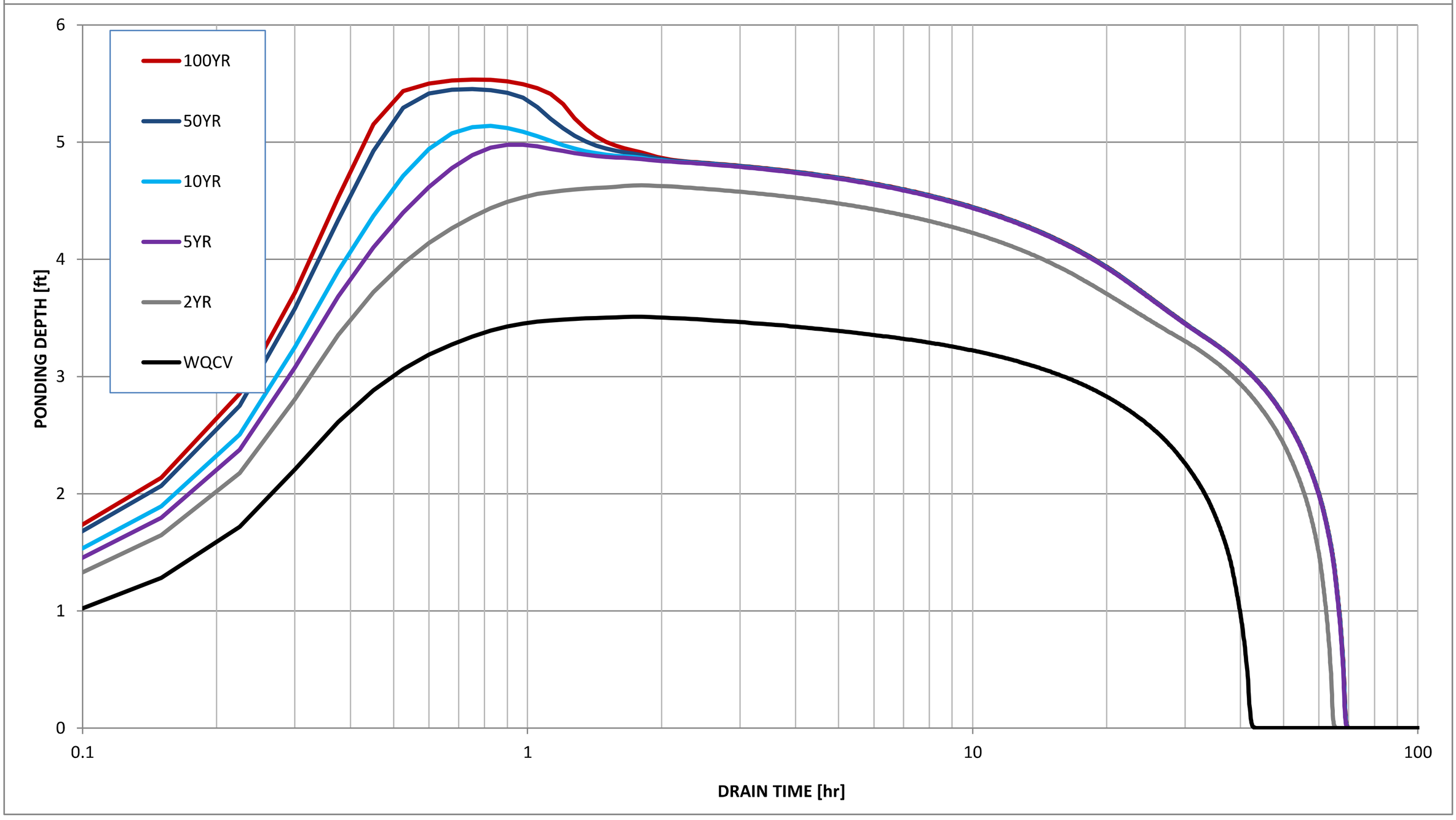
After completing and printing this worksheet to a pdf, go to:
https://maperture.digitaldataservices.com/gvh/?viewer=cswdif
create a new stormwater facility, and
attach the pdf of this worksheet to that record.

Routed Hydrograph Results

Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.582	1.601	2.357	2.985	4.560	5.380	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 Ponded 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

Stormwater Detention and Infiltration Design Data Sheet





Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

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

Facility Location & Jurisdiction: **Cloverleaf Sudivision 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):

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	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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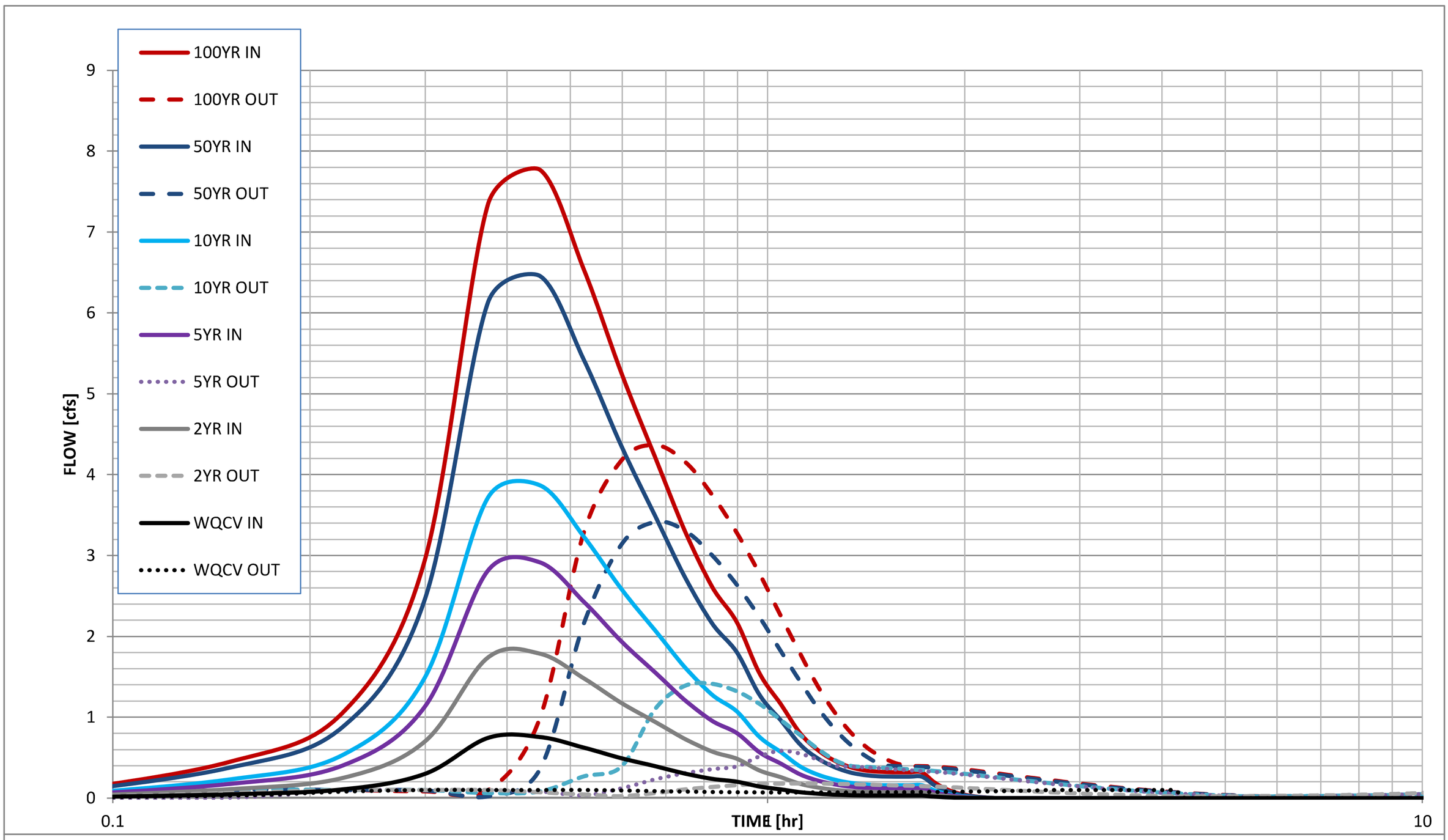
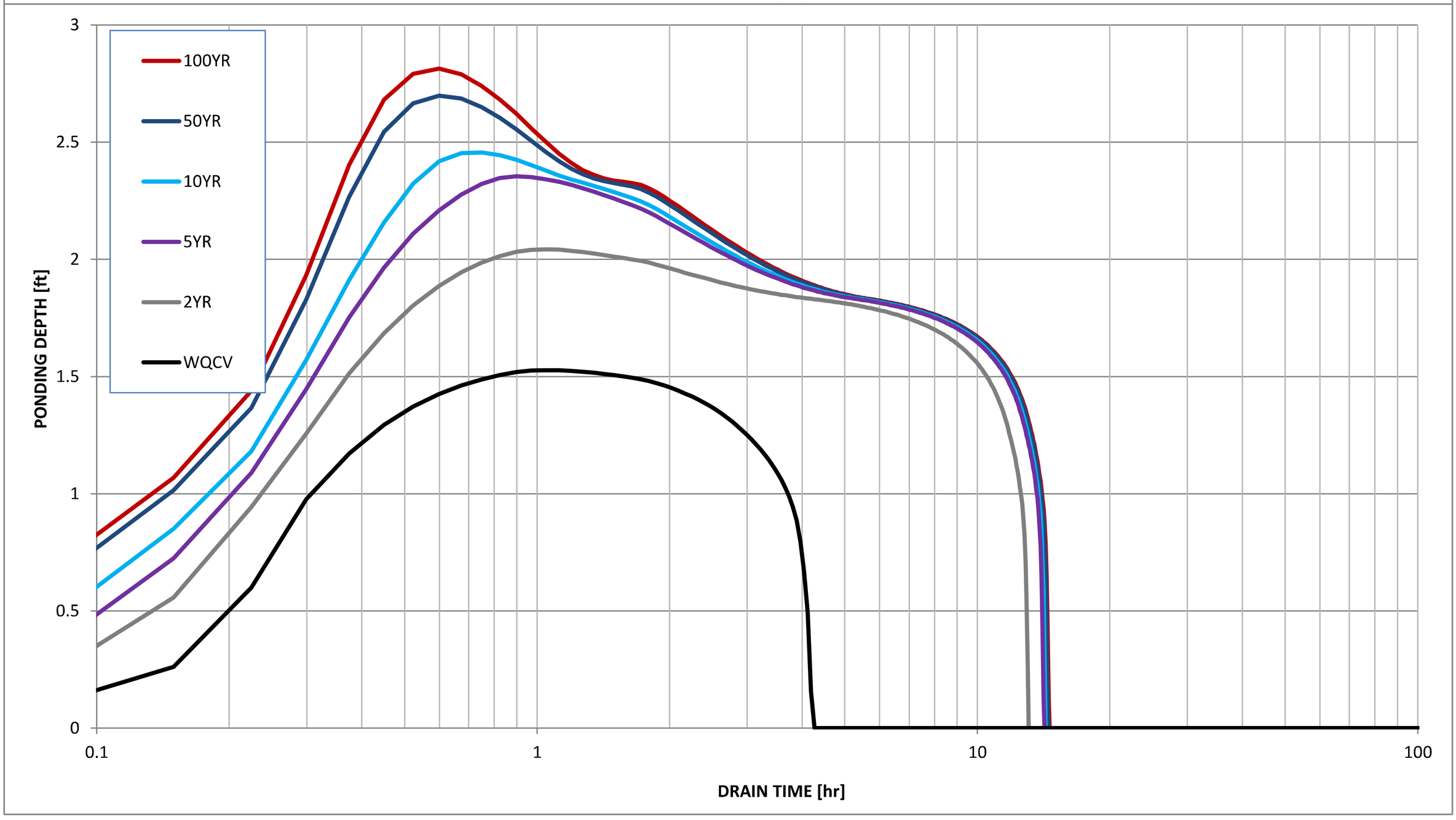
Routed Hydrograph Results

Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
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 Ponded 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

Stormwater Detention and Infiltration Design Data Sheet





Pond 1 added, Pond 2 revised to match the on-site tributary area. These pond are in series and were design with SWMM.

Based on the Watershed Area, this should be Pond P-1. Revise.

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

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

Facility Location & Jurisdiction: **Cloverleaf Sudivision 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): 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	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

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create a new stormwater facility, and
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Routed Hydrograph Results

Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
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	0.912	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 Ponded 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

Stormwater Detention and Infiltration Design Data Sheet