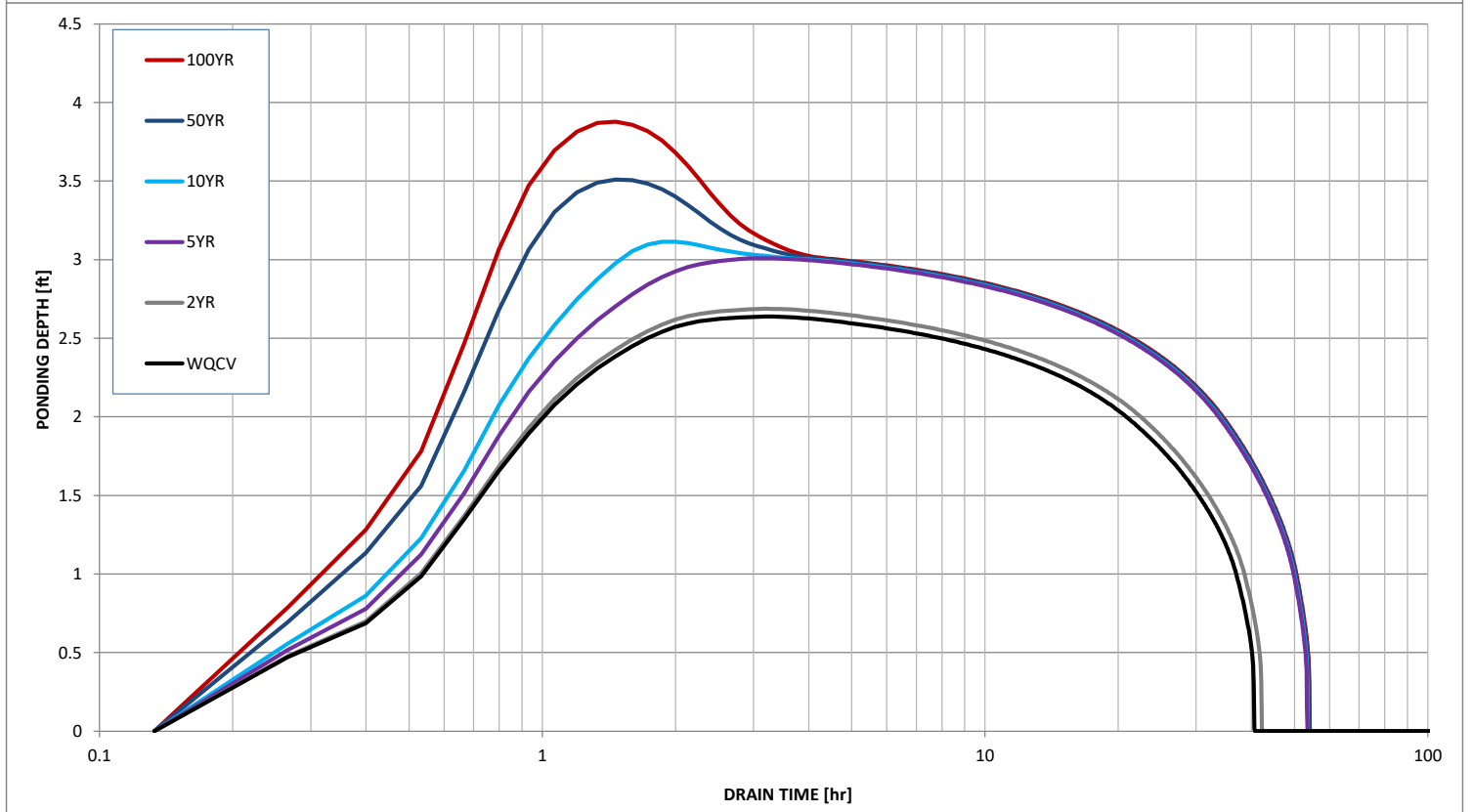
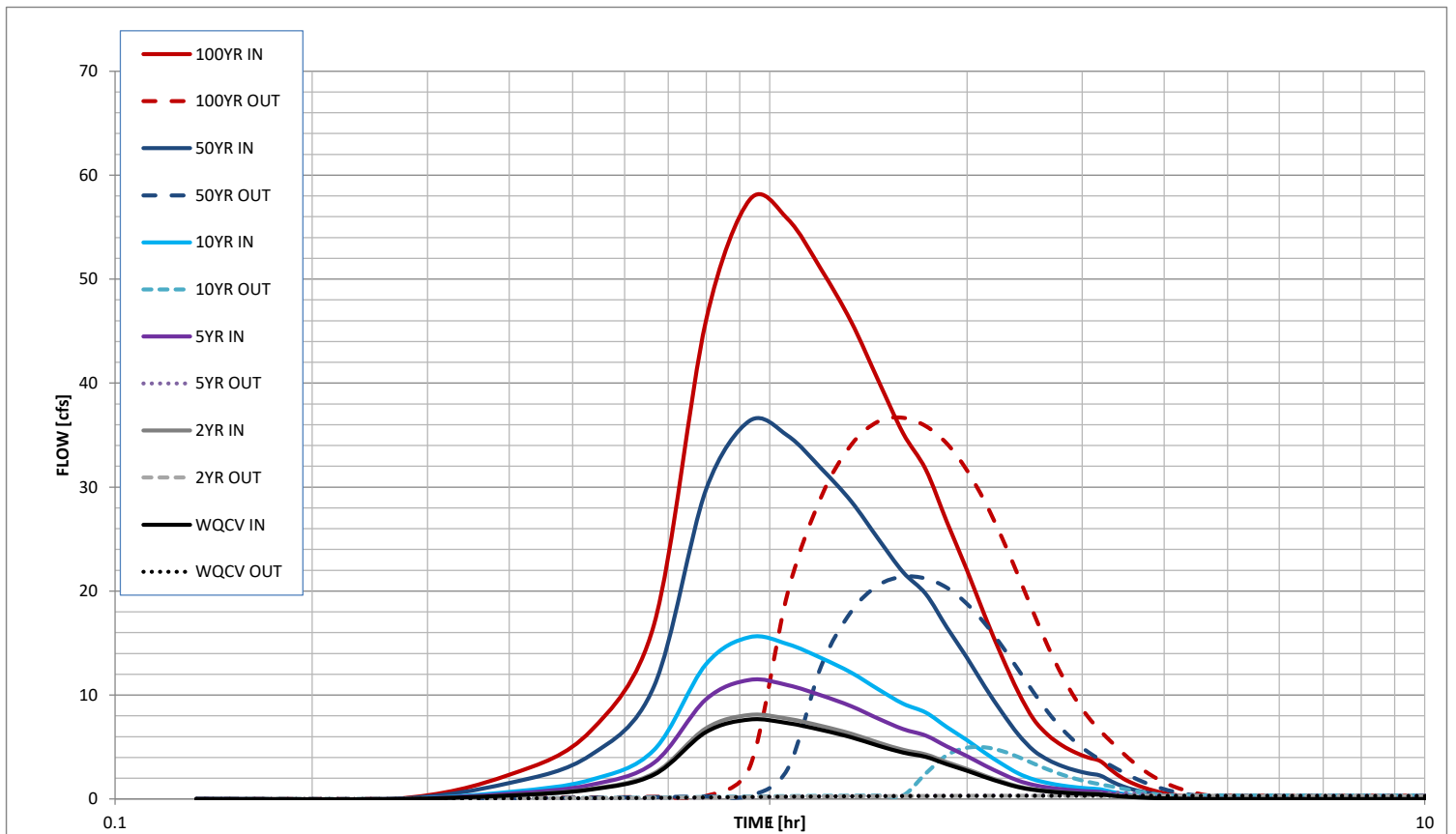


Stormwater Detention and Infiltration Design Data Sheet



Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

Stormwater Facility Name: Saddlehorn Ranch Filing 3 - Pond D

Facility Location & Jurisdiction: El Paso County - Saddlehorn Ranch Metropolitan District

User Input: Watershed Characteristics

Watershed Slope =	0.012	ft/ft
Watershed Length =	3473	ft
Watershed Area =	78.02	acres
Watershed Imperviousness =	15.4%	percent
Percentage Hydrologic Soil Group A =	70.0%	percent
Percentage Hydrologic Soil Group B =	0.0%	percent
Percentage Hydrologic Soil Groups C/D =	30.0%	percent

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

User Input

WQCV Treatment Method = Extended Detention

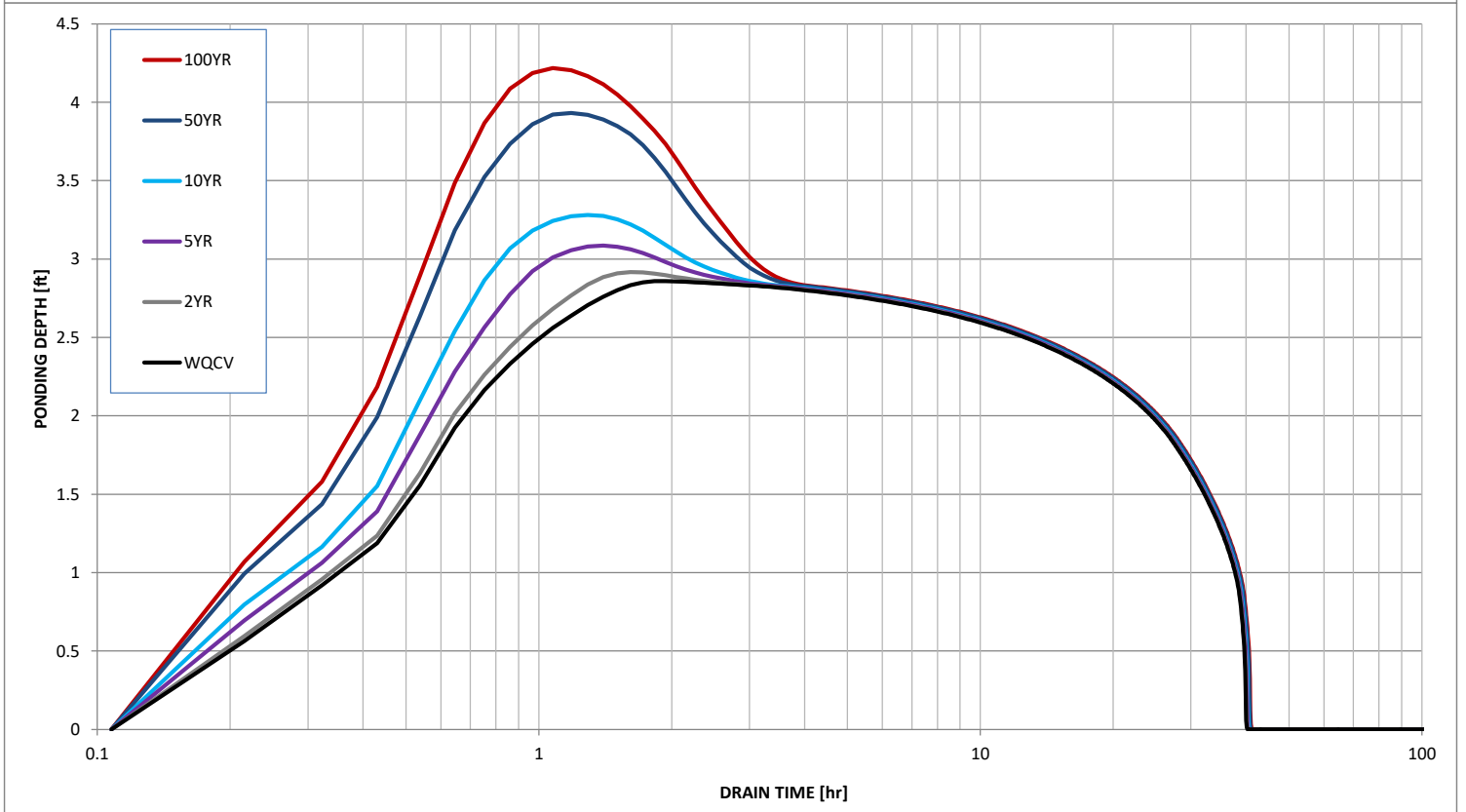
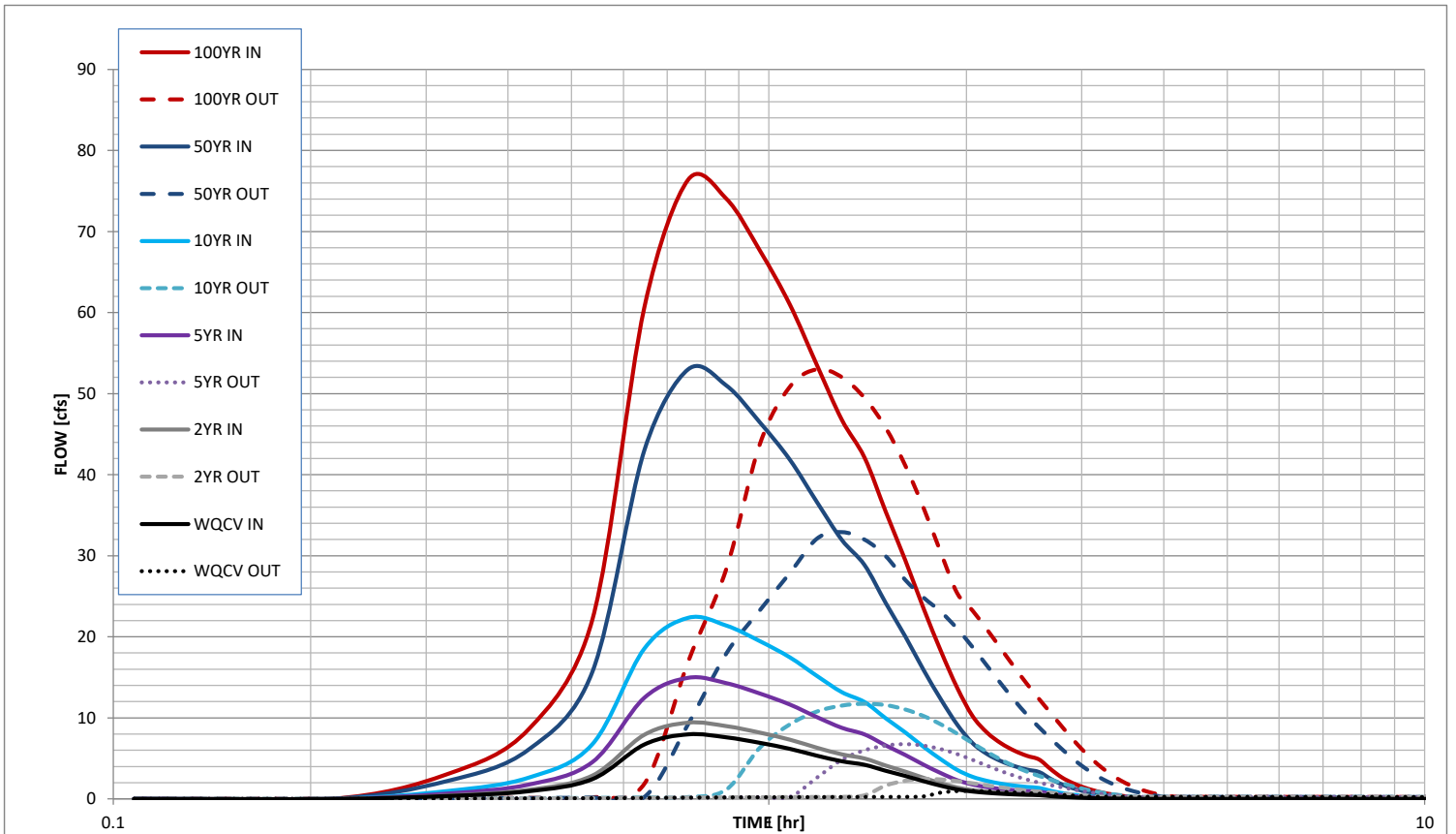
User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	32	0.00	0.00
0.33	50	0.33	0.04
0.83	699	0.83	0.06
1.83	8,089	1.83	0.15
2.83	27,770	2.83	0.26
3.83	58,037	3.83	25.71
4.33	70,791	4.33	61.17
4.83	83,546	4.83	146.98
5.83	98,172	5.83	513.83

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

	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 =	0.619	0.733	1.170	1.758	4.226	6.144	acre-ft
Calculated Runoff Volume =							acre-ft
OPTIONAL Override Runoff Volume =	0.619	0.733	1.170	1.758	4.226	6.142	acre-ft
Inflow Hydrograph Volume =	36.5	36.0	34.5	32.7	26.5	22.5	hours
Time to Drain 97% of Inflow Volume =	38.5	38.3	37.8	37.0	34.2	32.4	hours
Time to Drain 99% of Inflow Volume =	2.86	2.92	3.09	3.28	3.93	4.22	ft
Maximum Ponding Depth =	0.65	0.70	0.81	0.95	1.39	1.56	acres
Maximum Poned Area =	0.533	0.573	0.701	0.872	1.637	2.055	acre-ft
Maximum Volume Stored =							

Stormwater Detention and Infiltration Design Data Sheet



Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

Stormwater Facility Name: Saddlehorn Ranch Filing 3 - Pond E

Facility Location & Jurisdiction: El Paso County - Saddlehorn Ranch Metropolitan District

User Input: Watershed Characteristics

Watershed Slope =	0.012	ft/ft
Watershed Length =	1810	ft
Watershed Area =	18.37	acres
Watershed Imperviousness =	8.1%	percent
Percentage Hydrologic Soil Group A =	83.0%	percent
Percentage Hydrologic Soil Group B =	0.0%	percent
Percentage Hydrologic Soil Groups C/D =	17.0%	percent

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

User Input ▼

WQCV Treatment Method = ▼

User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	32	0.00	0.00
0.33	50	0.33	0.01
0.83	887	0.83	0.01
1.33	1,723	1.33	0.02
2.33	9,446	2.33	0.09
3.33	14,566	3.33	14.90
3.83	16,083	3.83	35.11
4.33	17,600	4.33	73.11
4.83	19,121	4.83	128.58

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 =	0.086	0.073	0.121	0.199	0.596	1.019	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.085	0.072	0.120	0.199	0.596	1.019	acre-ft
Time to Drain 97% of Inflow Volume =	35.7	33.6	40.3	43.9	34.3	28.1	hours
Time to Drain 99% of Inflow Volume =	38.3	35.9	43.8	49.1	44.3	40.2	hours
Maximum Ponding Depth =	1.92	1.84	2.12	2.37	2.67	2.95	ft
Maximum Poned Area =	0.14	0.13	0.18	0.22	0.26	0.29	acres
Maximum Volume Stored =	0.075	0.063	0.107	0.157	0.228	0.305	acre-ft

Stormwater Detention and Infiltration Design Data Sheet

