

Update based on updates to ponds.

# Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

**Stormwater Facility Name:** Saddlehorn Filing 3 - Pond C

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

**User Input: Watershed Characteristics**

Watershed Slope =  ft/ft  
 Watershed Length =  ft  
 Watershed Area =  acres  
 Watershed Imperviousness =  percent  
 Percentage Hydrologic Soil Group A =  percent  
 Percentage Hydrologic Soil Group B =  percent  
 Percentage Hydrologic Soil Groups C/D =  percent

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

▼

WQCV Treatment Method =  ▼

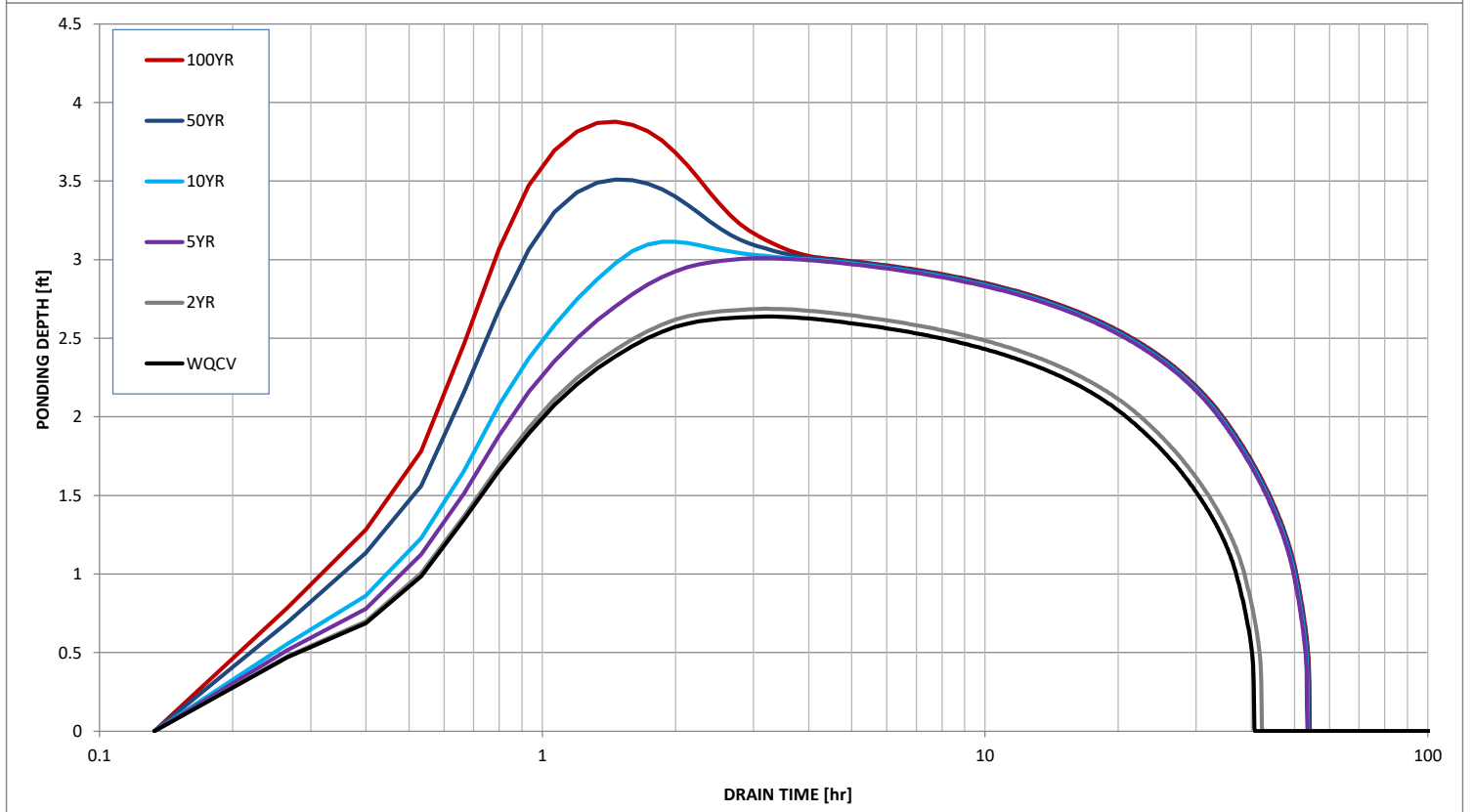
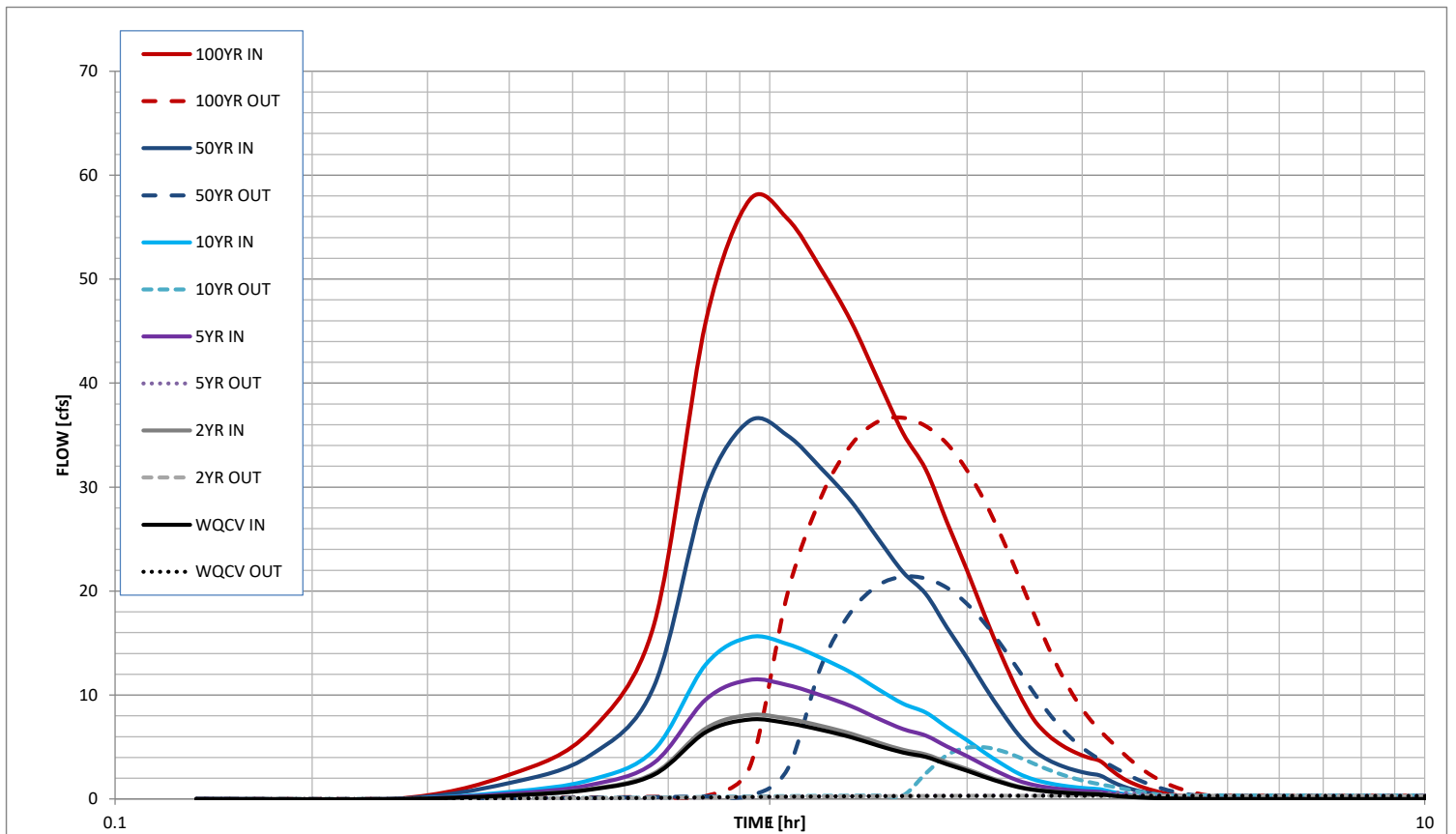
User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	32	0.00	0.00
0.33	50	0.33	0.05
1.00	3,260	1.00	0.11
2.00	17,980	2.00	0.24
3.00	46,439	3.00	0.35
4.00	73,964	4.00	41.88
5.00	86,681	5.00	237.69
5.50	89,520	5.50	408.05

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 =						
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.25	2.52 in
Calculated Runoff Volume =	0.737	0.780	1.110	1.513	3.577	5.724 acre-ft
OPTIONAL Override Runoff Volume =						acre-ft
Inflow Hydrograph Volume =	0.736	0.779	1.109	1.513	3.577	5.722 acre-ft
Time to Drain 97% of Inflow Volume =	37.4	38.9	49.0	48.1	43.7	39.8 hours
Time to Drain 99% of Inflow Volume =	39.3	40.9	51.6	51.2	49.4	47.7 hours
Maximum Ponding Depth =	2.64	2.69	3.01	3.11	3.51	3.88 ft
Maximum Ponded Area =	0.83	0.86	1.07	1.13	1.38	1.62 acres
Maximum Volume Stored =	0.662	0.702	1.014	1.127	1.624	2.180 acre-ft

# 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

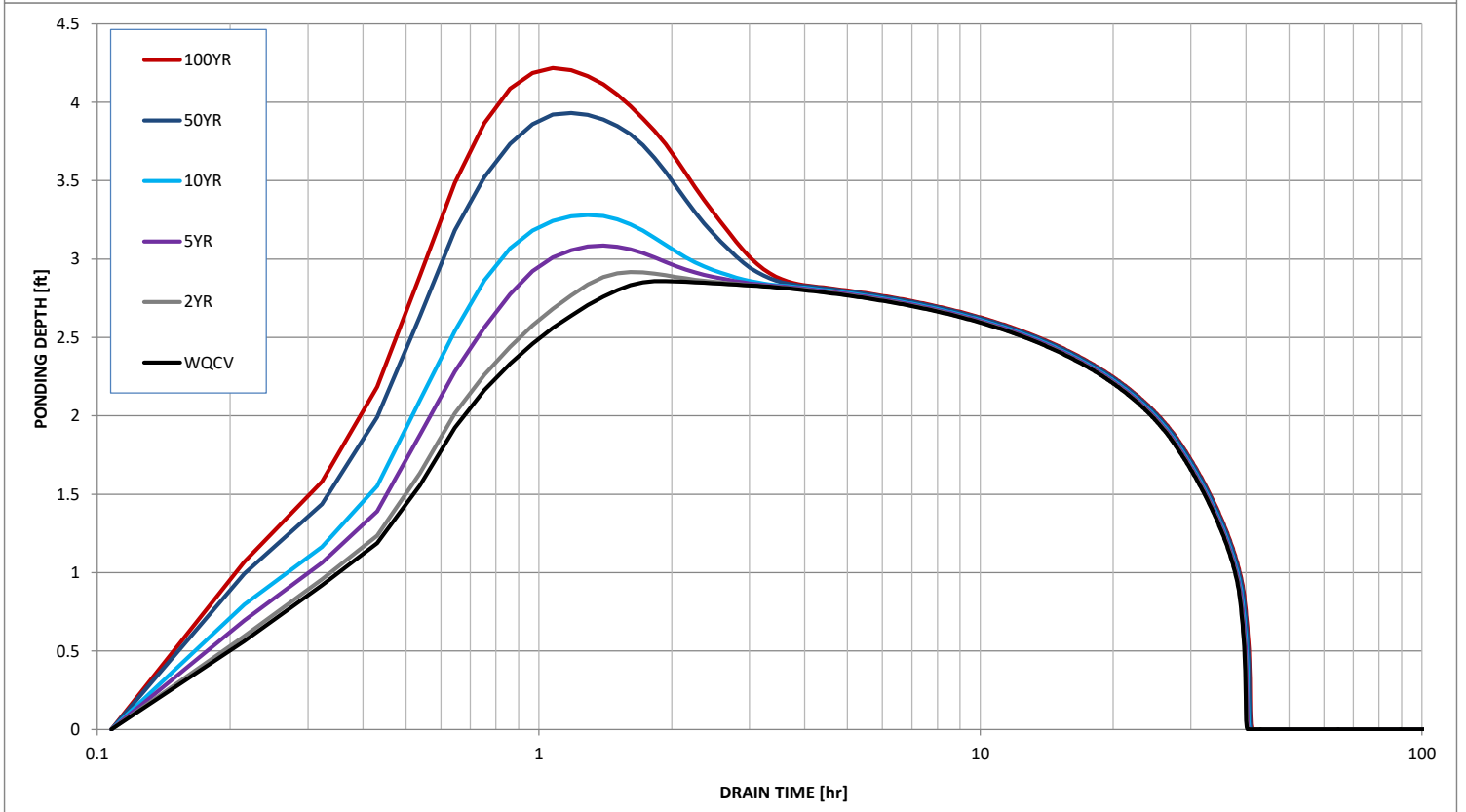
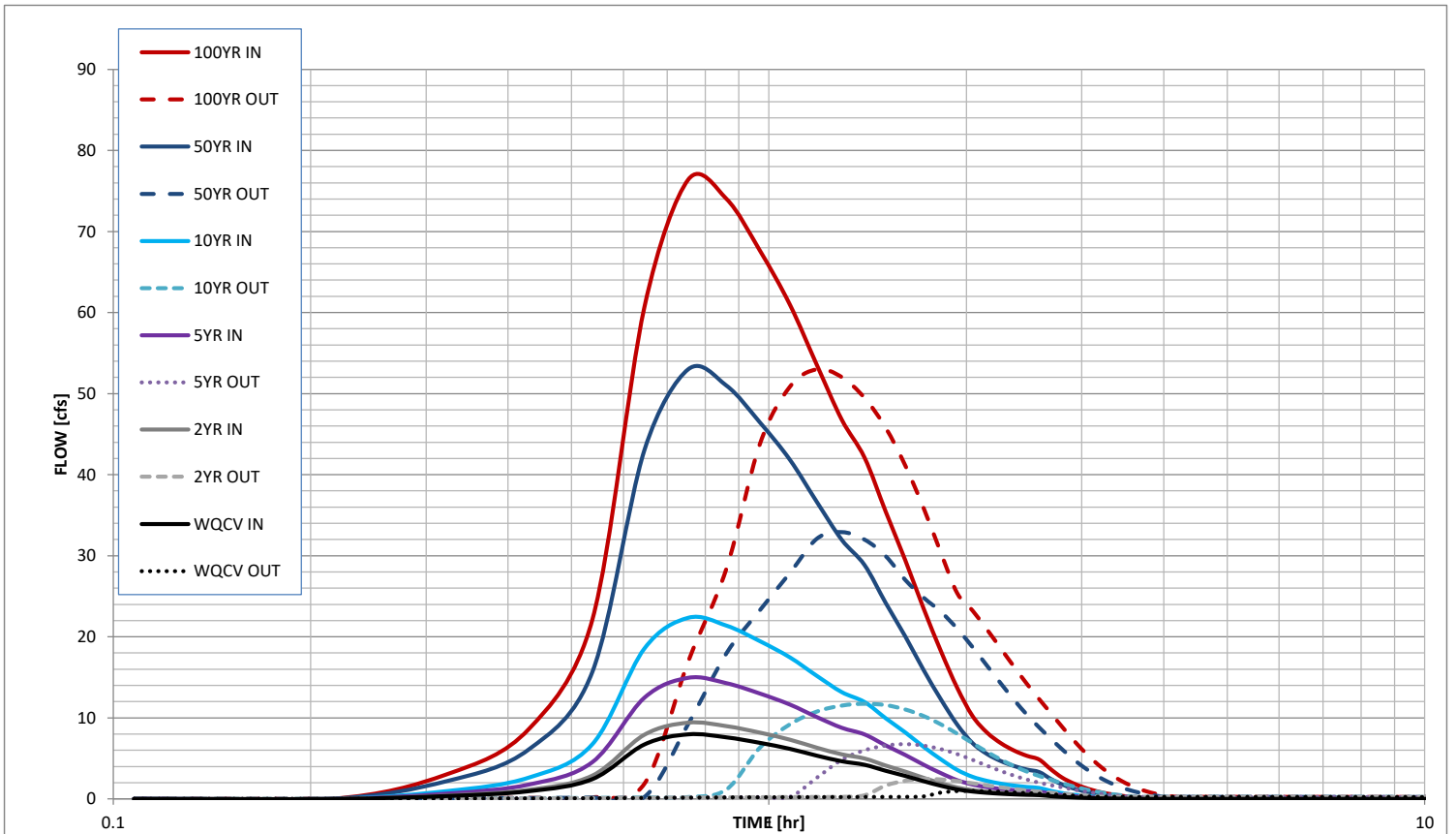
User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	32	0.00	0.00
0.33	50	0.33	0.04
0.83	699	0.83	0.06
1.83	8,089	1.83	0.15
2.83	27,770	2.83	0.26
3.83	58,037	3.83	25.71
4.33	70,791	4.33	61.17
4.83	83,546	4.83	146.98
5.83	98,172	5.83	513.83

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 =						
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.25	2.52
Calculated Runoff Volume =	0.619	0.733	1.170	1.758	4.226	6.144
OPTIONAL Override Runoff Volume =						
Inflow Hydrograph Volume =	0.619	0.733	1.170	1.758	4.226	6.142
Time to Drain 97% of Inflow Volume =	36.5	36.0	<b>34.5</b>	32.7	26.5	22.5
Time to Drain 99% of Inflow Volume =	38.5	38.3	37.8	37.0	34.2	<b>32.4</b>
Maximum Ponding Depth =	2.86	2.92	3.09	3.28	3.93	4.22
Maximum Poned Area =	0.65	0.70	0.81	0.95	1.39	<b>1.56</b>
Maximum Volume Stored =	0.533	0.573	0.701	0.872	1.637	2.055

# 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 = Extended Detention ▼

User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined 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

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

# Stormwater Detention and Infiltration Design Data Sheet

