

Stormwater Detention and Infiltration Design Data Sheet

Worksheet Protected

Stormwater Facility Name: SADDLEHORN RANCH - FILING 1 - POND G

Facility Location & Jurisdiction: EL PASO COUNTY - SADDLEHORN RANCH METROPOLITAN DISTRICT

User Input: Watershed Characteristics

Watershed Slope = 0.015 ft/ft

Watershed Length = 3700 ft

Watershed Area = 33.57 acres

Watershed Imperviousness = 18.6% percent

Percentage Hydrologic Soil Group A = 100.0% percent

Percentage Hydrologic Soil Group B = 0.0% 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

[illegible]

After completing and printing this worksheet to a pdf, go to:

<https://maperture.digitaldataservices.com/gvh/?viewer=cswdif>

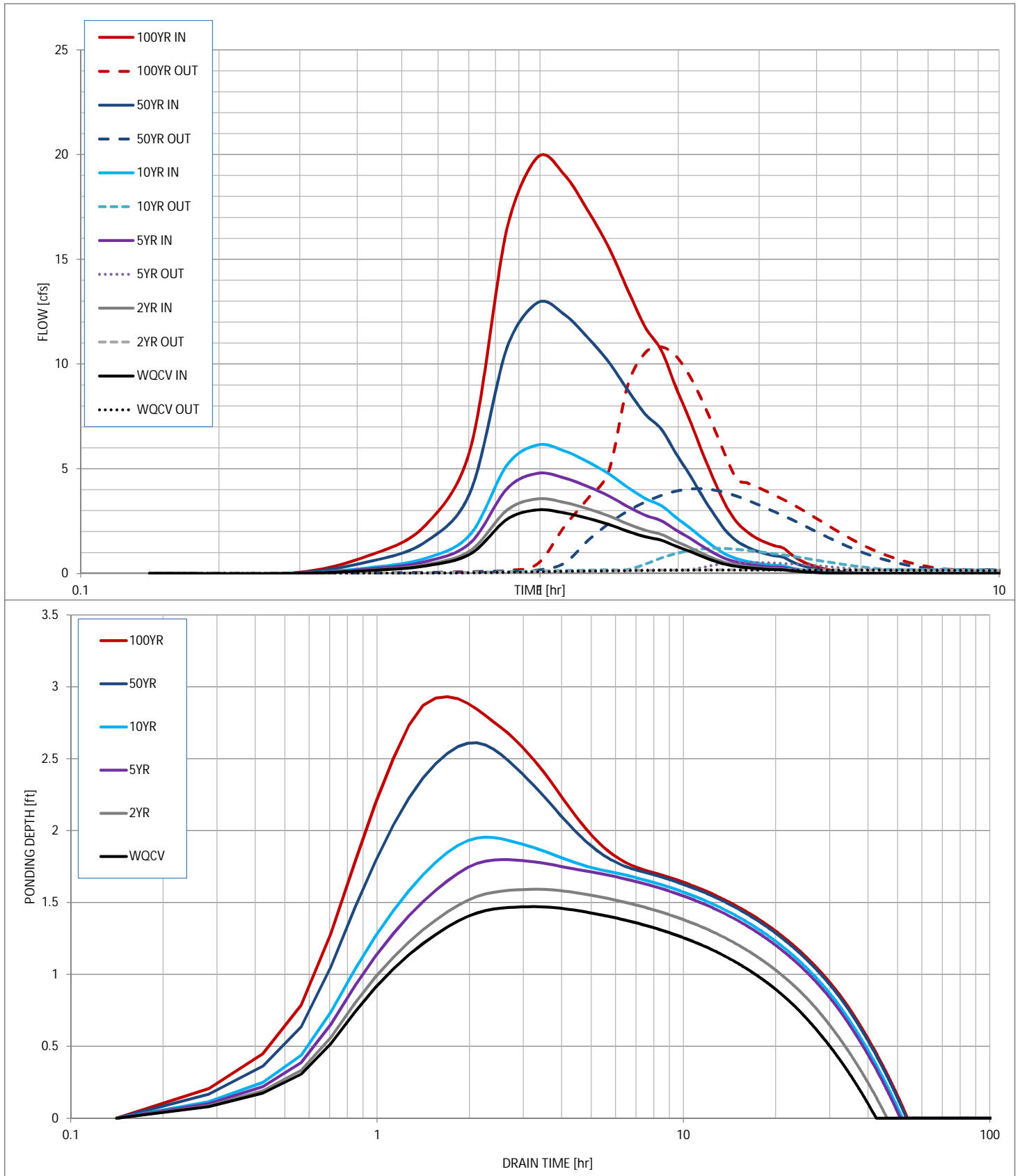
create a new stormwater facility, and

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 =	0.307	0.361	0.487	0.627	1.331	2.058	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.307	0.361	0.486	0.626	1.331	2.057	acre-ft
Time to Drain 97% of Inflow Volume =	35.6	38.6	42.2	41.8	38.8	35.6	hours
Time to Drain 99% of Inflow Volume =	38.6	41.8	46.0	46.0	45.1	43.4	hours
Maximum Ponding Depth =	1.47	1.59	1.80	1.95	2.61	2.93	ft
Maximum Poned Area =	0.40	0.43	0.49	0.51	0.62	0.66	acres
Maximum Volume Stored =	0.269	0.320	0.415	0.492	0.862	1.069	acre-ft

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Facility Location & Jurisdiction: EL PASO COUNTY - SADDLEHORN RANCH METROPOLITAN DISTRICT

User Input: Watershed Characteristics

Watershed Slope = 0.010 ft/ft

Watershed Length = 1800 ft

Watershed Area = 21.16 acres

Watershed Imperviousness = 17.0% percent

Percentage Hydrologic Soil Group A = 100.0% percent

Percentage Hydrologic Soil Group B = 0.0% 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 ▼

[illegible]

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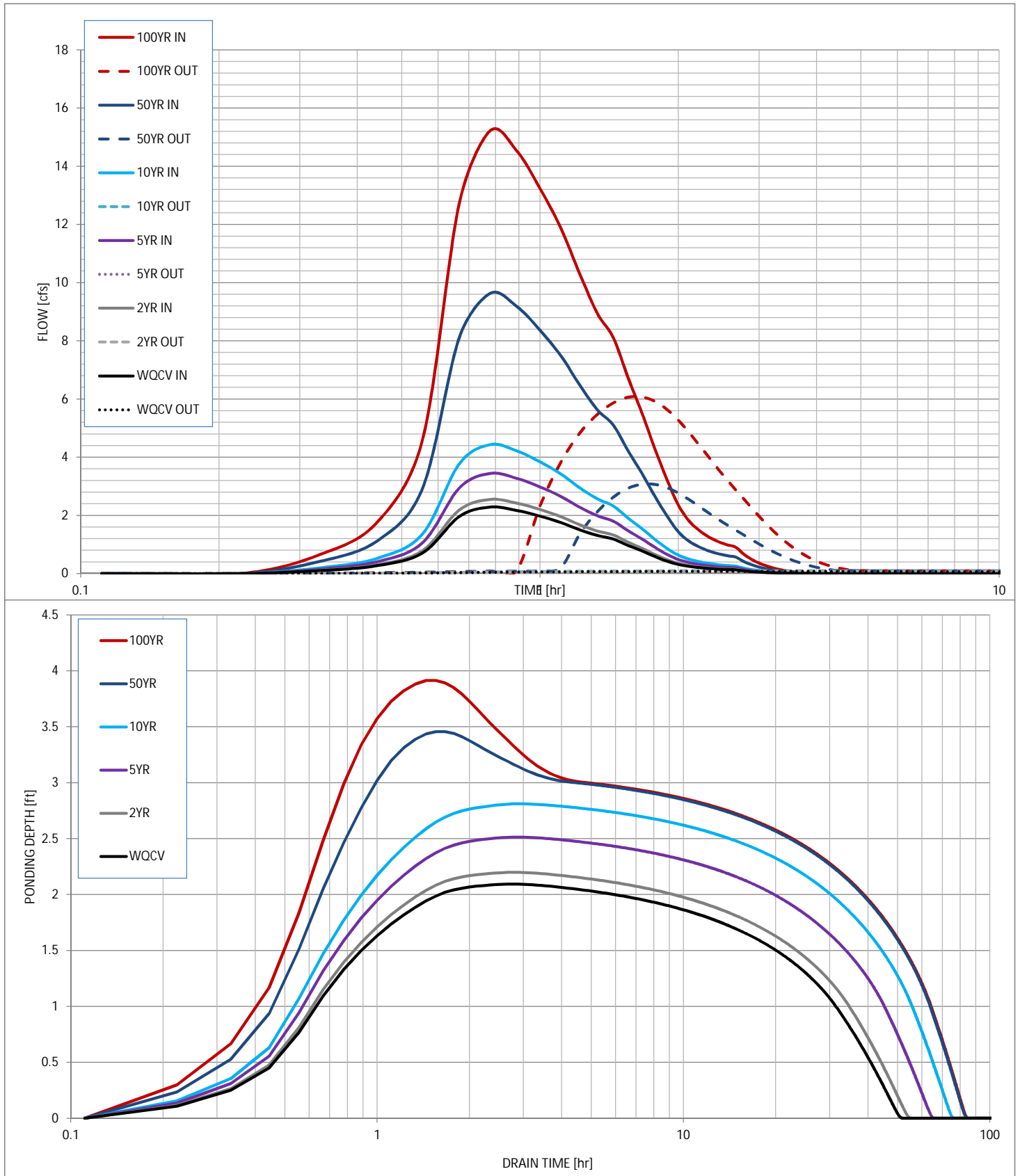
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Routed Hydrograph Results

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 =	0.181	0.202	0.274	0.353	0.775	1.231		acre-ft
OPTIONAL Override Runoff Volume =								acre-ft
Inflow Hydrograph Volume =	0.180	0.201	0.273	0.353	0.774	1.231		acre-ft
Time to Drain 97% of Inflow Volume =	42.7	45.6	54.7	63.9	66.6	62.7		hours
Time to Drain 99% of Inflow Volume =	46.1	49.2	58.9	68.6	73.6	71.4		hours
Maximum Ponding Depth =	2.09	2.20	2.51	2.81	3.46	3.91		ft
Maximum Poned Area =	0.19	0.20	0.24	0.28	0.37	0.45		acres
Maximum Volume Stored =	0.166	0.186	0.256	0.333	0.543	0.731		acre-ft

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Facility Location & Jurisdiction: EL PASO COUNTY - SADDLEHORN RANCH METROPOLITAN DISTRICT

User Input: Watershed Characteristics

Watershed Slope =	0.053	ft/ft
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Watershed Length = 1900 ft

Watershed Area =	38.04	acres
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Watershed Imperviousness =	17.0%	percent
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Percentage Hydrologic Soil Group A = 91.5% percent

Percentage Hydrologic Soil Group B = 8.5% 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

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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 =	0.325	0.372	0.508	0.687	1.575	2.423	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.325	0.371	0.508	0.687	1.574	2.423	acre-ft
Time to Drain 97% of Inflow Volume =	39.8	41.7	40.8	39.3	33.2	29.0	hours
Time to Drain 99% of Inflow Volume =	43.8	46.1	45.9	45.3	41.8	39.0	hours
Maximum Ponding Depth =	2.88	3.03	3.31	3.64	4.56	5.10	ft
Maximum Poned Area =	0.25	0.26	0.29	0.32	0.44	0.53	acres
Maximum Volume Stored =	0.302	0.344	0.420	0.522	0.868	1.127	acre-ft

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