

# Stormwater Detention and Infiltration Design Data Sheet

Worksheet Protected

**Stormwater Facility Name:**

### Facility Location & Jurisdiction:

### User (Input) Watershed Characteristics

Watershed Slope =	0.020	ft/ft
Watershed Length-to-Width Ratio =	2.00	L:W
Watershed Area =	14.80	acres
Watershed Imperviousness =	14.6%	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: Detention Basin Characteristics

WQCV Design Drain Time = 40.00 hours

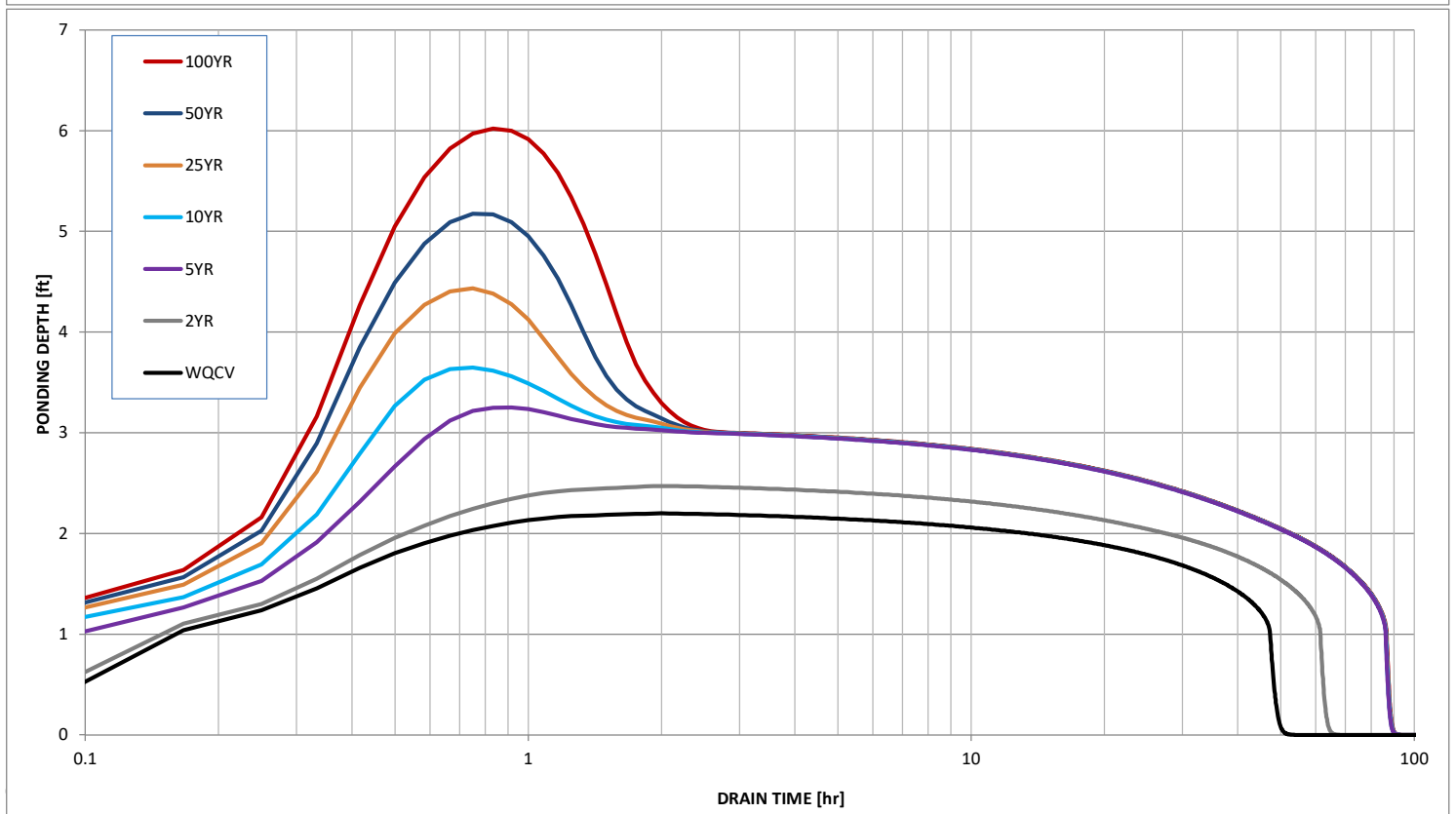
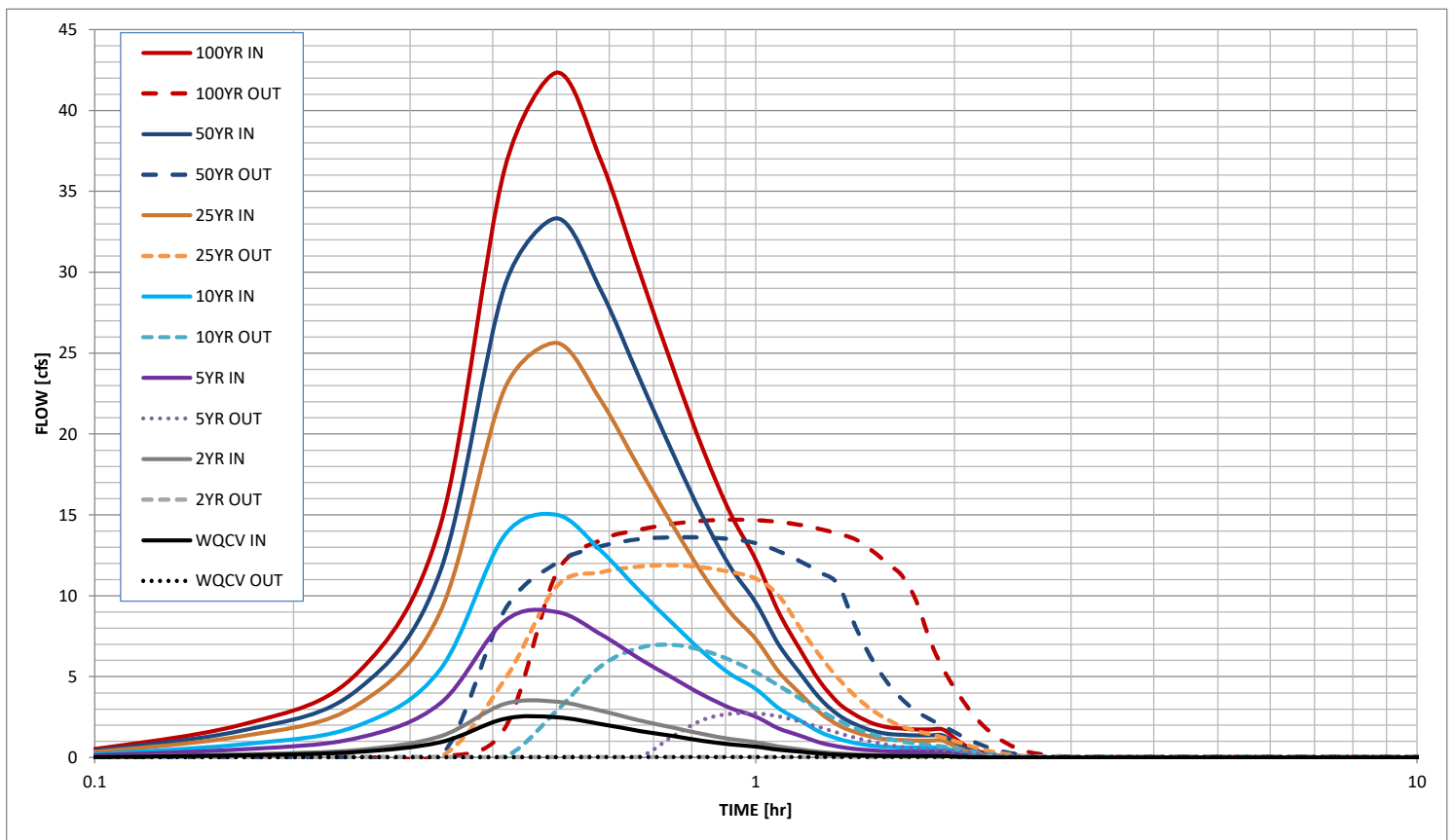
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After completing and printing this worksheet to a pdf, go to:  
<https://maperture.digitaldataservices.com/gvh/?viewer=cswidf>,  
 create a new stormwater facility, and  
 attach the pdf of this worksheet to that record.

### Routed Hydrograph Results

Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.00	2.25	2.52	in
Calculated Runoff Volume =	0.111	0.155	0.405	0.675	1.155	1.504	1.912	acre-ft
OPTIONAL Override Runoff Volume =								acre-ft
Inflow Hydrograph Volume =	0.111	0.154	0.404	0.674	1.154	1.503	1.912	acre-ft
Time to Drain 97% of Inflow Volume =	47	60	81	77	70	66	60	hours
Time to Drain 99% of Inflow Volume =	48	62	85	84	81	80	78	hours
Maximum Ponding Depth =	2.20	2.47	3.25	3.65	4.43	5.18	6.02	ft
Maximum Poned Area =	0.152	0.162	0.188	0.202	0.231	0.267	0.334	acres
Maximum Volume Stored =	0.105	0.148	0.284	0.361	0.531	0.714	0.968	acre-ft

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**Stormwater Facility Name:** Redtail Ranch Filing No. 1 - Pond 2 EDB

**Facility Location & Jurisdiction:** Drainage Easement Lot 7, El Paso County

### User (Input) Watershed Characteristics

Watershed Slope =	0.020	ft/ft
Watershed Length-to-Width Ratio =	2.00	L:W
Watershed Area =	28.60	acres
Watershed Imperviousness =	9.5%	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

### User Input: Detention Basin Characteristics

WQCV Design Drain Time = 40.00 hours

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### Routed Hydrograph Results

Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.00	2.25	2.52	in
Calculated Runoff Volume =	0.151	0.181	0.614	1.129	2.072	2.745	3.538	acre-ft
OPTIONAL Override Runoff Volume =								acre-ft
Inflow Hydrograph Volume =	0.150	0.180	0.614	1.129	2.071	2.744	3.538	acre-ft
Time to Drain 97% of Inflow Volume =	62	66	76	65	52	46	40	hours
Time to Drain 99% of Inflow Volume =	69	73	89	83	74	69	64	hours
Maximum Ponding Depth =	1.89	2.05	3.32	3.95	5.40	6.64	7.80	ft
Maximum Poned Area =	0.168	0.182	0.227	0.249	0.307	0.403	0.553	acres
Maximum Volume Stored =	0.141	0.169	0.431	0.578	0.984	1.411	1.959	acre-ft

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