

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

Stormwater Facility Name: Araco Concrete - Detention Basin A1

Facility Location & Jurisdiction: 7470 Southmoor Drive, Fountain, CO (El Paso County)

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 = ▼

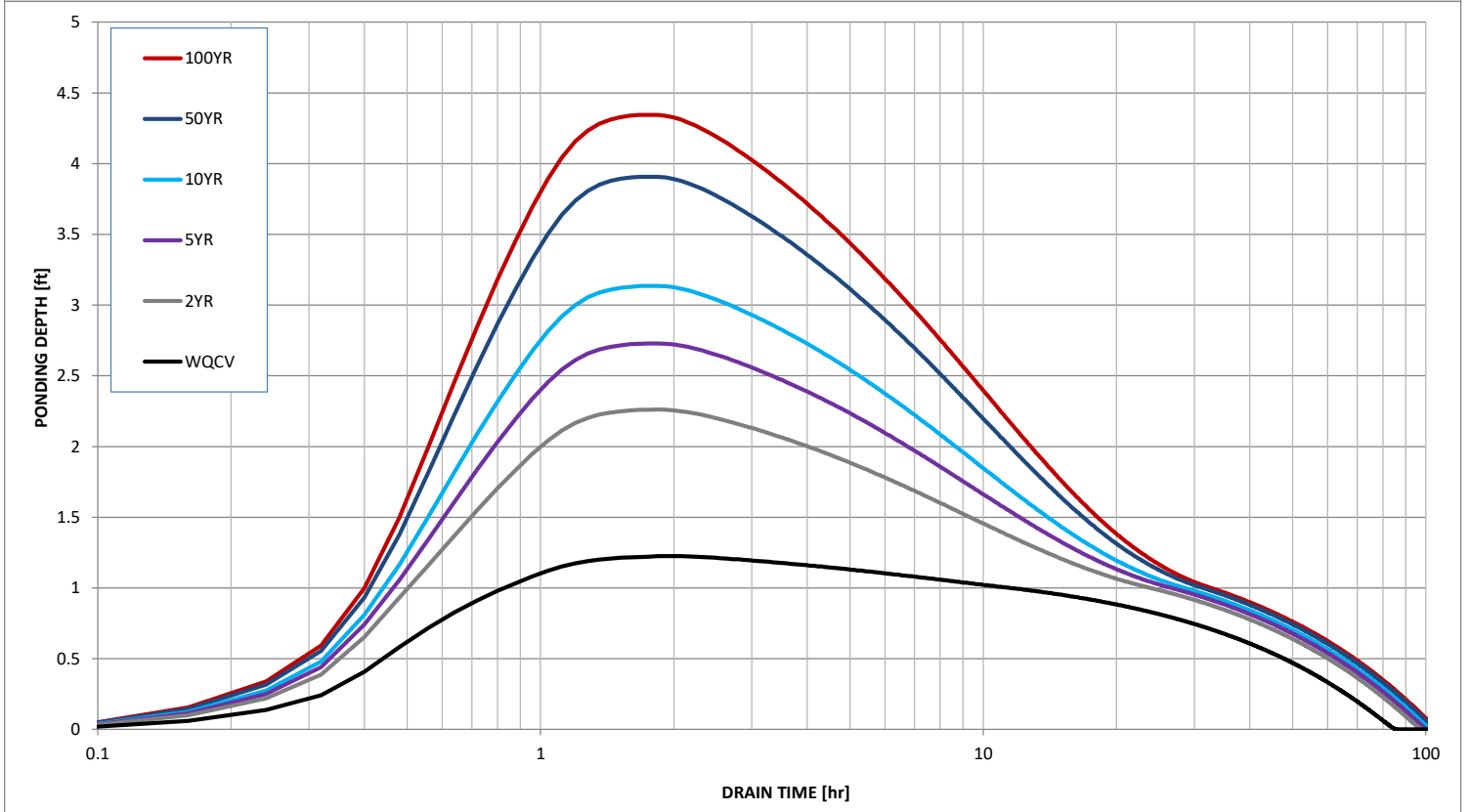
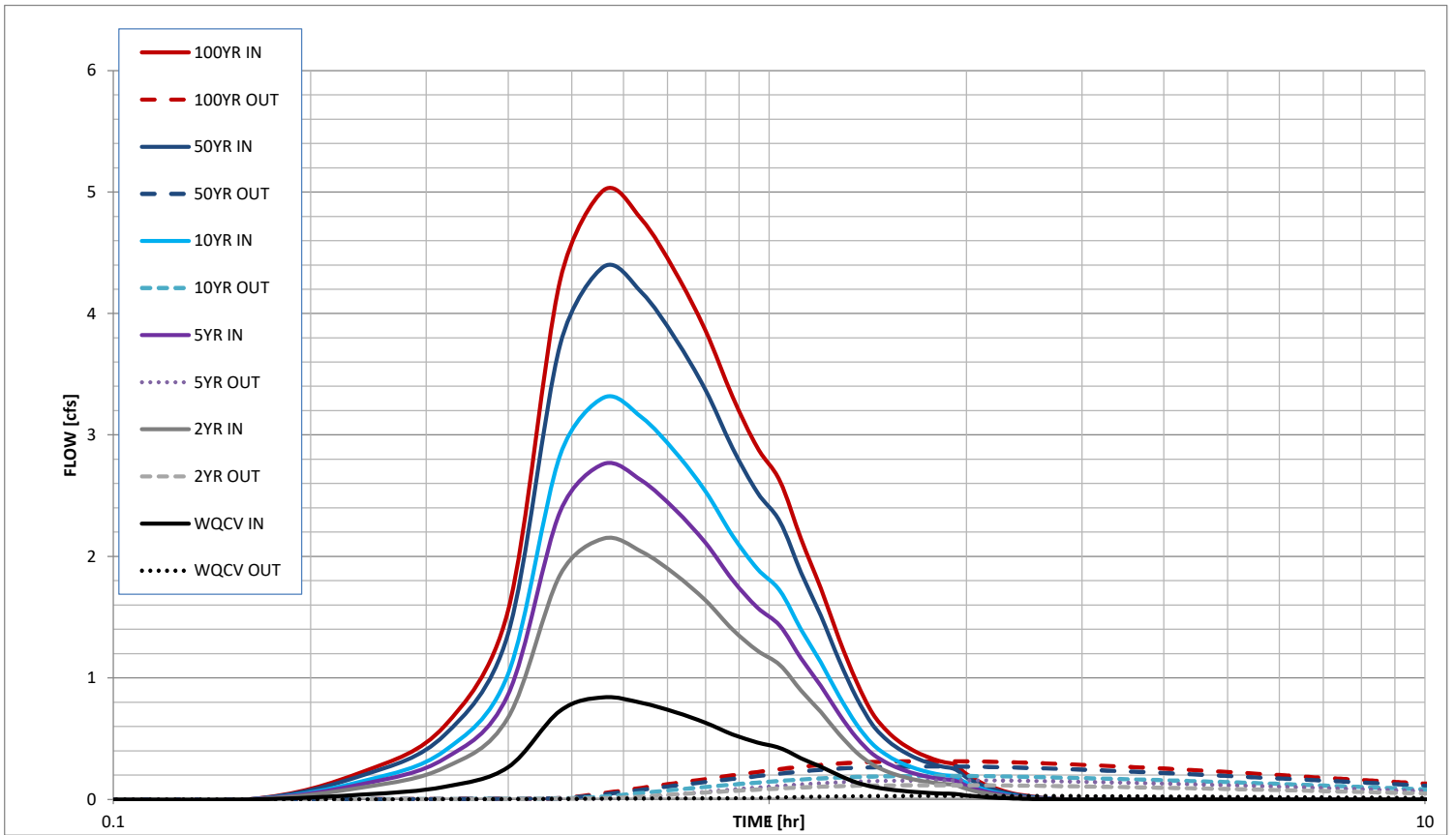
User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	10	0.00	0.00
1.00	2,610	1.00	0.01
3.00	2,958	3.00	0.18
5.00	3,308	5.00	0.38
7.00	3,660	7.00	17.41

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 =	0.60	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.047	0.121	0.157	0.189	0.251	0.288	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.047	0.121	0.157	0.188	0.250	0.287	acre-ft
Time to Drain 97% of Inflow Volume =	68.8	71.5	70.7	69.8	67.8	66.5	hours
Time to Drain 99% of Inflow Volume =	75.6	82.3	83.0	83.3	83.3	83.1	hours
Maximum Ponding Depth =	1.22	2.26	2.73	3.14	3.91	4.34	ft
Maximum Poned Area =	0.06	0.06	0.07	0.07	0.07	0.07	acres
Maximum Volume Stored =	0.044	0.108	0.139	0.167	0.221	0.252	acre-ft

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Worksheet Protected

Stormwater Facility Name: Araco Concrete - Detention Basin A2

Facility Location & Jurisdiction: 7470 Southmoor Drive, Fountain, CO (El Paso County)

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	10	0.00	0.00
0.50	3,869	0.50	0.01
1.50	3,974	1.50	0.09
3.50	4,149	3.50	0.90
5.50	4,300	5.50	19.15

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Routed Hydrograph Results

	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
Design Storm Return Period =							
One-Hour Rainfall Depth =	0.60	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.041	0.097	0.131	0.163	0.254	0.310	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.040	0.097	0.131	0.162	0.253	0.310	acre-ft
Time to Drain 97% of Inflow Volume =	55.6	63.4	64.5	63.6	59.4	56.8	hours
Time to Drain 99% of Inflow Volume =	61.0	71.6	74.2	74.3	72.8	71.6	hours
Maximum Ponding Depth =	0.66	1.22	1.54	1.79	2.49	2.91	ft
Maximum Poned Area =	0.09	0.09	0.09	0.09	0.09	0.09	acres
Maximum Volume Stored =	0.037	0.086	0.116	0.139	0.203	0.242	acre-ft

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