Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

Stormwater Facility Name: **Abert Ranch Detention Pond I**

Facility Location & Jurisdiction: **Abert Ranch Drive, Abert Ranch Subdivision, El Paso County, CO**

User Input: Watershed Characteristics

Watershed Slope =	0.041	ft/ft
Watershed Length =	2800	ft
Watershed Area =	95.10	acres
Watershed Imperviousness =	8.6%	percent
Percentage Hydrologic Soil Group A =		percent
Percentage Hydrologic Soil Group B =	100.0%	percent
Percentage Hydrologic Soil Groups C/D =		percent

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

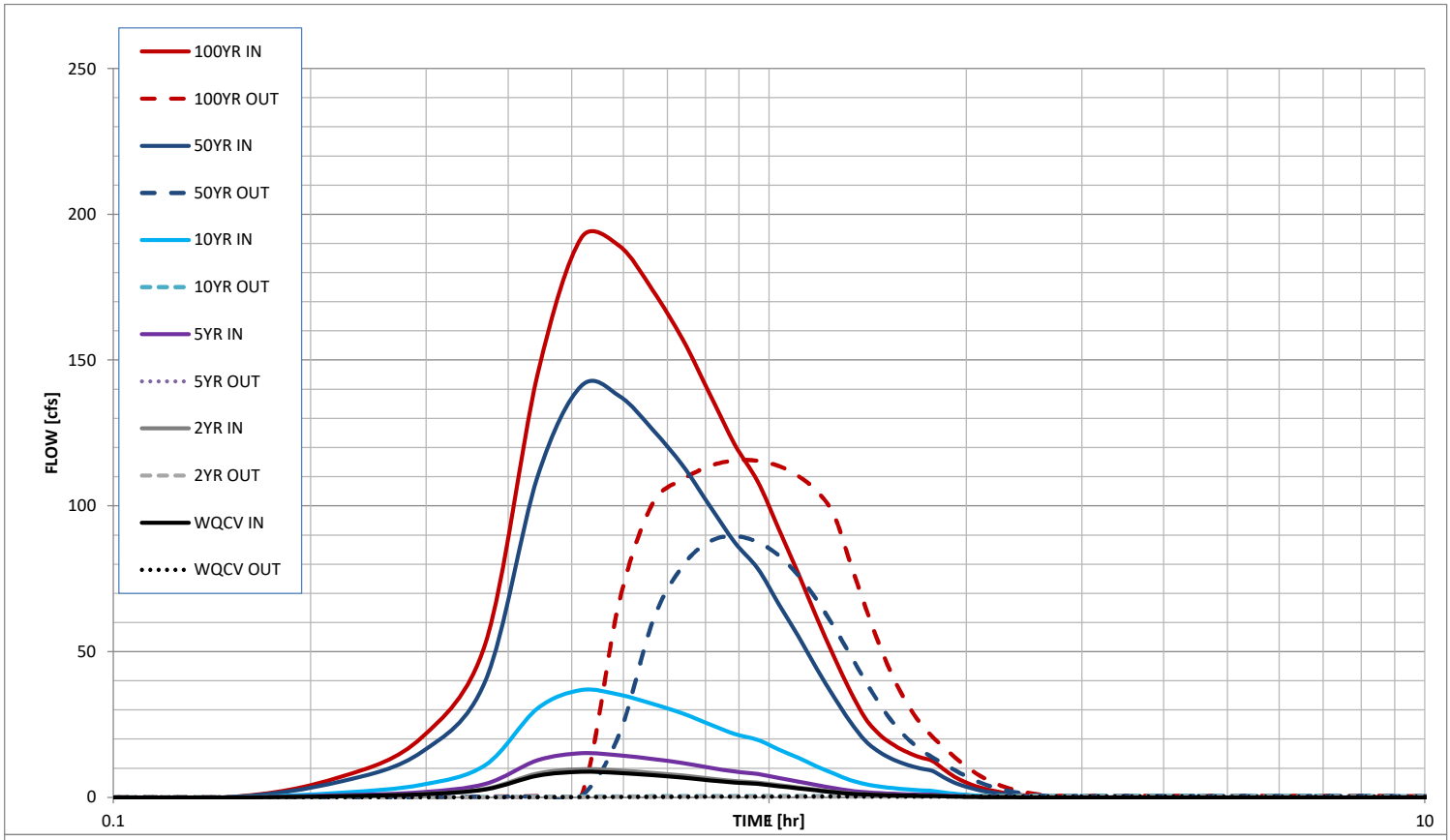
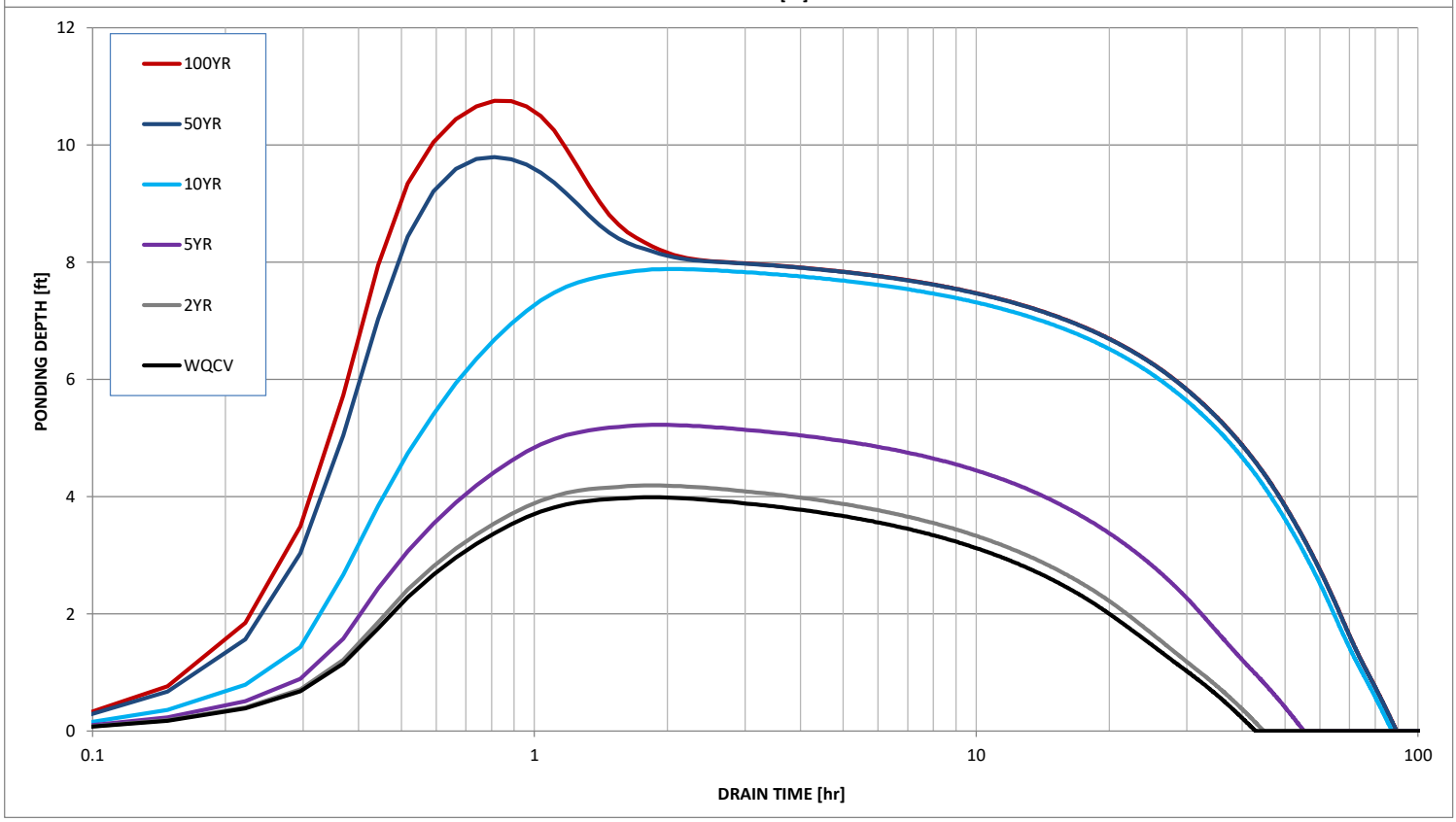
User Input

WQCV Treatment Method = Extended Detention

User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	10	0.00	0.00
1.00	3,154	1.00	0.07
2.00	4,061	2.00	0.13
4.00	9,656	4.00	0.29
6.00	16,274	6.00	0.41
8.00	25,480	8.00	0.50
10.00	39,095	10.00	100.08
11.00	46,559	11.00	120.74
12.00	54,023	12.00	356.30
13.00	61,500	13.00	778.36

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 =	0.60	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.466	0.514	0.810	1.991	7.841	10.774	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.466	0.514	0.809	1.990	7.840	10.764	acre-ft
Time to Drain 97% of Inflow Volume =	35.0	36.6	**44.8**	71.2	58.2	53.6	hours
Time to Drain 99% of Inflow Volume =	38.3	40.0	49.2	78.0	70.9	**67.8**	hours
Maximum Ponding Depth =	3.99	4.19	5.23	7.88	9.79	10.75	ft
Maximum Ponded Area =	0.22	0.24	0.31	0.57	0.86	**1.03**	acres
Maximum Volume Stored =	0.429	0.474	0.761	1.913	3.284	4.184	acre-ft

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