Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

Stormwater Facility Name: **DeYoung Subdivision - Water Quality Detention Pond A1**

Facility Location & Jurisdiction: **Bent Grass Meadows Drive, El Paso County, CO**

User Input: Watershed Characteristics

Watershed Slope =	0.020	ft/ft
Watershed Length =	1500	ft
Watershed Area =	12.66	acres
Watershed Imperviousness =	86.3%	percent
Percentage Hydrologic Soil Group A =	100.0%	percent
Percentage Hydrologic Soil Group B =		percent
Percentage Hydrologic Soil Groups C/D =		percent

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

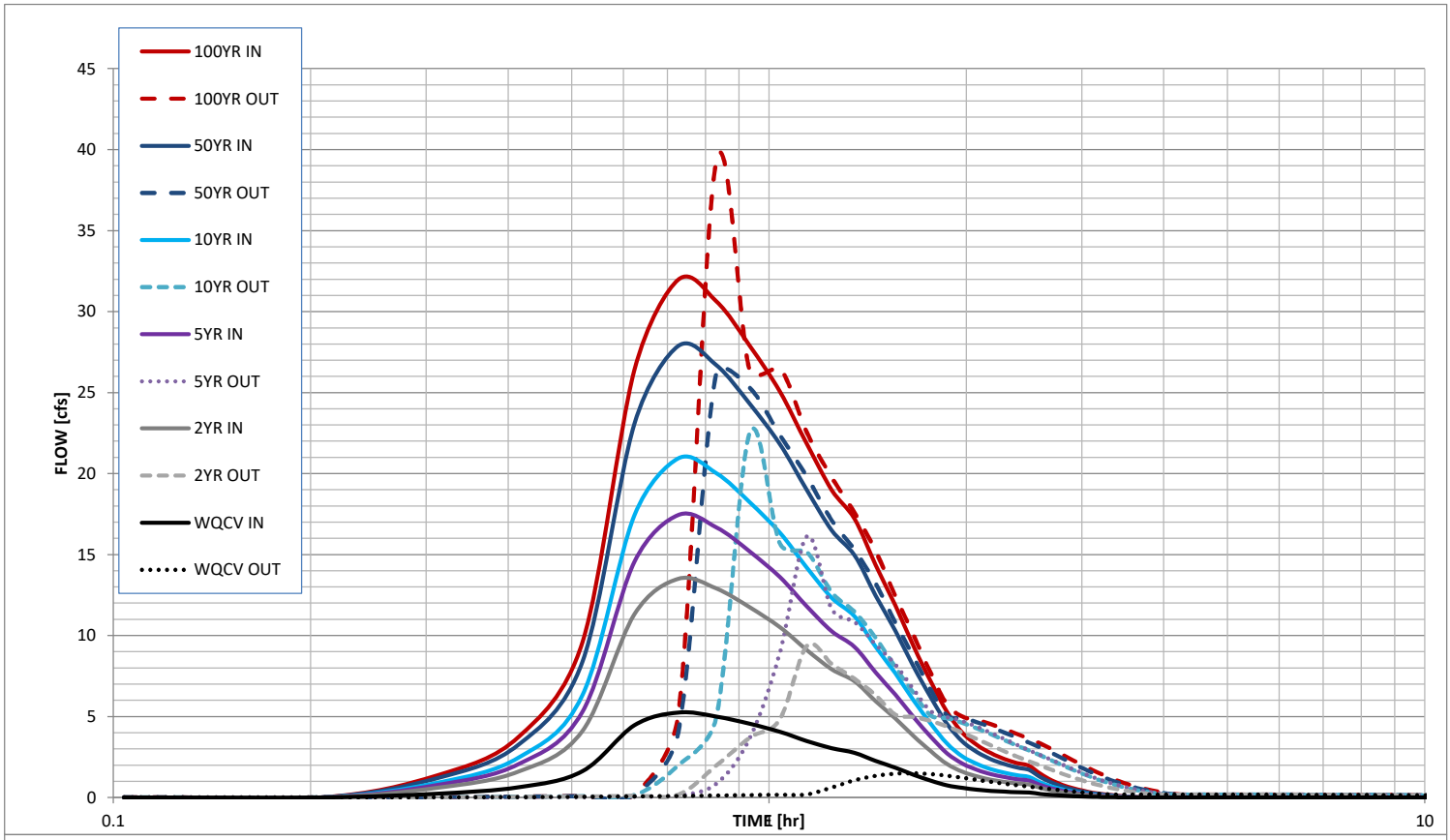
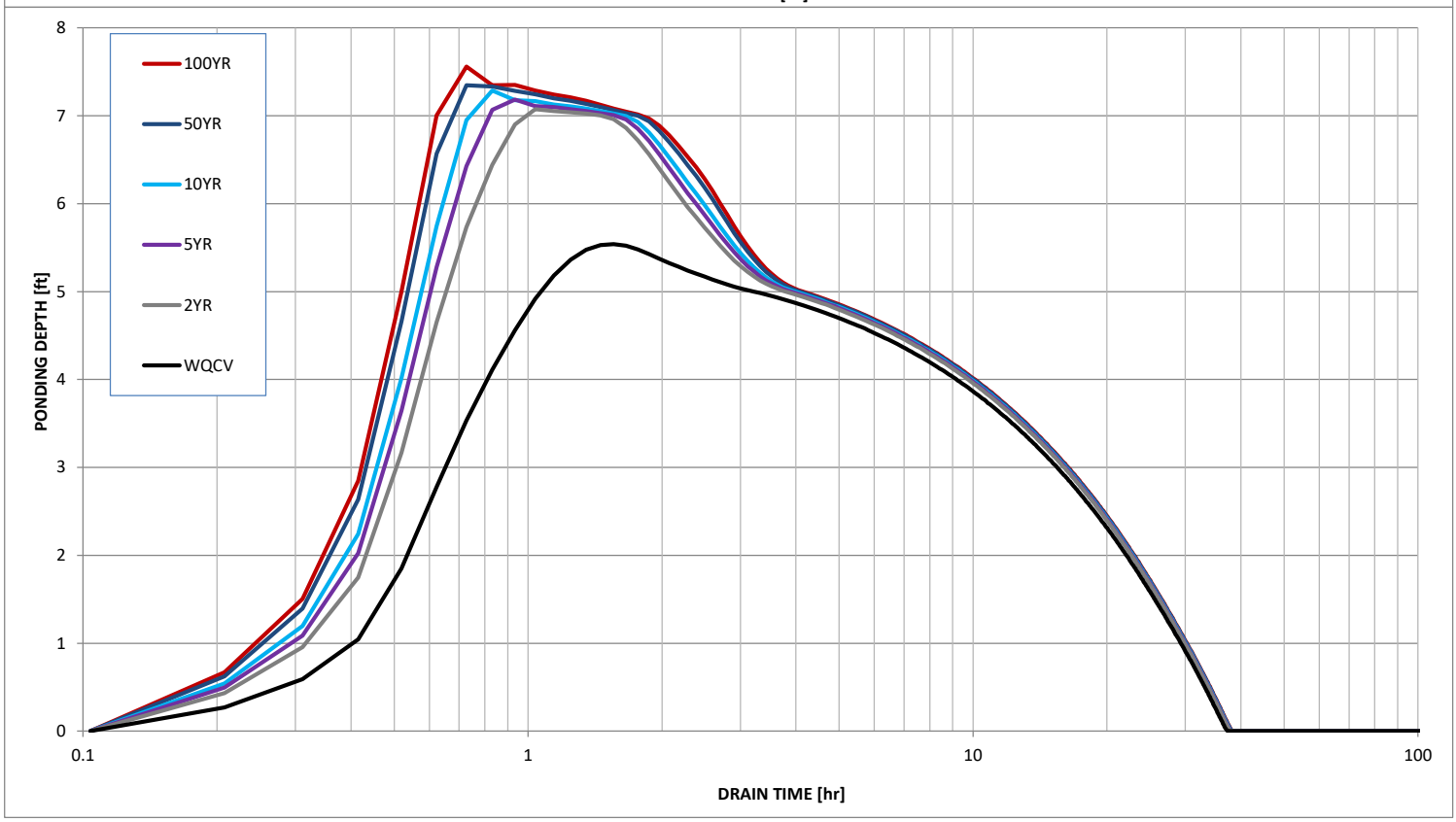
User Input

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	1,109	1.00	0.04
3.00	2,346	3.00	0.10
5.00	3,995	5.00	0.19
7.00	5,899	7.00	5.08
9.00	7,800	9.00	127.93

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 =	0.393	1.019	1.321	1.588	2.123	2.440	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.392	1.019	1.320	1.588	2.122	2.439	acre-ft
Time to Drain 97% of Inflow Volume =	29.7	25.5	**23.9**	22.5	20.1	18.8	hours
Time to Drain 99% of Inflow Volume =	32.8	30.7	29.9	29.2	27.9	**27.2**	hours
Maximum Ponding Depth =	5.54	7.07	7.18	7.29	7.35	7.56	ft
Maximum Ponded Area =	0.10	0.14	0.14	0.14	0.14	**0.15**	acres
Maximum Volume Stored =	0.290	0.474	0.489	0.503	0.512	0.543	acre-ft

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