Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

Stormwater Facility Name: **Judge Orr Road RV and Storage Development**

Facility Location & Jurisdiction: **14010 Judge Orr Road, Peyton, Colorado (El Paso County)**

User Input: Watershed Characteristics

Watershed Slope =	0.018	ft/ft
Watershed Length =	1600	ft
Watershed Area =	29.65	acres
Watershed Imperviousness =	44.0%	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):

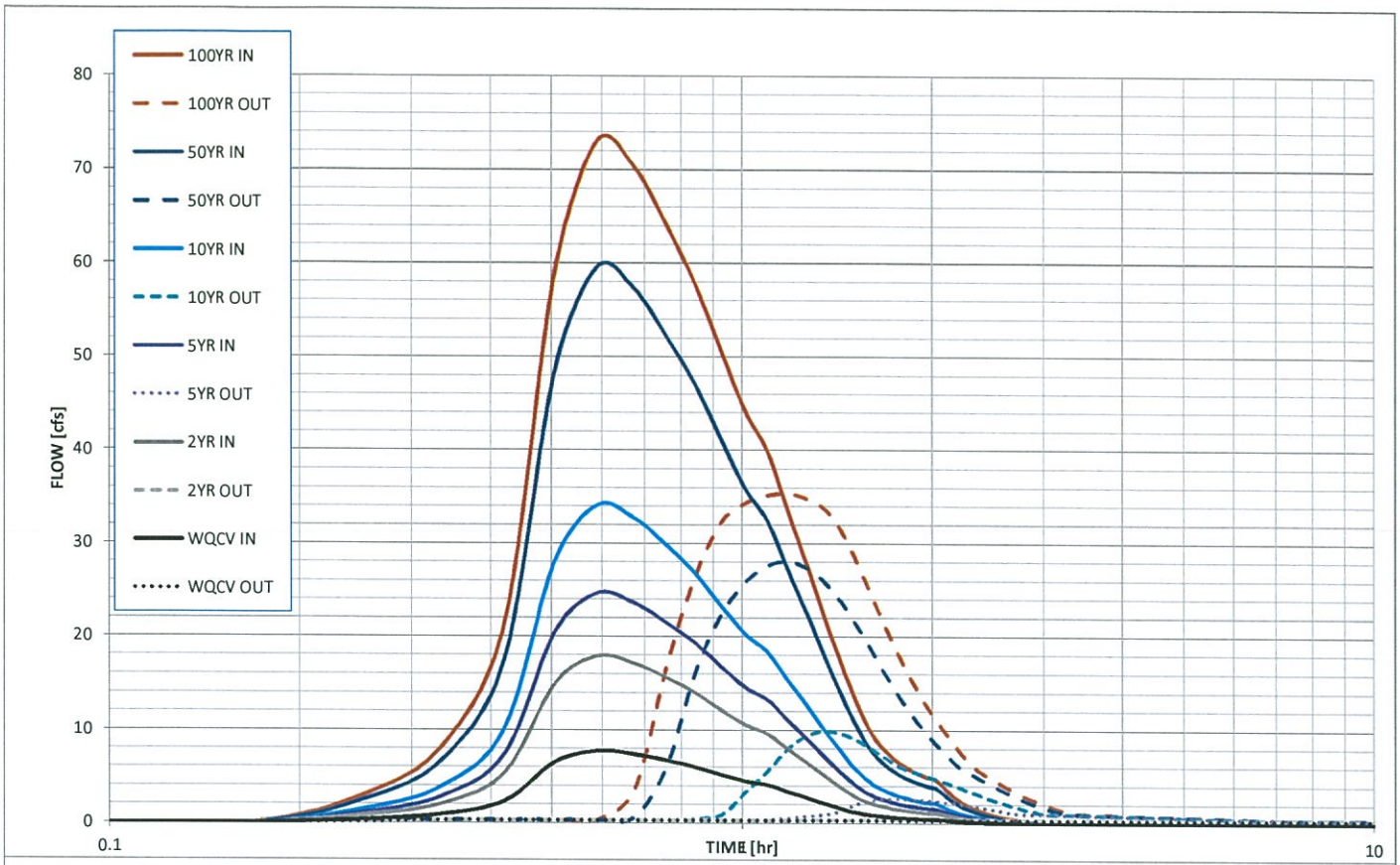
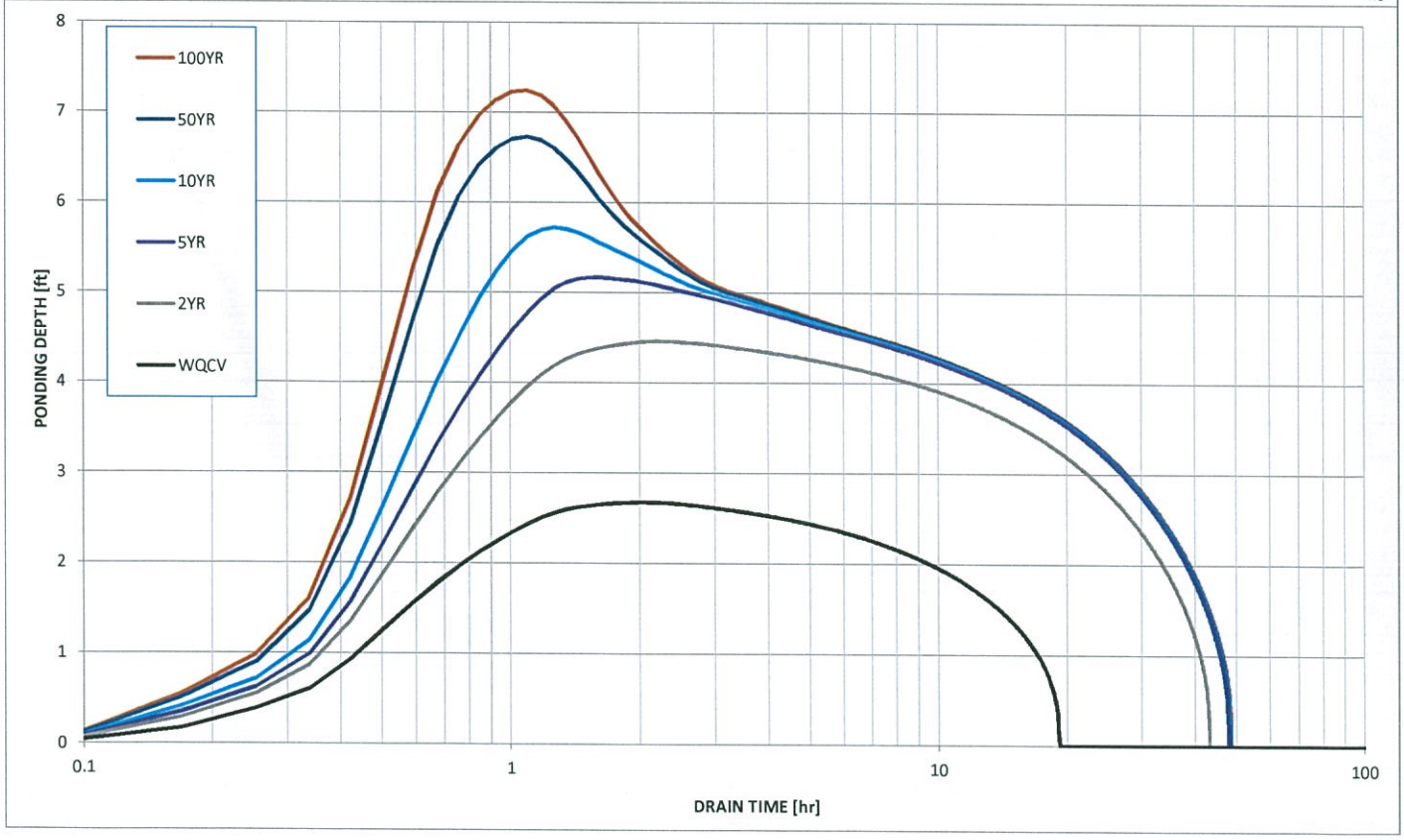
User Input

WQCV Treatment Method = Extended Detention

User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	0	0.00	0.00
0.33	638	0.33	0.30
0.50	2,016	0.50	0.30
0.90	4,771	0.90	0.30
1.00	5,460	1.00	0.30
1.50	8,364	1.50	0.30
2.00	10,459	2.00	0.30
2.50	12,241	2.50	0.30
3.00	13,553	3.00	0.30
3.50	14,866	3.50	0.30
4.00	16,178	4.00	0.30
4.50	17,491	4.50	0.40
5.00	18,803	5.00	1.00
5.50	20,116	5.50	6.00
6.00	21,428	6.00	15.00
6.50	22,806	6.50	24.00
7.00	24,281	7.00	33.00
7.50	25,757	7.50	37.70
8.00	27,232	8.00	65.00
9.00	30,248	9.00	100.00

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 =	0.470	1.099	1.517	2.109	3.720	4.576	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.470	1.099	1.517	2.108	3.719	4.575	acre-ft
Time to Drain 97% of Inflow Volume =	18.6	41.9	**46.0**	45.5	43.9	42.9	hours
Time to Drain 99% of Inflow Volume =	19.0	42.8	47.1	47.3	46.9	**46.6**	hours
Maximum Ponding Depth =	2.68	4.46	5.17	5.72	6.73	7.24	ft
Maximum Ponded Area =	0.29	0.40	0.44	0.47	0.54	**0.57**	acres
Maximum Volume Stored =	0.416	1.034	1.327	1.580	2.089	2.379	acre-ft

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