Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: **Compark Village South Filing No. 1 - WQ Basin West**

Facility Location & Jurisdiction: **Belford Ave, Town of Parker, CO**

User Input: Watershed Characteristics

Extended Detention Basin (EDB)	EDB	
Watershed Area =	17.50	acres
Watershed Length =	1,000	ft
Watershed Length to Centroid =	500	ft
Watershed Slope =	0.020	ft/ft
Watershed Imperviousness =	12.0%	percent
Percentage Hydrologic Soil Group A =	0.0%	percent
Percentage Hydrologic Soil Group B =	0.0%	percent
Percentage Hydrologic Soil Groups C/D =	100.0%	percent
Target WQCV Drain Time =	40.0	hours

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

Parker - Town Hall

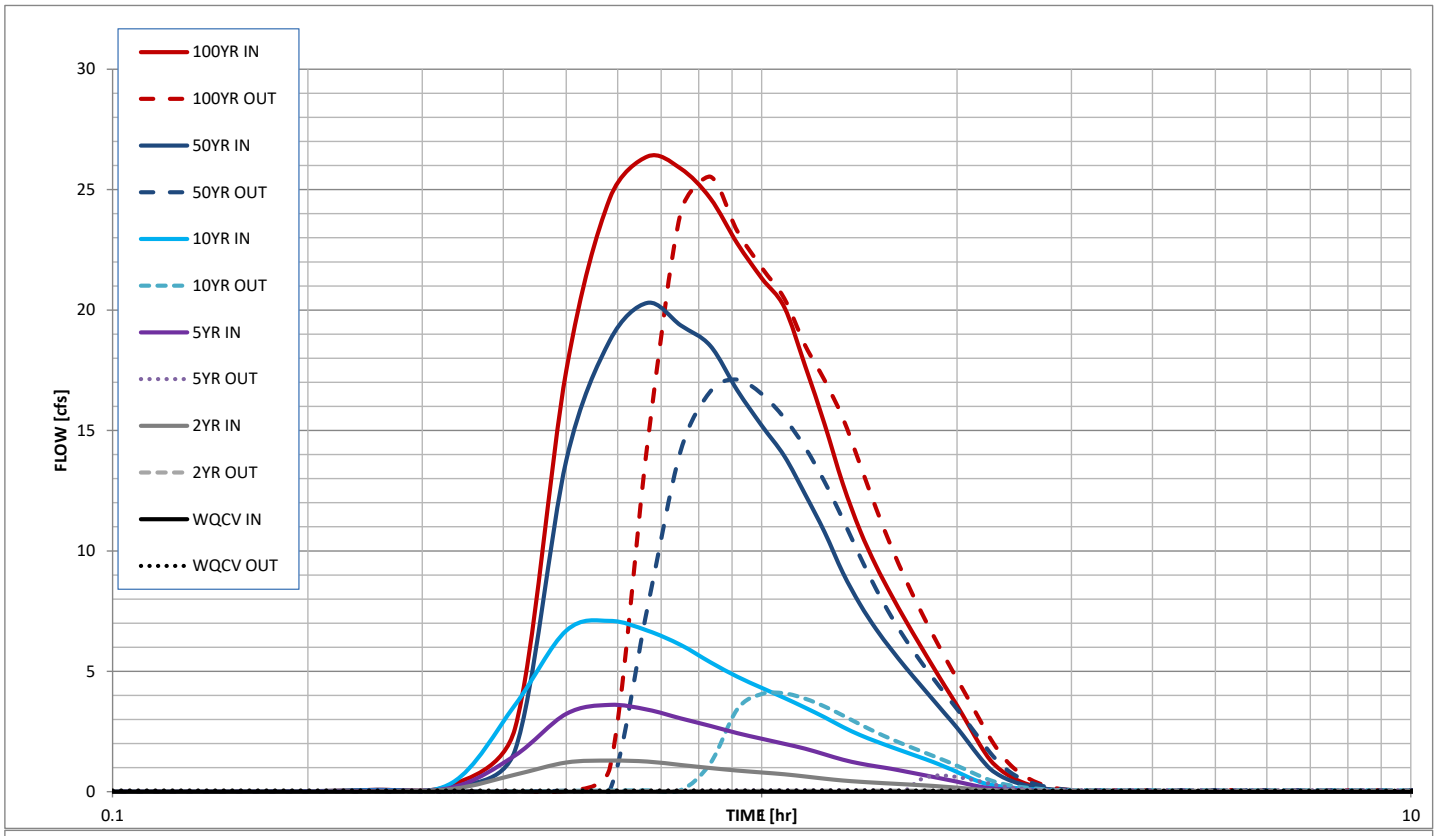
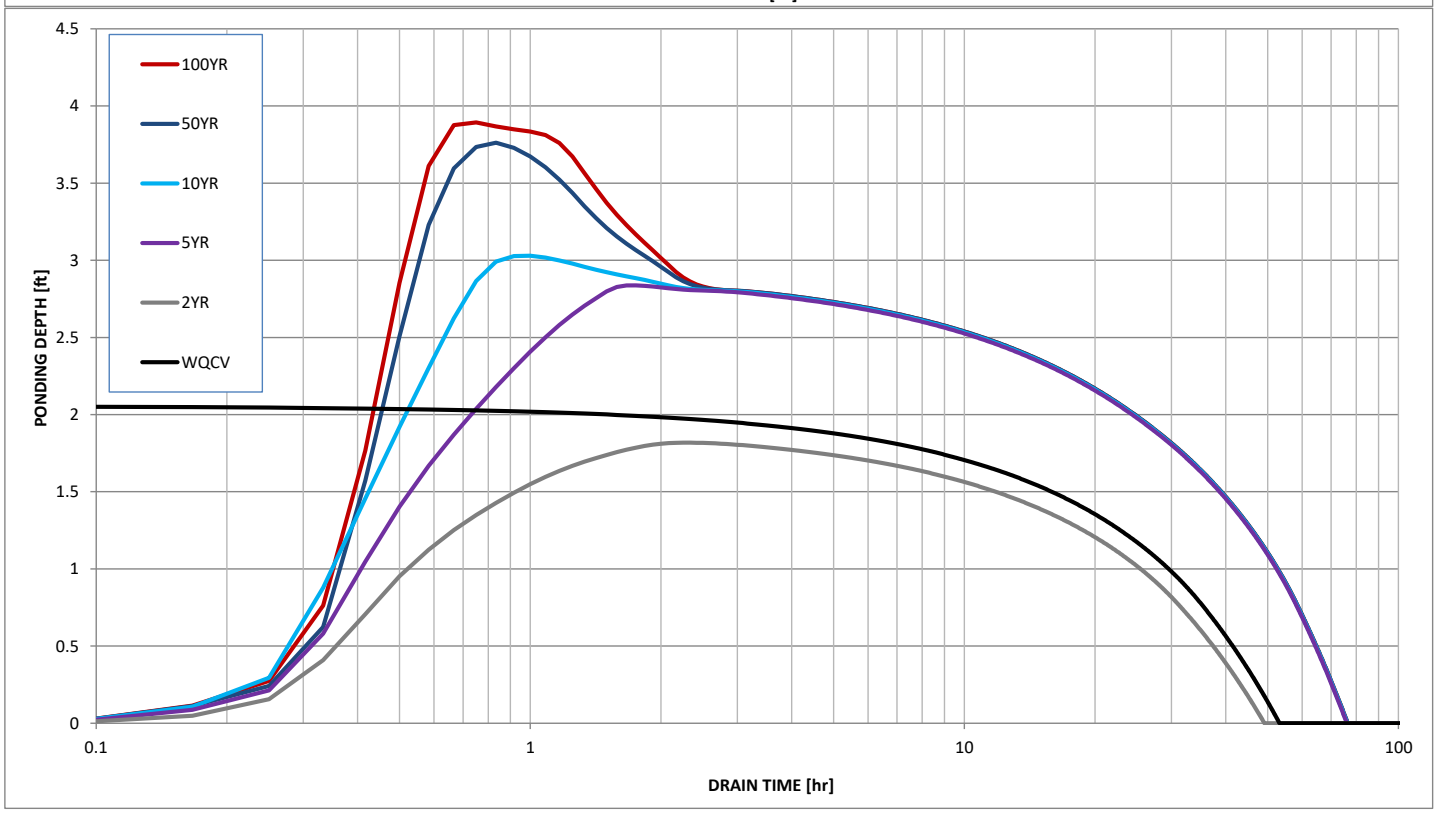
User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	0	0.00	0.00
0.80	1,371	0.80	0.02
1.80	4,874	1.80	0.05
2.80	6,440	2.80	0.07
3.80	7,895	3.80	17.85
4.80	9,456	4.80	102.98
5.30	10,329	5.30	207.24

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

Once CUHP has been run and the Stage-Area-Discharge information has been provided, click 'Process Data' to interpolate the Stage-Area-Volume-Discharge data and generate summary results in the table below. Once this is complete, click 'Print to PDF'.

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 =	N/A	0.82	1.10	1.34	1.98	2.29	in
CUHP Runoff Volume =	0.114	0.094	0.252	0.503	1.496	2.036	acre-ft
Inflow Hydrograph Volume =	N/A	0.094	0.252	0.503	1.496	2.036	acre-ft
Time to Drain 97% of Inflow Volume =	43.5	40.3	**61.6**	55.8	42.3	36.9	hours
Time to Drain 99% of Inflow Volume =	47.7	44.1	67.8	64.5	56.1	**52.8**	hours
Maximum Ponding Depth =	2.06	1.82	2.84	3.03	3.76	3.89	ft
Maximum Ponded Area =	0.12	0.11	0.15	0.16	0.18	**0.18**	acres
Maximum Volume Stored =	0.114	0.086	0.219	0.248	0.371	0.395	acre-ft

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