

Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: The Glen at Widefield No 10

Facility Location & Jurisdiction: Marksheffel Rd & Peaceful Valley Rd, El Paso County

User Input: Watershed Characteristics

Extended Detention Basin (EDB)		EDB					
Watershed Area	=[61.33	acres				
Watershed Length :	= [1,660	ft				
Watershed Length to Centroid :	= [880	ft				
Watershed Slope :	= [0.017	ft/ft				
Watershed Imperviousness :	=[5.2%	percent				
Percentage Hydrologic Soil Group A	=[0.0%	percent				
Percentage Hydrologic Soil Group B	=[17.5%	percent				
Percentage Hydrologic Soil Groups C/D	=[82.5%	percent				
Target WQCV Drain Time :	=[40.0	hours				
Location for 1-hr Rainfall Depths (use dropdown):							
User Input			▼				

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'.

User Defined User Defined User Defined User Defined Stage [ft] Area [ft^2] Stage [ft] Discharge [cfs] 0.00 26 0.00 0.01 0.33 84 0.33 0.02 1.33 5,906 1.33 0.04 2.33 31,084 2.33 0.20 3.33 63,050 3.33 4.30 4.33 69,093 4.33 13.60 5.33 5.33 74,861 17.20 81,249 18.80 6.33 6.33 7.33 88,132 7.33 84.20 96,541 8.33 8.33 84.21 8.47 98,509 8.47 84.22

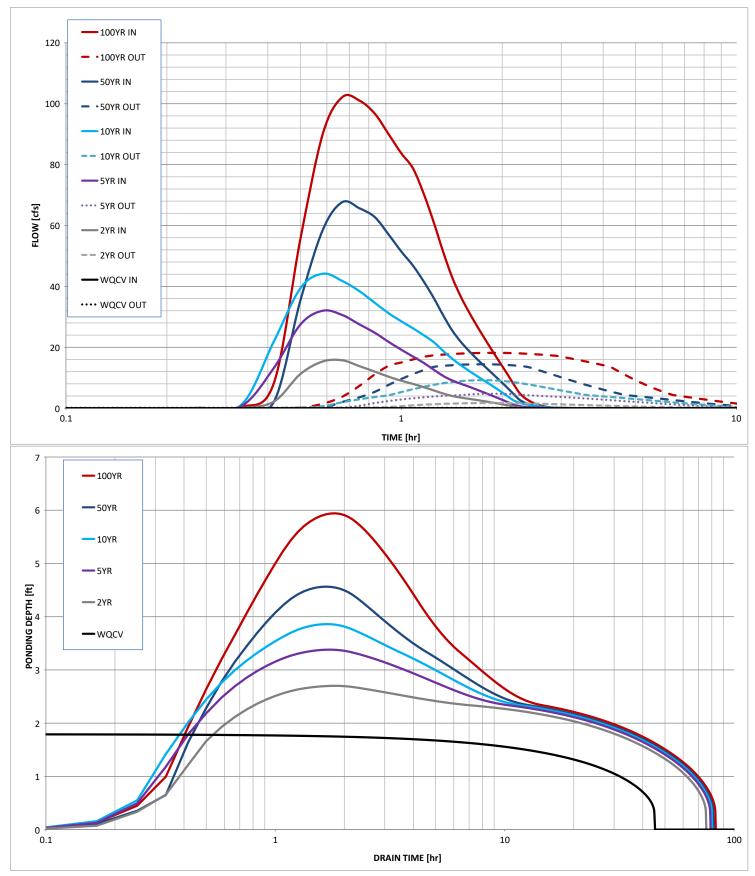
After completing and printing this worksheet to a pdf, go to: https://maperture.digitaldataservices.com/gvh/?viewer=cswdif Create a new stormwater facility, and attach the PDF of this worksheet to that record.

Routed Hydrograph Results

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Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	N/A	1.19	1.50	1.75	2.00	2.52	in
CUHP Runoff Volume =	0.192	0.952	2.095	3.222	4.844	7.834	acre-ft
Inflow Hydrograph Volume =	N/A	0.952	2.095	3.222	4.844	7.834	acre-ft
Time to Drain 97% of Inflow Volume =	42.3	63.3	55.1	48.0	41.6	33.7	hours
Time to Drain 99% of Inflow Volume =	44.2	70.9	69.5	66.6	62.1	54.8	hours
Maximum Ponding Depth =	1.80	2.70	3.38	3.86	4.56	5.94	ft
Maximum Ponded Area =	0.40	0.98	1.45	1.52	1.62	1.81	acres
Maximum Volume Stored =	0.194	0.799	1.633	2.353	3.453	5.813	acre-ft

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