## Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Woodmen Hills Metropolitan District West Water Tank - EDB

Facility Location & Jurisdiction: 9225 Arroya Ln., Colorado Springs, CO 80908 in unincorporated El Paso County

## User Input: Watershed Characteristics

Extend	ded Detention Basin (EDB)	•	EDB		
	Watershed Area	1.39	acres		
	Watershed Length	250	ft		
	Watershed Length to Centroic	100	ft		
	Watershed Slope	0.012	ft/ft		
	Watershed Imperviousness	5 =	48.0%	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	
	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	28	0.00	0.00
0.33	28	0.25	0.00
0.34	575	0.50	0.00
1.00	923	0.75	0.00
1.49	1,146	1.00	0.01
2.00	1,378	1.25	0.01
2.28	1,518	1.49	0.01
3.00	1,897	1.50	0.01
3.50	2,220	1.63	0.01
3.67	2,330	1.75	0.01
4.00	2,474	2.00	0.02
4.50	2,783	2.25	0.02
5.00	3,440	2.50	0.02
		2.67	0.02
		2.75	0.34
		2.90	1.24
		3.00	1.26
		3.25	1.31
		3.50	1.36
		3.75	1.41
		4.00	1.45
		4.25	2.77
		4.50	5.57
		4.75	9.77
		5.00	15.42

After completing and printing this worksheet to a pdf, go to: <a href="https://maperture.digitaldataservices.com/gvh/?viewer=cswdif">https://maperture.digitaldataservices.com/gvh/?viewer=cswdif</a> 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	0.94	1.22	1.47	2.18	2.53	in	
CUHP Runoff Volume =	0.023	0.044	0.065	0.087	0.169	0.212	acre-ft	
Inflow Hydrograph Volume =	N/A	0.044	0.065	0.087	0.169	0.212	acre-ft	
Time to Drain 97% of Inflow Volume =	43.0	59.3	69.3	67.3	60.1	56.6	hours	
Time to Drain 99% of Inflow Volume =	44.8	62.5	73.8	73.3	70.5	69.0	hours	
Maximum Ponding Depth =	1.48	2.12	2.66	2.75	3.35	3.89	ft	
Maximum Ponded Area =	0.03	0.03	0.04	0.04	0.05	0.06	acres	
Maximum Volume Stored =	0.023	0.042	0.061	0.065	0.092	0.120	acre-ft	

## Stormwater Detention and Infiltration Design Data Sheet

