Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: West Pond

Facility Location & Jurisdiction: Lot1, Block 1, Space Village Filing No. 4, El Paso County, CO

User Input: Watershed Characteristics

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	Sand Filter (SF) ▼	SF	
	Watershed Area =	10.95	acres
	Watershed Length =	750	ft
	Watershed Length to Centroid =	375	ft
	Watershed Slope =	0.026	ft/ft
	Watershed Imperviousness =	68.0%	percent
	Percentage Hydrologic Soil Group A =	100.0%	percent
	Percentage Hydrologic Soil Group B =	0.0%	percent
	Percentage Hydrologic Soil Groups C/D =	0.0%	percent
	Target WQCV Drain Time =	12.0	hours
	Location for 1-hr Rainfall Depths (u	se 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'.

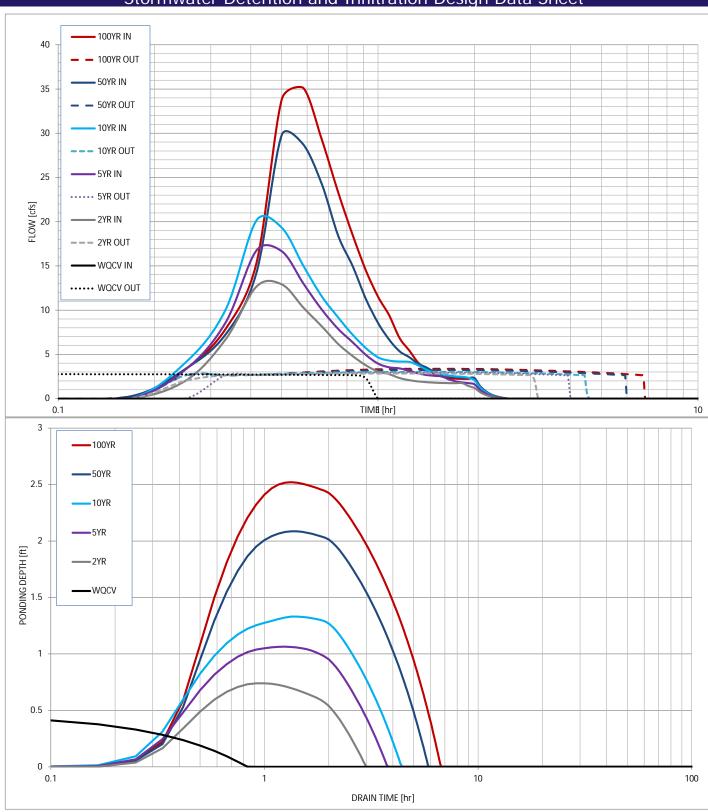
User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	16,337	0.00	2.63
1.00	19,880	1.00	2.93
2.00	23,503	2.00	3.22
3.00	27,208	3.00	3.52

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	2.25	2.52	in
CUHP Runoff Volume =	0.194	0.652	0.853	1.014	1.420	1.663	acre-ft
Inflow Hydrograph Volume =	N/A	0.652	0.853	1.014	1.420	1.663	acre-ft
Time to Drain 97% of Inflow Volume =	0.8	2.9	3.7	4.3	5.7	6.5	hours
Time to Drain 99% of Inflow Volume =	0.8	3.0	3.8	4.4	5.8	6.7	hours
Maximum Ponding Depth =	0.49	0.74	1.06	1.33	2.09	2.52	ft
Maximum Ponded Area =	0.42	0.44	0.46	0.48	0.55	0.58	acres
Maximum Volume Stored =	0.195	0.299	0.444	0.570	0.960	1.205	acre-ft





Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: East Pond

Facility Location & Jurisdiction: Lot 2, Block 1, Space Village Filing No. 4., El Paso County, CO

User Input: Watershed Characteristics

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	Sand Filter (SF)	SF								
	Watershed Area =	9.45	acres							
	Watershed Length =	750	ft							
	Watershed Length to Centroid =	375	ft							
	Watershed Slope =	0.025	ft/ft							
	Watershed Imperviousness =	70.0%	percent							
	Percentage Hydrologic Soil Group A =	100.0%	percent							
	Percentage Hydrologic Soil Group B =	0.0%	percent							
	Percentage Hydrologic Soil Groups C/D =	0.0%	percent							
	Target WQCV Drain Time =	12.0	hours							
	Location for 1-hr Rainfall Depths (u	se 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	14,195	0.00	0.86
0.50	15,994	0.50	0.92
1.50	19,611	1.50	1.03
2.50	23,340	2.50	1.14
3.00	25,238	3.00	1.19

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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	2.25	2.52	in
CUHP Runoff Volume =	0.173	0.585	0.764	0.907	1.263	1.474	acre-ft
Inflow Hydrograph Volume =	N/A	0.585	0.764	0.907	1.263	1.474	acre-ft
Time to Drain 97% of Inflow Volume =	2.3	7.5	9.5	11.0	14.7	16.8	hours
Time to Drain 99% of Inflow Volume =	2.3	7.7	9.7	11.3	15.0	17.2	hours
Maximum Ponding Depth =	0.50	1.15	1.54	1.83	2.51	2.89	ft
Maximum Ponded Area =	0.37	0.42	0.45	0.48	0.54	0.57	acres
Maximum Volume Stored =	0.174	0.428	0.598	0.734	1.079	1.288	acre-ft



