SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: **Eagleview Sub Regional Detention Pond 1** 

Facility Location & Jurisdiction: El Paso County, CO

User Input: Watershed Characteristics

	Extended Detention Basin (EDB)	•	EDB				
	Watershed Area	) =	720.00	acres			
	Watershed Length	= ۱	9,000	ft			
	Watershed Length to Centroic	<b>!</b> =	4,500	ft			
	Watershed Slope	= =	0.030	ft/ft			
	Watershed Imperviousness	5 =	8.1%	percent			
	Percentage Hydrologic Soil Group A	۱ =	0.0%	percent			
	Percentage Hydrologic Soil Group E	3 =	100.0%	percent			
F	Percentage Hydrologic Soil Groups C/D	) =	0.0%	percent			
	Target WQCV Drain Time	= 9	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.

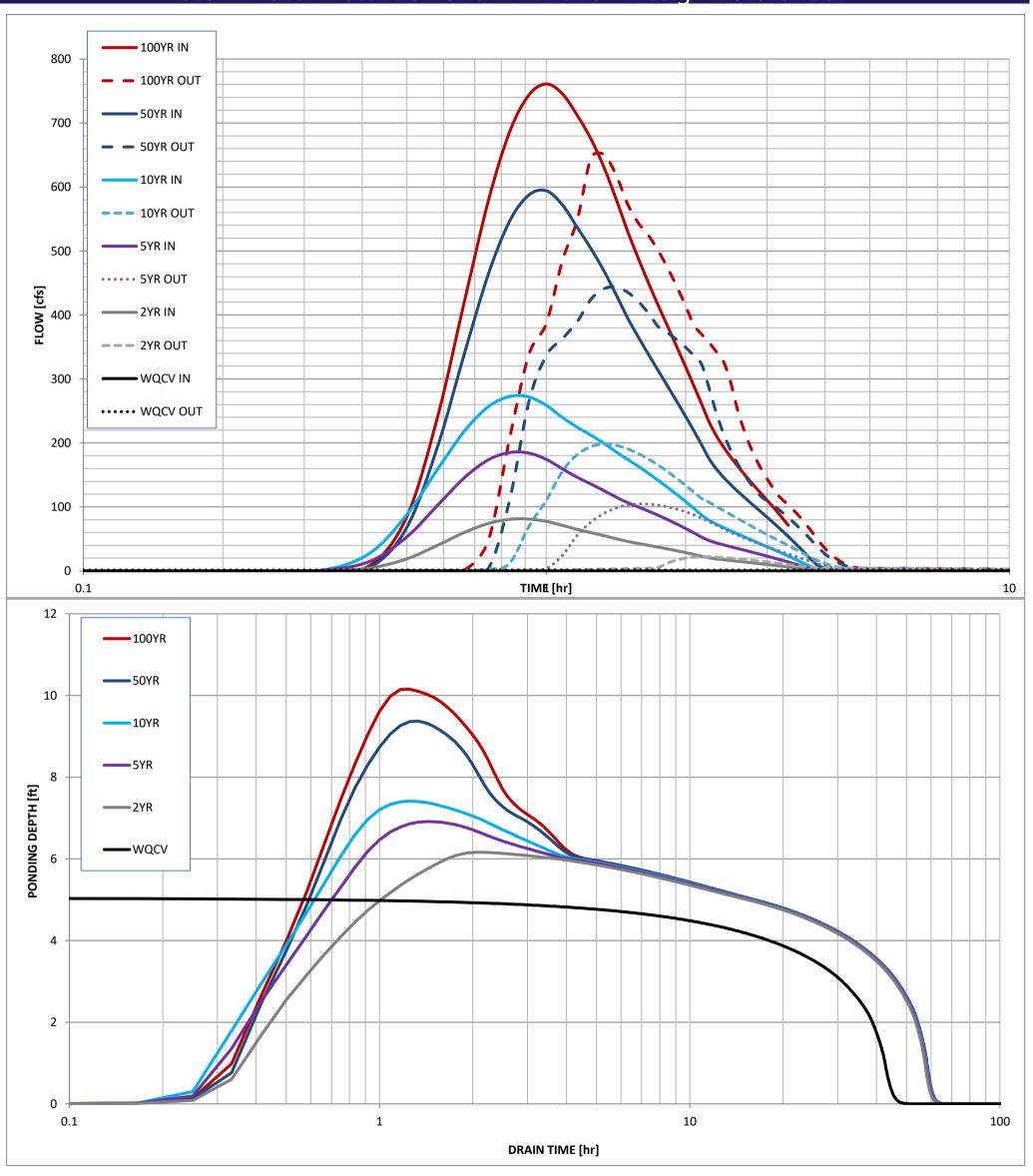
Once CUHP has been run and the Stage-Area-Discharge information has been provided, click 'Process Data' to interpolate the Stage-Area-Volume-Discharge data and generate summary results in the table below. Once this is complete, click 'Print to PDF'.

User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	1,131	0.00	0.00
1.00	2,102	1.00	0.25
2.00	7,401	2.00	0.42
3.00	26,360	3.00	0.74
4.00	57,884	4.00	1.04
5.00	97,021	5.00	1.42
6.00	127,623	6.00	4.42
7.00	144,596	7.00	114.53
8.00	155,516	8.00	318.76
9.00	164,583	9.00	379.16
10.00	173,517	10.00	552.22
11.00	182,319	11.00	1207.69
12.00	192,855	12.00	2163.32

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	1.19	1.50	1.75	2.25	2.52	in
CUHP Runoff Volume =	3.351	8.598	19.938	31.391	66.269	86.656	acre-ft
Inflow Hydrograph Volume =	N/A	8.598	19.938	31.391	66.269	86.656	acre-ft
Time to Drain 97% of Inflow Volume =	40.3	50.8	45.0	40.3	28.2	22.3	hours
Time to Drain 99% of Inflow Volume =	42.8	55.4	52.5	50.2	44.5	41.6	hours
Maximum Ponding Depth =	5.04	6.16	6.91	7.41	9.37	10.15	ft
Maximum Ponded Area =	2.25	2.99	3.28	3.42	3.85	4.01	acres
Maximum Volume Stored =	3.355	6.301	8.678	10.363	17.495	20.555	acre-ft



SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: **Eagleview Water Quality Pond #1** 

Facility Location & Jurisdiction: El Paso County, Colorado

User Input: Watershed Characteristics

Extended Detention Basin (EDB)	EDB	
Watershed Area =	120.24	acres
Watershed Length =	4,200	ft
Watershed Length to Centroid =	1,900	ft
Watershed Slope =	0.035	ft/ft
Watershed Imperviousness =	10.3%	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 (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.

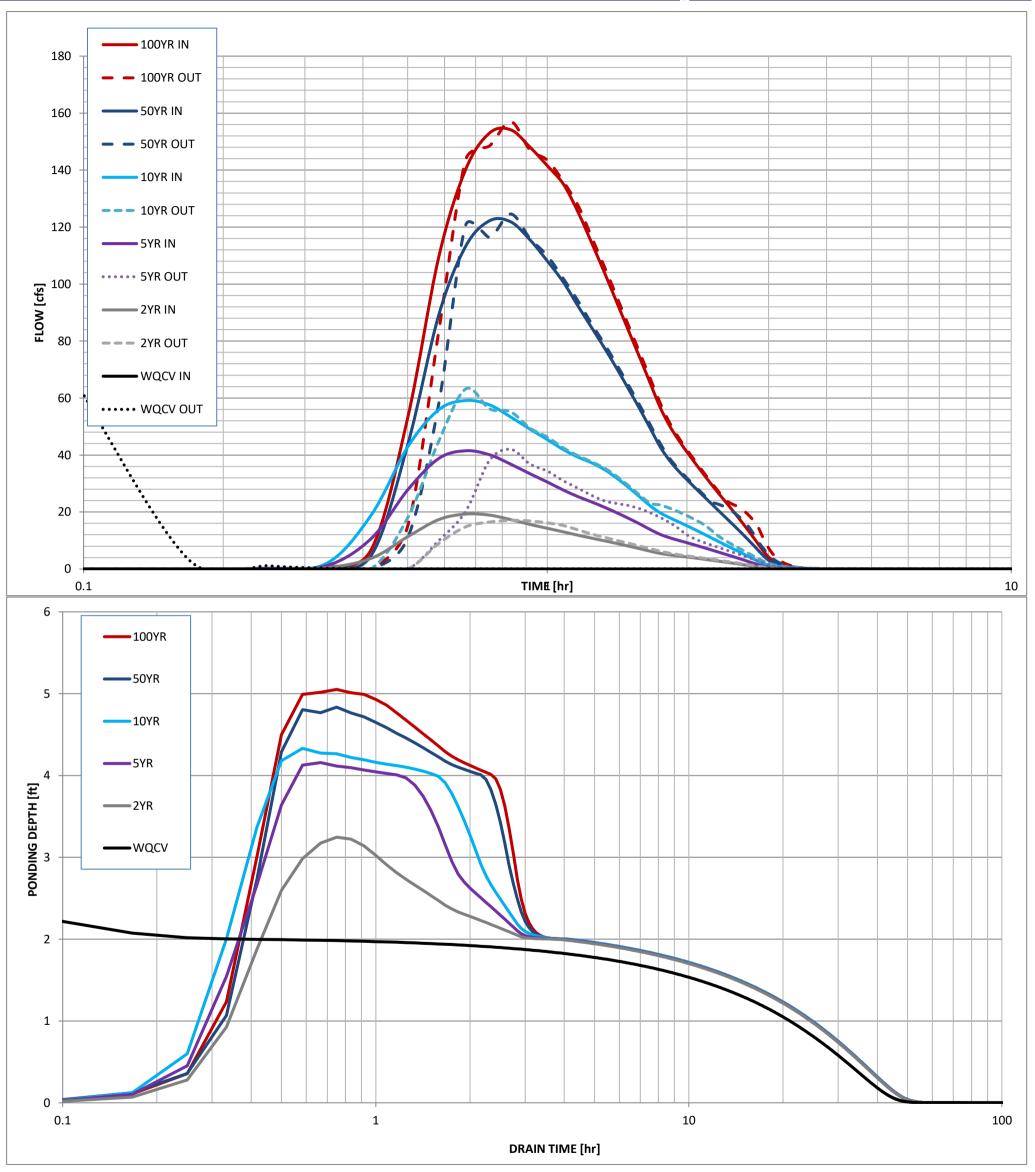
Once CUHP has been run and the Stage-Area-Discharge information has been provided, click 'Process Data' to interpolate the Stage-Area-Volume-Discharge data and generate summary results in the table below. Once this is complete, click 'Print to PDF'.

User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	173	0.00	0.00
1.00	1,485	1.00	0.02
2.00	3,717	2.00	0.05
3.00	5,303	3.00	15.05
4.00	7,015	4.00	23.20
5.00	6,838	5.00	144.85
6.00	11,184	6.00	385.11

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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 =	0.688	1.636	3.586	5.529	11.339	14.730	acre-ft
Inflow Hydrograph Volume =	N/A	1.636	3.586	5.529	11.339	14.730	acre-ft
Time to Drain 97% of Inflow Volume =	25.8	12.0	2.5	2.3	1.8	1.3	hours
Time to Drain 99% of Inflow Volume =	34.2	26.2	16.7	10.3	2.9	2.9	hours
Maximum Ponding Depth =	6.00	3.25	4.16	4.33	4.84	5.05	ft
Maximum Ponded Area =	0.26	0.13	0.16	0.16	0.16	0.16	acres
Maximum Volume Stored =	0.689	0.213	0.349	0.376	0.456	0.490	acre-ft



SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Eagleview Water Quality Pond #2

Facility Location & Jurisdiction: El Paso County, Colorado

User Input: Watershed Characteristics

Extended Detention Basin (EDB)	~	EDB	
Watersh	ed Area =	52.77	acres
Watershed	Length =	3,600	ft
Watershed Length to 0	Centroid =	2,000	ft
Watershe	ed Slope =	0.039	ft/ft
Watershed Impervi	ousness =	10.7%	percent
Percentage Hydrologic Soil	Group A =	0.0%	percent
Percentage Hydrologic Soil	Group B =	100.0%	percent
Percentage Hydrologic Soil Gro	ups C/D =	0.0%	percent
Target WQCV Dra	in Time =	40.0	hours
Location for 1-hr Rainfall	Depths (u	se dropdow	n):
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	270	0.00	0.00
1.00	1,824	1.00	0.02
2.00	2,873	2.00	9.34
3.00	4,622	3.00	22.44
4.00	4,897	4.00	136.93
5.00	6,627	5.00	343.57

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	1.19	1.50	1.75	2.25	2.52	in
CUHP Runoff Volume =	0.312	0.736	1.596	2.451	5.001	6.489	acre-ft
Inflow Hydrograph Volume =	N/A	0.736	1.596	2.451	5.001	6.489	acre-ft
Time to Drain 97% of Inflow Volume =	16.7	5.8	2.1	1.9	1.8	0.8	hours
Time to Drain 99% of Inflow Volume =	24.2	18.3	10.3	4.3	3.2	3.1	hours
Maximum Ponding Depth =	4.33	1.69	2.34	2.80	3.18	3.30	ft
Maximum Ponded Area =	0.13	0.06	0.08	0.10	0.11	0.11	acres
Maximum Volume Stored =	0.312	0.059	0.102	0.143	0.183	0.196	acre-ft

