## Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

### Stormwater Facility Name: Vollmer RV Storage

Facility Location & Jurisdiction: Pond

#### User Input: Watershed Characteristics Extended Detention Basin (EDB) EDB • 5.97 Watershed Area = acres 1,200 Watershed Length = ft Watershed Length to Centroid = 400 ft 0.021 Watershed Slope = ft/ft Watershed Imperviousness = 77.0% percent Percentage Hydrologic Soil Group A = 0.0% percent 100.0% Percentage Hydrologic Soil Group B = percent 0.0% Percentage Hydrologic Soil Groups C/D = percent 40.0 Target WQCV Drain Time = 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	10	0.00	0.00	
0.50	119	0.50	0.01	
1.00	791	1.00	0.02	
1.50	2,557	1.50	0.03	
2.00	4,258	2.00	0.05	
2.50	5,812	2.50	0.06	
3.00	7,179	3.00	0.10	
3.50	8,109	3.50	0.13	
4.00	9,024	4.00	0.16	
4.50	9,905	4.50	0.18	
5.00	10,802	5.00	2.21	
5.50	11,739	5.50	5.48	
6.00	12,699	6.00	39.48	
6.50	13,712	6.50	119.64	

After completing and printing this worksheet to a pdf, go to: <u>https://maperture.digitaldataservices.com/gvh/?viewer=cswdif</u> 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	1.19	1.50	1.75	2.25	2.52	in
CUHP Runoff Volume =	0.154	0.448	0.596	0.719	0.986	1.133	acre-ft
Inflow Hydrograph Volume =	N/A	0.448	0.596	0.719	0.986	1.133	acre-ft
Time to Drain 97% of Inflow Volume =	40.1	64.0	67.7	66.4	63.4	61.9	hours
Time to Drain 99% of Inflow Volume =	42.4	68.9	73.7	73.3	72.1	71.3	hours
Maximum Ponding Depth =	2.73	4.19	4.68	4.87	5.32	5.53	ft
Maximum Ponded Area =	0.15	0.21	0.23	0.24	0.26	0.27	acres
Maximum Volume Stored =	0.155	0.422	0.531	0.577	0.691	0.745	acre-ft

# Stormwater Detention and Infiltration Design Data Sheet

