

El Paso County MS4 Post Construction Detention / Water Quality Facility Documentation Form

This document **must be completed and submitted** with required attachments to the County for projects requiring a detention and/or a water quality facility. A separate completed form must be submitted for each facility.

Project name:	
Owner name:	
Location Address:	
Latitude and Longitude:	
Assessor's Parcel #:	ection: Township: Range:
Expected Completion date:	
Project acreage: Design Po	onding Acres: Design Storm:
Design Engineer Email Address:	
To ensure compliance with C.R.S. 37-92-602(8), th Detention and Infiltration Design Data Sheet must	

Maintenance and Access Agreement

Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Phase-I: Ellicott School Addition 2 bldgs (Water Quality only)

Facility Location & Jurisdiction: 322 S Ellicott Highway, El Paso County

User Input: Watershed Characteristics

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Rain Garden (RG) - Bioretention	RG			
Watershed Area =	0.62	acres		
Watershed Length =	312	ft		
Watershed Length to Centroid =	106	ft		
Watershed Slope =	0.010	ft/ft		
Watershed Imperviousness =	58.0%	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 (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	315	0.00	0.00
0.50	802	0.50	0.02
1.00	1,889	1.00	0.02
1.50	2,709	1.50	17.00

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	1.02	1.35	1.65	2.44	2.82	in
CUHP Runoff Volume =	0.010	0.026	0.036	0.046	0.080	0.099	acre-ft
Inflow Hydrograph Volume =	N/A	0.026	0.036	0.046	0.080	0.099	acre-ft
Time to Drain 97% of Inflow Volume =	10.2	17.3	16.6	16.0	14.6	13.9	hours
Time to Drain 99% of Inflow Volume =	12.6	19.8	19.2	18.7	17.4	16.9	hours
Maximum Ponding Depth =	0.64	1.00	1.01	1.02	1.04	1.05	ft
Maximum Ponded Area =	0.03	0.04	0.04	0.04	0.04	0.05	acres
Maximum Volume Stored =	0.010	0.022	0.022	0.022	0.023	0.024	acre-ft

Stormwater Detention and Infiltration Design Data Sheet

