

### 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 #:	Section:	Township:	Range:
Expected Completion date:			
Project acreage:	Design Ponding Acres:	Design Storm	
Design Engineer Email Address:			
To ensure compliance with C.R.S. 37-92 Detention and Infiltration Design Data Shttps://maperture.digitaldataservices.com	Sheet <b>must be attached</b> . Th	e form can be found here:	gn Data Sheet)
List all permanent water quality control	l measure(s) (EDBs, rain gar	dens, etc):	
For all projects for which the constraine	ed redevelopment sites star	dard is applied, provide an	explanation of why it is
not practicable to meet the full design s	standards.		
Attach Operations and Maintenance (Colong-term observation, maintenance, a maintenance activities. If multiple, different Maintenance activities are provided for each factorise.	nd operation of control mea erent water quality control	sure(s), including routine in	nspection frequencies and
Attach Private Detention Basin / Storm	nwater Quality Best Manag	ement Practice Maintenan	ce Agreement and
Easement addressing maintenance of B	BMPs that shall be binding o	n all subsequent owners of	the permanent BMPs.
Attachments:		Review Engineer	
Stormwater Detention and Infiltration I O & M Plan	Design Data Sheet	EPC Project File No.	
Maintenance and Access Agreement			

## Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Mayberry Filing 3 - Pond D

Facility Location & Jurisdiction: El Paso County, CO

#### User Input: Watershed Characteristics

	Extended Detention Basin (EDB)	•	EDB	
	Watershed Are	101.00	acres	
Watershed Length =			2,867	ft
Watershed Length to Centroid =			1,433	ft
Watershed Slope =			0.010	ft/ft
	Watershed Imperviousne	ss =	41.0%	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 Tin	ne =	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	170	0.00	0.00	
1.00	3,344	1.00	0.20	
2.00	25,396	2.00	0.42	
3.00	50,286	3.00	0.62	
4.00	72,956	4.00	1.01	
5.00	95,393	5.00	1.27	
6.00	118,525	6.00	16.28	
7.00	141,085	7.00	72.26	
8.00	164,866	8.00	283.90	
9.00	191,669	9.00	640.64	

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

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	3.14	in
CUHP Runoff Volume =	1.536	3.434	4.616	5.562	8.982	15.946	acre-ft
Inflow Hydrograph Volume =	N/A	3.434	4.616	5.562	8.982	15.946	acre-ft
Time to Drain 97% of Inflow Volume =	37.3	59.8	70.3	73.3	72.0	66.4	hours
Time to Drain 99% of Inflow Volume =	39.5	63.3	74.5	78.1	78.7	76.3	hours
Maximum Ponding Depth =	3.25	4.33	4.91	5.23	6.08	7.05	ft
Maximum Ponded Area =	1.28	1.84	2.13	2.31	2.76	3.26	acres
Maximum Volume Stored =	1.537	3.216	4.361	5.094	7.234	10.144	acre-ft

# Stormwater Detention and Infiltration Design Data Sheet

