

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. 37-92-602(8), the completed Stormwater Detention and Infiltration Design Data Sheet **must be attached**. The form can be found here: <https://maperture.digitaldataservices.com/gvh/?viewer=cswdif#> (click on Download SDI Design Data Sheet)

List all permanent water quality control measure(s) (EDBs, rain gardens, etc):

For all projects for which the constrained redevelopment sites standard is applied, provide an explanation of why it is not practicable to meet the full design standards.

Attach Operations and Maintenance (O&M) Plan describing the operation and maintenance procedures that ensure the long-term observation, maintenance, and operation of control measure(s), including routine inspection frequencies and maintenance activities. If multiple, different water quality control measures are used at the same location, a separate O & M Plan must be provided for each facility.

Attach Private Detention Basin / Stormwater Quality Best Management Practice Maintenance Agreement and Easement addressing maintenance of BMPs that shall be binding on all subsequent owners of the permanent BMPs.

Attachments:

Stormwater Detention and Infiltration Design Data Sheet
 O & M Plan
 Maintenance and Access Agreement

Review Engineer

EPC Project File No.

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

Stormwater Facility Name: Pond W-5

Facility Location & Jurisdiction: Sterling Ranch Sudivision, Marksheffel Road, El Paso County / El Paso County

User Input: Watershed Characteristics

Watershed Slope = 0.025 ft/ft
 Watershed Length = 3888 ft
 Watershed Area = 173.97 acres
 Watershed Imperviousness = 57.6% percent
 Percentage Hydrologic Soil Group A = 85.0% percent
 Percentage Hydrologic Soil Group B = 15.0% percent
 Percentage Hydrologic Soil Groups C/D = 0.0% percent
 Location for 1-hr Rainfall Depths (use dropdown):
 User Input

WQCV Treatment Method = Extended Detention

User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	20	0.00	0.00
0.30	805	0.30	0.23
0.60	2,578	0.60	0.33
0.90	6,201	0.90	0.40
1.20	10,075	1.20	0.46
1.50	13,823	1.50	0.51
1.80	21,893	1.80	0.56
2.10	29,964	2.10	0.61
2.40	38,034	2.40	0.86
2.70	46,613	2.70	1.00
3.00	55,912	3.00	1.11
3.30	65,211	3.30	1.21
3.60	75,354	3.60	1.30
3.90	87,466	3.90	1.38
4.20	99,579	4.20	1.82
4.50	111,691	4.50	2.12
4.80	119,058	4.80	2.34
5.10	126,261	5.10	2.54
5.40	133,465	5.40	2.72
5.70	140,337	5.70	2.88
6.00	147,019	6.00	3.03
6.30	153,700	6.30	3.17
6.60	159,871	6.60	3.31
6.90	164,851	6.90	3.44
7.20	169,830	7.20	3.56
7.50	174,810	7.50	12.97
7.80	179,015	7.80	42.25
8.10	183,193	8.10	82.63
8.40	187,371	8.40	131.61
8.70	191,050	8.70	201.15
9.00	194,270	9.00	246.08
9.30	197,490	9.30	310.74
9.60	200,724	9.60	393.53
9.90	203,986	9.90	494.08

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

	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
Design Storm Return Period =	0.53	1.19	1.50	1.75	2.25	2.52	in
One-Hour Rainfall Depth =	3.311	8.045	10.858	13.768	21.831	25.847	acre-ft
Calculated Runoff Volume =							acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	3.310	8.037	10.852	13.759	21.823	25.841	hours
Time to Drain 97% of Inflow Volume =	38.7	58.9	68.0	76.0	73.5	71.8	hours
Time to Drain 99% of Inflow Volume =	40.5	62.9	73.1	82.2	82.0	81.2	ft
Maximum Ponding Depth =	4.04	5.70	6.50	7.25	8.21	8.54	acres
Maximum Poned Area =	2.13	3.22	3.62	3.92	4.24	4.34	acre-ft
Maximum Volume Stored =	3.099	7.636	10.381	13.217	17.113	18.526	

Stormwater Detention and Infiltration Design Data Sheet

