

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.

HOMESTEAD AT STERLING RAN	CH FILING NO.2
Owner name: SR LAND, LLC	
Location Address:	
20 BOULDER CRESCENT, SUITE 210	
Latitude and Longitude:	
LATITUDE: 38.9648, LONGITUDE: 104	4.6718
Assessor's Parcel #: Section: 3	3 Township: 12 Range: 65
Expected Completion date: DEC. 2022	0.33 ac surface area
(16.51 Cont.)	s: 1.331 ac-ft vol. Design Storm: 100 year
Design Engineer Email Address:	
To ensure compliance with C.R.S. 37-92-602(8), the complete Detention and Infiltration Design Data Sheet must be attache <u>https://maperture.digitaldataservices.com/gvh/?viewer=csw</u>	ed. The form can be found here:
List all permanent water quality control measure(s) (EDBs, rai	n gardens, etc):
HOMESTEAD AT STERLING RANCH FILING	NO.2 FSD POND 1
For all projects for which the constrained redevelopment site	s 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 contro maintenance activities. If multiple, different water quality co & M Plan must be provided for each facility.	ol measure(s), including routine inspection frequencies and
Attach Private Detention Basin / Stormwater Quality Best N	lanagement Practice Maintenance Agreement and
Easement addressing maintenance of BMPs that shall be bind	
Attachments:	Review Engineer JDR
Stormwater Detention and Infiltration Design Data Sheet	EPC Project File No. SF-19-004

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

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

Stormwater Facility Name: Homestead at Sterling Ranch Filing No.2 FSD Pond 1

Facility Location & Jurisdiction: 38.964784 Latitude, 104.67180 Longitude

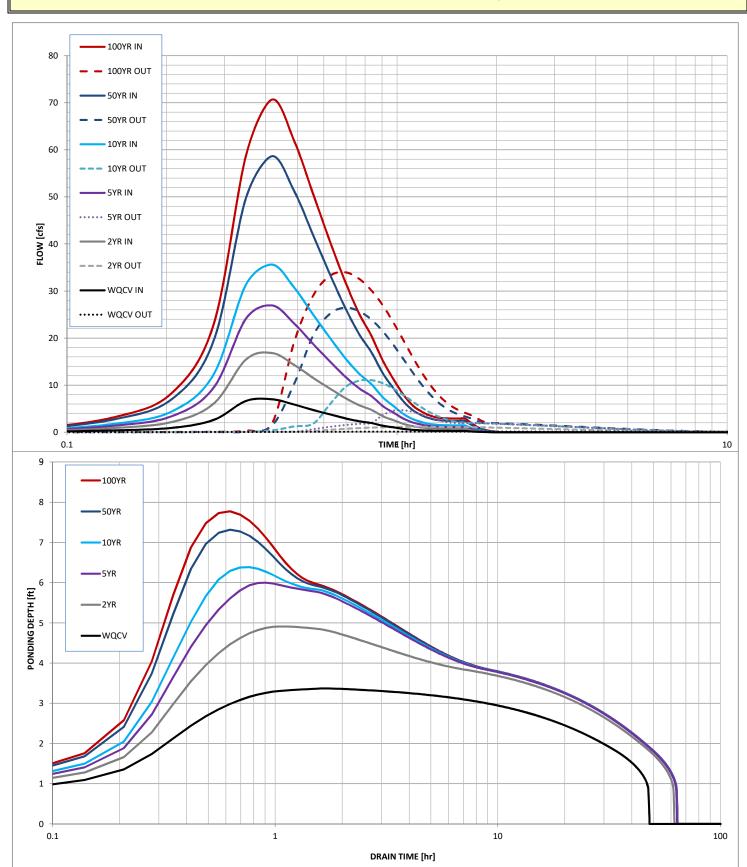
User Input: Watershed Characteristics Watershed Slope = 0.020 ft/ft Watershed Length = 875 ft 16.51 Watershed Area = acres Watershed Imperviousness = 44.1% percent 0.0% Percentage Hydrologic Soil Group A = percent Percentage Hydrologic Soil Group B = 100.0% percent Percentage Hydrologic Soil Groups C/D = 0.0% percent Location for 1-hr Rainfall Depths (use dropdown): User Input

WQCV Treatment Method = Extended Detention

User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	0	0.00	0.00
0.33	40	0.33	0.02
0.83	100	0.83	0.03
1.83	4,187	1.83	0.05
3.83	8,006	3.83	0.12
5.83	11,106	5.83	2.00
7.83	14,529	7.83	35.00
9.83	18,087	9.83	50.50

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							
Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.50	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.262	0.632	1.014	1.341	2.214	2.661	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.262	0.632	1.014	1.341	2.214	2.660	acre-ft
Time to Drain 97% of Inflow Volume =	45.1	55.9	54.4	52.0	45.9	43.2	hours
Time to Drain 99% of Inflow Volume =	46.9	59.7	60.3	59.4	56.9	55.7	hours
Maximum Ponding Depth =	3.37	4.91	6.00	6.38	7.32	7.77	ft
Maximum Ponded Area =	0.16	0.22	0.26	0.28	0.31	0.33	acres
Maximum Volume Stored =	0.248	0.548	0.811	0.914	1.189	1.335	acre-ft



Stormwater Detention and Infiltration Design Data Sheet