

## 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: SADDLEHORN RANCH FILING 1 – POND I

Owner name: SADDLEHORN RANCH, LLC

Location Address: APPOX. 5200 FT SOUTHEAST OF INT. OF CURTIS RD. AND JUDGE ORR RD.

Latitude and Longitude:

38deg56min12sec N, 104deg32min54sec W

Assessor's Parcel #: 4300000601 Section: 10 Township: 13S Range: 64W

Expected Completion date: 12/2021

Project acreage: 178 Design Ponding Acres: 0.88 Design Storm: 100 YEAR

(38.04 cont.)

Design Engineer Email Address: MBRAMLETT@JRENGINEERING.COM

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):

**EXTENDED DETENTION BASIN** 

For all projects for which the constrained redevelo	opment 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:	Review Engineer JDR
Stormwater Detention and Infiltration Design Data Sheet	EPC Project File No. SP-19-006 /
O & M Plan	SF-19-012 /
Maintenance and Access Agreement	EGP-21-001

## Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

User Defined User Defined User Defined User Defined

Stormwater Facility Name: SADDLEHORN RANCH - FILING 1 - POND I

Facility Location & Jurisdiction: EL PASO COUNTY - SADDLEHORN RANCH METROPOLITAN DISTRICT

User Input: Watershed Characteristics

0.053 Watershed Slope = ft/ft Watershed Length = 1900 ft Watershed Area = 38.04 acres 17.0% Watershed Imperviousness = percent 91.5% Percentage Hydrologic Soil Group A = percent 8.5% Percentage Hydrologic Soil Group B = 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		
0.96	3,720	0.96	0.07		
1.96	15,128	1.96	0.13		
2.96	27,871	2.96	0.17		
3.96	41,167	3.96	24.61		
4.16	42,765	4.16	38.35		

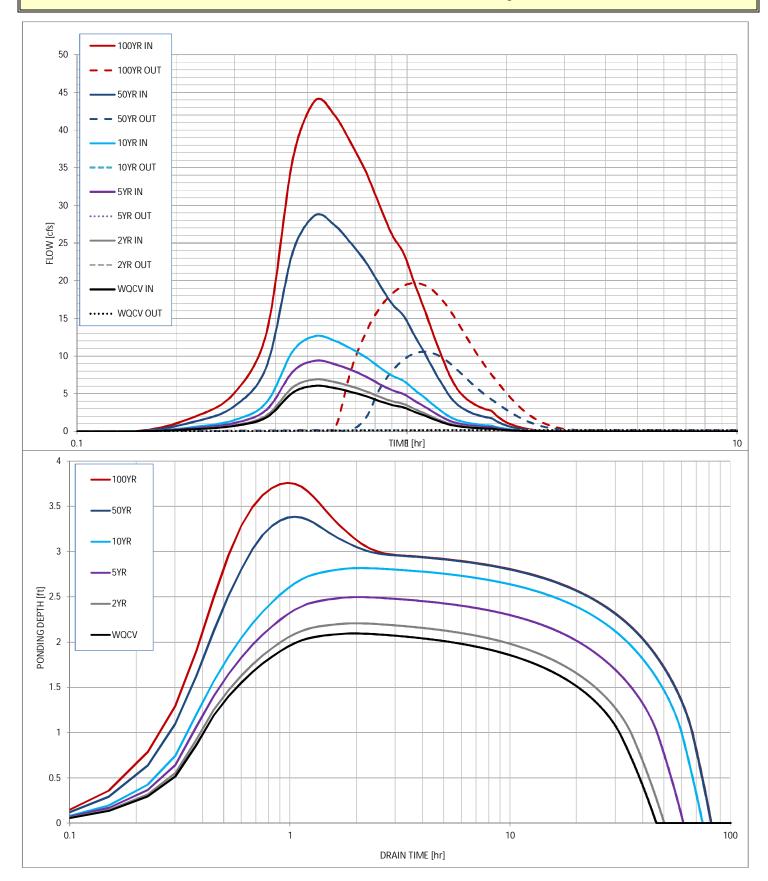
After completing and printing this worksheet to a pdf, go to: <a href="https://maperture.digitaldataservices.com/gvh/?viewer=cswdif">https://maperture.digitaldataservices.com/gvh/?viewer=cswdif</a> create a new stormwater facility, and attach the pdf of this worksheet to that record.

Routed Hydrograph Results

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Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.325	0.372	0.508	0.687	1.575	2.423	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.325	0.371	0.508	0.687	1.574	2.423	acre-ft
Time to Drain 97% of Inflow Volume =	39.2	42.8	52.7	64.9	66.7	63.1	hours
Time to Drain 99% of Inflow Volume =	42.2	45.9	56.4	69.1	73.1	71.2	hours
Maximum Ponding Depth =	2.10	2.21	2.50	2.82	3.39	3.76	ft
Maximum Ponded Area =	0.39	0.42	0.50	0.60	0.77	0.88	acres
Maximum Volume Stored =	0.306	0.350	0.484	0.662	1.047	1.358	acre-ft

SDI\_Pond I.xlsm, Design Data 9/17/2019, 8:30 AM

## Stormwater Detention and Infiltration Design Data Sheet



SDI\_Pond I.xlsm, Design Data 9/17/2019, 8:30 AM