Stormwater Detention and Infiltration Design Data Sheet

User Defined

Stage [ft]

0.00

1.00

3.00

5.00

7.00

User Defined

Area [ft^2]

10

5,230

8,045

11,447

15,165

Workhook Protected

Worksheet Protected

User Defined

Stage [ft]

0.00

1.00

3.00

5.00

7.00

User Defined

Discharge [cfs]

0.00

0.04

17.20

22.57

149.07

Stormwater Facility Name: Settlers Ranch - Detention Pond #5

Facility Location & Jurisdiction: SW of Steppler Road & Settlers Ranch Road, Monument, CO 80132 (El Paso County)

User Input: Watershed Characteristics

Watershed Slope =	0.049	ft/ft
Watershed Length =	1950	ft
Watershed Area =	18.90	acres
Watershed Imperviousness =	11.0%	percent
Percentage Hydrologic Soil Group A =	0.0%	percent
Percentage Hydrologic Soil Group B =	100.0%	percent
Percentage Hydrologic Soil Groups C/D =		percent
		-

Location for 1-hr Rainfall Depths (use dropdown):

User Input

WQCV Treatment Method = Extended Detention

NOTE: MINOR INCREASE IN IMPERVIOUS AREA IMPACTING ABERT RANCH POND I DOES NOT HAVE ANY SIGNIFICANT IMPACT ON POND OUTLET CALCULATIONS

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 Res	ults			

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Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.60	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.114	0.137	0.211	0.460	1.613	2.194	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.114	0.137	0.210	0.459	1.613	2.193	acre-ft
Time to Drain 97% of Inflow Volume =	30.7	29.9	27.8	22.3	7.2	3.0	hours
Time to Drain 99% of Inflow Volume =	34.4	34.0	32.8	29.7	21.0	18.0	hours
Maximum Ponding Depth =	1.09	1.13	1.23	1.58	3.05	4.05	ft
Maximum Ponded Area =	0.12	0.12	0.13	0.14	0.19	0.23	acres
Maximum Volume Stored =	0.071	0.075	0.088	0.135	0.372	0.578	acre-ft

NOTE: WATERSHED CHARACTERISTICS AND RAINFALL DATA MATCH INPUT ON "MHFD-DETENTION" CALCULATIONS

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