Stormwater Detention and Infiltration Design Data Sheet

Workhook Protected

Worksheet Protected

Stormwater Facility Name: Araco Concrete - Detention Basin A1

Facility Location & Jurisdiction: 7470 Southmoor Drive, Fountain, CO (El Paso County)

User Input: Watershed Characteristics

Watershed Slope =	0.013	ft/ft
Watershed Length =	835	ft
Watershed Area =	3.76	acres
Watershed Imperviousness =	76.0%	percent
Percentage Hydrologic Soil Group A =	100.0%	percent
Percentage Hydrologic Soil Group B =		percent
Percentage Hydrologic Soil Groups C/D =		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	10	0.00	0.00
1.50	2,962	1.50	0.03
3.50	3,410	3.50	0.08
5.50	3,874	5.50	0.14
7.50	4,329	7.50	1.02
9.50	4,780	9.50	26.61

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

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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 =	0.096	0.256	0.333	0.403	0.557	0.649	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.095	0.255	0.333	0.402	0.557	0.649	acre-ft
Time to Drain 97% of Inflow Volume =	46.8	68.5	74.5	78.4	77.7	76.6	hours
Time to Drain 99% of Inflow Volume =	51.0	75.4	82.3	86.8	87.6	87.4	hours
Maximum Ponding Depth =	2.02	4.01	4.89	5.61	6.76	7.41	ft
Maximum Ponded Area =	0.07	0.08	0.09	0.09	0.10	0.10	acres
Maximum Volume Stored =	0.087	0.237	0.311	0.374	0.480	0.544	acre-ft

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