Stormwater Detention and Infiltration Design Data Sheet

Workhook Protected

Worksheet Protected

Stormwater Facility Name: Pond HNF3- Pond A

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

User Input: Watershed Characteristics

Watershed Slope =	0.031	ft/ft
Watershed Length =	1930	ft
Watershed Area =	29.95	acres
Watershed Imperviousness =	40.5%	percent
Percentage Hydrologic Soil Group A =	0.0%	percent
Percentage Hydrologic Soil Group B =	100.0%	percent
Percentage Hydrologic Soil Groups C/D =	0.0%	percent
Percentage Hydrologic Soil Group A = Percentage Hydrologic Soil Group B =	0.0% 100.0%	percent percent

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

User Input ▼

WQCV Treatment Method = Extended Detention

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.

User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	10	0.00	0.00
0.33	50	0.33	0.04
0.89	829	0.89	0.06
1.89	7,288	1.89	0.12
2.89	19,027	2.89	0.18
3.89	26,352	3.89	0.33
4.89	30,164	4.89	8.27
5.89	34,095	5.89	37.26
6.89	38,115	6.89	138.86
7.89	42,286	7.89	350.42

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 =		1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.452	1.037	1.715	2.303	3.898	4.711	acre-ft
OPTIONAL Override Runoff Volume =	0.45						acre-ft
Inflow Hydrograph Volume =	0.451	1.037	1.715	2.303	3.898	4.710	acre-ft
Time to Drain 97% of Inflow Volume =	38.1	59.8	58.5	56.8	52.2	50.0	hours
Time to Drain 99% of Inflow Volume =	39.8	63.0	63.1	62.6	60.7	59.8	hours
Maximum Ponding Depth =	2.94	3.95	4.57	5.02	5.77	6.03	ft
Maximum Ponded Area =	0.44	0.61	0.66	0.70	0.77	0.80	acres
Maximum Volume Stored =	0.422	0.957	1.352	1.656	2.212	2.412	acre-ft

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