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 =	300	ft
Watershed Area =	1.46	acres
Watershed Imperviousness =	88.6%	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

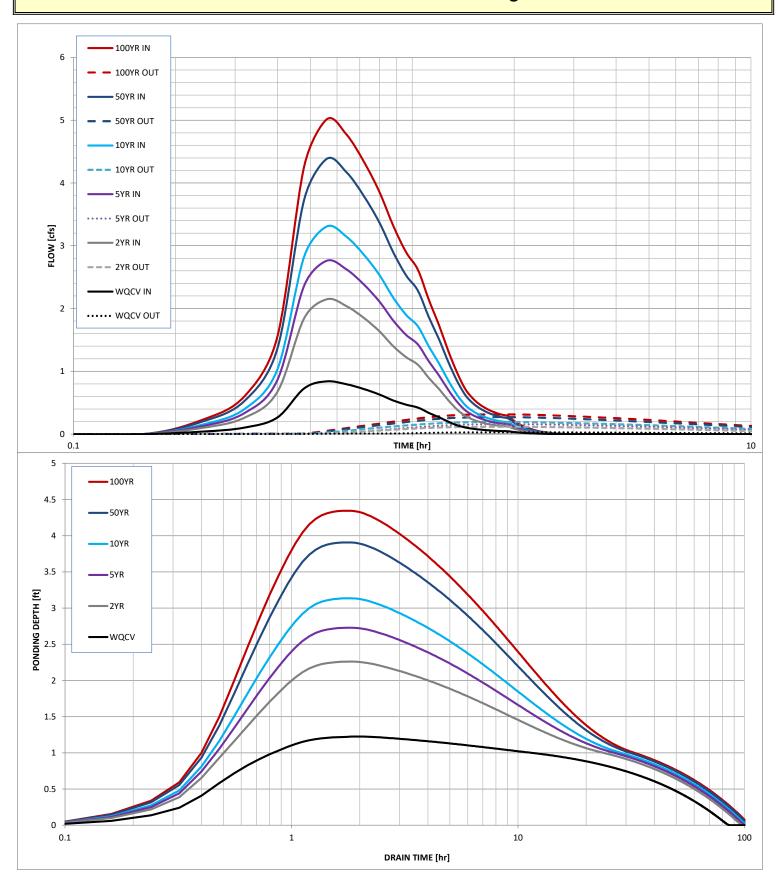
WQCV Treatment Method = Extended Detention

**User Defined User Defined User Defined User Defined** Area [ft^2] Discharge [cfs] Stage [ft] Stage [ft] 0.00 10 0.00 0.00 1.00 2,610 1.00 0.01 3.00 2,958 3.00 0.18 5.00 3,308 5.00 0.38 7.00 3,660 7.00 17.41

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** 

	Koutea Hyaro	graph Results					_
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 =	0.047	0.121	0.157	0.189	0.251	0.288	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.047	0.121	0.157	0.188	0.250	0.287	acre-ft
Time to Drain 97% of Inflow Volume =	68.8	71.5	70.7	69.8	67.8	66.5	hours
Time to Drain 99% of Inflow Volume =	75.6	82.3	83.0	83.3	83.3	83.1	hours
Maximum Ponding Depth =	1.22	2.26	2.73	3.14	3.91	4.34	ft
Maximum Ponded Area =	0.06	0.06	0.07	0.07	0.07	0.07	acres
Maximum Volume Stored =	0.044	0.108	0.139	0.167	0.221	0.252	acre-ft



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Stormwater Facility Name: Araco Concrete - Detention Basin A2

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

### **User Input: Watershed Characteristics**

Watershed Slope =	0.013	ft/ft
Watershed Length =	600	ft
Watershed Area =	2.30	acres
Watershed Imperviousness =	51.9%	percent
Percentage Hydrologic Soil Group A =	80.0%	percent
Percentage Hydrologic Soil Group B =		percent
Percentage Hydrologic Soil Groups C/D =	20.0%	percent
		-

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

User Input

WQCV Treatment Method = Extended Detention

**User Defined User Defined User Defined User Defined** Area [ft^2] Discharge [cfs] Stage [ft] Stage [ft] 0.00 10 0.00 0.00 0.50 3,869 0.50 0.01 1.50 3,974 1.50 0.09 3.50 4,149 3.50 0.90 5.50 4,300 5.50 19.15

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 =	0.60	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.041	0.097	0.131	0.163	0.254	0.310	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.040	0.097	0.131	0.162	0.253	0.310	acre-ft
Time to Drain 97% of Inflow Volume =	55.6	63.4	64.5	63.6	59.4	56.8	hours
Time to Drain 99% of Inflow Volume =	61.0	71.6	74.2	74.3	72.8	71.6	hours
Maximum Ponding Depth =	0.66	1.22	1.54	1.79	2.49	2.91	ft
Maximum Ponded Area =	0.09	0.09	0.09	0.09	0.09	0.09	acres
Maximum Volume Stored =	0.037	0.086	0.116	0.139	0.203	0.242	acre-ft

