### **Stormwater Detention and Infiltration Design Data Sheet**

User Defined

Stage [ft]

0.00

0.22

1.06

Warkshoot Broton

**User Defined** 

Stage [ft]

0.00

0.22

1.06

User Defined

Discharge [cfs]

0.00

0.08

0.17

**User Defined** 

Area [ft^2]

0

2,284

Stormwater Facility Name: 16140 Old Denver Road, All About Outdoor Storage, El Paso County

Facility Location & Jurisdiction: EXISTING DETENTION POND, HISTORIC 10-21-2019

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

Watershed Slope =	0.027	ft/ft			
Watershed Length =	1130	ft			
Watershed Area =	11.55	acres			
Watershed Imperviousness =	64.0%	percent			
Percentage Hydrologic Soil Group A =	0.0%	percent			
Percentage Hydrologic Soil Group B =	100.0%	percent			
rcentage Hydrologic Soil Groups C/D =	0.0%	percent			
Location for 1-hr Rainfall Depths (use dropdown):					

WQCV Treatment Method = Extended Detention

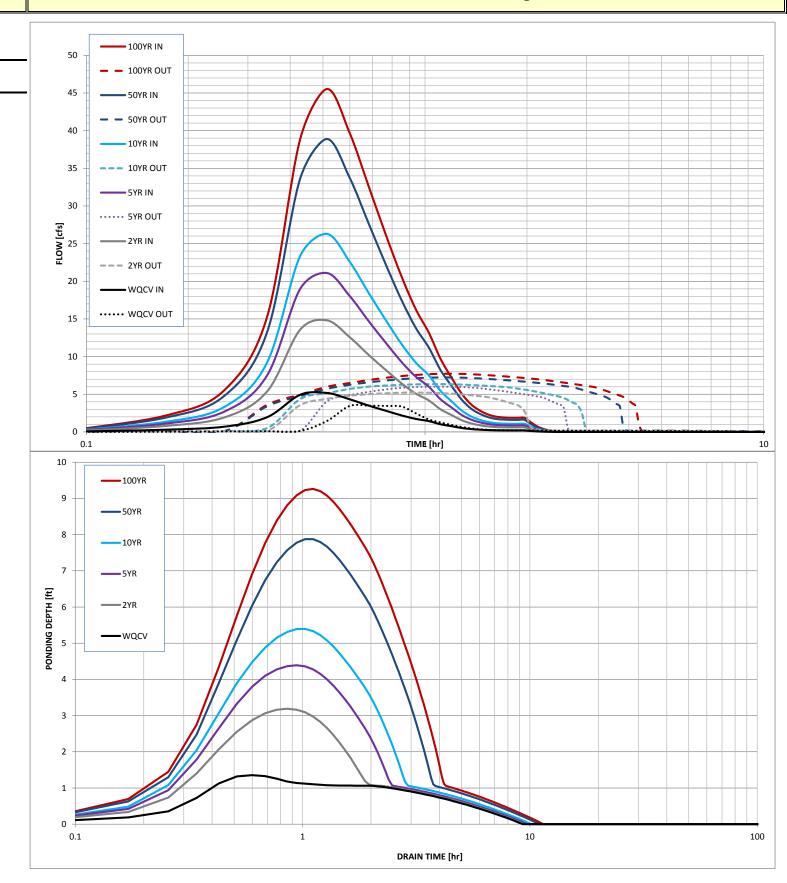
User Input

1.22 3,726 1.22 3.31 2.22 5,718 2.22 4.58 3.22 6,769 3.22 5.24 4.22 7,895 4.22 5.94

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** 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 2.25 1.75 2.52 0.975 Calculated Runoff Volume 0.238 0.684 1.216 1.802 2.111 **OPTIONAL Override Runoff Volume** acre-ft Inflow Hydrograph Volume 0.238 0.683 0.974 1.216 1.802 2.110 acre-ft Time to Drain 97% of Inflow Volume 7.4 5.8 5.1 5.0 4.4 4.3 hours Time to Drain 99% of Inflow Volume : 7.5 7.5 7.7 8.2 7.4 7.8 Maximum Ponding Depth 1.35 3.19 4.39 5.39 7.88 9.26 Maximum Ponded Area = 0.091 0.155 0.181 0.181 0.181 0.181 acres 0.086 0.321 0.495 0.495 0.495 Maximum Volume Stored = 0.495

## **Stormwater Detention and Infiltration Design Data Sheet**



10-21-19 historic SDI\_Design\_Data\_v1.04.xlsm, Design Data 10/25/2019, 10:17 AM

# **Stormwater Detention and Infiltration Design Data Sheet**

**Stormwater Detention and Infiltration Design Data Sheet** 

Stormwater Facility Name: 16140 Old Denver Road, All About Outdoor Storage, El Paso County

Facility Location & Jurisdiction: Full Spectrum Detention Pond O.E. Watts 10-23-19

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

Watershed Slope =	0.024	ft/ft			
Watershed Length =	1130	ft			
Watershed Area =	11.56	acres			
Watershed Imperviousness =	70.0%	percent			
Percentage Hydrologic Soil Group A =	0.0%	percent			
Percentage Hydrologic Soil Group B =	100.0%	percent			
ercentage Hydrologic Soil Groups C/D =	0.0%	percent			
Location for 1-hr Rainfall Depths (use dropdown):					

WQCV Treatment Method = Extended Detention

Update based on comments to the drainage report.

Remove the "Historic SDI worksheet"

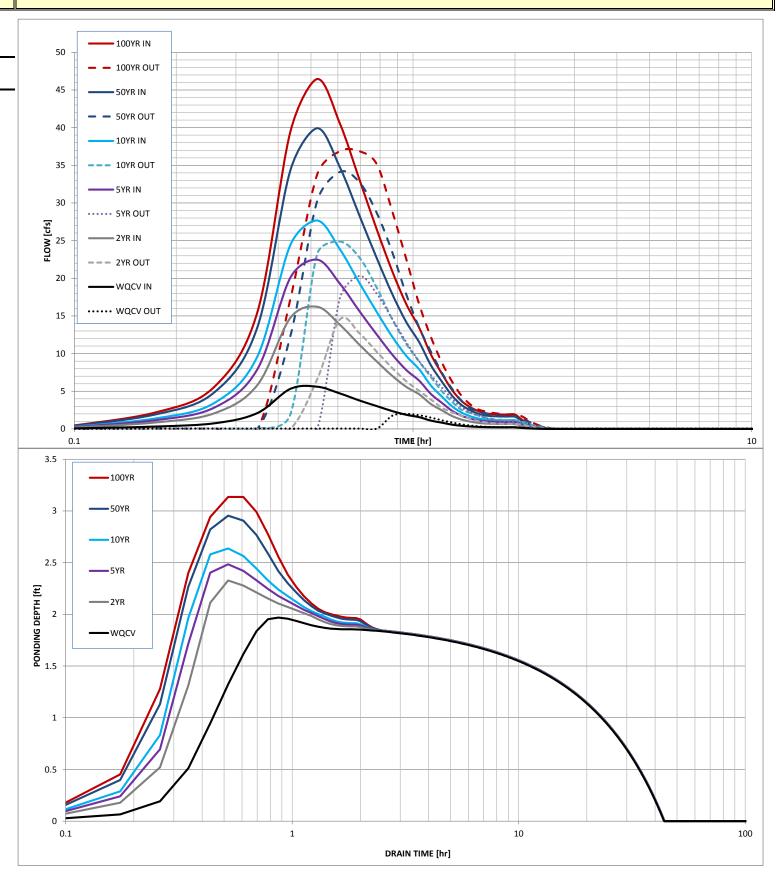
User Input

After completing and printing this worksheet to a pdf, go to: 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	0	0.00	0.00
	0.01	3,340	0.01	0.12
	0.50	3,718	0.50	0.14
	1.00	4,112	1.00	0.15
	1.50	4,522	1.50	0.17
	1.84	4,812	1.84	0.19
	2.00	4,984	2.00	2.67
	2.50	8,381	2.50	20.92
	3.00	13,262	3.00	36.05
	3.50	13,942	3.50	41.02
	4.00	14,636	4.00	45.46
•	4.50	15,345	4.50	49.49
	5.00	16,068	5.00	53.22

	Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
	0.00	0	0.00	0.00
	0.01	3,340	0.01	0.12
	0.50	3,718	0.50	0.14
	1.00	4,112	1.00	0.15
	1.50	4,522	1.50	0.17
	1.84	4,812	1.84	0.19
	2.00	4,984	2.00	2.67
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	3.50	13,942	3.50	41.02
	4.00	14,636	4.00	45.46
-	4.50	15,345	4.50	49.49
	5.00	16,068	5.00	53.22

Routed Hydrograph Results						_	
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 =	0.262	0.760	1.056	1.301	1.881	2.188	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.262	0.760	1.055	1.301	1.880	2.187	acre-ft
Time to Drain 97% of Inflow Volume =	41.9	38.4	36.2	34.5	30.3	28.1	hours
Time to Drain 99% of Inflow Volume =	43.1	42.1	41.4	40.8	39.4	38.7	hours
Maximum Ponding Depth =	1.97	2.33	2.48	2.64	2.95	3.14	ft
Maximum Ponded Area =	0.114	0.165	0.190	0.223	0.293	0.309	acres
Maximum Volume Stored =	0.185	0.234	0.262	0.294	0.375	0.431	acre-ft



10-23-19 SDI\_Design\_Data\_v1.04.xlsm, Design Data 10/25/2019, 10:17 AM