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Retreat at TimberRidge Filing No. 1 - Pond 1 **Stormwater Facility Name:** 

Approx. 1000' east of int. of Vollmer Rd. and Poco Rd., El Paso County

Facility Location & Jurisdiction:

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**User (Input) Watershed Characteristics** 0.020 Watershed Slope = ft/ft Watershed Length-to-Width Ratio = 2.00 L:W 29.40 Watershed Area = acres Watershed Imperviousness = 13.8% percent 0.0% Percentage Hydrologic Soil Group A = percent 100.0% Percentage Hydrologic Soil Group B = percent Percentage Hydrologic Soil Groups C/D = 0.0% percent Location for 1-hr Rainfall Depths (use dropdown): User Input ▼



WQCV Design Drain Time = 40.00 hours

	User Defined	User Defined	User Defined	User Defined
	Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
	0.00	50	0.00	0.00
	1.00	3,443	1.00	0.04
	2.00	6,871	2.00	0.10
	3.00	9,740	3.00	0.16
	4.00	12,575	4.00	3.73
	5.00	15,295	5.00	22.10
	6.00	18,016	6.00	23.69
	7.00	22,223	7.00	80.83
	8.00	26,430	8.00	253.19
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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								
Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.00	2.25	2.52	in
Calculated Runoff Volume =	0.212	0.288	0.777	1.313	2.269	2.961	3.774	acre-ft
OPTIONAL Override Runoff Volume =								acre-ft
Inflow Hydrograph Volume =	0.211	0.287	0.777	1.312	2.269	2.960	3.773	acre-ft
Time to Drain 97% of Inflow Volume =	42	47	48	43	36	32	29	hours
Time to Drain 99% of Inflow Volume =	46	52	56	53	49	47	44	hours
Maximum Ponding Depth =	2.23	2.62	3.91	4.48	5.44	6.17	6.52	ft
Maximum Ponded Area =	0.173	0.198	0.282	0.318	0.378	0.429	0.463	acres
Maximum Volume Stored =	0.196	0.268	0.577	0.749	1.082	1.378	1.533	acre-ft



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Retreat at TimberRidge Filing No. 1 - Pond 2 **Stormwater Facility Name:** 

Approx. 2200' Southeast of int. of Vollmer Rd. and Poco Rd., El Paso County

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Facility Location & Jurisdiction:

User (Input) Watershed Characteristics 0.032 Watershed Slope = ft/ft Watershed Length-to-Width Ratio = 2.00 L:W 100.40 Watershed Area = acres Watershed Imperviousness = 21.6% percent 0.0% Percentage Hydrologic Soil Group A = percent 100.0% Percentage Hydrologic Soil Group B = percent 0.0% Percentage Hydrologic Soil Groups C/D = percent Location for 1-hr Rainfall Depths (use dropdown): User Input ▼

### **User Input: Detention Basin Characteristics**

WQCV Design Drain Time = 40.00 hours

User Defined	User Defined	User Defined	User Defined	
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]	
0.00	277	0.00	0.00	
1.00	5,223	1.00	0.10	
2.00	10,218	2.00	0.24	
3.00	20,188	3.00	0.40	
4.00	30,108	4.00	0.56	
5.00	34,514	5.00	0.80	
6.00	38,919	6.00	9.50	
7.00	42,208	7.00	54.59	
8.00	45,498	8.00	87.74	
9.00	49,063	9.00	92.33	
10.00	52,628	10.00	96.70	
11.00	56,005	11.00	145.92	

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attach the pdf of this worksheet to that record.

Routed Hydrograph Results								
Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.00	2.25	2.52	in
Calculated Runoff Volume =	1.011	1.663	3.559	5.430	8.610	10.975	13.735	acre-ft
OPTIONAL Override Runoff Volume =								acre-ft
Inflow Hydrograph Volume =	1.011	1.663	3.558	5.428	8.604	10.972	13.729	acre-ft
Time to Drain 97% of Inflow Volume =	42	52	54	50	45	42	39	hours
Time to Drain 99% of Inflow Volume =	47	58	62	60	56	54	52	hours
Maximum Ponding Depth =	3.67	4.57	6.11	6.79	7.93	9.11	10.41	ft
Maximum Ponded Area =	0.612	0.748	0.901	0.953	1.039	1.135	1.240	acres
Maximum Volume Stored =	0.942	1.574	2.845	3.472	4.612	5.887	7.436	acre-ft

#### SDI\_Design\_Data - Pond 2.xlsm, Design Data



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hours

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Retreat at TimberRidge Filing No. 1 - Rain Garden 1 **Stormwater Facility Name:** 

Approx. 1600' Southeast of int. of Vollmer Rd. and Poco Rd., El Paso County

Facility Location & Jurisdiction:

**User (Input) Watershed Characteristics** 0.050 Watershed Slope = ft/ft Watershed Length-to-Width Ratio = 2.00 L:W 2.70 Watershed Area = acres Watershed Imperviousness = 25.0% percent 0.0% Percentage Hydrologic Soil Group A = percent Percentage Hydrologic Soil Group B = 100.0% percent 0.0% Percentage Hydrologic Soil Groups C/D = percent Location for 1-hr Rainfall Depths (use dropdown): User Input ▼

**User Input: Detention Basin Characteristics** 

WQCV Design Drain Time = 40.00

User Defined	User Defined	User Defined	User Defined	
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]	
0.00	3,125	0.00	0.00	
1.00	4,130	1.00	0.03	
2.00	5,332	2.00	3.88	
3.00	6,590	3.00	4.32	

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								
Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.00	2.25	2.52	in
Calculated Runoff Volume =	0.030	0.053	0.106	0.157	0.242	0.305	0.379	acre-ft
OPTIONAL Override Runoff Volume =								acre-ft
Inflow Hydrograph Volume =	0.030	0.052	0.106	0.156	0.241	0.305	0.379	acre-ft
Time to Drain 97% of Inflow Volume =	104	105	102	91	78	71	65	hours
Time to Drain 99% of Inflow Volume =	>105	0	0	0	0	103	97	hours
Maximum Ponding Depth =	0.38	0.64	1.08	1.27	1.58	1.80	2.05	ft
Maximum Ponded Area =	0.080	0.086	0.097	0.102	0.111	0.117	0.124	acres
Maximum Volume Stored =	0.029	0.050	0.091	0.110	0.143	0.168	0.198	acre-ft

