

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

Stormwater Facility Name: ELDORADO SPRINGS - POND A

Facility Location & Jurisdiction: EL PASO COUNTY

User Input: Watershed Characteristics

Watershed Slope = 0.070 ft/ft
 Watershed Length = 840 ft
 Watershed Area = 6.10 acres
 Watershed Imperviousness = 52.5% percent
 Percentage Hydrologic Soil Group A = 90.0% percent
 Percentage Hydrologic Soil Group B = 0.0% percent
 Percentage Hydrologic Soil Groups C/D = 10.0% percent

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

User Input ▼

WQCV Treatment Method = Extended Detention ▼

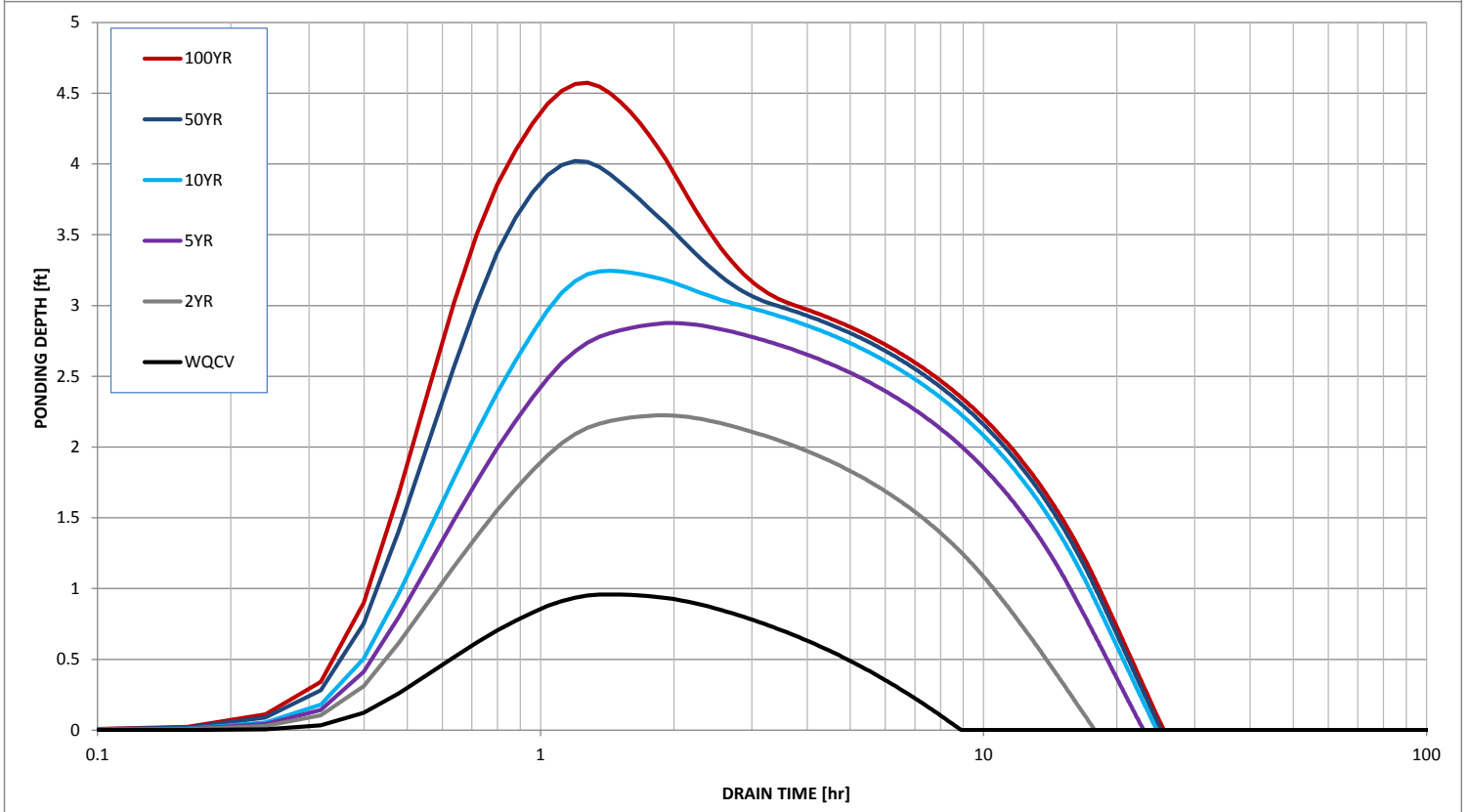
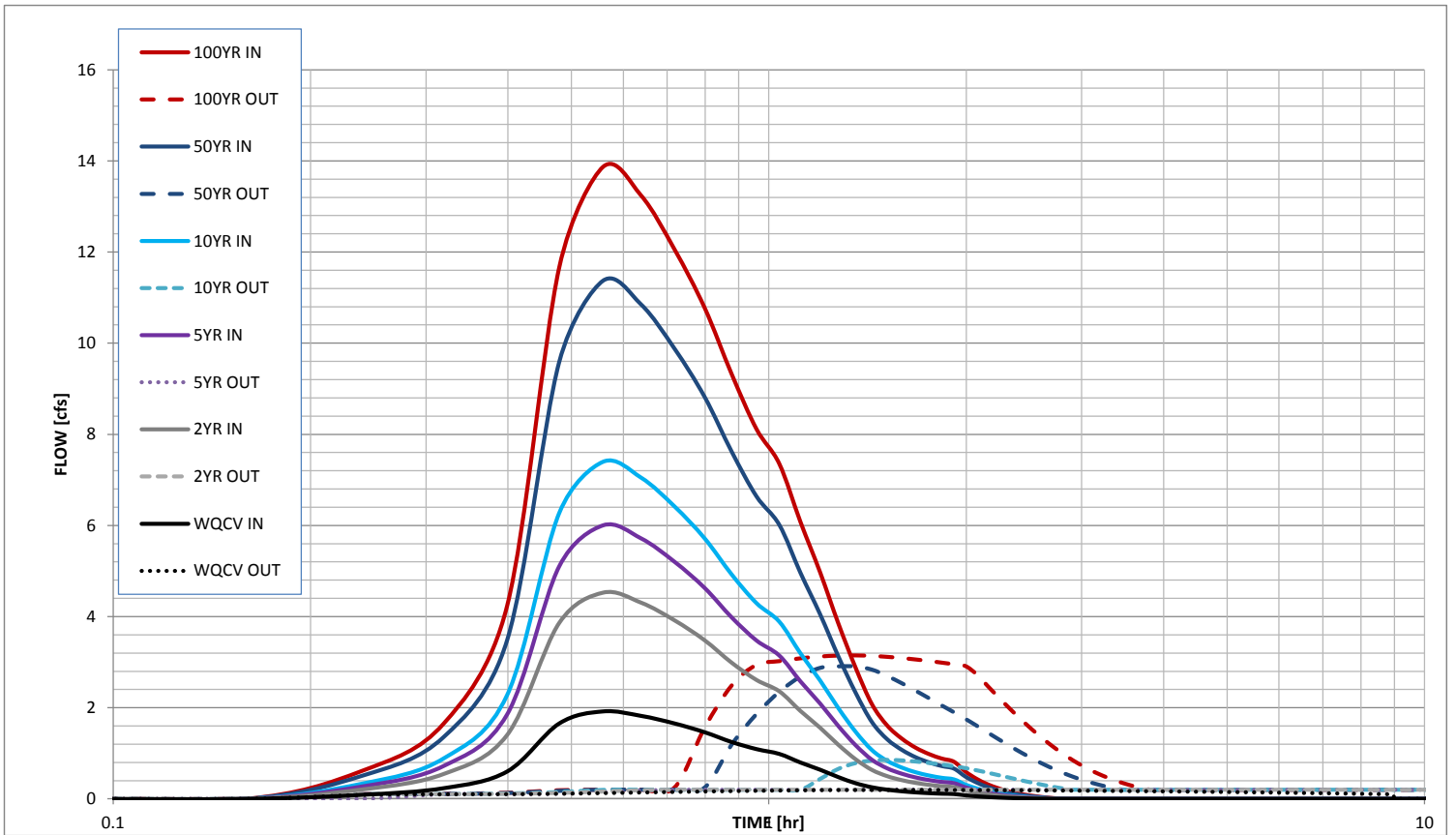
| User Defined Stage [ft] | User Defined Area [ft^2] | User Defined Stage [ft] | User Defined Discharge [cfs] |
|-------------------------|--------------------------|-------------------------|------------------------------|
| 0.00 | 3,230 | 0.00 | 0.10 |
| 1.00 | 4,490 | 1.00 | 0.20 |
| 3.00 | 5,950 | 3.00 | 0.20 |
| 4.00 | 7,070 | 4.00 | 2.90 |
| 4.70 | 7,800 | 4.70 | 3.20 |
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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

| | WQCV | 2 Year | 5 Year | 10 Year | 50 Year | 100 Year | |
|--------------------------------------|-------|--------|--------|---------|---------|----------|---------|
| Design Storm Return Period = | | | | | | | |
| One-Hour Rainfall Depth = | 0.53 | 1.19 | 1.50 | 1.75 | 2.25 | 2.52 | in |
| Calculated Runoff Volume = | 0.108 | 0.259 | 0.344 | 0.425 | 0.656 | 0.802 | acre-ft |
| OPTIONAL Override Runoff Volume = | | | | | | | acre-ft |
| Inflow Hydrograph Volume = | 0.108 | 0.258 | 0.344 | 0.424 | 0.656 | 0.802 | acre-ft |
| Time to Drain 97% of Inflow Volume = | 8.5 | 17.0 | 21.9 | 23.2 | 23.1 | 23.1 | hours |
| Time to Drain 99% of Inflow Volume = | 8.8 | 17.6 | 22.6 | 24.2 | 24.5 | 24.7 | hours |
| Maximum Ponding Depth = | 0.96 | 2.22 | 2.88 | 3.25 | 4.02 | 4.57 | ft |
| Maximum Poned Area = | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.18 | acres |
| Maximum Volume Stored = | 0.084 | 0.227 | 0.311 | 0.362 | 0.481 | 0.574 | acre-ft |

Stormwater Detention and Infiltration Design Data Sheet



Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

Stormwater Facility Name: ELDORADO SPRINGS - POND B

Facility Location & Jurisdiction: EL PASO COUNTY

User Input: Watershed Characteristics

| | | |
|---|--------|---------|
| Watershed Slope = | 0.060 | ft/ft |
| Watershed Length = | 840 | ft |
| Watershed Area = | 10.20 | acres |
| Watershed Imperviousness = | 53.9% | percent |
| Percentage Hydrologic Soil Group A = | 100.0% | percent |
| Percentage Hydrologic Soil Group B = | 0.0% | percent |
| Percentage Hydrologic Soil Groups C/D = | 0.0% | percent |

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

User Input ▼

WQCV Treatment Method = ▼

| User Defined Stage [ft] | User Defined Area [ft^2] | User Defined Stage [ft] | User Defined Discharge [cfs] |
|-------------------------|--------------------------|-------------------------|------------------------------|
| 0.00 | 5,400 | 0.00 | 0.10 |
| 1.00 | 6,320 | 1.00 | 0.10 |
| 3.00 | 8,320 | 3.00 | 0.20 |
| 5.00 | 10,410 | 5.00 | 4.50 |
| 5.50 | 11,100 | 5.50 | 5.60 |
| 7.00 | 12,570 | 7.00 | 10.00 |
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Routed Hydrograph Results

| | WQCV | 2 Year | 5 Year | 10 Year | 50 Year | 100 Year | |
|--------------------------------------|-------|--------|--------|---------|---------|----------|---------|
| Design Storm Return Period = | | | | | | | |
| One-Hour Rainfall Depth = | 0.53 | 1.19 | 1.50 | 1.75 | 2.25 | 2.52 | in |
| Calculated Runoff Volume = | 0.185 | 0.443 | 0.581 | 0.713 | 1.085 | 1.324 | acre-ft |
| OPTIONAL Override Runoff Volume = | | | | | | | |
| Inflow Hydrograph Volume = | 0.184 | 0.442 | 0.580 | 0.712 | 1.084 | 1.323 | acre-ft |
| Time to Drain 97% of Inflow Volume = | 21.5 | 41.2 | 45.3 | 45.5 | 45.1 | 44.6 | hours |
| Time to Drain 99% of Inflow Volume = | 21.9 | 42.2 | 46.7 | 47.2 | 47.7 | 47.7 | hours |
| Maximum Ponding Depth = | 1.23 | 2.72 | 3.28 | 3.70 | 4.78 | 5.41 | ft |
| Maximum Ponded Area = | 0.15 | 0.18 | 0.20 | 0.21 | 0.23 | 0.25 | acres |
| Maximum Volume Stored = | 0.169 | 0.417 | 0.525 | 0.609 | 0.846 | 1.000 | acre-ft |

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