

# Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

**Stormwater Facility Name:** Walden - Detention Basin C8

**Facility Location & Jurisdiction:** Walden Preserve 2 Filing No. 5, El Paso County, CO

### User Input: Watershed Characteristics

Watershed Slope =  ft/ft

Watershed Length =  ft

Watershed Area =  acres

Watershed Imperviousness =  percent

Percentage Hydrologic Soil Group A =  percent

Percentage Hydrologic Soil Group B =  percent

Percentage Hydrologic Soil Groups C/D =  percent

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

WQCV Treatment Method =

| User Defined<br>Stage [ft] | User Defined<br>Area [ft^2] | User Defined<br>Stage [ft] | User Defined<br>Discharge [cfs] |
|----------------------------|-----------------------------|----------------------------|---------------------------------|
| 0.00                       | 10                          | 0.00                       | 0.00                            |
| 0.90                       | 10                          | 0.90                       | 0.05                            |
| 1.00                       | 6,258                       | 1.00                       | 0.06                            |
| 3.00                       | 10,299                      | 3.00                       | 0.20                            |
| 5.00                       | 14,948                      | 5.00                       | 28.51                           |
| 7.00                       | 20,501                      | 7.00                       | 41.08                           |
| 9.00                       | 26,643                      | 9.00                       | 45.62                           |
| 11.00                      | 32,800                      | 11.00                      | 256.79                          |
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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 =            | 0.60  | 1.19   | 1.50   | 1.75    | 2.25    | 2.52     | in      |
| Calculated Runoff Volume =           | 0.357 | 0.513  | 0.762  | 1.371   | 3.793   | 5.025    | acre-ft |
| OPTIONAL Override Runoff Volume =    |       |        |        |         |         |          | acre-ft |
| Inflow Hydrograph Volume =           | 0.357 | 0.512  | 0.762  | 1.371   | 3.793   | 5.020    | acre-ft |
| Time to Drain 97% of Inflow Volume = | 35.8  | 38.8   | 37.6   | 34.7    | 25.2    | 21.4     | hours   |
| Time to Drain 99% of Inflow Volume = | 37.3  | 40.8   | 40.5   | 39.5    | 35.4    | 33.6     | hours   |
| Maximum Ponding Depth =              | 2.75  | 3.12   | 3.37   | 3.87    | 5.90    | 7.08     | ft      |
| Maximum Ponded Area =                | 0.22  | 0.24   | 0.26   | 0.28    | 0.40    | 0.48     | acres   |
| Maximum Volume Stored =              | 0.327 | 0.415  | 0.475  | 0.612   | 1.298   | 1.811    | acre-ft |

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