# Stormwater Detention and Infiltration Design Data Sheet

*SDI-Design Data v2.00, Released January 2020*

Stormwater Facility Name: **EDB A**

Facility Location & Jurisdiction: **9696 Flagstone Street, El Paso County, CO**

## User Input: Watershed Characteristics

| | | |
|---|---|---|
| Extended Detention Basin (EDB) = | EDB | |
| Watershed Area = | 3.28 | acres |
| Watershed Length = | 500 | ft |
| Watershed Length to Centroid = | 200 | ft |
| Watershed Slope = | 0.050 | ft/ft |
| Watershed Imperviousness = | 35.4% | percent |
| Percentage Hydrologic Soil Group A = | 0.0% | percent |
| Percentage Hydrologic Soil Group B = | 100.0% | percent |
| Percentage Hydrologic Soil Groups C/D = | 0.0% | percent |
| Target WQCV Drain Time = | 40.0 | hours |

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

User Input t

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

Once CUHP has been run and the Stage-Area-Discharge information has been provided, click 'Process Data' to interpolate the Stage-Area-Volume-Discharge data and generate summary results in the table below. Once this is complete, click 'Print to PDF'.

| User Defined Stage [ft] | User Defined Area [ft^2] | User Defined Stage [ft] | User Defined Discharge [cfs] |
|---|---|---|---|
| 0.00 | 0 | 0.00 | 0.00 |
| 0.17 | 419 | 0.17 | 0.01 |
| 1.17 | 3,075 | 1.17 | 0.02 |
| 2.17 | 4,378 | 2.17 | 0.06 |
| 3.17 | 5,338 | 3.17 | 5.20 |
| 4.17 | 6,484 | 4.17 | 10.80 |
| 5.17 | 6,940 | 5.17 | 40.00 |

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 | 50 Year | 100 Year | |
|---|---|---|---|---|---|---|---|
| One-Hour Rainfall Depth = | N/A | 1.19 | 1.50 | 1.75 | 2.25 | 2.52 | in |
| CUHP Runoff Volume = | 0.046 | 0.114 | 0.175 | 0.232 | 0.378 | 0.461 | acre-ft |
| Inflow Hydrograph Volume = | N/A | 0.114 | 0.175 | 0.232 | 0.378 | 0.461 | acre-ft |
| Time to Drain 97% of Inflow Volume = | 40.3 | 63.1 | **65.6** | 63.8 | 59.4 | 57.0 | hours |
| Time to Drain 99% of Inflow Volume = | 41.4 | 65.7 | 69.4 | 68.9 | 67.3 | **66.3** | hours |
| Maximum Ponding Depth = | 1.24 | 1.97 | 2.28 | 2.41 | 2.84 | 3.06 | ft |
| Maximum Ponded Area = | 0.07 | 0.09 | 0.10 | 0.11 | 0.12 | **0.12** | acres |
| Maximum Volume Stored = | 0.046 | 0.106 | 0.137 | 0.151 | 0.199 | 0.224 | acre-ft |

# Stormwater Detention and Infiltration Design Data Sheet