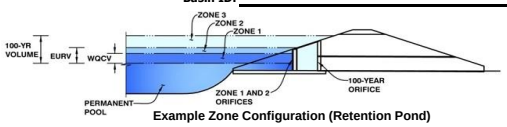
DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-Detention, Version 4.05 (January 2022)

Project: _____

Basin ID: _____



Example Zone Configuration (Retention Pond)

Watershed Information

Selected BMP Type =	**RG**	
Watershed Area =	1.37	acres
Watershed Length =	330	ft
Watershed Length to Centroid =	165	ft
Watershed Slope =	0.013	ft/ft
Watershed Imperviousness =	59.60%	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
Target WQCV Drain Time =	12.0	hours
Location for 1-hr Rainfall Depths =	Parker - Town Hall	

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

			Optional User Overrides	
Water Quality Capture Volume (WQCV) =	0.027	acre-feet	0.027	acre-feet
Excess Urban Runoff Volume (EURV) =	0.099	acre-feet		acre-feet
2-yr Runoff Volume (P1 = 0.82 in.) =		acre-feet		inches
5-yr Runoff Volume (P1 = 1.1 in.) =		acre-feet		inches
10-yr Runoff Volume (P1 = 1.34 in.) =		acre-feet		inches
25-yr Runoff Volume (P1 = 1.69 in.) =		acre-feet		inches
50-yr Runoff Volume (P1 = 1.98 in.) =		acre-feet		inches
100-yr Runoff Volume (P1 = 2.29 in.) =		acre-feet		inches
500-yr Runoff Volume (P1 = 3.08 in.) =		acre-feet		inches
Approximate 2-yr Detention Volume =		acre-feet		
Approximate 5-yr Detention Volume =		acre-feet		
Approximate 10-yr Detention Volume =		acre-feet		
Approximate 25-yr Detention Volume =		acre-feet		
Approximate 50-yr Detention Volume =		acre-feet		
Approximate 100-yr Detention Volume =		acre-feet		

Define Zones and Basin Geometry

Select Zone 1 Storage Volume (Required) =		acre-feet
Select Zone 2 Storage Volume (Optional) =		acre-feet
Select Zone 3 Storage Volume (Optional) =		acre-feet
Total Detention Basin Volume =		acre-feet
Initial Surcharge Volume (ISV) =	N/A	ft^3
Initial Surcharge Depth (ISD) =	N/A	ft
Total Available Detention Depth (H_{total}) =	user	ft
Depth of Trickle Channel (H_{TC}) =	N/A	ft
Slope of Trickle Channel (S_{TC}) =	N/A	ft/ft
Slopes of Main Basin Sides (S_{main}) =	user	H:V
Basin Length-to-Width Ratio ($R_{L/W}$) =	user	
Initial Surcharge Area (A_{ISV}) =	user	ft^2
Surcharge Volume Length (L_{ISV}) =	user	ft
Surcharge Volume Width (W_{ISV}) =	user	ft
Depth of Basin Floor (H_{FLOOR}) =	user	ft
Length of Basin Floor (L_{FLOOR}) =	user	ft
Width of Basin Floor (W_{FLOOR}) =	user	ft
Area of Basin Floor (A_{FLOOR}) =	user	ft^2
Volume of Basin Floor (V_{FLOOR}) =	user	ft^3
Depth of Main Basin (H_{MAIN}) =	user	ft
Length of Main Basin (L_{MAIN}) =	user	ft
Width of Main Basin (W_{MAIN}) =	user	ft
Area of Main Basin (A_{MAIN}) =	user	ft^2
Volume of Main Basin (V_{MAIN}) =	user	ft^3
Calculated Total Basin Volume (V_{total}) =	**user**	acre-feet

Please correct to Colorado Springs

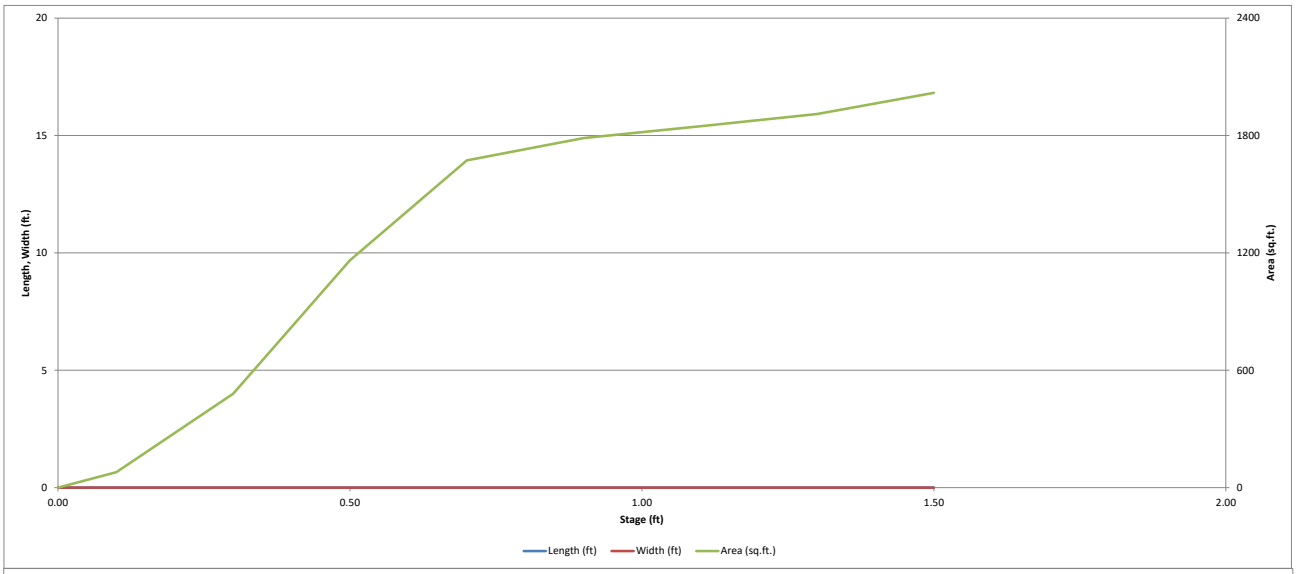
Please submit remainder of SDI worksheet

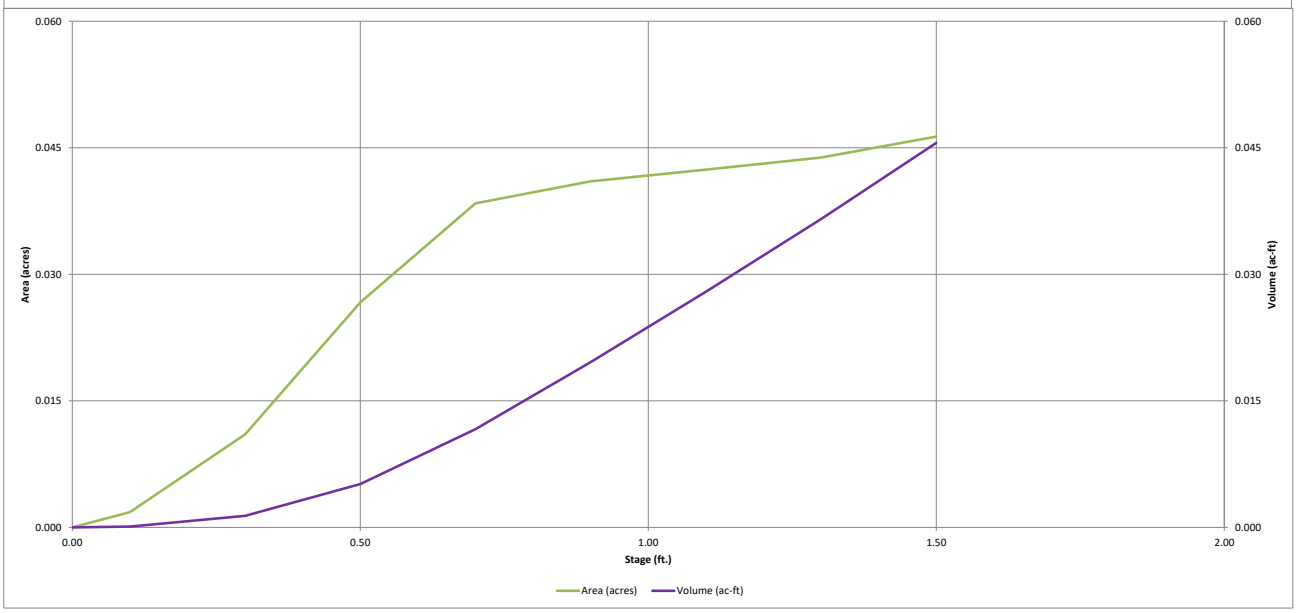
See comments on the drainage report spreadsheet.

This isnt an SDI Form. The SDI needs to be filled out for all new detention facilities. If it is determined that a detention facility is required, please fill out the SDI Form, which can be found here: https://publicworks.elpasoco.com/stormwater/

Depth Increment = 0.20 ft

Stage - Storage Description	Stage (ft)	Optional Override Stage (ft)	Length (ft)	Width (ft)	Area (ft^2)	Optional Override Area (ft^2)	Area (acre)	Volume (ft^3)	Volume (ac-ft)
Media Surface	--	0.00	--	--	--	0	0.000		
6377.6	--	0.10	--	--	--	79	0.002	4	0.000
6377.8	--	0.30	--	--	--	480	0.011	60	0.001
6378	--	0.50	--	--	--	1,162	0.027	224	0.005
6378.2	--	0.70	--	--	--	1,673	0.038	507	0.012
6378.4	--	0.90	--	--	--	1,787	0.041	853	0.020
6378.6	--	1.10	--	--	--	1,847	0.042	1,217	0.028
6378.8	--	1.30	--	--	--	1,910	0.044	1,593	0.037
6379	--	1.50	--	--	--	2,018	0.046	1,985	0.046


Length, Width (ft.)
Area (sq.ft.)
Stage (ft)
Length (ft)
Width (ft)
Area (sq.ft.)


Area (acres)
Volume (ac-ft)
Stage (ft.)
Area (acres)
Volume (ac-ft)