

# Stormwater Detention and Infiltration Design Data Sheet

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**Stormwater Facility Name:** Waterbury Filing No. 1 EDB Pond 1 D8 8

**Facility Location & Jurisdiction:** Stapleton Dr. & Bandenero Dr Intersection

**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):

User Input ▼

WQCV Treatment Method =  ▼

User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	100	0.00	0.00
0.25	3,201	0.25	0.05
0.50	6,302	0.50	0.07
0.75	8,582	0.75	0.09
1.00	10,862	1.00	0.10
1.25	13,142	1.25	0.14
1.50	15,422	1.50	0.18
1.75	17,702	1.75	0.21
2.00	19,982	2.00	0.24
2.25	22,262	2.25	0.26
2.50	24,542	2.50	0.31
2.75	26,599	2.75	0.36
3.00	28,656	3.00	0.40
3.25	30,713	3.25	0.43
3.50	32,770	3.50	0.46
3.75	34,826	3.75	1.98
4.00	36,883	4.00	7.03
4.25	38,940	4.25	14.04
4.50	40,997	4.50	22.56
4.75	43,397	4.75	41.35
5.00	45,797	5.00	64.52
5.25	48,198	5.25	95.04
5.50	50,598	5.50	132.39
5.75	52,998	5.75	176.20
6.00	55,398	6.00	226.29
6.25	57,798	6.25	282.56
6.50	60,198	6.50	344.98

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 =	0.394	0.923	1.212	1.490	2.292	2.813	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.394	0.923	1.212	1.490	2.292	2.813	acre-ft
Time to Drain 97% of Inflow Volume =	38.9	58.6	<b>65.8</b>	71.7	70.0	68.1	hours
Time to Drain 99% of Inflow Volume =	41.1	62.6	70.6	77.2	77.6	<b>76.7</b>	hours
Maximum Ponding Depth =	1.72	2.72	3.16	3.53	4.06	4.28	ft
Maximum Ponded Area =	0.40	0.61	0.69	0.76	0.86	<b>0.90</b>	acres
Maximum Volume Stored =	0.365	0.873	1.153	1.417	1.846	2.046	acre-ft

# Stormwater Detention and Infiltration Design Data Sheet

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**Stormwater Facility Name:** Waterbury Filing No. 1 EDB Pond 2 DP 18

**Facility Location & Jurisdiction:** Stapleton Dr. & Bandenero Dr Intersection

**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 =  ▼

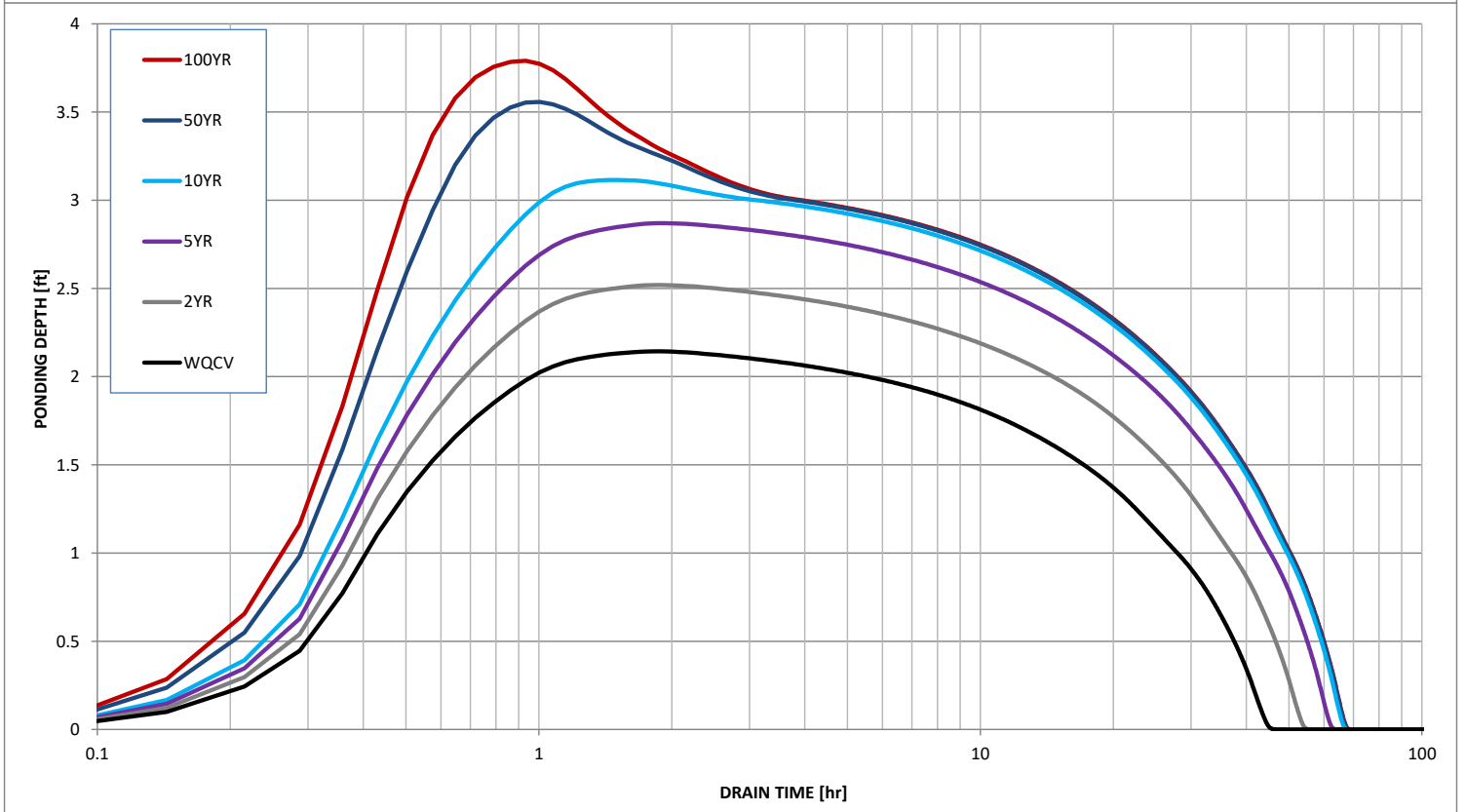
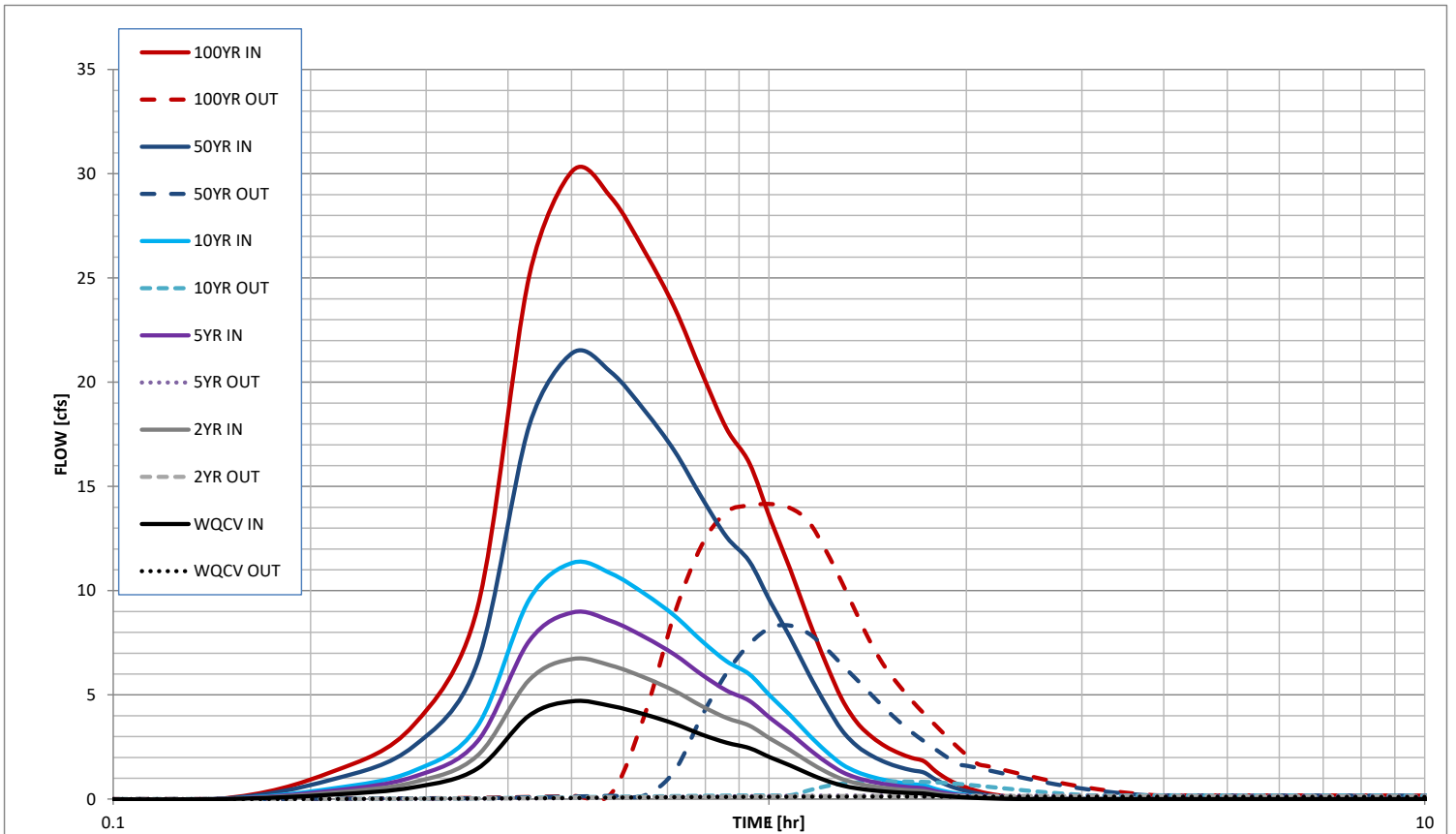
User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	100	0.00	0.00
0.25	942	0.25	0.02
0.50	1,784	0.50	0.03
0.75	2,626	0.75	0.04
1.00	3,468	1.00	0.04
1.25	5,034	1.25	0.07
1.50	6,600	1.50	0.08
1.75	8,166	1.75	0.10
2.00	9,732	2.00	0.11
2.25	11,297	2.25	0.13
2.50	12,863	2.50	0.15
2.75	14,429	2.75	0.17
3.00	15,995	3.00	0.18
3.25	19,602	3.25	1.69
3.50	23,209	3.50	6.73
3.75	26,815	3.75	13.72
4.00	30,422	4.00	16.48
4.25	34,029	4.25	17.02
4.50	37,636	4.50	17.54
4.75	41,243	4.75	18.05
5.00	44,850	5.00	18.54
5.25	48,650	5.25	26.83
5.50	52,450	5.50	42.41
5.75	56,251	5.75	63.60
6.00	60,051	6.00	90.00
6.25	63,851	6.25	121.47
6.50	67,652	6.50	157.95
6.75	71,452	6.75	199.49
7.00	75,252	7.00	246.12

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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 =	0.241	0.347	0.464	0.588	1.119	1.582	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.241	0.346	0.463	0.588	1.119	1.582	acre-ft
Time to Drain 97% of Inflow Volume =	39.1	46.8	53.8	56.7	52.5	48.6	hours
Time to Drain 99% of Inflow Volume =	41.7	50.1	57.9	61.4	59.7	58.2	hours
Maximum Ponding Depth =	2.14	2.52	2.87	3.11	3.56	3.79	ft
Maximum Poned Area =	0.24	0.30	0.35	0.40	0.55	0.63	acres
Maximum Volume Stored =	0.224	0.326	0.439	0.530	0.740	0.878	acre-ft

# Stormwater Detention and Infiltration Design Data Sheet



# Stormwater Detention and Infiltration Design Data Sheet

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**Stormwater Facility Name:** Waterbury Filing No. 1 EDB Pond 3 DP 29

**Facility Location & Jurisdiction:** Stapleton Dr. & Bandenero Dr Intersection

**User Input: Watershed Characteristics**

Watershed Slope =	0.026	ft/ft
Watershed Length =	1500	ft
Watershed Area =	71.20	acres
Watershed Imperviousness =	54.7%	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 = Extended Detention ▼

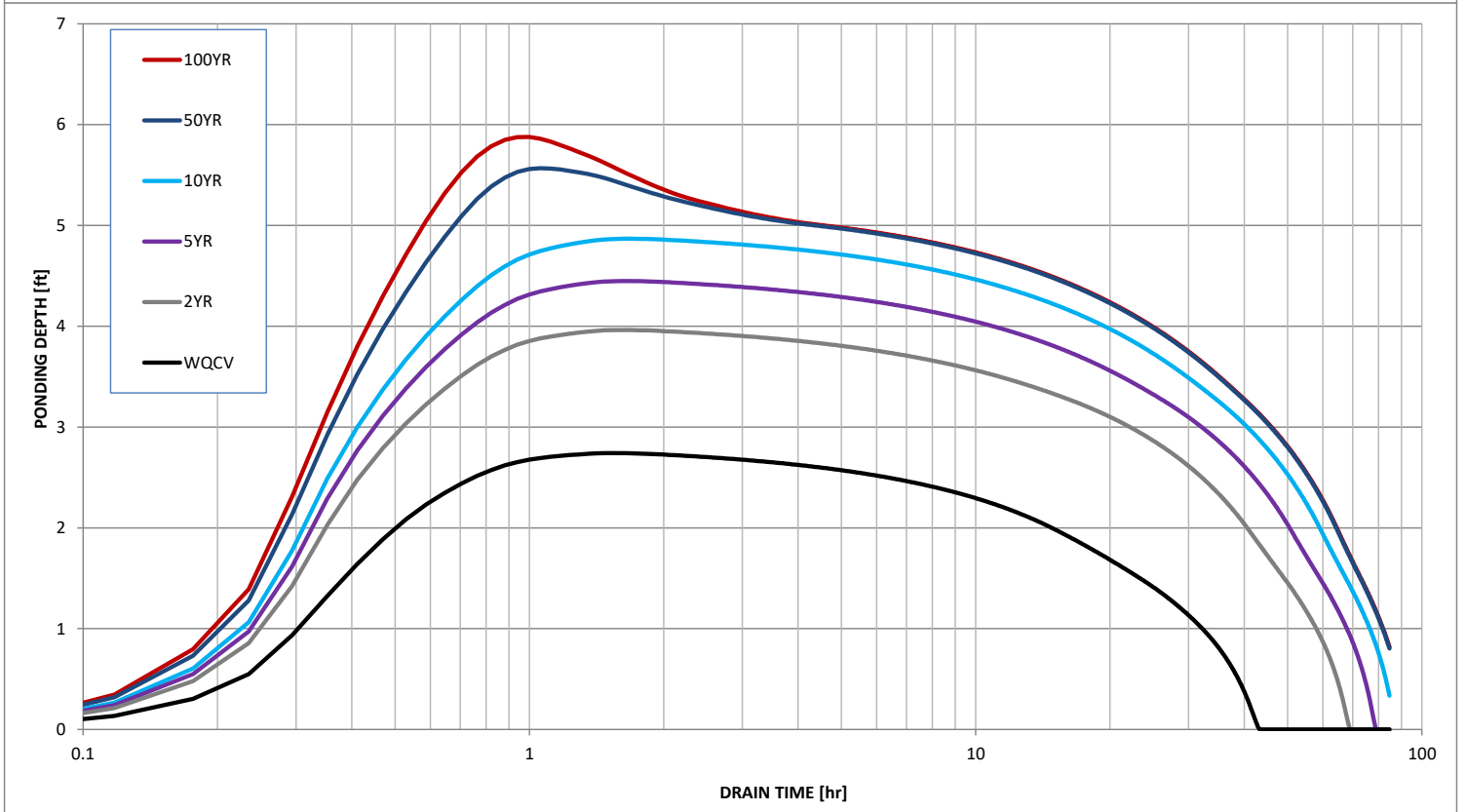
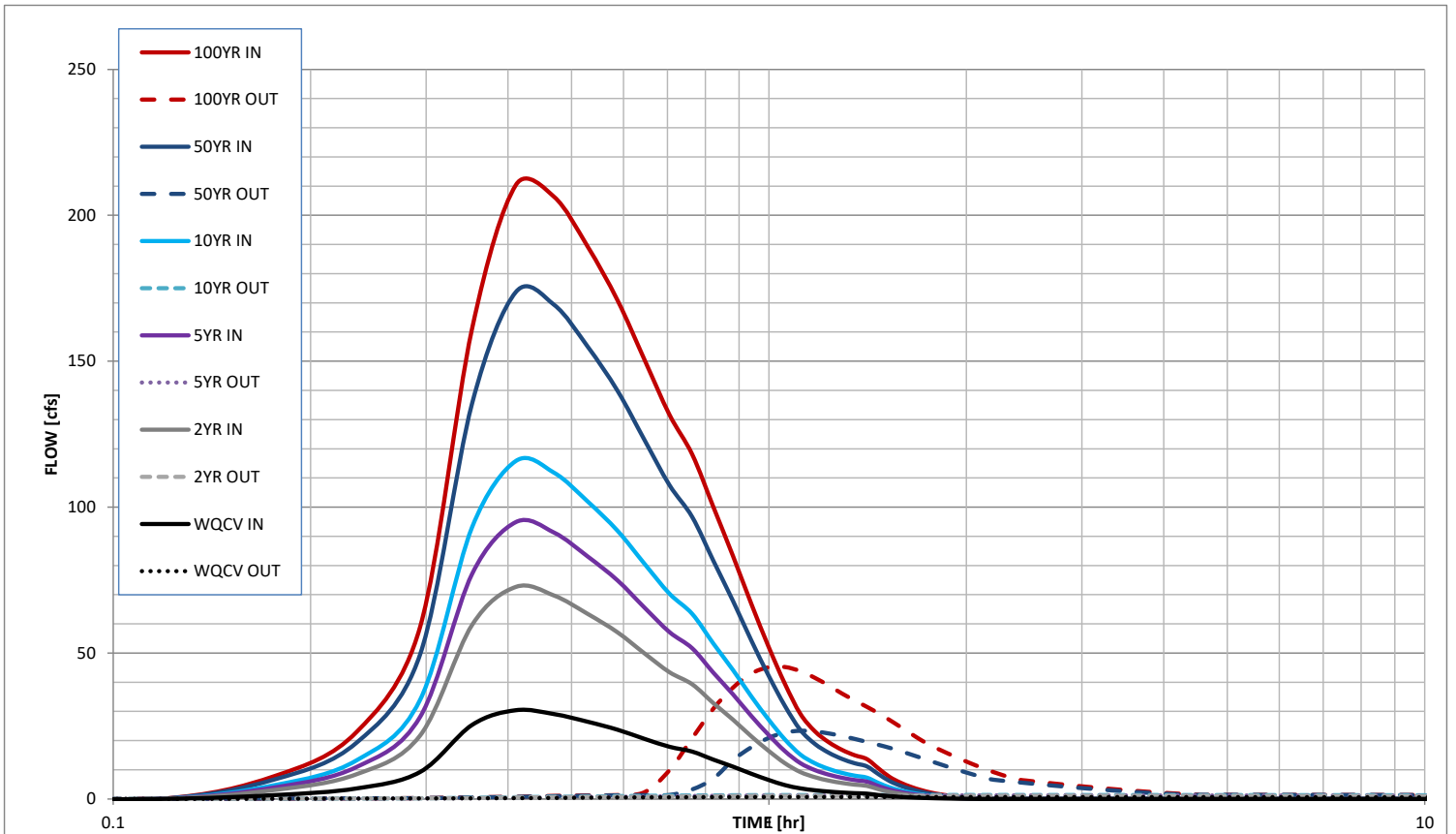
User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	100	0.00	0.00
0.25	3,412	0.25	0.12
0.50	6,282	0.50	0.17
0.75	9,372	0.75	0.20
1.00	13,347	1.00	0.23
1.25	16,659	1.25	0.26
1.50	19,971	1.50	0.29
1.75	23,283	1.75	0.38
2.00	26,595	2.00	0.48
2.25	33,544	2.25	0.55
2.50	40,493	2.50	0.61
2.75	47,442	2.75	0.66
3.00	54,392	3.00	0.71
3.25	61,341	3.25	0.76
3.50	68,290	3.50	0.91
3.75	75,240	3.75	1.02
4.00	82,189	4.00	1.11
4.25	87,136	4.25	1.19
4.50	92,083	4.50	1.27
4.75	97,030	4.75	1.33
5.00	101,977	5.00	1.39
5.25	106,924	5.25	6.64
5.50	111,871	5.50	19.02
5.75	116,819	5.75	35.53
6.00	121,766	6.00	55.32
6.25	124,516	6.25	107.90
6.50	127,266	6.50	169.47
6.75	130,017	6.75	249.76
7.00	132,767	7.00	345.86
7.25	135,518	7.25	456.16
7.50	138,268	7.50	579.67
7.75	141,019	7.75	715.66
8.00	143,769	8.00	863.65

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 create a new stormwater facility, and  
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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 =	1.302	3.147	4.128	5.064	7.676	9.346	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	1.302	3.147	4.128	5.061	7.670	9.343	acre-ft
Time to Drain 97% of Inflow Volume =	38.7	61.0	69.2	76.2	77.6	75.5	hours
Time to Drain 99% of Inflow Volume =	40.8	65.0	74.3	82.1	0.0	0.0	hours
Maximum Ponding Depth =	2.74	3.96	4.45	4.87	5.57	5.88	ft
Maximum Poned Area =	1.08	1.86	2.09	2.28	2.60	2.74	acres
Maximum Volume Stored =	1.226	3.020	3.978	4.902	6.599	7.436	acre-ft

# Stormwater Detention and Infiltration Design Data Sheet



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