Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

Stormwater Facility Name: Latigo Trails Filing No. 10 - G14B Pond

Facility Location & Jurisdiction: Eastonville Rd.

User Input: Watershed Characteristics

Watershed Slope =	0.020	ft/ft
Watershed Length =	1625	ft
Watershed Area =	35.73	acres
Watershed Imperviousness =	14.8%	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

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	40	0.00	0.00
0.50	4,070	0.50	0.06
1.00	8,099	1.00	0.08
1.50	9,015	1.50	0.10
2.00	9,930	2.00	0.12
2.50	10,846	2.50	0.13
3.00	11,761	3.00	0.15
3.50	12,677	3.50	0.16
4.00	13,592	4.00	0.17
4.50	14,508	4.50	0.18
5.00	15,424	5.00	0.19
5.50	16,339	5.50	18.43
6.00	17,255	6.00	51.76
6.50	18,170	6.50	85.74
7.00	19,086	7.00	139.30
7.50	20,177	7.50	216.42
8.00	21,269	8.00	316.08

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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 =	0.53	0.93	1.21	1.46	2.14	2.47	in
Calculated Runoff Volume =	0.275	0.286	0.445	0.886	3.057	4.219	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.274	0.286	0.445	0.885	3.056	4.219	acre-ft
Time to Drain 97% of Inflow Volume =	39.0	40.0	**54.0**	85.1	95.3	90.3	hours
Time to Drain 99% of Inflow Volume =	41.4	42.5	57.0	89.4	105.7	**103.6**	hours
Maximum Ponding Depth =	1.81	1.86	2.52	4.06	5.76	6.07	ft
Maximum Ponded Area =	0.22	0.22	0.25	0.31	0.39	**0.40**	acres
Maximum Volume Stored =	0.257	0.269	0.423	0.856	1.451	1.571	acre-ft

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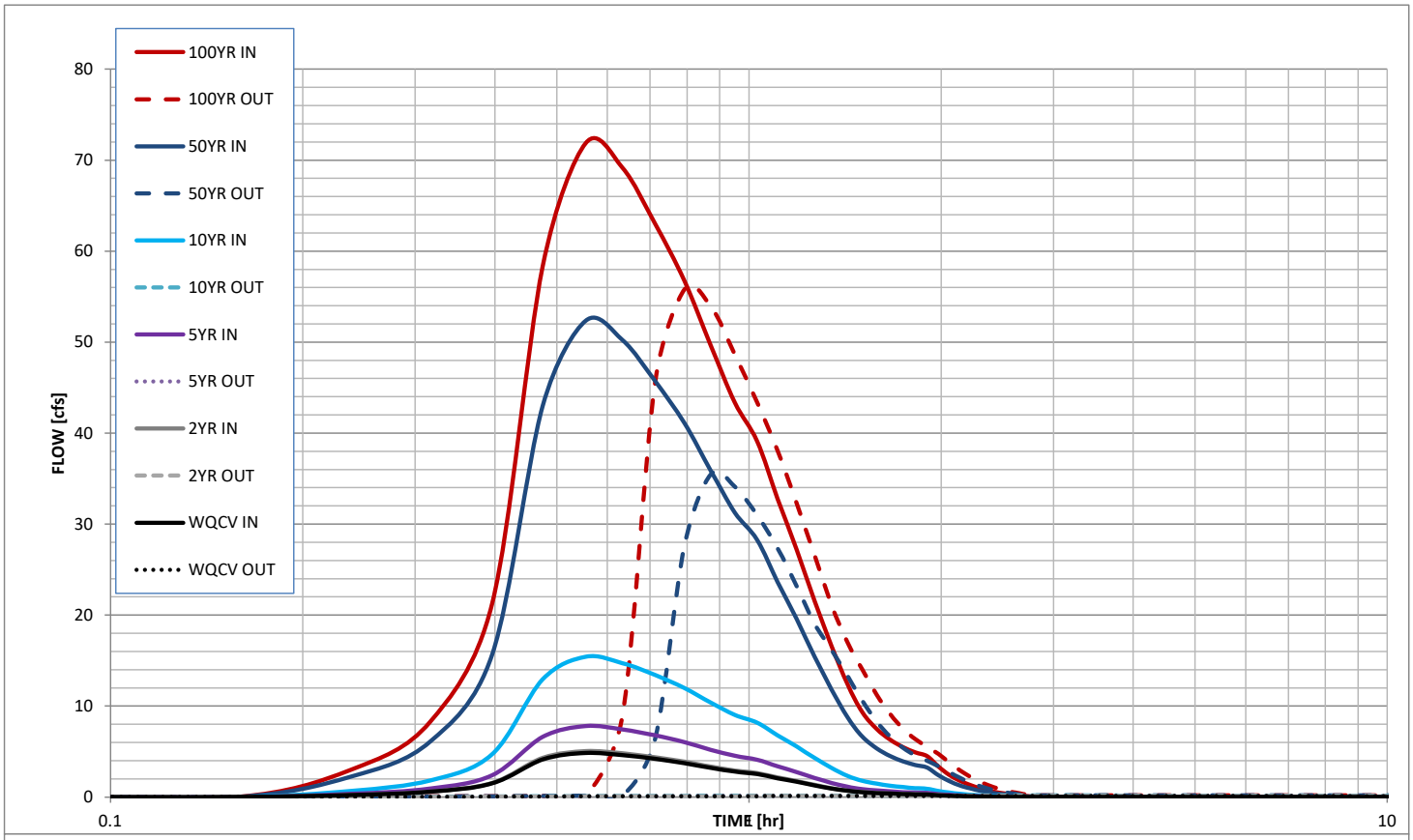

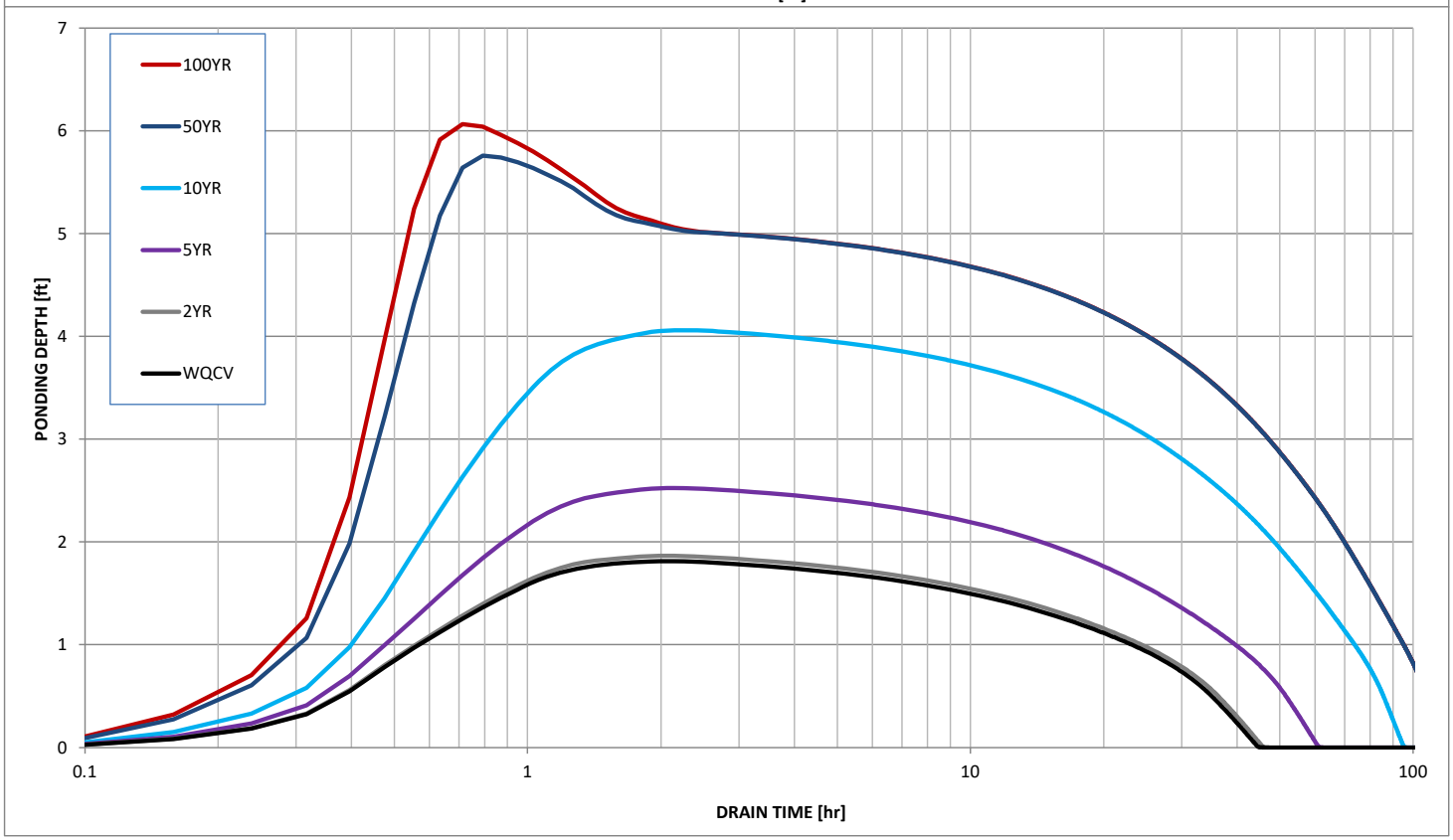

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

Stormwater Facility Name: Latigo Trails Filing No. 10 - G18 Pond

Facility Location & Jurisdiction: Eastonville Rd.

User Input: Watershed Characteristics

Watershed Slope =	0.020	ft/ft
Watershed Length =	1747	ft
Watershed Area =	23.45	acres
Watershed Imperviousness =	13.5%	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

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	40	0.00	0.00
0.50	3,085	0.50	0.04
1.00	6,130	1.00	0.06
1.50	6,987	1.50	0.08
2.00	7,844	2.00	0.09
2.50	8,701	2.50	0.10
3.00	9,559	3.00	0.11
3.50	10,416	3.50	0.12
4.00	11,273	4.00	0.13
4.50	12,130	4.50	13.80
5.00	12,987	5.00	38.81
5.50	13,844	5.50	56.53
6.00	14,702	6.00	95.16
6.50	15,559	6.50	154.78
7.00	16,416	7.00	234.47

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Routed Hydrograph Results

Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	0.93	1.21	1.46	2.14	2.47	in
Calculated Runoff Volume =	0.167	0.168	0.264	0.545	1.971	2.734	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.167	0.168	0.264	0.544	1.971	2.733	acre-ft
Time to Drain 97% of Inflow Volume =	34.7	34.8	**46.5**	75.2	79.1	74.5	hours
Time to Drain 99% of Inflow Volume =	37.2	37.4	49.5	79.5	88.8	**86.7**	hours
Maximum Ponding Depth =	1.55	1.55	2.09	3.40	4.64	4.88	ft
Maximum Ponded Area =	0.16	0.16	0.18	0.24	0.28	**0.29**	acres
Maximum Volume Stored =	0.153	0.154	0.247	0.522	0.843	0.911	acre-ft

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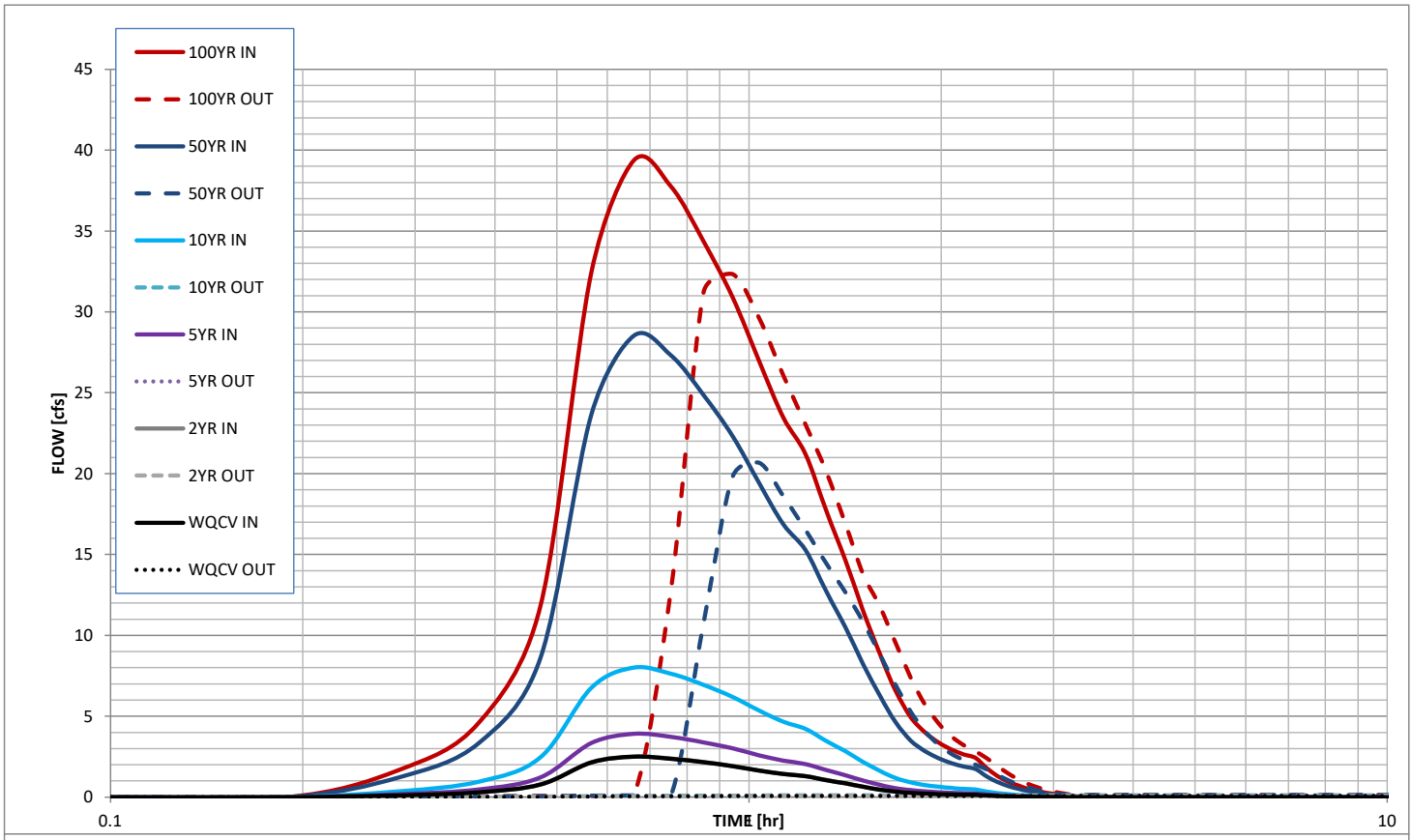

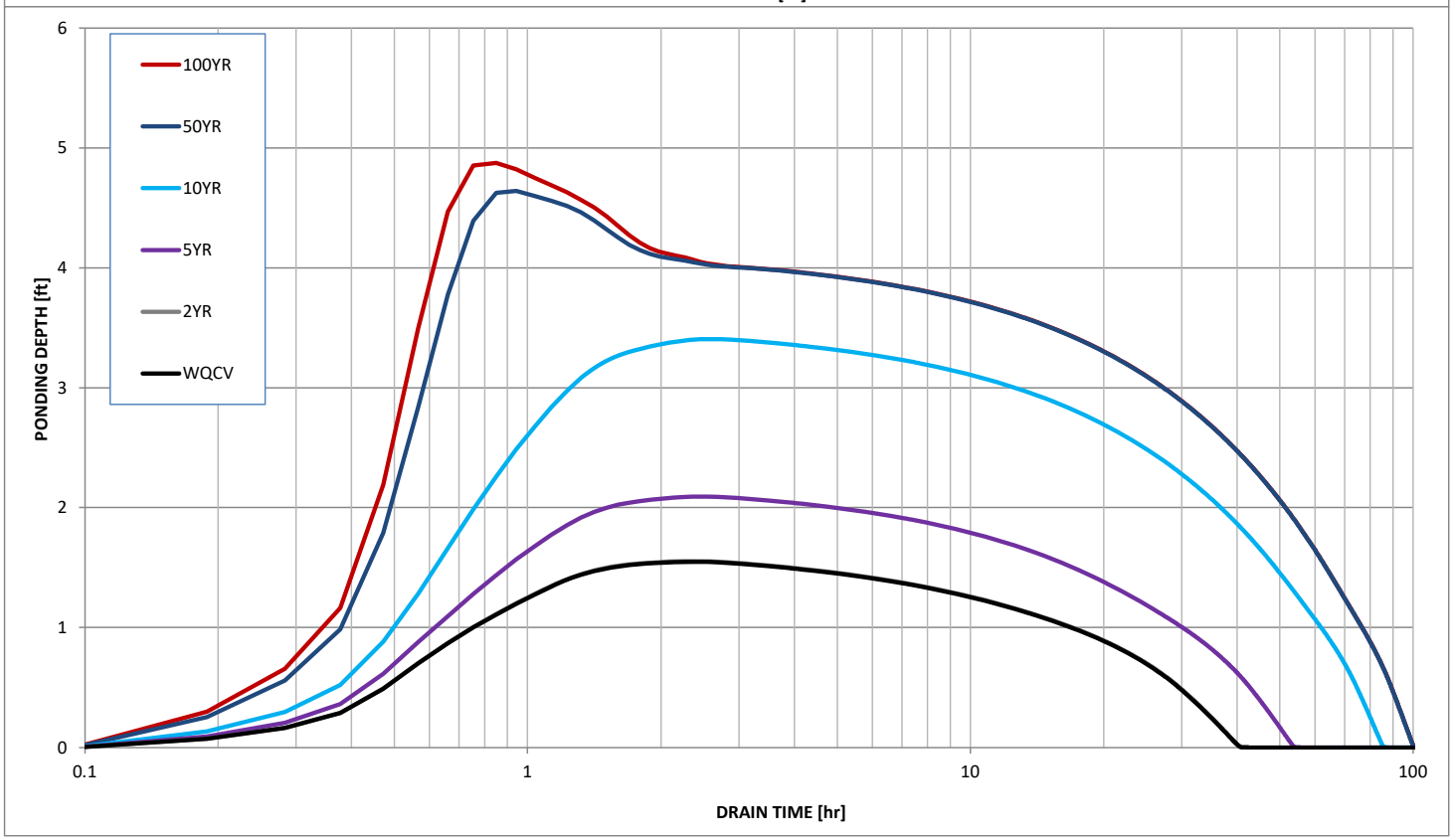

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

Stormwater Facility Name: Latigo Trails Filing No. 10 - G19 Pond

Facility Location & Jurisdiction: Eastonville Rd.

User Input: Watershed Characteristics

Watershed Slope =	0.020	ft/ft
Watershed Length =	1625	ft
Watershed Area =	26.64	acres
Watershed Imperviousness =	12.8%	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

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	40	0.00	0.00
0.50	4,301	0.50	0.05
1.00	8,561	1.00	0.08
1.50	9,635	1.50	0.09
2.00	10,710	2.00	0.11
2.50	11,784	2.50	0.12
3.00	12,858	3.00	0.14
3.50	13,932	3.50	0.15
4.00	15,007	4.00	5.80
4.50	16,081	4.50	29.47
5.00	17,155	5.00	59.09
5.50	18,230	5.50	77.63
6.00	19,304	6.00	128.81
6.50	20,529	6.50	203.77
7.00	21,754	7.00	301.30

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Routed Hydrograph Results

Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	0.93	1.21	1.46	2.14	2.47	in
Calculated Runoff Volume =	0.182	0.179	0.282	0.596	2.217	3.084	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	0.181	0.179	0.282	0.596	2.216	3.084	acre-ft
Time to Drain 97% of Inflow Volume =	32.5	32.2	**44.1**	72.3	77.2	73.0	hours
Time to Drain 99% of Inflow Volume =	35.0	34.6	47.0	76.8	86.3	**84.3**	hours
Maximum Ponding Depth =	1.34	1.32	1.78	2.94	4.37	4.64	ft
Maximum Ponded Area =	0.21	0.21	0.23	0.29	0.36	**0.38**	acres
Maximum Volume Stored =	0.168	0.164	0.265	0.572	1.041	1.140	acre-ft

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