

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 122 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	83.256	0.706	0.0	0.5	0.5	4.6	O K
30 min Summer	83.382	0.832	0.0	0.7	0.7	6.1	O K
60 min Summer	83.468	0.918	0.0	0.8	0.8	7.5	O K
120 min Summer	83.528	0.978	0.0	0.8	0.8	8.7	O K
180 min Summer	83.551	1.001	0.0	0.9	0.9	9.2	O K
240 min Summer	83.560	1.010	0.0	0.9	0.9	9.4	O K
360 min Summer	83.564	1.014	0.0	0.9	0.9	9.5	O K
480 min Summer	83.556	1.006	0.0	0.9	0.9	9.3	O K
600 min Summer	83.543	0.993	0.0	0.9	0.9	9.0	O K
720 min Summer	83.527	0.977	0.0	0.8	0.8	8.7	O K
960 min Summer	83.491	0.941	0.0	0.8	0.8	7.9	O K
1440 min Summer	83.424	0.874	0.0	0.7	0.7	6.7	O K
2160 min Summer	83.348	0.798	0.0	0.6	0.6	5.6	O K
2880 min Summer	83.294	0.744	0.0	0.6	0.6	5.0	O K
4320 min Summer	83.229	0.679	0.0	0.4	0.4	4.4	O K
5760 min Summer	83.198	0.648	0.0	0.4	0.4	4.1	O K
7200 min Summer	83.176	0.626	0.0	0.3	0.3	4.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	101.488	0.0	0.6	18
30 min Summer	70.687	0.0	2.5	32
60 min Summer	47.182	0.0	4.7	60
120 min Summer	30.409	0.0	7.3	92
180 min Summer	23.118	0.0	8.9	126
240 min Summer	18.856	0.0	10.0	160
360 min Summer	14.128	0.0	11.8	228
480 min Summer	11.496	0.0	13.1	294
600 min Summer	9.787	0.0	14.2	360
720 min Summer	8.574	0.0	15.2	422
960 min Summer	6.951	0.0	16.7	548
1440 min Summer	5.157	0.0	19.1	792
2160 min Summer	3.814	0.0	21.6	1144
2880 min Summer	3.074	0.0	23.5	1500
4320 min Summer	2.264	0.0	26.4	2204
5760 min Summer	1.825	0.0	28.7	3488
7200 min Summer	1.544	0.0	30.6	4128

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Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
8640 min Summer	83.167	0.617	0.0	0.3	0.3	4.1	O K
10080 min Summer	83.158	0.608	0.0	0.3	0.3	4.1	O K
15 min Winter	83.306	0.756	0.0	0.6	0.6	5.1	O K
30 min Winter	83.430	0.880	0.0	0.7	0.7	6.8	O K
60 min Winter	83.518	0.968	0.0	0.8	0.8	8.5	O K
120 min Winter	83.573	1.023	0.0	0.9	0.9	9.7	O K
180 min Winter	83.592	1.042	0.0	0.9	0.9	10.2	O K
240 min Winter	83.595	1.045	0.0	0.9	0.9	10.2	O K
360 min Winter	83.584	1.034	0.0	0.9	0.9	10.0	O K
480 min Winter	83.565	1.015	0.0	0.9	0.9	9.5	O K
600 min Winter	83.540	0.990	0.0	0.9	0.9	9.0	O K
720 min Winter	83.514	0.964	0.0	0.8	0.8	8.4	O K
960 min Winter	83.461	0.911	0.0	0.8	0.8	7.4	O K
1440 min Winter	83.370	0.820	0.0	0.7	0.7	5.9	O K
2160 min Winter	83.280	0.730	0.0	0.5	0.5	4.8	O K
2880 min Winter	83.229	0.679	0.0	0.4	0.4	4.4	O K
4320 min Winter	83.189	0.639	0.0	0.4	0.4	4.1	O K
5760 min Winter	83.158	0.608	0.0	0.3	0.3	4.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
8640 min Summer	1.348	0.0	32.3	4808
10080 min Summer	1.201	0.0	33.7	5192
15 min Winter	101.488	0.0	1.2	18
30 min Winter	70.687	0.0	3.3	31
60 min Winter	47.182	0.0	5.8	60
120 min Winter	30.409	0.0	8.7	96
180 min Winter	23.118	0.0	10.4	136
240 min Winter	18.856	0.0	11.7	174
360 min Winter	14.128	0.0	13.7	246
480 min Winter	11.496	0.0	15.2	316
600 min Winter	9.787	0.0	16.4	382
720 min Winter	8.574	0.0	17.5	448
960 min Winter	6.951	0.0	19.2	570
1440 min Winter	5.157	0.0	21.9	808
2160 min Winter	3.814	0.0	24.7	1148
2880 min Winter	3.074	0.0	26.9	1500
4320 min Winter	2.264	0.0	30.1	1280
5760 min Winter	1.825	0.0	32.7	2016

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Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
7200 min Winter	83.154	0.604	0.0	0.3	0.3	4.1	O K
8640 min Winter	83.150	0.600	0.0	0.3	0.3	4.1	O K
10080 min Winter	83.150	0.600	0.0	0.3	0.3	4.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
7200 min Winter	1.544	0.0	34.8	4800
8640 min Winter	1.348	0.0	36.6	5280
10080 min Winter	1.201	0.0	38.3	6200

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	18.000	Shortest Storm (mins)	15
Ratio R	0.285	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.025

Time (mins)		Area
From:	To:	(ha)
0	4	0.025

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Model Details

Storage is Online Cover Level (m) 83.800

Complex Structure

Infiltration Blanket

Infiltration Coefficient Base (m/hr) 0.00000 Diameter/Width (m) 5.5
Safety Factor 2.0 Length (m) 5.0
Porosity 0.30 Cap Volume Depth (m) 0.500
Invert Level (m) 82.550

Infiltration Basin

Invert Level (m) 83.200 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 1.00
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	7.5	0.600	38.5

Orifice Outflow Control

Diameter (m) 0.025 Discharge Coefficient 0.600 Invert Level (m) 83.100