Summary of Results for 10 year Return Period (+50%)

Half Drain Time : 1299 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	25.572	0.272	0.4	20.2	O K
30 min Summer	25.653	0.353	0.4	26.5	O K
60 min Summer	25.741	0.441	0.4	33.2	O K
120 min Summer	25.832	0.532	0.4	40.2	O K
180 min Summer	25.885	0.585	0.4	44.3	O K
240 min Summer	25.920	0.620	0.4	47.0	O K
360 min Summer	25.967	0.667	0.4	50.6	O K
480 min Summer	25.995	0.695	0.4	52.8	O K
600 min Summer	26.013	0.713	0.4	54.1	O K
720 min Summer	26.023	0.723	0.4	54.9	O K
960 min Summer	26.030	0.730	0.4	55.5	O K
1440 min Summer	26.026	0.726	0.4	55.2	O K
2160 min Summer	26.009	0.709	0.4	53.9	O K
2880 min Summer	25.989	0.689	0.4	52.3	O K
4320 min Summer	25.945	0.645	0.4	49.0	O K
5760 min Summer	25.901	0.601	0.4	45.5	O K
7200 min Summer	25.856	0.556	0.4	42.1	O K
8640 min Summer	25.814	0.514	0.4	38.8	O K
10080 min Summer	25.773	0.473	0.4	35.7	O K
15 min Winter	25.603	0.303	0.4	22.7	O K
30 min Winter	25.696	0.396	0.4	29.7	O K
60 min Winter	25.794	0.494	0.4	37.3	O K
120 min Winter	25.898	0.598	0.4	45.3	O K
180 min Winter	25.959	0.659	0.4	50.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	82.824	0.0	19
30 min Summer	54.698	0.0	34
60 min Summer	34.733	0.0	64
120 min Summer	21.518	0.0	124
180 min Summer	16.130	0.0	182
240 min Summer	13.106	0.0	242
360 min Summer	9.767	0.0	362
480 min Summer	7.922	0.0	482
600 min Summer	6.730	0.0	602
720 min Summer	5.890	0.0	720
960 min Summer	4.770	0.0	952
1440 min Summer	3.540	0.0	1170
2160 min Summer	2.625	0.0	1560
2880 min Summer	2.123	0.0	1964
4320 min Summer	1.572	0.0	2808
5760 min Summer	1.270	0.0	3632
7200 min Summer	1.076	0.0	4464
8640 min Summer	0.940	0.0	5264
10080 min Summer	0.839	0.0	6048
15 min Winter	82.824	0.0	19
30 min Winter	54.698	0.0	33
60 min Winter	34.733	0.0	62
120 min Winter	21.518	0.0	122
180 min Winter	16.130	0.0	180

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Summary of Results for 10 year Return Period (+50%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
240 min Winter	26.001	0.701	0.4	53.3	O K
360 min Winter	26.057	0.757	0.4	57.6	O K
480 min Winter	26.093	0.793	0.4	60.3	O K
600 min Winter	26.116	0.816	0.4	62.1	O K
720 min Winter	26.131	0.831	0.4	63.3	O K
960 min Winter	26.147	0.847	0.4	64.5	O K
1440 min Winter	26.145	0.845	0.4	64.3	O K
2160 min Winter	26.123	0.823	0.4	62.6	O K
2880 min Winter	26.093	0.793	0.4	60.3	O K
4320 min Winter	26.024	0.724	0.4	55.0	O K
5760 min Winter	25.953	0.653	0.4	49.5	O K
7200 min Winter	25.883	0.583	0.4	44.2	O K
8640 min Winter	25.818	0.518	0.4	39.2	O K
10080 min Winter	25.757	0.457	0.4	34.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
240 min Winter	13.106	0.0	240
360 min Winter	9.767	0.0	356
480 min Winter	7.922	0.0	472
600 min Winter	6.730	0.0	586
720 min Winter	5.890	0.0	700
960 min Winter	4.770	0.0	922
1440 min Winter	3.540	0.0	1338
2160 min Winter	2.625	0.0	1664
2880 min Winter	2.123	0.0	2132
4320 min Winter	1.572	0.0	3028
5760 min Winter	1.270	0.0	3920
7200 min Winter	1.076	0.0	4760
8640 min Winter	0.940	0.0	5616
10080 min Winter	0.839	0.0	6360

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	10	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.300	Shortest Storm (mins)	15
Ratio R	0.348	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+50

Time Area Diagram

Total Area (ha) 0.132

Time (mins) From:	To:	Area (ha)
0	4	0.132

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Model Details

Storage is Online Cover Level (m) 27.300

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.13640	Trench Width (m)	4.5
Infiltration Coefficient Side (m/hr)	0.13640	Trench Length (m)	18.0
Safety Factor	10.0	Slope (1:X)	1000.0
Porosity	0.95	Cap Volume Depth (m)	1.500
Invert Level (m)	25.300	Cap Infiltration Depth (m)	1.500

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