

Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 882 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	4.685	0.135	0.3	12.8	O K
30 min Summer	4.730	0.180	0.3	17.1	O K
60 min Summer	4.778	0.228	0.3	21.6	O K
120 min Summer	4.824	0.274	0.3	26.1	O K
180 min Summer	4.848	0.298	0.4	28.3	O K
240 min Summer	4.862	0.312	0.4	29.6	O K
360 min Summer	4.877	0.327	0.4	31.1	O K
480 min Summer	4.883	0.333	0.4	31.7	O K
600 min Summer	4.885	0.335	0.4	31.8	O K
720 min Summer	4.883	0.333	0.4	31.6	O K
960 min Summer	4.879	0.329	0.4	31.2	O K
1440 min Summer	4.866	0.316	0.4	30.0	O K
2160 min Summer	4.844	0.294	0.4	28.0	O K
2880 min Summer	4.822	0.272	0.3	25.9	O K
4320 min Summer	4.780	0.230	0.3	21.9	O K
5760 min Summer	4.742	0.192	0.3	18.3	O K
7200 min Summer	4.709	0.159	0.3	15.1	O K
8640 min Summer	4.681	0.131	0.3	12.4	O K
10080 min Summer	4.657	0.107	0.3	10.2	O K
15 min Winter	4.702	0.152	0.3	14.4	O K
30 min Winter	4.752	0.202	0.3	19.2	O K
60 min Winter	4.806	0.256	0.3	24.3	O K
120 min Winter	4.859	0.309	0.4	29.4	O K
180 min Winter	4.887	0.337	0.4	32.1	O K
240 min Winter	4.904	0.354	0.4	33.6	O K
360 min Winter	4.923	0.373	0.4	35.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	124.633	0.0	23
30 min Summer	83.789	0.0	38
60 min Summer	53.779	0.0	68
120 min Summer	33.337	0.0	126
180 min Summer	24.832	0.0	186
240 min Summer	20.006	0.0	246
360 min Summer	14.706	0.0	366
480 min Summer	11.818	0.0	484
600 min Summer	9.966	0.0	604
720 min Summer	8.665	0.0	676
960 min Summer	6.943	0.0	792
1440 min Summer	5.071	0.0	1042
2160 min Summer	3.696	0.0	1452
2880 min Summer	2.949	0.0	1852
4320 min Summer	2.142	0.0	2644
5760 min Summer	1.705	0.0	3408
7200 min Summer	1.427	0.0	4176
8640 min Summer	1.235	0.0	4848
10080 min Summer	1.093	0.0	5552
15 min Winter	124.633	0.0	23
30 min Winter	83.789	0.0	37
60 min Winter	53.779	0.0	66
120 min Winter	33.337	0.0	126
180 min Winter	24.832	0.0	184
240 min Winter	20.006	0.0	242
360 min Winter	14.706	0.0	358

Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
480 min Winter	4.933	0.383	0.4	36.4	O K
600 min Winter	4.937	0.387	0.4	36.7	O K
720 min Winter	4.937	0.387	0.4	36.8	O K
960 min Winter	4.931	0.381	0.4	36.2	O K
1440 min Winter	4.914	0.364	0.4	34.6	O K
2160 min Winter	4.884	0.334	0.4	31.7	O K
2880 min Winter	4.851	0.301	0.4	28.5	O K
4320 min Winter	4.787	0.237	0.3	22.5	O K
5760 min Winter	4.730	0.180	0.3	17.1	O K
7200 min Winter	4.682	0.132	0.3	12.5	O K
8640 min Winter	4.643	0.093	0.3	8.8	O K
10080 min Winter	4.615	0.065	0.3	6.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
480 min Winter	11.818	0.0	472
600 min Winter	9.966	0.0	584
720 min Winter	8.665	0.0	694
960 min Winter	6.943	0.0	900
1440 min Winter	5.071	0.0	1116
2160 min Winter	3.696	0.0	1580
2880 min Winter	2.949	0.0	2024
4320 min Winter	2.142	0.0	2860
5760 min Winter	1.705	0.0	3640
7200 min Winter	1.427	0.0	4392
8640 min Winter	1.235	0.0	5016
10080 min Winter	1.093	0.0	5552

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)	19.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.056

Time (mins)	Area	Time (mins)	Area
From: To: (ha)		From: To: (ha)	
0 4	0.000	4 8	0.056

Model Details

Storage is Online Cover Level (m) 5.300

Cellular Storage Structure

Invert Level (m) 4.550 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.02261 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.02261

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	100.0	100.0	0.400	100.0	116.0	0.500	0.0	116.0