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

Half Drain Time : 335 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	97.765	0.765	1.7	34.9	O K
30 min Summer	98.014	1.014	1.8	46.2	O K
60 min Summer	98.259	1.259	2.0	57.4	O K
120 min Summer	98.466	1.466	2.2	66.8	O K
180 min Summer	98.542	1.542	2.2	70.3	O K
240 min Summer	98.560	1.560	2.2	71.1	O K
360 min Summer	98.542	1.542	2.2	70.3	O K
480 min Summer	98.514	1.514	2.2	69.1	O K
600 min Summer	98.479	1.479	2.2	67.5	O K
720 min Summer	98.442	1.442	2.1	65.8	O K
960 min Summer	98.370	1.370	2.1	62.5	O K
1440 min Summer	98.236	1.236	2.0	56.4	O K
2160 min Summer	98.055	1.055	1.9	48.1	O K
2880 min Summer	97.897	0.897	1.8	40.9	O K
4320 min Summer	97.639	0.639	1.6	29.1	O K
5760 min Summer	97.445	0.445	1.5	20.3	O K
7200 min Summer	97.299	0.299	1.4	13.6	O K
8640 min Summer	97.189	0.189	1.3	8.6	O K
10080 min Summer	97.112	0.112	1.2	5.1	O K
15 min Winter	97.861	0.861	1.7	39.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	109.818	0.0	29
30 min Summer	73.629	0.0	43
60 min Summer	47.182	0.0	70
120 min Summer	29.263	0.0	126
180 min Summer	21.837	0.0	184
240 min Summer	17.632	0.0	240
360 min Summer	12.933	0.0	296
480 min Summer	10.386	0.0	360
600 min Summer	8.754	0.0	428
720 min Summer	7.609	0.0	498
960 min Summer	6.094	0.0	636
1440 min Summer	4.449	0.0	912
2160 min Summer	3.241	0.0	1308
2880 min Summer	2.585	0.0	1704
4320 min Summer	1.877	0.0	2464
5760 min Summer	1.493	0.0	3176
7200 min Summer	1.250	0.0	3896
8640 min Summer	1.080	0.0	4584
10080 min Summer	0.955	0.0	5248
15 min Winter	109.818	0.0	29

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

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	98.143	1.143	1.9	52.1	O K
60 min Winter	98.424	1.424	2.1	64.9	O K
120 min Winter	98.670	1.670	2.3	76.1	O K
180 min Winter	98.768	1.768	2.4	80.6	O K
240 min Winter	98.802	1.802	2.4	82.2	O K
360 min Winter	98.781	1.781	2.4	81.2	O K
480 min Winter	98.751	1.751	2.3	79.8	O K
600 min Winter	98.708	1.708	2.3	77.9	O K
720 min Winter	98.656	1.656	2.3	75.5	O K
960 min Winter	98.547	1.547	2.2	70.5	O K
1440 min Winter	98.347	1.347	2.1	61.4	O K
2160 min Winter	98.081	1.081	1.9	49.3	O K
2880 min Winter	97.857	0.857	1.7	39.1	O K
4320 min Winter	97.512	0.512	1.5	23.4	O K
5760 min Winter	97.270	0.270	1.3	12.3	O K
7200 min Winter	97.105	0.105	1.2	4.8	O K
8640 min Winter	97.048	0.048	1.1	2.2	O K
10080 min Winter	97.042	0.042	1.0	1.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	73.629	0.0	43
60 min Winter	47.182	0.0	70
120 min Winter	29.263	0.0	126
180 min Winter	21.837	0.0	180
240 min Winter	17.632	0.0	236
360 min Winter	12.933	0.0	334
480 min Winter	10.386	0.0	380
600 min Winter	8.754	0.0	458
720 min Winter	7.609	0.0	536
960 min Winter	6.094	0.0	688
1440 min Winter	4.449	0.0	980
2160 min Winter	3.241	0.0	1400
2880 min Winter	2.585	0.0	1796
4320 min Winter	1.877	0.0	2560
5760 min Winter	1.493	0.0	3280
7200 min Winter	1.250	0.0	3896
8640 min Winter	1.080	0.0	4408
10080 min Winter	0.955	0.0	4984

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	0.357	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.180

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.045	4	8	0.045	8	12	0.045	12	16	0.045

Model Details

Storage is Online Cover Level (m) 100.000

Cellular Storage Structure

Invert Level (m) 97.000 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.17500 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.17500

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	48.0	48.0	1.300	48.0	84.0
0.100	48.0	50.8	1.400	48.0	86.8
0.200	48.0	53.5	1.500	48.0	89.6
0.300	48.0	56.3	1.600	48.0	92.3
0.400	48.0	59.1	1.700	48.0	95.1
0.500	48.0	61.9	1.800	48.0	97.9
0.600	48.0	64.6	1.900	48.0	100.7
0.700	48.0	67.4	2.000	48.0	103.4
0.800	48.0	70.2	2.100	0.0	104.8
0.900	48.0	72.9	2.200	0.0	104.8
1.000	48.0	75.7	2.300	0.0	104.8
1.100	48.0	78.5	2.400	0.0	104.8
1.200	48.0	81.3	2.500	0.0	104.8