

11 Broomhead Road  
Wombell  
Barnsley S73 0SA



Date 01/06/2022 11:36  
File Plots 1-2.SRCX

Designed by shaun  
Checked by

CADS Source Control 2020.1.3

Summary of Results for 30 year Return Period

Half Drain Time : 78 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m <sup>3</sup> )	Status
15 min Summer	62.991	0.491	0.4	2.3	O K
30 min Summer	63.109	0.609	0.4	2.9	O K
60 min Summer	63.182	0.682	0.5	3.2	O K
120 min Summer	63.205	0.705	0.5	3.3	O K
180 min Summer	63.189	0.689	0.5	3.3	O K
240 min Summer	63.163	0.663	0.4	3.1	O K
360 min Summer	63.108	0.608	0.4	2.9	O K
480 min Summer	63.056	0.556	0.4	2.6	O K
600 min Summer	63.009	0.509	0.4	2.4	O K
720 min Summer	62.965	0.465	0.4	2.2	O K
960 min Summer	62.890	0.390	0.3	1.9	O K
1440 min Summer	62.774	0.274	0.3	1.3	O K
2160 min Summer	62.658	0.158	0.3	0.8	O K
2880 min Summer	62.588	0.088	0.2	0.4	O K
4320 min Summer	62.544	0.044	0.2	0.2	O K
5760 min Summer	62.535	0.035	0.2	0.2	O K
7200 min Summer	62.530	0.030	0.1	0.1	O K
8640 min Summer	62.526	0.026	0.1	0.1	O K
10080 min Summer	62.523	0.023	0.1	0.1	O K
15 min Winter	63.054	0.554	0.4	2.6	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m <sup>3</sup> )	Time-Peak (mins)
15 min Summer	69.560	0.0	17
30 min Summer	46.077	0.0	31
60 min Summer	29.238	0.0	56
120 min Summer	18.017	0.0	88
180 min Summer	13.426	0.0	122
240 min Summer	10.845	0.0	156
360 min Summer	8.002	0.0	226
480 min Summer	6.447	0.0	292
600 min Summer	5.449	0.0	358
720 min Summer	4.747	0.0	422
960 min Summer	3.817	0.0	548
1440 min Summer	2.803	0.0	794
2160 min Summer	2.056	0.0	1148
2880 min Summer	1.648	0.0	1500
4320 min Summer	1.206	0.0	2180
5760 min Summer	0.966	0.0	2936
7200 min Summer	0.812	0.0	3632
8640 min Summer	0.705	0.0	4400
10080 min Summer	0.626	0.0	5128
15 min Winter	69.560	0.0	17

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Summary of Results for 30 year Return Period

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m <sup>3</sup> )	Status
30 min Winter	63.193	0.693	0.5	3.3	O K
60 min Winter	63.284	0.784	0.5	3.7	O K
120 min Winter	63.305	0.805	0.5	3.8	O K
180 min Winter	63.279	0.779	0.5	3.7	O K
240 min Winter	63.238	0.738	0.5	3.5	O K
360 min Winter	63.153	0.653	0.4	3.1	O K
480 min Winter	63.076	0.576	0.4	2.7	O K
600 min Winter	63.007	0.507	0.4	2.4	O K
720 min Winter	62.947	0.447	0.4	2.1	O K
960 min Winter	62.845	0.345	0.3	1.6	O K
1440 min Winter	62.698	0.198	0.3	0.9	O K
2160 min Winter	62.569	0.069	0.2	0.3	O K
2880 min Winter	62.544	0.044	0.2	0.2	O K
4320 min Winter	62.532	0.032	0.1	0.2	O K
5760 min Winter	62.526	0.026	0.1	0.1	O K
7200 min Winter	62.522	0.022	0.1	0.1	O K
8640 min Winter	62.519	0.019	0.1	0.1	O K
10080 min Winter	62.517	0.017	0.1	0.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m <sup>3</sup> )	Time-Peak (mins)
30 min Winter	46.077	0.0	31
60 min Winter	29.238	0.0	58
120 min Winter	18.017	0.0	94
180 min Winter	13.426	0.0	132
240 min Winter	10.845	0.0	170
360 min Winter	8.002	0.0	242
480 min Winter	6.447	0.0	312
600 min Winter	5.449	0.0	380
720 min Winter	4.747	0.0	446
960 min Winter	3.817	0.0	576
1440 min Winter	2.803	0.0	822
2160 min Winter	2.056	0.0	1148
2880 min Winter	1.648	0.0	1464
4320 min Winter	1.206	0.0	2204
5760 min Winter	0.966	0.0	2944
7200 min Winter	0.812	0.0	3600
8640 min Winter	0.705	0.0	4272
10080 min Winter	0.626	0.0	5104

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Shortest Storm (mins)	15
Ratio R	0.361	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+0

Time Area Diagram

Total Area (ha) 0.020

**Time (mins) Area**  
**From: To: (ha)**

0      4    0.020

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Model Details

Storage is Online Cover Level (m) 64.600

Cellular Storage Structure

Invert Level (m) 62.500 Safety Factor 2.0  
Infiltration Coefficient Base (m/hr) 0.29520 Porosity 0.95  
Infiltration Coefficient Side (m/hr) 0.29520

Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	5.0	5.0	0.900	0.0	12.2
0.800	5.0	12.2			