Summary of Results for 30 year Return Period

Storm Duration (mins)	Maximum Control (l/s)	Maximum Overflow (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Overflow Volume (m³)	Maximum Volume (m³)	Status
15 Summer	4.5	0.0	4.5	195.4827	0.1428	0.0	15.0	O K
30 Summer	4.9	0.0	4.9	195.5182	0.1782	0.0	18.7	O K
60 Summer	5.0	0.0	5.0	195.5427	0.2027	0.0	21.3	O K
120 Summer	5.0	0.0	5.0	195.5517	0.2117	0.0	22.3	O K
180 Summer	5.0	0.0	5.0	195.5443	0.2042	0.0	21.4	O K
240 Summer	5.0	0.0	5.0	195.5327	0.1927	0.0	20.2	O K
360 Summer	4.8	0.0	4.8	195.5107	0.1707	0.0	17.9	O K
480 Summer	4.6	0.0	4.6	195.4908	0.1507	0.0	15.8	O K
600 Summer	4.4	0.0	4.4	195.4737	0.1338	0.0	14.0	O K
720 Summer	4.2	0.0	4.2	195.4587	0.1188	0.0	12.5	O K
960 Summer	4.0	0.0	4.0	195.4368	0.0968	0.0	10.2	O K
1440 Summer	3.3	0.0	3.3	195.4147	0.0748	0.0	7.9	O K
2160 Summer	2.6	0.0	2.6	195.3962	0.0563	0.0	5.9	O K
2880 Summer	2.2	0.0	2.2	195.3857	0.0457	0.0	4.8	O K
4320 Summer	1.6	0.0	1.6	195.3723	0.0322	0.0	3.4	O K
5760 Summer	1.4	0.0	1.4	195.3647	0.0247	0.0	2.6	O K
7200 Summer	1.2	0.0	1.2	195.3597	0.0198	0.0	2.1	O K
8640 Summer	1.0	0.0	1.0	195.3562	0.0163	0.0	1.7	O K
10080 Summer	0.9	0.0	0.9	195.3532	0.0133	0.0	1.4	O K
15 Winter	4.7	0.0	4.7	195.5017	0.1617	0.0	17.0	O K
30 Winter	5.0	0.0	5.0	195.5432	0.2032	0.0	21.4	O K
60 Winter	5.0	0.0	5.0	195.5712	0.2312	0.0	24.3	O K
120 Winter	5.0	0.0	5.0	195.5768	0.2367	0.0	24.8	O K
180 Winter	5.0	0.0	5.0	195.5607	0.2207	0.0	23.2	O K
240 Winter	5.0	0.0	5.0	195.5407	0.2007	0.0	21.1	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	68.99	17
30 Summer	47.08	30
60 Summer	30.81	46
120 Summer	19.53	82
180 Summer	14.75	116
240 Summer	12.05	148
360 Summer	9.05	214
480 Summer	7.38	276
600 Summer	6.29	338
720 Summer	5.52	398
960 Summer	4.49	512
1440 Summer	3.35	752
2160 Summer	2.49	1108
2880 Summer	2.02	1472
4320 Summer	1.50	2204
5760 Summer	1.21	2936
7200 Summer	1.03	3656
8640 Summer	0.90	4376
10080 Summer	0.81	5120
15 Winter	68.99	17
30 Winter	47.08	30
60 Winter	30.81	50
120 Winter	19.53	88
180 Winter	14.75	126
240 Winter	12.05	160

Summary of Results for 30 year Return Period

Storm Duration (mins)	Maximum Control (l/s)	Maximum Overflow (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Overflow Volume (m³)	Maximum Volume (m³)	Status
360 Winter	4.7	0.0	4.7	195.5058	0.1657	0.0	17.4	O K
480 Winter	4.4	0.0	4.4	195.4767	0.1368	0.0	14.4	O K
600 Winter	4.2	0.0	4.2	195.4538	0.1138	0.0	11.9	O K
720 Winter	4.0	0.0	4.0	195.4357	0.0958	0.0	10.0	O K
960 Winter	3.4	0.0	3.4	195.4177	0.0778	0.0	8.2	O K
1440 Winter	2.6	0.0	2.6	195.3972	0.0572	0.0	6.0	O K
2160 Winter	2.0	0.0	2.0	195.3812	0.0412	0.0	4.3	O K
2880 Winter	1.6	0.0	1.6	195.3717	0.0317	0.0	3.3	O K
4320 Winter	1.2	0.0	1.2	195.3613	0.0212	0.0	2.2	O K
5760 Winter	1.0	0.0	1.0	195.3552	0.0153	0.0	1.6	O K
7200 Winter	0.8	0.0	0.8	195.3517	0.0118	0.0	1.2	O K
8640 Winter	0.8	0.0	0.8	195.3492	0.0093	0.0	0.9	O K
10080 Winter	0.7	0.0	0.7	195.3472	0.0073	0.0	0.7	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
360 Winter	9.05	226
480 Winter	7.38	288
600 Winter	6.29	350
720 Winter	5.52	406
960 Winter	4.49	520
1440 Winter	3.35	764
2160 Winter	2.49	1128
2880 Winter	2.02	1476
4320 Winter	1.50	2208
5760 Winter	1.21	2928
7200 Winter	1.03	3632
8640 Winter	0.90	4400
10080 Winter	0.81	5120

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	30	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.300	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+0
Cv (Winter)	0.840		

Pipe Network

Volume in Pipe Network (m^3)	1	Dia of Outfall Pipe (m)	0.200
Slope of Outfall Pipe (1:x)	100.0	Roughness of Outfall Pipe	0.600

Time / Area Diagram

Total Area (ha) = 0.138

Time from:	(mins) to:	Area (ha)
0	4	0.138

Tank/Pond Details

Invert Level (m) 195.340 Ground Level (m) 196.500

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.00	105.0	0.60	105.0	1.20	105.0	1.80	105.0	2.40	105.0
0.10	105.0	0.70	105.0	1.30	105.0	1.90	105.0	2.50	105.0
0.20	105.0	0.80	105.0	1.40	105.0	2.00	105.0		
0.30	105.0	0.90	105.0	1.50	105.0	2.10	105.0		
0.40	105.0	1.00	105.0	1.60	105.0	2.20	105.0		
0.50	105.0	1.10	105.0	1.70	105.0	2.30	105.0		

Depth / Flow Outflow Control

Invert Level of Control 195.330

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.10	3.9	0.80	5.9	2.00	9.2	4.00	13.1	7.00	17.3
0.20	5.0	1.00	6.5	2.20	9.7	4.50	13.9	7.50	17.9
0.30	4.8	1.20	7.2	2.40	10.1	5.00	14.6	8.00	18.5
0.40	4.4	1.40	7.7	2.60	10.5	5.50	15.3	8.50	19.1
0.50	4.7	1.60	8.3	3.00	11.3	6.00	16.0	9.00	19.6
0.60	5.2	1.80	8.8	3.50	12.2	6.50	16.7	9.50	20.2

Pipe Overflow Control

Pipe Diameter (m)	0.150	Entry Loss Coef	0.500
Slope (1:x)	100.0	Coef of Contraction	0.600
Length (m)	3.000	Invert Level (m)	195.890
Roughness (mm)	0.600		