Mountbatten House
Basing View
Basingstoke RG21 4HJ

Date 07 April 2006 08:20 | Designed By UKVXJ002
File Area West 1 100 year 15-03-06... | Checked By
Micro Drainage AREA SOUTH NETWORK No. 1 | Simulation W.10.1 net

Global Variables

Region	FSR - England & Wales
Return Period (yrs)	100
M5-60 (mm)	20.000
Ratio R	0.400
Volumetric Runoff Coef	0.750
Profile Type	Summer
PIMP (%)	100
Areal Reduction Factor	1.000
Storm Duration (mins)	15
Hot Start (mins)	0
Manhole Headloss Coefficient	0.500
MADD Factor * 10m³/ha Storage	2.000
Foul Sewage/Hectare (l/s)	0.00
Additional Flow - % of Total Flow	0
Number of Input Hydrographs	0
Number of Time/Area Diagrams	0
Number of Bifurcations	0
Number of Overflows	0
Number of Off-Line Controls	14
Number of On-Line Controls	8

Freely Discharging Outfalls

Outfall Pipe Number	Outfall MH/No	C.Level (m)	I.Level (m)	D,L (mm)	B (mm)
1.007	O/F 1	67.050	65.517	1200	0

Network Details

* - Indicates pipe has been modified outside of WinDes's Storm/Foul & Schedules

	PN	Length (m)	Fall (m)	Slope (1:x)	Area (ha)	T.E. (mins)	Rain Pro	k (mm)	Hyd Sect	Dia (mm)
	1.000	10.00	0.050	200.0	0.960	5.00	1	0.600	o	375
	2.000	10.00	0.050	200.0	1.270	5.00	1	0.600	o	375
	1.001	150.00	0.775	193.5	2.780	0.00	1	0.600	o	750
	3.000	10.00	0.150	66.7	0.240	5.00	1	0.600	o	225
	4.000	10.00	0.150	66.7	0.220	5.00	1	0.600	o	225
	1.002	185.00	1.800	102.8	0.580	0.00	1	0.600	o	750
	5.000	10.00	0.350	28.6	0.540	5.00	1	0.600	o	225
	6.000	10.00	0.350	28.6	0.500	5.00	1	0.600	o	225
	1.003	55.00	0.800	68.7	0.620	0.00	1	0.600	oo	45
	1.004	95.00	1.700	55.9	0.170	0.00	1	0.600	oo	45
	7.000	10.00	0.001	10005.5	0.000	5.00	1	0.600	o	100
*	7.001	95.00	0.003	30000.0	0.000	0.00	1	0.600	o	300
	8.000	10.00	0.050	200.0	0.680	5.00	1	0.600	o	100
	9.000	10.00	0.050	200.0	0.620	5.00	1	0.600	o	100
	1.005	300.00	0.800	375.0	1.040	0.00	1	0.600	oo	45
	10.000	10.00	0.200	50.0	0.220	5.00	1	0.600	o	225
*	10.001	105.00	1.000	105.0	1.190	0.00	1	0.600	o	450

	PN	USMH No.	US/CL (m)	US/IL (m)	US/Dep (m)	DS/CL (m)	DS/IL (m)	DS/Dep (m)	Ctrl No.	US/MH (mm)
	1.000	1	73.400	71.950	1.075	73.400	71.900	1.125		1350
	2.000	3	73.400	71.950	1.075	73.400	71.900	1.125		1350
	1.001	4	73.400	71.525	1.125	73.030	70.750	1.530		1800
	3.000	5	73.030	71.425	1.380	73.030	71.275	1.530		1200
	4.000	6	73.030	71.425	1.380	73.030	71.275	1.530		1200
	1.002	7	73.030	70.750	1.530	71.030	68.950	1.330		1800
	5.000	8	71.600	69.675	1.700	71.030	69.325	1.480		1050
	6.000	9	71.600	69.675	1.700	71.030	69.325	1.480		1050
	1.003	10	71.030	68.950	1.480	69.900	68.150	1.150		1800
	1.004	10	69.900	68.150	1.150	67.900	66.450	0.850		1800
	7.000	11	68.200	67.000	1.100	67.699	66.999	0.600		1050
*	7.001	11	67.699	66.699	0.700	67.900	66.698	0.902	3	1050
	8.000	11	68.300	66.948	1.252	67.900	66.898	0.902		1050
	9.000	11	68.300	66.948	1.252	67.900	66.898	0.902		1050
	1.005	11	67.900	66.398	0.902	67.200	65.598	1.002		3000
	10.000	11	73.100	70.225	2.650	72.900	70.025	2.650		1050
*	10.001	11	72.900	69.800	2.650	71.700	68.800	2.450		1350

Network Details

	PN	Length (m)	Fall (m)	Slope (1:x)	Area (ha)	T.E. (mins)	Rain Pro	k (mm)	Hyd Sect	Dia (mm)
	11.000	10.00	0.600	16.7	0.470	5.00	1	0.600	o	375
*	10.002	212.00	2.100	101.0	2.000	0.00	1	0.600	o	750
*	10.003	62.00	0.700	88.6	0.000	0.00	1	0.600	o	750
*	12.000	10.00	0.277	36.1	0.870	5.00	1	0.600	o	375
*	13.000	10.00	0.252	39.7	1.360	5.00	1	0.600	o	450
*	1.006	20.00	0.080	250.0	2.390	0.00	1	0.600	oo	45
*	1.007	10.00	0.001	10005.5	0.000	0.00	1	0.600	oo	45

	PN	USMH No.	US/CL (m)	US/IL (m)	US/Dep (m)	DS/CL (m)	DS/IL (m)	DS/Dep (m)	Ctrl No.	US/MH (mm)
	11.000	13	72.300	69.475	2.450	71.700	68.875	2.450		1350
*	10.002	13	71.700	68.500	2.450	67.800	66.400	0.650	1	2100
*	10.003	18	67.800	66.298	0.752	67.200	65.598	0.852		1800
*	12.000	18	67.310	66.100	0.835	67.200	65.823	1.002		1800
*	13.000	18	67.310	66.000	0.860	67.200	65.748	1.002		1800
*	1.006	18	67.200	65.598	1.002	67.050	65.518	0.932	9	1800
*	1.007	21	67.050	65.518	0.932	67.050	65.517	0.933	9	1800

On-Line Controls (Orifice)

US/PN	Volume (m^3)	Ctrl MH Name	Invert (m)	Dia (m)	Discharge Coefficient
10.001	16.425	13	68.500	0.598	0.600
11.000	0.914	13	68.500	0.598	0.600

On-Line Controls (Non Return Valve)

US/PN	Volume (m^3)	Ctrl MH Name
7.000	0.070	11

On-Line Controls (Hydro-Brake®)

US/PN	Volume (m^3)	Ctrl MH Name	Invert (m)	Type	Dia (m)	D.Head (m)	D.Flow (l/s)	Headloss (m)	Flow (l/s)
1.005	168.144	18	65.598	Md1	0.583	2.100	550	0.1	13.4
								0.2	53.5
								0.3	114.3
								0.4	188.0
								0.5	266.9
								0.6	343.4
								0.7	410.6
								0.8	462.5
								0.9	495.8
								1.0	521.3
								1.2	523.0
								1.4	498.7
								1.6	497.0
								1.8	513.8
10.003	26.596	18	65.598	Md1	0.583	2.100	550	0.1	13.4
								0.2	53.5
								0.3	114.3
								0.4	188.0
								0.5	266.9
								0.6	343.4
								0.7	410.6
								0.8	462.5
								0.9	495.8
								1.0	521.3
								1.2	523.0
								1.4	498.7
								1.6	497.0
								1.8	513.8
12.000	0.906	18	65.598	Md1	0.583	2.100	550	0.1	13.4
								0.2	53.5
								0.3	114.3
								0.4	188.0
								0.5	266.9
								0.6	343.4
								0.7	410.6
								0.8	462.5
								0.9	495.8
								1.0	521.3
								1.2	523.0
								1.4	498.7
								1.6	497.0
								1.8	513.8
13.000	1.304	18	65.598	Md1	0.583	2.100	550	0.1	13.4
								0.2	53.5
								0.3	114.3
								0.4	188.0
								0.5	266.9
								0.6	343.4
								0.7	410.6
								0.8	462.5
								0.9	495.8
								1.0	521.3

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On-Line Controls (Hydro-Brake®)

US/PN	Volume (m^3)	Ctrl MH Name	Invert (m)	Type	Dia (m)	D.Head (m)	D.Flow (l/s)	Headloss (m)	Flow (l/s)
								1.2	523.0
								1.4	498.7
								1.6	497.0
								1.8	513.8
1.006	10.283	21	65.518	Md1	0.439	1.600	272	0.1	11.7
								0.2	45.0
								0.3	91.9
								0.4	143.3
								0.5	190.7
								0.6	226.7
								0.7	248.0
								0.8	260.2
								0.9	257.4
								1.0	248.6
								1.2	244.2
								1.4	255.9
								1.6	271.9

Off-line Weir Controls

DS/PN	Loop PN	MH Loss	Height above outgoing PN (m)	Width (m)	Discharge Coefficient
1.005	7.001	0.150	0.600	1.500	0.544
1.006	7.001	0.150	0.600	1.500	0.544

Infiltration Systems

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier.

DS/PN	MH Loss	Height above outgoing PN (m)	Filename	Type	Include Volume
1.000	0.500	0.450	Cellular Storage 1 100y.src	Cellular Storage	Yes
2.000	0.500	0.850	Porous pavements 2.000 100y.src	Porous Car Park	Yes
3.000	0.500	0.605	Cellular Storage 3.000 100y.src	Cellular Storage	Yes
4.000	0.500	1.005	Porous pavements 4.000 100y.src	Porous Car Park	Yes
5.000	0.500	0.925	Cellular Storage 5.000 100y.src	Cellular Storage	Yes
6.000	0.500	1.325	Porous pavements 6.000 100y.src	Porous Car Park	Yes
8.000	0.500	0.352	Cellular Storage 11.000 100y.src	Cellular Storage	Yes
9.000	0.500	0.852	Porous pavements 12.000 100y.src	Porous Car Park	Yes
10.000	0.500	2.275	Porous pavements 7.000 100y.src	Porous Car Park	Yes
11.000	0.500	2.225	Porous pavements 8.000 100y.src	Porous Car Park	Yes
12.000	0.500	0.210	Cellular Storage 9.000 100y.src	Cellular Storage	Yes
13.000	0.500	0.710	Porous pavements 10.000 100y.src	Porous Car Park	Yes

Storage Pond at pipe 7.001 USMH 11

Storage Pond Invert Level (m) 66.699

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.0	10000.0	0.6	10000.0	1.2	10000.0	1.8	10000.0	2.4	10000.0
0.1	10000.0	0.7	10000.0	1.3	10000.0	1.9	10000.0	2.5	10000.0
0.2	10000.0	0.8	10000.0	1.4	10000.0	2.0	10000.0		
0.3	10000.0	0.9	10000.0	1.5	10000.0	2.1	10000.0		
0.4	10000.0	1.0	10000.0	1.6	10000.0	2.2	10000.0		
0.5	10000.0	1.1	10000.0	1.7	10000.0	2.3	10000.0		

Summary Wizard of "CRITICAL"(Rank 1 by Max Level)
Results for Design Storms

Margin for Flood Risk warning (mm) 300 Inertia Status ON
DVD Status ON Analysis Time Step Fine

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years) 100

PN	Storm	Return Period	Rank	First X Surcharge	First Y Flood	First Z Overflow	O/F Act	Lvl Ex.
1.000	30 Winter	100	1	100/15 Summer			0	
2.000	15 Winter	100	1	100/15 Summer			0	
1.001	15 Winter	100	1	100/15 Summer				
3.000	15 Summer	100	1	100/15 Summer			0	
4.000	15 Winter	100	1	100/15 Summer			0	
1.002	15 Winter	100	1	100/15 Summer				
5.000	15 Winter	100	1	100/15 Summer			0	
6.000	15 Winter	100	1	100/15 Summer			0	
1.003	15 Winter	100	1	100/15 Summer				
1.004	30 Winter	100	1	100/15 Summer				
7.000	240 Winter	100	1					
7.001	240 Winter	100	1	100/120 Summer				
8.000	120 Winter	100	1	100/15 Summer			0	
9.000	120 Winter	100	1	100/15 Summer			0	
1.005	30 Winter	100	1	100/15 Summer		100/15 Summer	18	
10.000	15 Winter	100	1	100/15 Summer			0	
10.001	15 Winter	100	1	100/15 Summer				
11.000	15 Winter	100	1	100/15 Summer			0	
10.002	15 Winter	100	1	100/15 Summer				
10.003	15 Winter	100	1	100/15 Summer				2
12.000	240 Winter	100	1	100/15 Summer			0	
13.000	60 Winter	100	1	100/15 Summer			0	
1.006	30 Winter	100	1	100/15 Summer		100/15 Summer	18	7
1.007	480 Summer	100	1	100/15 Summer				8

PN	Water Lvl. (m)	Surcharged Depth (m)	Flooded Vol (m³)	Flow/ Capacity	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	72.445	0.120	0.000	1.51	0	156	SURCH'ED
2.000	73.008	0.683	0.000	2.75	0	286	SURCH'ED
1.001	72.695	0.420	0.000	1.18	0	986	SURCH'ED
3.000	72.030	0.380	0.000	1.88	0	100	SURCH'ED
4.000	71.998	0.348	0.000	1.78	0	95	SURCH'ED
1.002	71.768	0.268	0.000	1.01	0	1174	SURCH'ED
5.000	70.609	0.709	0.000	1.74	0	142	SURCH'ED
6.000	71.075	1.175	0.000	2.06	0	167	SURCH'ED
1.003	69.943	0.393	0.000	1.06	0	1555	SURCH'ED
1.004	69.062	0.312	0.000	0.92	0	1569	SURCH'ED
7.000	67.072	-0.028	0.000	0.00	0	0	O K
7.001	67.072	0.073	0.000	1.00	0	33	SURCH'ED
8.000	67.529	0.481	0.000	3.23	0	13	SURCH'ED
9.000	68.137	1.089	0.000	4.71	0	19	FLD RISK
1.005	67.633	0.635	0.000	0.76	1283	532	FLD RISK
10.000	72.676	2.226	0.000	2.30	0	141	SURCH'ED
10.001	72.844	2.594	0.000	1.19	0	357	FLD RISK
11.000	71.741	1.891	0.000	0.52	0	158	SURCH'ED
10.002	71.588	2.338	0.000	0.91	0	1075	FLD RISK
10.003	67.736	0.688	0.000	0.93	0	1063	FLD RISK
12.000	67.077	0.602	0.000	0.34	0	69	FLD RISK
13.000	67.160	0.710	0.000	0.25	0	70	FLD RISK
1.006	67.163	0.965	0.000	0.38	1462	263	FLD RISK
1.007	67.040	0.922	0.000	0.83	0	249	FLD RISK

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Micro Drainage	Simulation W.10.1 net	

Summary Wizard of "CRITICAL"(Rank 1 by Max Outflow)
Results for Design Storms

Margin for Flood Risk warning (mm) 300 Inertia Status ON
DVD Status ON Analysis Time Step Fine

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years) 100

PN	Storm	Return Period	Rank	First X Surcharge	First Y Flood	First Z Overflow	O/F Act	Lvl Ex.
1.000	30 Winter	100	1	100/15 Summer			0	
2.000	30 Winter	100	1	100/15 Summer			0	
1.001	15 Winter	100	1	100/15 Summer				
3.000	15 Summer	100	1	100/15 Summer			0	
4.000	15 Winter	100	1	100/15 Summer			0	
1.002	15 Winter	100	1	100/15 Summer				
5.000	15 Summer	100	1	100/15 Summer			0	
6.000	15 Summer	100	1	100/15 Summer			0	
1.003	15 Winter	100	1	100/15 Summer				
1.004	15 Winter	100	1	100/15 Summer				
7.000	240 Winter	100	1					
7.001	120 Summer	100	1	100/120 Summer				
8.000	120 Winter	100	1	100/15 Summer			0	
9.000	60 Winter	100	1	100/15 Summer			0	
1.005	15 Summer	100	1	100/15 Summer		100/15 Summer	18	
10.000	15 Winter	100	1	100/15 Summer			0	
10.001	15 Summer	100	1	100/15 Summer				
11.000	15 Summer	100	1	100/15 Summer			0	
10.002	15 Winter	100	1	100/15 Summer				
10.003	15 Winter	100	1	100/15 Summer				2
12.000	15 Summer	100	1	100/15 Summer			0	
13.000	60 Summer	100	1	100/15 Summer			0	
1.006	15 Winter	100	1	100/15 Summer		100/15 Summer	18	7
1.007	30 Summer	100	1	100/15 Summer				8

PN	Water Lvl. (m)	Surcharged Depth (m)	Flooded Vol (m³)	Flow/ Capacity	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	72.445	0.120	0.000	1.51	0	156	SURCH'ED
2.000	72.986	0.661	0.000	2.95	0	307	SURCH'ED
1.001	72.695	0.420	0.000	1.18	0	986	SURCH'ED
3.000	72.030	0.380	0.000	1.88	0	100	SURCH'ED
4.000	71.998	0.348	0.000	1.78	0	95	SURCH'ED
1.002	71.768	0.268	0.000	1.01	0	1174	SURCH'ED
5.000	70.607	0.707	0.000	1.74	0	142	SURCH'ED
6.000	71.055	1.155	0.000	2.06	0	168	SURCH'ED
1.003	69.943	0.393	0.000	1.06	0	1555	SURCH'ED
1.004	69.047	0.297	0.000	0.92	0	1570	SURCH'ED
7.000	67.072	-0.028	0.000	0.00	0	0	O K
7.001	67.008	0.009	0.000	1.00	0	33	SURCH'ED
8.000	67.529	0.481	0.000	3.23	0	13	SURCH'ED
9.000	68.132	1.084	0.000	4.71	0	19	FLD RISK
1.005	67.601	0.603	0.000	0.77	1188	540	FLD RISK
10.000	72.676	2.226	0.000	2.30	0	141	SURCH'ED
10.001	72.609	2.359	0.000	1.22	0	366	FLD RISK
11.000	71.411	1.561	0.000	0.52	0	158	SURCH'ED
10.002	71.588	2.338	0.000	0.91	0	1075	FLD RISK
10.003	67.736	0.688	0.000	0.93	0	1063	FLD RISK
12.000	66.677	0.202	0.000	0.57	0	118	SURCH'ED
13.000	67.128	0.678	0.000	0.25	0	70	FLD RISK
1.006	67.137	0.939	0.000	0.38	1426	266	FLD RISK
1.007	66.652	0.534	0.000	0.87	0	260	SURCH'ED

Summary Wizard of "CRITICAL"(Rank 1 by Max Level)
Results for Design Storms

Margin for Flood Risk warning (mm) 300 Inertia Status ON
DVD Status ON Analysis Time Step Fine

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
Sensitivity flow(s) (%) 0, 20

PN	Storm	Sensitivity Flow (%)	Rank	Surcharge Sensitivity	Flood Sensitivity	Overflow Sensitivity	O/F Act	Lvl Ex.
1.000	30 Winter	+20%	1	0%/15 Summer			0	
2.000	15 Winter	+20%	1	0%/15 Summer			0	
1.001	15 Winter	+20%	1	0%/15 Summer				
3.000	15 Winter	+20%	1	0%/15 Summer			0	
4.000	15 Winter	+20%	1	0%/15 Summer			0	
1.002	15 Winter	+20%	1	0%/15 Summer				
5.000	15 Winter	+20%	1	0%/15 Summer			0	
6.000	15 Winter	+20%	1	0%/15 Summer			0	
1.003	30 Winter	+20%	1	0%/15 Summer				
1.004	30 Winter	+20%	1	0%/15 Summer				
7.000	240 Winter	+20%	1	+20%/240 Summer				
7.001	240 Winter	+20%	1	0%/120 Summer				
8.000	120 Winter	+20%	1	0%/15 Summer			0	
9.000	120 Winter	+20%	1	0%/15 Summer			0	
1.005	30 Winter	+20%	1	0%/15 Summer		0%/15 Summer	36	
10.000	15 Winter	+20%	1	0%/15 Summer			0	
10.001	15 Winter	+20%	1	0%/15 Summer	+20%/15 Summer			4
11.000	15 Winter	+20%	1	0%/15 Summer			0	
10.002	15 Winter	+20%	1	0%/15 Summer	+20%/15 Summer			4
10.003	30 Winter	+20%	1	0%/15 Summer	+20%/30 Summer			7
12.000	240 Winter	+20%	1	0%/15 Summer			0	
13.000	60 Winter	+20%	1	0%/15 Summer			0	
1.006	30 Winter	+20%	1	0%/15 Summer	+20%/60 Summer	0%/15 Summer	36	21
1.007	1440 Summer	+20%	1	0%/15 Summer				19

PN	Water Lvl. (m)	Surcharged Depth (m)	Flooded Vol (m³)	Flow/ Capacity	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	72.468	0.143	0.000	1.58	0	164	SURCH'ED
2.000	73.080	0.755	0.000	2.96	0	307	SURCH'ED
1.001	72.950	0.675	0.000	1.24	0	1033	SURCH'ED
3.000	72.044	0.394	0.000	1.88	0	100	SURCH'ED
4.000	72.355	0.705	0.000	2.06	0	109	SURCH'ED
1.002	72.061	0.561	0.000	1.04	0	1207	SURCH'ED
5.000	70.617	0.717	0.000	1.74	0	142	SURCH'ED
6.000	71.127	1.227	0.000	2.06	0	168	SURCH'ED
1.003	70.140	0.590	0.000	1.08	0	1589	SURCH'ED
1.004	69.203	0.453	0.000	0.95	0	1625	SURCH'ED
7.000	67.187	0.087	0.000	0.00	0	0	SURCH'ED
7.001	67.187	0.188	0.000	1.34	0	45	SURCH'ED
8.000	67.593	0.545	0.000	3.38	0	13	SURCH'ED
9.000	68.187	1.139	0.000	4.79	0	19	FLD RISK
1.005	67.672	0.674	0.000	0.75	1406	527	FLD RISK
10.000	72.773	2.323	0.000	3.49	0	214	SURCH'ED
10.001	72.919	2.669	18.795	1.24	0	373	FLOOD
11.000	71.845	1.995	0.000	0.59	0	179	SURCH'ED
10.002	71.722	2.472	21.700	0.94	0	1108	FLOOD
10.003	67.808	0.760	8.127	0.94	0	1070	FLOOD
12.000	67.187	0.712	0.000	0.31	0	64	FLD RISK
13.000	67.226	0.776	0.000	0.24	0	69	FLD RISK
1.006	67.204	1.006	4.101	0.38	1636	263	FLOOD
1.007	67.042	0.924	0.000	0.80	0	238	FLD RISK

Summary Wizard of "CRITICAL"(Rank 1 by Max Outflow)
Results for Design Storms

Margin for Flood Risk warning (mm)	300
DVD Status	ON
Inertia Status	ON
Analysis Time Step	Fine

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Sensitivity flow(s) (%)	0, 20

	Storm	Sensitivity Flow (%)	Rank	Surcharge Sensitivity	Flood Sensitivity	Overflow Sensitivity	O/F Act
00	30 Winter	+20%	1	0%/15 Summer			
00	30 Winter	+20%	1	0%/15 Summer			
01	15 Winter	+20%	1	0%/15 Summer			
00	15 Summer	+20%	1	0%/15 Summer			
00	15 Winter	+20%	1	0%/15 Summer			
02	15 Winter	+20%	1	0%/15 Summer			
00	15 Summer	+20%	1	0%/15 Summer			
00	15 Summer	0%	1	0%/15 Summer			
03	15 Winter	+20%	1	0%/15 Summer			
04	30 Winter	+20%	1	0%/15 Summer			
00	60 Winter	+20%	1	+20%/240 Summer			
01	240 Winter	+20%	1	0%/120 Summer			
00	120 Winter	+20%	1	0%/15 Summer			
00	120 Winter	+20%	1	0%/15 Summer			
05	15 Summer	0%	1	0%/15 Summer		0%/15 Summer	3
00	15 Summer	+20%	1	0%/15 Summer			
01	15 Winter	+20%	1	0%/15 Summer	+20%/15 Summer		
00	15 Winter	+20%	1	0%/15 Summer			

PN	Water Lvl. (m)	Surcharged Depth (m)	Flooded Vol (m^3)	Flow/ Capacity	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	72.468	0.143	0.000	1.58	0	164	SURCH'ED
2.000	73.069	0.744	0.000	3.14	0	326	SURCH'ED
1.001	72.950	0.675	0.000	1.24	0	1033	SURCH'ED
3.000	72.034	0.384	0.000	1.90	0	101	SURCH'ED
4.000	72.355	0.705	0.000	2.06	0	109	SURCH'ED
1.002	72.061	0.561	0.000	1.04	0	1207	SURCH'ED
5.000	70.613	0.713	0.000	1.74	0	142	SURCH'ED
6.000	71.055	1.155	0.000	2.06	0	168	SURCH'ED
1.003	70.131	0.581	0.000	1.09	0	1597	SURCH'ED
1.004	69.203	0.453	0.000	0.95	0	1625	SURCH'ED
7.000	67.106	0.006	0.000	0.00	0	0	SURCH'ED
7.001	67.187	0.188	0.000	1.34	0	45	SURCH'ED
8.000	67.593	0.545	0.000	3.38	0	13	SURCH'ED
9.000	68.187	1.139	0.000	4.79	0	19	FLD RISK
1.005	67.601	0.603	0.000	0.77	1188	540	FLD RISK
10.000	72.729	2.279	0.000	3.52	0	216	SURCH'ED
10.001	72.919	2.669	18.795	1.24	0	373	FLOOD
11.000	71.845	1.995	0.000	0.59	0	179	SURCH'ED

Summary Wizard of "CRITICAL"(Rank 1 by Max Outflow)
Results for Design Storms

N	Storm	Sensitivity Flow (%)	Rank	Surcharge Sensitivity	Flood Sensitivity	Overflow Sensitivity	O/F Act
002	15 Winter	+20%	1	0%/15 Summer	+20%/15 Summer		
003	15 Winter	+20%	1	0%/15 Summer	+20%/30 Summer		
000	15 Winter	+20%	1	0%/15 Summer			0
000	120 Summer	+20%	1	0%/15 Summer			0
006	120 Winter	+20%	1	0%/15 Summer	+20%/60 Summer	0%/15 Summer	36
007	120 Winter	+20%	1	0%/15 Summer			

PN	Water Lvl. (m)	Surcharged Depth (m)	Flooded Vol (m³)	Flow/ Capacity	Overflow (l/s)	Pipe Flow (l/s)	Status
10.002	71.722	2.472	21.700	0.94	0	1108	FLOOD
10.003	67.802	0.754	1.947	0.97	0	1109	FLOOD
12.000	66.768	0.293	0.000	0.60	0	124	SURCH'ED
13.000	67.177	0.727	0.000	0.25	0	71	FLD RISK
1.006	67.201	1.003	1.198	0.42	1057	292	FLOOD
1.007	67.038	0.920	0.000	1.03	0	307	FLD RISK

Network No. 1

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.400	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+0
Cv (Winter)	0.840		

Time / Area Diagram

Total Area (ha) = 0.960

Time (mins) from:	to:	Area (ha)
0	4	0.960

Summary of Results for 100 year Return Period

Half Drain Time : 222 minutes

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
15 Summer	12.4	0.0	12.4	72.3348	0.0347	164.1	O K
30 Summer	12.5	0.0	12.5	72.3443	0.0443	209.0	O K
60 Summer	12.6	0.0	12.6	72.3518	0.0518	245.6	O K
120 Summer	12.7	0.0	12.7	72.3553	0.0553	262.3	O K
180 Summer	12.6	0.0	12.6	72.3538	0.0538	255.0	O K
240 Summer	12.6	0.0	12.6	72.3513	0.0513	244.5	O K
360 Summer	12.6	0.0	12.6	72.3478	0.0478	227.9	O K
480 Summer	12.5	0.0	12.5	72.3448	0.0447	213.6	O K
600 Summer	12.5	0.0	12.5	72.3418	0.0417	199.5	O K
720 Summer	12.5	0.0	12.5	72.3393	0.0392	185.8	O K
960 Summer	12.4	0.0	12.4	72.3338	0.0337	159.3	O K
1440 Summer	12.3	0.0	12.3	72.3238	0.0237	111.8	O K
2160 Summer	12.2	0.0	12.2	72.3118	0.0118	56.8	O K
2880 Summer	12.1	0.0	12.1	72.3048	0.0048	21.6	O K
4320 Summer	11.1	0.0	11.1	72.3000	0.0000	0.0	O K
5760 Summer	8.8	0.0	8.8	72.3000	0.0000	0.0	O K
7200 Summer	7.3	0.0	7.3	72.3000	0.0000	0.0	O K
8640 Summer	6.3	0.0	6.3	72.3000	0.0000	0.0	O K
10080 Summer	5.6	0.0	5.6	72.3000	0.0000	0.0	O K
15 Winter	12.5	0.0	12.5	72.3393	0.0392	185.6	O K
30 Winter	12.6	0.0	12.6	72.3498	0.0498	237.4	O K
60 Winter	12.7	0.0	12.7	72.3593	0.0593	281.7	O K
120 Winter	12.7	0.0	12.7	72.3648	0.0648	307.1	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	98.68	18
30 Summer	64.79	33
60 Summer	40.51	62
120 Summer	24.46	120
180 Summer	17.96	170
240 Summer	14.34	198
360 Summer	10.42	260
480 Summer	8.30	328
600 Summer	6.96	396
720 Summer	6.02	464
960 Summer	4.78	598
1440 Summer	3.46	852
2160 Summer	2.49	1208
2880 Summer	1.98	1532
4320 Summer	1.42	0
5760 Summer	1.12	0
7200 Summer	0.94	0
8640 Summer	0.81	0
10080 Summer	0.71	0
15 Winter	98.68	18
30 Winter	64.79	32
60 Winter	40.51	62
120 Winter	24.46	118

Summary of Results for 100 year Return Period

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
180 Winter	12.7	0.0	12.7	72.3643	0.0643	305.5	O K
240 Winter	12.7	0.0	12.7	72.3618	0.0618	293.1	O K
360 Winter	12.7	0.0	12.7	72.3568	0.0568	268.7	O K
480 Winter	12.6	0.0	12.6	72.3523	0.0522	248.5	O K
600 Winter	12.6	0.0	12.6	72.3478	0.0477	227.5	O K
720 Winter	12.5	0.0	12.5	72.3433	0.0432	206.5	O K
960 Winter	12.4	0.0	12.4	72.3348	0.0347	165.8	O K
1440 Winter	12.3	0.0	12.3	72.3198	0.0197	94.7	O K
2160 Winter	12.1	0.0	12.1	72.3043	0.0043	20.4	O K
2880 Winter	11.2	0.0	11.2	72.3000	0.0000	0.0	O K
4320 Winter	8.1	0.0	8.1	72.3000	0.0000	0.0	O K
5760 Winter	6.4	0.0	6.4	72.3000	0.0000	0.0	O K
7200 Winter	5.3	0.0	5.3	72.3000	0.0000	0.0	O K
8640 Winter	4.6	0.0	4.6	72.3000	0.0000	0.0	O K
10080 Winter	4.0	0.0	4.0	72.3000	0.0000	0.0	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
180 Winter	17.96	174
240 Winter	14.34	226
360 Winter	10.42	280
480 Winter	8.30	356
600 Winter	6.96	432
720 Winter	6.02	506
960 Winter	4.78	646
1440 Winter	3.46	898
2160 Winter	2.49	1216
2880 Winter	1.98	0
4320 Winter	1.42	0
5760 Winter	1.12	0
7200 Winter	0.94	0
8640 Winter	0.81	0
10080 Winter	0.71	0

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.400	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+0
Cv (Winter)	0.840		

Time / Area Diagram

Total Area (ha) = 0.240

Time (mins) from:	to:	Area (ha)
0	4	0.240

Summary of Results for 100 year Return Period

Half Drain Time : 439 minutes

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m^3)	Status
15 Summer	0.7	0.0	0.7	72.0388	0.0387	44.1	O K
30 Summer	1.2	0.0	1.2	72.0503	0.0503	57.3	O K
60 Summer	1.8	0.0	1.8	72.0613	0.0613	70.1	O K
120 Summer	2.2	0.0	2.2	72.0708	0.0708	80.9	O K
180 Summer	2.3	0.0	2.3	72.0748	0.0748	85.2	O K
240 Summer	2.4	0.0	2.4	72.0763	0.0763	86.7	O K
360 Summer	2.4	0.0	2.4	72.0773	0.0773	88.3	O K
480 Summer	2.5	0.0	2.5	72.0783	0.0783	89.3	O K
600 Summer	2.5	0.0	2.5	72.0788	0.0788	89.8	O K
720 Summer	2.5	0.0	2.5	72.0788	0.0788	90.0	O K
960 Summer	2.5	0.0	2.5	72.0783	0.0783	89.5	O K
1440 Summer	2.4	0.0	2.4	72.0763	0.0763	87.0	O K
2160 Summer	2.2	0.0	2.2	72.0723	0.0723	82.4	O K
2880 Summer	2.1	0.0	2.1	72.0683	0.0683	77.9	O K
4320 Summer	1.8	0.0	1.8	72.0618	0.0617	70.7	O K
5760 Summer	1.6	0.0	1.6	72.0573	0.0572	65.4	O K
7200 Summer	1.4	0.0	1.4	72.0543	0.0542	61.6	O K
8640 Summer	1.2	0.0	1.2	72.0513	0.0512	58.5	O K
10080 Summer	1.1	0.0	1.1	72.0493	0.0492	56.0	O K
15 Winter	0.9	0.0	0.9	72.0433	0.0432	49.3	O K
30 Winter	1.5	0.0	1.5	72.0563	0.0563	64.1	O K
60 Winter	2.1	0.0	2.1	72.0688	0.0688	78.4	O K
120 Winter	2.5	0.0	2.5	72.0793	0.0793	90.6	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	98.68	19
30 Summer	64.79	34
60 Summer	40.51	62
120 Summer	24.46	122
180 Summer	17.96	180
240 Summer	14.34	234
360 Summer	10.42	286
480 Summer	8.30	346
600 Summer	6.96	412
720 Summer	6.02	482
960 Summer	4.78	616
1440 Summer	3.46	882
2160 Summer	2.49	1276
2880 Summer	1.98	1648
4320 Summer	1.42	2380
5760 Summer	1.12	3120
7200 Summer	0.94	3888
8640 Summer	0.81	4584
10080 Summer	0.71	5344
15 Winter	98.68	19
30 Winter	64.79	33
60 Winter	40.51	62
120 Winter	24.46	120

Summary of Results for 100 year Return Period

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
180 Winter	2.8	0.0	2.8	72.0838	0.0838	95.4	O K
240 Winter	2.9	0.0	2.9	72.0853	0.0853	97.1	O K
360 Winter	2.9	0.0	2.9	72.0863	0.0863	98.1	O K
480 Winter	3.0	0.0	3.0	72.0868	0.0868	98.8	O K
600 Winter	2.9	0.0	2.9	72.0863	0.0863	98.6	O K
720 Winter	2.9	0.0	2.9	72.0858	0.0858	97.9	O K
960 Winter	2.8	0.0	2.8	72.0843	0.0843	95.8	O K
1440 Winter	2.6	0.0	2.6	72.0798	0.0798	90.7	O K
2160 Winter	2.3	0.0	2.3	72.0728	0.0728	83.2	O K
2880 Winter	2.0	0.0	2.0	72.0673	0.0673	76.8	O K
4320 Winter	1.7	0.0	1.7	72.0593	0.0592	67.5	O K
5760 Winter	1.4	0.0	1.4	72.0543	0.0542	61.7	O K
7200 Winter	1.2	0.0	1.2	72.0508	0.0507	57.6	O K
8640 Winter	1.0	0.0	1.0	72.0478	0.0477	54.5	O K
10080 Winter	0.9	0.0	0.9	72.0453	0.0452	51.5	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
180 Winter	17.96	176
240 Winter	14.34	230
360 Winter	10.42	286
480 Winter	8.30	360
600 Winter	6.96	436
720 Winter	6.02	512
960 Winter	4.78	656
1440 Winter	3.46	938
2160 Winter	2.49	1344
2880 Winter	1.98	1732
4320 Winter	1.42	2464
5760 Winter	1.12	3224
7200 Winter	0.94	3960
8640 Winter	0.81	4752
10080 Winter	0.71	5544

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.400	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+0
Cv (Winter)	0.840		

Time / Area Diagram

Total Area (ha) = 0.540

Time from:	(mins) to:	Area (ha)
0	4	0.540

Summary of Results for 100 year Return Period

Half Drain Time : 775 minutes

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m^3)	Status
15 Summer	0.8	0.0	0.8	71.0418	0.0417	99.5	O K
30 Summer	1.4	0.0	1.4	71.0548	0.0548	130.0	O K
60 Summer	2.0	0.0	2.0	71.0678	0.0678	160.7	O K
120 Summer	2.6	0.0	2.6	71.0798	0.0798	189.8	O K
180 Summer	2.9	0.0	2.9	71.0858	0.0858	204.2	O K
240 Summer	3.1	0.0	3.1	71.0893	0.0893	212.1	O K
360 Summer	3.3	0.0	3.3	71.0928	0.0928	219.8	O K
480 Summer	3.4	0.0	3.4	71.0938	0.0938	222.5	O K
600 Summer	3.4	0.0	3.4	71.0948	0.0948	224.5	O K
720 Summer	3.5	0.0	3.5	71.0953	0.0953	226.0	O K
960 Summer	3.5	0.0	3.5	71.0958	0.0958	227.9	O K
1440 Summer	3.5	0.0	3.5	71.0963	0.0963	228.1	O K
2160 Summer	3.4	0.0	3.4	71.0943	0.0943	224.0	O K
2880 Summer	3.3	0.0	3.3	71.0918	0.0918	218.0	O K
4320 Summer	2.9	0.0	2.9	71.0863	0.0863	205.3	O K
5760 Summer	2.7	0.0	2.7	71.0818	0.0818	193.6	O K
7200 Summer	2.4	0.0	2.4	71.0773	0.0773	182.9	O K
8640 Summer	2.3	0.0	2.3	71.0733	0.0733	173.4	O K
10080 Summer	2.1	0.0	2.1	71.0698	0.0698	165.4	O K
15 Winter	1.0	0.0	1.0	71.0468	0.0468	111.4	O K
30 Winter	1.8	0.0	1.8	71.0613	0.0613	145.5	O K
60 Winter	2.4	0.0	2.4	71.0758	0.0758	179.9	O K
120 Winter	3.1	0.0	3.1	71.0893	0.0893	212.3	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	98.68	19
30 Summer	64.79	34
60 Summer	40.51	64
120 Summer	24.46	122
180 Summer	17.96	182
240 Summer	14.34	242
360 Summer	10.42	360
480 Summer	8.30	440
600 Summer	6.96	492
720 Summer	6.02	550
960 Summer	4.78	676
1440 Summer	3.46	950
2160 Summer	2.49	1360
2880 Summer	1.98	1756
4320 Summer	1.42	2548
5760 Summer	1.12	3296
7200 Summer	0.94	4040
8640 Summer	0.81	4760
10080 Summer	0.71	5544
15 Winter	98.68	19
30 Winter	64.79	33
60 Winter	40.51	62
120 Winter	24.46	120

Summary of Results for 100 year Return Period

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
180 Winter	3.5	0.0	3.5	71.0963	0.0963	228.1	O K
240 Winter	3.7	0.0	3.7	71.0998	0.0998	236.9	O K
360 Winter	3.9	0.0	3.9	71.1033	0.1033	245.6	O K
480 Winter	4.0	0.0	4.0	71.1048	0.1048	248.8	O K
600 Winter	4.1	0.0	4.1	71.1053	0.1053	249.6	O K
720 Winter	4.1	0.0	4.1	71.1058	0.1058	250.9	O K
960 Winter	4.1	0.0	4.1	71.1058	0.1058	251.2	O K
1440 Winter	4.0	0.0	4.0	71.1043	0.1043	247.1	O K
2160 Winter	3.7	0.0	3.7	71.0998	0.0998	236.7	O K
2880 Winter	3.5	0.0	3.5	71.0953	0.0953	225.9	O K
4320 Winter	3.0	0.0	3.0	71.0868	0.0868	206.4	O K
5760 Winter	2.6	0.0	2.6	71.0803	0.0803	190.3	O K
7200 Winter	2.3	0.0	2.3	71.0743	0.0743	176.0	O K
8640 Winter	2.1	0.0	2.1	71.0693	0.0693	164.2	O K
10080 Winter	1.9	0.0	1.9	71.0653	0.0653	154.5	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
180 Winter	17.96	178
240 Winter	14.34	236
360 Winter	10.42	348
480 Winter	8.30	452
600 Winter	6.96	488
720 Winter	6.02	558
960 Winter	4.78	712
1440 Winter	3.46	1010
2160 Winter	2.49	1448
2880 Winter	1.98	1848
4320 Winter	1.42	2680
5760 Winter	1.12	3464
7200 Winter	0.94	4248
8640 Winter	0.81	4936
10080 Winter	0.71	5656

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.400	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+0
Cv (Winter)	0.840		

Time / Area Diagram

Total Area (ha) = 0.540

Time from:	(mins) to:	Area (ha)
0	4	0.540

Summary of Results for 100 year Return Period

Half Drain Time : 775 minutes

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
15 Summer	0.8	0.0	0.8	71.0418	0.0417	99.5	O K
30 Summer	1.4	0.0	1.4	71.0548	0.0548	130.0	O K
60 Summer	2.0	0.0	2.0	71.0678	0.0678	160.7	O K
120 Summer	2.6	0.0	2.6	71.0798	0.0798	189.8	O K
180 Summer	2.9	0.0	2.9	71.0858	0.0858	204.2	O K
240 Summer	3.1	0.0	3.1	71.0893	0.0893	212.1	O K
360 Summer	3.3	0.0	3.3	71.0928	0.0928	219.8	O K
480 Summer	3.4	0.0	3.4	71.0938	0.0938	222.5	O K
600 Summer	3.4	0.0	3.4	71.0948	0.0948	224.5	O K
720 Summer	3.5	0.0	3.5	71.0953	0.0953	226.0	O K
960 Summer	3.5	0.0	3.5	71.0958	0.0958	227.9	O K
1440 Summer	3.5	0.0	3.5	71.0963	0.0963	228.1	O K
2160 Summer	3.4	0.0	3.4	71.0943	0.0943	224.0	O K
2880 Summer	3.3	0.0	3.3	71.0918	0.0918	218.0	O K
4320 Summer	2.9	0.0	2.9	71.0863	0.0863	205.3	O K
5760 Summer	2.7	0.0	2.7	71.0818	0.0818	193.6	O K
7200 Summer	2.4	0.0	2.4	71.0773	0.0773	182.9	O K
8640 Summer	2.3	0.0	2.3	71.0733	0.0733	173.4	O K
10080 Summer	2.1	0.0	2.1	71.0698	0.0698	165.4	O K
15 Winter	1.0	0.0	1.0	71.0468	0.0468	111.4	O K
30 Winter	1.8	0.0	1.8	71.0613	0.0613	145.5	O K
60 Winter	2.4	0.0	2.4	71.0758	0.0758	179.9	O K
120 Winter	3.1	0.0	3.1	71.0893	0.0893	212.3	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	98.68	19
30 Summer	64.79	34
60 Summer	40.51	64
120 Summer	24.46	122
180 Summer	17.96	182
240 Summer	14.34	242
360 Summer	10.42	360
480 Summer	8.30	440
600 Summer	6.96	492
720 Summer	6.02	550
960 Summer	4.78	676
1440 Summer	3.46	950
2160 Summer	2.49	1360
2880 Summer	1.98	1756
4320 Summer	1.42	2548
5760 Summer	1.12	3296
7200 Summer	0.94	4040
8640 Summer	0.81	4760
10080 Summer	0.71	5544
15 Winter	98.68	19
30 Winter	64.79	33
60 Winter	40.51	62
120 Winter	24.46	120

Summary of Results for 100 year Return Period

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
180 Winter	3.5	0.0	3.5	71.0963	0.0963	228.1	O K
240 Winter	3.7	0.0	3.7	71.0998	0.0998	236.9	O K
360 Winter	3.9	0.0	3.9	71.1033	0.1033	245.6	O K
480 Winter	4.0	0.0	4.0	71.1048	0.1048	248.8	O K
600 Winter	4.1	0.0	4.1	71.1053	0.1053	249.6	O K
720 Winter	4.1	0.0	4.1	71.1058	0.1058	250.9	O K
960 Winter	4.1	0.0	4.1	71.1058	0.1058	251.2	O K
1440 Winter	4.0	0.0	4.0	71.1043	0.1043	247.1	O K
2160 Winter	3.7	0.0	3.7	71.0998	0.0998	236.7	O K
2880 Winter	3.5	0.0	3.5	71.0953	0.0953	225.9	O K
4320 Winter	3.0	0.0	3.0	71.0868	0.0868	206.4	O K
5760 Winter	2.6	0.0	2.6	71.0803	0.0803	190.3	O K
7200 Winter	2.3	0.0	2.3	71.0743	0.0743	176.0	O K
8640 Winter	2.1	0.0	2.1	71.0693	0.0693	164.2	O K
10080 Winter	1.9	0.0	1.9	71.0653	0.0653	154.5	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
180 Winter	17.96	178
240 Winter	14.34	236
360 Winter	10.42	348
480 Winter	8.30	452
600 Winter	6.96	488
720 Winter	6.02	558
960 Winter	4.78	712
1440 Winter	3.46	1010
2160 Winter	2.49	1448
2880 Winter	1.98	1848
4320 Winter	1.42	2680
5760 Winter	1.12	3464
7200 Winter	0.94	4248
8640 Winter	0.81	4936
10080 Winter	0.71	5656

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.400	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+0
Cv (Winter)	0.840		

Time / Area Diagram

Total Area (ha) = 0.870

Time from:	(mins) to:	Area (ha)
0	4	0.870

Summary of Results for 100 year Return Period

Half Drain Time : 458 minutes

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
15 Summer	4.4	0.0	4.4	69.1113	0.1113	158.8	O K
30 Summer	6.0	0.0	6.0	69.1443	0.1442	205.7	O K
60 Summer	6.7	0.0	6.7	69.1768	0.1767	251.7	O K
120 Summer	7.2	0.0	7.2	69.2048	0.2047	292.0	O K
180 Summer	7.4	0.0	7.4	69.2168	0.2167	309.0	O K
240 Summer	7.5	0.0	7.5	69.2218	0.2217	316.2	O K
360 Summer	7.5	0.0	7.5	69.2248	0.2247	320.5	O K
480 Summer	7.5	0.0	7.5	69.2263	0.2262	322.7	O K
600 Summer	7.6	0.0	7.6	69.2268	0.2267	323.3	O K
720 Summer	7.5	0.0	7.5	69.2263	0.2262	322.6	O K
960 Summer	7.5	0.0	7.5	69.2233	0.2232	318.4	O K
1440 Summer	7.3	0.0	7.3	69.2138	0.2137	304.6	O K
2160 Summer	7.0	0.0	7.0	69.1968	0.1967	280.1	O K
2880 Summer	6.7	0.0	6.7	69.1798	0.1797	256.5	O K
4320 Summer	6.2	0.0	6.2	69.1533	0.1533	218.3	O K
5760 Summer	5.8	0.0	5.8	69.1348	0.1348	191.7	O K
7200 Summer	5.2	0.0	5.2	69.1233	0.1233	175.5	O K
8640 Summer	4.6	0.0	4.6	69.1148	0.1148	163.2	O K
10080 Summer	4.2	0.0	4.2	69.1073	0.1073	153.0	O K
15 Winter	5.3	0.0	5.3	69.1248	0.1248	177.7	O K
30 Winter	6.4	0.0	6.4	69.1618	0.1617	230.7	O K
60 Winter	7.1	0.0	7.1	69.1983	0.1982	282.7	O K
120 Winter	7.6	0.0	7.6	69.2308	0.2307	328.6	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	98.68	19
30 Summer	64.79	33
60 Summer	40.51	62
120 Summer	24.46	122
180 Summer	17.96	182
240 Summer	14.34	240
360 Summer	10.42	310
480 Summer	8.30	372
600 Summer	6.96	434
720 Summer	6.02	500
960 Summer	4.78	636
1440 Summer	3.46	910
2160 Summer	2.49	1300
2880 Summer	1.98	1696
4320 Summer	1.42	2420
5760 Summer	1.12	3112
7200 Summer	0.94	3824
8640 Summer	0.81	4584
10080 Summer	0.71	5344
15 Winter	98.68	19
30 Winter	64.79	33
60 Winter	40.51	62
120 Winter	24.46	120

Summary of Results for 100 year Return Period

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
180 Winter	7.9	0.0	7.9	69.2448	0.2447	348.7	O K
240 Winter	8.0	0.0	8.0	69.2513	0.2512	357.8	O K
360 Winter	8.0	0.0	8.0	69.2548	0.2547	363.1	O K
480 Winter	8.0	0.0	8.0	69.2543	0.2542	362.3	O K
600 Winter	8.0	0.0	8.0	69.2538	0.2537	361.3	O K
720 Winter	8.0	0.0	8.0	69.2513	0.2512	358.2	O K
960 Winter	7.9	0.0	7.9	69.2448	0.2447	348.7	O K
1440 Winter	7.6	0.0	7.6	69.2273	0.2272	323.8	O K
2160 Winter	7.1	0.0	7.1	69.2003	0.2002	285.2	O K
2880 Winter	6.7	0.0	6.7	69.1763	0.1763	251.1	O K
4320 Winter	5.9	0.0	5.9	69.1408	0.1408	200.6	O K
5760 Winter	5.1	0.0	5.1	69.1228	0.1228	174.7	O K
7200 Winter	4.4	0.0	4.4	69.1108	0.1108	157.8	O K
8640 Winter	3.9	0.0	3.9	69.1018	0.1018	145.1	O K
10080 Winter	3.4	0.0	3.4	69.0948	0.0948	135.1	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
180 Winter	17.96	178
240 Winter	14.34	234
360 Winter	10.42	340
480 Winter	8.30	388
600 Winter	6.96	462
720 Winter	6.02	538
960 Winter	4.78	690
1440 Winter	3.46	980
2160 Winter	2.49	1388
2880 Winter	1.98	1784
4320 Winter	1.42	2504
5760 Winter	1.12	3176
7200 Winter	0.94	3960
8640 Winter	0.81	4672
10080 Winter	0.71	5440

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.400	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+0
Cv (Winter)	0.840		

Time / Area Diagram

Total Area (ha) = 0.680

Time from:	(mins) to:	Area (ha)
0	4	0.680

Mountbatten House
Basing View
Basingstoke RG21 4HJ

Date 07 April 2006 08:42 | Designed By UKEXJ004
File Cellular Storage 11.000 100y.src | Checked By
Micro Drainage | Source Control W.10.1 net

Summary of Results for 100 year Return Period

Half Drain Time : 314 minutes

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m^3)	Status
15 Summer	5.5	0.0	5.5	69.1293	0.1293	123.0	O K
30 Summer	6.5	0.0	6.5	69.1673	0.1672	158.9	O K
60 Summer	7.1	0.0	7.1	69.2028	0.2027	192.8	O K
120 Summer	7.6	0.0	7.6	69.2313	0.2312	219.8	O K
180 Summer	7.8	0.0	7.8	69.2408	0.2407	228.7	O K
240 Summer	7.8	0.0	7.8	69.2433	0.2432	231.0	O K
360 Summer	7.9	0.0	7.9	69.2453	0.2452	233.0	O K
480 Summer	7.9	0.0	7.9	69.2453	0.2452	232.9	O K
600 Summer	7.8	0.0	7.8	69.2433	0.2432	231.1	O K
720 Summer	7.8	0.0	7.8	69.2403	0.2402	228.3	O K
960 Summer	7.6	0.0	7.6	69.2323	0.2322	220.9	O K
1440 Summer	7.3	0.0	7.3	69.2143	0.2142	203.6	O K
2160 Summer	6.9	0.0	6.9	69.1883	0.1882	179.0	O K
2880 Summer	6.5	0.0	6.5	69.1668	0.1668	158.6	O K
4320 Summer	5.9	0.0	5.9	69.1373	0.1373	130.3	O K
5760 Summer	5.1	0.0	5.1	69.1218	0.1218	115.5	O K
7200 Summer	4.4	0.0	4.4	69.1108	0.1108	105.1	O K
8640 Summer	3.9	0.0	3.9	69.1023	0.1023	97.4	O K
10080 Summer	3.5	0.0	3.5	69.0958	0.0958	91.1	O K
15 Winter	6.0	0.0	6.0	69.1453	0.1452	137.8	O K
30 Winter	6.9	0.0	6.9	69.1878	0.1877	178.3	O K
60 Winter	7.6	0.0	7.6	69.2283	0.2282	216.7	O K
120 Winter	8.1	0.0	8.1	69.2613	0.2612	248.0	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	98.68	19
30 Summer	64.79	33
60 Summer	40.51	62
120 Summer	24.46	122
180 Summer	17.96	180
240 Summer	14.34	210
360 Summer	10.42	272
480 Summer	8.30	338
600 Summer	6.96	406
720 Summer	6.02	472
960 Summer	4.78	608
1440 Summer	3.46	878
2160 Summer	2.49	1256
2880 Summer	1.98	1616
4320 Summer	1.42	2332
5760 Summer	1.12	3056
7200 Summer	0.94	3752
8640 Summer	0.81	4496
10080 Summer	0.71	5240
15 Winter	98.68	18
30 Winter	64.79	33
60 Winter	40.51	62
120 Winter	24.46	118

Summary of Results for 100 year Return Period

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m^3)	Status
180 Winter	8.3	0.0	8.3	69.2728	0.2727	259.1	O K
240 Winter	8.3	0.0	8.3	69.2758	0.2757	262.0	O K
360 Winter	8.3	0.0	8.3	69.2753	0.2752	261.3	O K
480 Winter	8.3	0.0	8.3	69.2728	0.2727	259.2	O K
600 Winter	8.2	0.0	8.2	69.2683	0.2682	254.7	O K
720 Winter	8.1	0.0	8.1	69.2623	0.2622	249.0	O K
960 Winter	7.9	0.0	7.9	69.2483	0.2482	235.8	O K
1440 Winter	7.4	0.0	7.4	69.2198	0.2197	208.6	O K
2160 Winter	6.8	0.0	6.8	69.1823	0.1822	173.2	O K
2880 Winter	6.2	0.0	6.2	69.1538	0.1538	146.1	O K
4320 Winter	5.2	0.0	5.2	69.1233	0.1233	117.1	O K
5760 Winter	4.2	0.0	4.2	69.1078	0.1078	102.3	O K
7200 Winter	3.6	0.0	3.6	69.0973	0.0973	92.2	O K
8640 Winter	3.1	0.0	3.1	69.0893	0.0893	84.6	O K
10080 Winter	2.8	0.0	2.8	69.0833	0.0833	78.9	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
180 Winter	17.96	174
240 Winter	14.34	228
360 Winter	10.42	286
480 Winter	8.30	362
600 Winter	6.96	438
720 Winter	6.02	512
960 Winter	4.78	656
1440 Winter	3.46	938
2160 Winter	2.49	1320
2880 Winter	1.98	1676
4320 Winter	1.42	2376
5760 Winter	1.12	3112
7200 Winter	0.94	3824
8640 Winter	0.81	4576
10080 Winter	0.71	5312

Network No. 1

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.400	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+0
Cv (Winter)	0.840		

Time / Area Diagram

Total Area (ha) = 1.270

Time from:	(mins) to:	Area (ha)
0	4	1.270

Summary of Results for 100 year Return Period

Half Drain Time : 418 minutes

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
15 Summer	7.3	0.0	7.3	72.7143	0.3142	167.2	O
30 Summer	8.3	0.0	8.3	72.7738	0.3737	235.9	O
60 Summer	9.0	0.0	9.0	72.8233	0.4232	303.0	O
120 Summer	9.6	0.0	9.6	72.8628	0.4627	362.0	FLOOD RIS
180 Summer	9.8	0.0	9.8	72.8788	0.4787	387.2	FLOOD RIS
240 Summer	9.9	0.0	9.9	72.8853	0.4852	398.0	FLOOD RIS
360 Summer	9.9	0.0	9.9	72.8888	0.4887	403.6	FLOOD RIS
480 Summer	9.9	0.0	9.9	72.8898	0.4897	405.3	FLOOD RIS
600 Summer	9.9	0.0	9.9	72.8892	0.4892	404.7	FLOOD RIS
720 Summer	9.9	0.0	9.9	72.8877	0.4877	402.4	FLOOD RIS
960 Summer	9.8	0.0	9.8	72.8827	0.4827	394.0	FLOOD RIS
1440 Summer	9.6	0.0	9.6	72.8672	0.4672	369.5	FLOOD RIS
2160 Summer	9.3	0.0	9.3	72.8403	0.4402	327.8	O
2880 Summer	8.9	0.0	8.9	72.8133	0.4132	288.4	O
4320 Summer	8.2	0.0	8.2	72.7638	0.3637	223.8	O
5760 Summer	7.5	0.0	7.5	72.7238	0.3237	177.3	O
7200 Summer	6.9	0.0	6.9	72.6918	0.2917	143.7	O
8640 Summer	6.5	0.0	6.5	72.6663	0.2662	119.7	O
10080 Summer	6.1	0.0	6.1	72.6468	0.2467	102.9	O
15 Winter	7.8	0.0	7.8	72.7398	0.3397	195.0	O
30 Winter	8.7	0.0	8.7	72.8018	0.4017	272.5	O
60 Winter	9.5	0.0	9.5	72.8537	0.4537	348.4	FLOOD RIS
120 Winter	10.0	0.0	10.0	72.8957	0.4957	415.6	FLOOD RIS

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	98.68	19
30 Summer	64.79	33
60 Summer	40.51	62
120 Summer	24.46	122
180 Summer	17.96	182
240 Summer	14.34	240
360 Summer	10.42	322
480 Summer	8.30	380
600 Summer	6.96	442
720 Summer	6.02	508
960 Summer	4.78	646
1440 Summer	3.46	912
2160 Summer	2.49	1316
2880 Summer	1.98	1700
4320 Summer	1.42	2424
5760 Summer	1.12	3168
7200 Summer	0.94	3888
8640 Summer	0.81	4576
10080 Summer	0.71	5240
15 Winter	98.68	19
30 Winter	64.79	33
60 Winter	40.51	62
120 Winter	24.46	120

Summary of Results for 100 year Return Period

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
180 Winter	10.2	0.0	10.2	72.9133	0.5132	445.4	FLOOD RI
240 Winter	10.3	0.0	10.3	72.9213	0.5212	459.2	FLOOD RI
360 Winter	10.4	0.0	10.4	72.9263	0.5262	467.7	FLOOD RI
480 Winter	10.4	0.0	10.4	72.9243	0.5242	464.8	FLOOD RI
600 Winter	10.3	0.0	10.3	72.9227	0.5227	461.7	FLOOD RI
720 Winter	10.3	0.0	10.3	72.9198	0.5197	456.4	FLOOD RI
960 Winter	10.2	0.0	10.2	72.9103	0.5102	440.5	FLOOD RI
1440 Winter	9.9	0.0	9.9	72.8862	0.4862	399.8	FLOOD RI
2160 Winter	9.4	0.0	9.4	72.8462	0.4462	336.4	O
2880 Winter	8.8	0.0	8.8	72.8068	0.4067	279.9	O
4320 Winter	7.8	0.0	7.8	72.7392	0.3392	194.4	O
5760 Winter	6.9	0.0	6.9	72.6867	0.2867	138.9	O
7200 Winter	6.1	0.0	6.1	72.6488	0.2487	104.5	O
8640 Winter	5.5	0.0	5.5	72.6283	0.2282	88.0	O
0080 Winter	4.8	0.0	4.8	72.6173	0.2172	79.8	O

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
180 Winter	17.96	178
240 Winter	14.34	234
360 Winter	10.42	344
480 Winter	8.30	436
600 Winter	6.96	470
720 Winter	6.02	546
960 Winter	4.78	700
1440 Winter	3.46	994
2160 Winter	2.49	1408
2880 Winter	1.98	1812
4320 Winter	1.42	2548
5760 Winter	1.12	3232
7200 Winter	0.94	3888
8640 Winter	0.81	4496
10080 Winter	0.71	5240

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.400	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+0
Cv (Winter)	0.840		

Time / Area Diagram

Total Area (ha) = 0.220

Time from:	(mins) to:	Area (ha)
0	4	0.220

Summary of Results for 100 year Return Period

Half Drain Time : 55 minutes

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
15 Summer	7.0	0.0	7.0	72.6923	0.1922	25.9	O K
30 Summer	7.5	0.0	7.5	72.7228	0.2227	34.8	O K
60 Summer	7.8	0.0	7.8	72.7398	0.2397	40.5	O K
120 Summer	7.9	0.0	7.9	72.7468	0.2467	42.9	O K
180 Summer	7.8	0.0	7.8	72.7438	0.2437	41.9	O K
240 Summer	7.7	0.0	7.7	72.7378	0.2377	39.7	O K
360 Summer	7.5	0.0	7.5	72.7218	0.2217	34.6	O K
480 Summer	7.2	0.0	7.2	72.7063	0.2062	29.9	O K
600 Summer	6.9	0.0	6.9	72.6913	0.1912	25.7	O K
720 Summer	6.7	0.0	6.7	72.6778	0.1777	22.2	O K
960 Summer	6.2	0.0	6.2	72.6553	0.1553	16.9	O K
1440 Summer	5.4	0.0	5.4	72.6273	0.1273	11.4	O K
2160 Summer	4.1	0.0	4.1	72.6063	0.1063	7.9	O K
2880 Summer	3.3	0.0	3.3	72.5933	0.0933	6.1	O K
4320 Summer	2.4	0.0	2.4	72.5768	0.0768	4.2	O K
5760 Summer	1.9	0.0	1.9	72.5653	0.0652	3.0	O K
7200 Summer	1.6	0.0	1.6	72.5578	0.0577	2.3	O K
8640 Summer	1.4	0.0	1.4	72.5538	0.0537	2.0	O K
10080 Summer	1.2	0.0	1.2	72.5508	0.0507	1.8	O K
15 Winter	7.2	0.0	7.2	72.7088	0.2087	30.6	O K
30 Winter	7.8	0.0	7.8	72.7408	0.2407	40.8	O K
60 Winter	8.1	0.0	8.1	72.7593	0.2592	47.2	O K
120 Winter	8.1	0.0	8.1	72.7632	0.2632	48.7	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	98.68	17
30 Summer	64.79	31
60 Summer	40.51	52
120 Summer	24.46	84
180 Summer	17.96	118
240 Summer	14.34	152
360 Summer	10.42	218
480 Summer	8.30	282
600 Summer	6.96	344
720 Summer	6.02	404
960 Summer	4.78	520
1440 Summer	3.46	750
2160 Summer	2.49	1104
2880 Summer	1.98	1472
4320 Summer	1.42	2204
5760 Summer	1.12	2936
7200 Summer	0.94	3672
8640 Summer	0.81	4360
10080 Summer	0.71	5120
15 Winter	98.68	17
30 Winter	64.79	31
60 Winter	40.51	58
120 Winter	24.46	92

Summary of Results for 100 year Return Period

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m^3)	Status
180 Winter	8.0	0.0	8.0	72.7568	0.2567	46.3	O K
240 Winter	7.9	0.0	7.9	72.7458	0.2457	42.5	O K
360 Winter	7.5	0.0	7.5	72.7223	0.2222	34.8	O K
480 Winter	7.1	0.0	7.1	72.6993	0.1992	28.0	O K
600 Winter	6.7	0.0	6.7	72.6783	0.1782	22.4	O K
720 Winter	6.3	0.0	6.3	72.6598	0.1598	17.9	O K
960 Winter	5.7	0.0	5.7	72.6328	0.1328	12.4	O K
1440 Winter	4.3	0.0	4.3	72.6088	0.1088	8.3	O K
2160 Winter	3.1	0.0	3.1	72.5893	0.0893	5.6	O K
2880 Winter	2.5	0.0	2.5	72.5778	0.0778	4.2	O K
4320 Winter	1.8	0.0	1.8	72.5613	0.0612	2.6	O K
5760 Winter	1.4	0.0	1.4	72.5538	0.0537	2.1	O K
7200 Winter	1.2	0.0	1.2	72.5498	0.0497	1.7	O K
8640 Winter	1.0	0.0	1.0	72.5468	0.0467	1.5	O K
10080 Winter	0.9	0.0	0.9	72.5433	0.0432	1.3	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
180 Winter	17.96	128
240 Winter	14.34	166
360 Winter	10.42	234
480 Winter	8.30	298
600 Winter	6.96	358
720 Winter	6.02	414
960 Winter	4.78	520
1440 Winter	3.46	752
2160 Winter	2.49	1120
2880 Winter	1.98	1472
4320 Winter	1.42	2204
5760 Winter	1.12	2936
7200 Winter	0.94	3632
8640 Winter	0.81	4376
10080 Winter	0.71	5064

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.400	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+0
Cv (Winter)	0.840		

Time / Area Diagram

Total Area (ha) = 0.500

Time (mins) from:	to:	Area (ha)
0	4	0.500

Summary of Results for 100 year Return Period

Half Drain Time : 135 minutes

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m^3)	Status
15 Summer	7.8	0.0	7.8	71.2438	0.2437	62.9	O K
30 Summer	8.5	0.0	8.5	71.2868	0.2867	87.2	O K
60 Summer	9.0	0.0	9.0	71.3188	0.3187	107.7	O K
120 Summer	9.2	0.0	9.2	71.3348	0.3347	118.9	O K
180 Summer	9.2	0.0	9.2	71.3378	0.3377	121.0	O K
240 Summer	9.2	0.0	9.2	71.3368	0.3367	120.3	O K
360 Summer	9.1	0.0	9.1	71.3308	0.3307	115.9	O K
480 Summer	9.0	0.0	9.0	71.3218	0.3217	109.9	O K
600 Summer	8.9	0.0	8.9	71.3123	0.3122	103.2	O K
720 Summer	8.7	0.0	8.7	71.3018	0.3017	96.5	O K
960 Summer	8.4	0.0	8.4	71.2808	0.2807	83.7	O K
1440 Summer	7.8	0.0	7.8	71.2433	0.2432	62.7	O K
2160 Summer	7.1	0.0	7.1	71.1978	0.1977	41.4	O K
2880 Summer	6.4	0.0	6.4	71.1638	0.1638	28.4	O K
4320 Summer	5.3	0.0	5.3	71.1263	0.1263	16.9	O K
5760 Summer	4.3	0.0	4.3	71.1093	0.1093	12.7	O K
7200 Summer	3.6	0.0	3.6	71.0978	0.0978	10.1	O K
8640 Summer	3.1	0.0	3.1	71.0893	0.0893	8.4	O K
10080 Summer	2.7	0.0	2.7	71.0828	0.0828	7.2	O K
15 Winter	8.2	0.0	8.2	71.2638	0.2637	73.8	O K
30 Winter	8.8	0.0	8.8	71.3093	0.3092	101.4	O K
60 Winter	9.3	0.0	9.3	71.3433	0.3432	124.9	O K
120 Winter	9.6	0.0	9.6	71.3618	0.3617	138.8	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	98.68	18
30 Summer	64.79	32
60 Summer	40.51	62
120 Summer	24.46	110
180 Summer	17.96	140
240 Summer	14.34	172
360 Summer	10.42	240
480 Summer	8.30	308
600 Summer	6.96	376
720 Summer	6.02	442
960 Summer	4.78	570
1440 Summer	3.46	822
2160 Summer	2.49	1172
2880 Summer	1.98	1528
4320 Summer	1.42	2204
5760 Summer	1.12	2936
7200 Summer	0.94	3672
8640 Summer	0.81	4400
10080 Summer	0.71	5120
15 Winter	98.68	18
30 Winter	64.79	32
60 Winter	40.51	60
120 Winter	24.46	116

Summary of Results for 100 year Return Period

Storm Duration (mins)	Maximum Control (l/s)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
180 Winter	9.6	0.0	9.6	71.3628	0.3627	139.4	O K
240 Winter	9.5	0.0	9.5	71.3602	0.3602	137.6	O K
360 Winter	9.4	0.0	9.4	71.3502	0.3502	130.0	O K
480 Winter	9.2	0.0	9.2	71.3368	0.3367	120.3	O K
600 Winter	9.0	0.0	9.0	71.3222	0.3222	110.1	O K
720 Winter	8.8	0.0	8.8	71.3072	0.3072	100.1	O K
960 Winter	8.4	0.0	8.4	71.2778	0.2777	81.7	O K
1440 Winter	7.5	0.0	7.5	71.2243	0.2242	53.4	O K
2160 Winter	6.4	0.0	6.4	71.1633	0.1633	28.3	O K
2880 Winter	5.5	0.0	5.5	71.1293	0.1293	17.7	O K
4320 Winter	4.0	0.0	4.0	71.1038	0.1038	11.5	O K
5760 Winter	3.1	0.0	3.1	71.0898	0.0898	8.5	O K
7200 Winter	2.6	0.0	2.6	71.0803	0.0803	6.8	O K
8640 Winter	2.2	0.0	2.2	71.0718	0.0718	5.4	O K
10080 Winter	1.9	0.0	1.9	71.0648	0.0648	4.5	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
180 Winter	17.96	148
240 Winter	14.34	184
360 Winter	10.42	260
480 Winter	8.30	334
600 Winter	6.96	406
720 Winter	6.02	476
960 Winter	4.78	606
1440 Winter	3.46	852
2160 Winter	2.49	1192
2880 Winter	1.98	1500
4320 Winter	1.42	2208
5760 Winter	1.12	2920
7200 Winter	0.94	3672
8640 Winter	0.81	4384
10080 Winter	0.71	5144

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.000	Summer Storms	Yes
Ratio-R	0.400	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+0
Cv (Winter)	0.840		

Time / Area Diagram

Total Area (ha) = 0.220

Time (mins) from:	to:	Area (ha)
0	4	0.220