	Greensleeves Hophurst Lane Crawlet Down	
Date 23/09/2025 File Tank.SRCX	Designed by . Checked by .	
Innovyze	Source Control 2020.1.3	

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

Half Drain Time : 87 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	7.298	0.248	0.0	1.4	1.4	8.5	O K
30 min Summer	7.371	0.321	0.0	1.4	1.4	11.0	O K
60 min Summer	7.423	0.373	0.0	1.4	1.4	12.7	O K
120 min Summer	7.437	0.387	0.0	1.4	1.4	13.2	O K
180 min Summer	7.428	0.378	0.0	1.4	1.4	12.9	O K
240 min Summer	7.413	0.363	0.0	1.4	1.4	12.4	O K
360 min Summer	7.383	0.333	0.0	1.4	1.4	11.4	O K
480 min Summer	7.350	0.300	0.0	1.4	1.4	10.3	O K
600 min Summer	7.315	0.265	0.0	1.4	1.4	9.1	O K
720 min Summer	7.277	0.227	0.0	1.4	1.4	7.8	O K
960 min Summer	7.216	0.166	0.0	1.4	1.4	5.7	O K
1440 min Summer	7.138	0.088	0.0	1.4	1.4	3.0	O K
2160 min Summer	7.099	0.049	0.0	1.2	1.2	1.7	O K
2880 min Summer	7.086	0.036	0.0	1.0	1.0	1.2	O K
4320 min Summer	7.073	0.023	0.0	0.7	0.7	0.8	O K
5760 min Summer	7.067	0.017	0.0	0.6	0.6	0.6	O K
7200 min Summer	7.062	0.012	0.0	0.5	0.5	0.4	O K
8640 min Summer	7.059	0.009	0.0	0.4	0.4	0.3	O K
10080 min Summer	7.057	0.007	0.0	0.4	0.4	0.2	O K
15 min Winter	7.298	0.248	0.0	1.4	1.4	8.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	129.164	0.0	9.6	18
30 min Summer	87.637	0.0	13.0	32
60 min Summer	56.713	0.0	16.8	60
120 min Summer	35.339	0.0	21.0	96
180 min Summer	26.336	0.0	23.4	130
240 min Summer	21.253	0.0	25.2	164
360 min Summer	15.720	0.0	28.0	234
480 min Summer	12.669	0.0	30.1	304
600 min Summer	10.706	0.0	31.8	372
720 min Summer	9.325	0.0	33.2	432
960 min Summer	7.491	0.0	35.6	548
1440 min Summer	5.490	0.0	39.1	766
2160 min Summer	4.013	0.0	42.9	1104
2880 min Summer	3.209	0.0	45.7	1468
4320 min Summer	2.336	0.0	49.9	2200
5760 min Summer	1.866	0.0	53.2	2920
7200 min Summer	1.568	0.0	55.9	3584
8640 min Summer	1.361	0.0	58.2	4400
10080 min Summer	1.207	0.0	60.2	5072
15 min Winter	129.164	0.0	9.6	17

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Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	7.371	0.321	0.0	1.4	1.4	11.0	O K
60 min Winter	7.425	0.375	0.0	1.4	1.4	12.8	O K
120 min Winter	7.436	0.386	0.0	1.4	1.4	13.2	O K
180 min Winter	7.422	0.372	0.0	1.4	1.4	12.7	O K
240 min Winter	7.399	0.349	0.0	1.4	1.4	11.9	O K
360 min Winter	7.349	0.299	0.0	1.4	1.4	10.2	O K
480 min Winter	7.288	0.238	0.0	1.4	1.4	8.1	O K
600 min Winter	7.233	0.183	0.0	1.4	1.4	6.3	O K
720 min Winter	7.187	0.137	0.0	1.4	1.4	4.7	O K
960 min Winter	7.125	0.075	0.0	1.4	1.4	2.6	O K
1440 min Winter	7.092	0.042	0.0	1.1	1.1	1.4	O K
2160 min Winter	7.076	0.026	0.0	0.8	0.8	0.9	O K
2880 min Winter	7.069	0.019	0.0	0.7	0.7	0.7	O K
4320 min Winter	7.061	0.011	0.0	0.5	0.5	0.4	O K
5760 min Winter	7.057	0.007	0.0	0.4	0.4	0.2	O K
7200 min Winter	7.054	0.004	0.0	0.3	0.3	0.1	O K
8640 min Winter	7.052	0.002	0.0	0.3	0.3	0.1	O K
10080 min Winter	7.050	0.000	0.0	0.3	0.3	0.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
30 min Winter	87.637	0.0	13.0	31
60 min Winter	56.713	0.0	16.8	60
120 min Winter	35.339	0.0	21.0	98
180 min Winter	26.336	0.0	23.4	138
240 min Winter	21.253	0.0	25.2	176
360 min Winter	15.720	0.0	28.0	252
480 min Winter	12.669	0.0	30.1	320
600 min Winter	10.706	0.0	31.8	380
720 min Winter	9.325	0.0	33.2	436
960 min Winter	7.491	0.0	35.6	538
1440 min Winter	5.490	0.0	39.1	750
2160 min Winter	4.013	0.0	42.9	1104
2880 min Winter	3.209	0.0	45.7	1468
4320 min Winter	2.336	0.0	49.9	2204
5760 min Winter	1.866	0.0	53.2	2944
7200 min Winter	1.568	0.0	55.9	3656
8640 min Winter	1.361	0.0	58.2	4368
10080 min Winter	1.207	0.0	60.2	0

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.900
Region	England and Wales	Cv (Winter)	0.900
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.330	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.033

Time (mins) From:	To:	Area (ha)
0	4	0.033

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Model Details

Storage is Online Cover Level (m) 8.050

Cellular Storage Structure

Invert Level (m) 7.050 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	36.0	36.0	0.500	0.0	45.6
0.400	36.0	45.6			

Hydro-Brake® Optimum Outflow Control

Unit Reference	MD-SHE-0064-1400-0425-1400
Design Head (m)	0.425
Design Flow (l/s)	1.4
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	64
Invert Level (m)	7.025
Minimum Outlet Pipe Diameter (mm)	100
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	0.425	1.4
Flush-Flo™	0.125	1.4
Kick-Flo®	0.292	1.2
Mean Flow over Head Range	-	1.2

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	1.4	1.200	2.2	3.000	3.4	7.000	5.1
0.200	1.4	1.400	2.4	3.500	3.7	7.500	5.3
0.300	1.2	1.600	2.6	4.000	3.9	8.000	5.5
0.400	1.4	1.800	2.7	4.500	4.1	8.500	5.7
0.500	1.5	2.000	2.8	5.000	4.3	9.000	5.8
0.600	1.6	2.200	3.0	5.500	4.6	9.500	6.0
0.800	1.9	2.400	3.1	6.000	4.8		
1.000	2.1	2.600	3.2	6.500	5.0		