

Infrastruct CS Ltd				Page 1																																																																																																																																																																																																																			
The Stables High Cogges, Witney Oxfordshire, OX29 6UN																																																																																																																																																																																																																							
Date 04/03/2025 12:20 File Soakaway 1.SRCX		Designed by Tim.Trotman Checked by																																																																																																																																																																																																																					
Innovyze		Source Control 2020.1.3																																																																																																																																																																																																																					
<u>Summary of Results for 100 year Return Period (+45%)</u> Half Drain Time : 155 minutes. <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>27.121</td><td>0.546</td><td>3.3</td><td>43.5</td><td>O K</td></tr><tr><td>30 min Summer</td><td>27.179</td><td>0.604</td><td>3.4</td><td>48.2</td><td>O K</td></tr><tr><td>60 min Summer</td><td>27.219</td><td>0.644</td><td>3.4</td><td>51.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>27.215</td><td>0.640</td><td>3.4</td><td>51.1</td><td>O K</td></tr><tr><td>180 min Summer</td><td>27.191</td><td>0.616</td><td>3.4</td><td>49.1</td><td>O K</td></tr><tr><td>240 min Summer</td><td>27.167</td><td>0.592</td><td>3.3</td><td>47.2</td><td>O K</td></tr><tr><td>360 min Summer</td><td>27.122</td><td>0.547</td><td>3.3</td><td>43.6</td><td>O K</td></tr><tr><td>480 min Summer</td><td>27.081</td><td>0.506</td><td>3.2</td><td>40.3</td><td>O K</td></tr><tr><td>600 min Summer</td><td>27.042</td><td>0.467</td><td>3.2</td><td>37.3</td><td>O K</td></tr><tr><td>720 min Summer</td><td>27.005</td><td>0.430</td><td>3.1</td><td>34.3</td><td>O K</td></tr><tr><td>960 min Summer</td><td>26.934</td><td>0.359</td><td>3.1</td><td>28.7</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>26.818</td><td>0.243</td><td>2.9</td><td>19.4</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>26.701</td><td>0.126</td><td>2.8</td><td>10.1</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>26.639</td><td>0.064</td><td>2.7</td><td>5.1</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>26.614</td><td>0.039</td><td>2.1</td><td>3.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>26.605</td><td>0.030</td><td>1.6</td><td>2.4</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>26.600</td><td>0.025</td><td>1.3</td><td>2.0</td><td>O K</td></tr><tr><td>8640 min 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Summer</td><td>12.262</td><td>0.0</td><td>384</td></tr><tr><td>720 min Summer</td><td>10.607</td><td>0.0</td><td>452</td></tr><tr><td>960 min Summer</td><td>8.389</td><td>0.0</td><td>582</td></tr><tr><td>1440 min Summer</td><td>6.027</td><td>0.0</td><td>828</td></tr><tr><td>2160 min Summer</td><td>4.331</td><td>0.0</td><td>1172</td></tr><tr><td>2880 min Summer</td><td>3.425</td><td>0.0</td><td>1500</td></tr><tr><td>4320 min Summer</td><td>2.391</td><td>0.0</td><td>2204</td></tr><tr><td>5760 min Summer</td><td>1.853</td><td>0.0</td><td>2936</td></tr><tr><td>7200 min Summer</td><td>1.520</td><td>0.0</td><td>3672</td></tr><tr><td>8640 min Summer</td><td>1.293</td><td>0.0</td><td>4344</td></tr><tr><td>10080 min Summer</td><td>1.128</td><td>0.0</td><td>5056</td></tr><tr><td>15 min Winter</td><td>230.597</td><td>0.0</td><td>22</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	27.121	0.546	3.3	43.5	O K	30 min Summer	27.179	0.604	3.4	48.2	O K	60 min Summer	27.219	0.644	3.4	51.4	O K	120 min Summer	27.215	0.640	3.4	51.1	O K	180 min Summer	27.191	0.616	3.4	49.1	O K	240 min Summer	27.167	0.592	3.3	47.2	O K	360 min Summer	27.122	0.547	3.3	43.6	O K	480 min Summer	27.081	0.506	3.2	40.3	O K	600 min Summer	27.042	0.467	3.2	37.3	O K	720 min Summer	27.005	0.430	3.1	34.3	O K	960 min Summer	26.934	0.359	3.1	28.7	O K	1440 min Summer	26.818	0.243	2.9	19.4	O K	2160 min Summer	26.701	0.126	2.8	10.1	O K	2880 min Summer	26.639	0.064	2.7	5.1	O K	4320 min Summer	26.614	0.039	2.1	3.1	O K	5760 min Summer	26.605	0.030	1.6	2.4	O K	7200 min Summer	26.600	0.025	1.3	2.0	O K	8640 min Summer	26.596	0.021	1.1	1.7	O K	10080 min Summer	26.594	0.019	1.0	1.5	O K	15 min Winter	27.190	0.615	3.4	49.0	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	230.597	0.0	22	30 min Summer	132.866	0.0	37	60 min Summer	76.555	0.0	66	120 min Summer	44.110	0.0	120	180 min Summer	31.950	0.0	148	240 min 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The Stables High Cogges, Witney Oxfordshire, OX29 6UN					
Date 04/03/2025 12:20 File Soakaway 1.SRCX		Designed by Tim.Trotman Checked by			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 100 year Return Period (+45%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	27.259	0.684	3.5	54.5	O K
60 min Winter	27.310	0.735	3.5	58.7	O K
120 min Winter	27.320	0.745	3.5	59.4	O K
180 min Winter	27.290	0.715	3.5	57.1	O K
240 min Winter	27.261	0.686	3.5	54.7	O K
360 min Winter	27.200	0.625	3.4	49.8	O K
480 min Winter	27.139	0.564	3.3	45.0	O K
600 min Winter	27.080	0.505	3.2	40.3	O K
720 min Winter	27.025	0.450	3.2	35.9	O K
960 min Winter	26.922	0.347	3.0	27.7	O K
1440 min Winter	26.759	0.184	2.8	14.7	O K
2160 min Winter	26.627	0.052	2.7	4.2	O K
2880 min Winter	26.615	0.040	2.1	3.2	O K
4320 min Winter	26.603	0.028	1.5	2.2	O K
5760 min Winter	26.597	0.022	1.2	1.8	O K
7200 min Winter	26.593	0.018	1.0	1.4	O K
8640 min Winter	26.590	0.015	0.8	1.2	O K
10080 min Winter	26.589	0.014	0.7	1.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	132.866	0.0	36		
60 min Winter	76.555	0.0	64		
120 min Winter	44.110	0.0	120		
180 min Winter	31.950	0.0	168		
240 min Winter	25.415	0.0	192		
360 min Winter	18.409	0.0	268		
480 min Winter	14.644	0.0	342		
600 min Winter	12.262	0.0	414		
720 min Winter	10.607	0.0	486		
960 min Winter	8.389	0.0	620		
1440 min Winter	6.027	0.0	858		
2160 min Winter	4.331	0.0	1128		
2880 min Winter	3.425	0.0	1476		
4320 min Winter	2.391	0.0	2204		
5760 min Winter	1.853	0.0	2904		
7200 min Winter	1.520	0.0	3648		
8640 min Winter	1.293	0.0	4408		
10080 min Winter	1.128	0.0	5120		
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Innovyze		Source Control 2020.1.3

Rainfall Details

Rainfall Model	FEH
Return Period (years)	100
FEH Rainfall Version	1999
Site Location	GB 506150 180600 TQ 06150 80600
C (1km)	-0.024
D1 (1km)	0.315
D2 (1km)	0.295
D3 (1km)	0.224
E (1km)	0.304
F (1km)	2.568
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	0.750
Cv (Winter)	0.840
Shortest Storm (mins)	15
Longest Storm (mins)	10080
Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.107

Time (mins)	Area	Time (mins)	Area
From:	To: (ha)	From:	To: (ha)
0	4 0.000	4	8 0.107

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Innovyze		Source Control 2020.1.3

Model Details

Storage is Online Cover Level (m) 28.700

Cellular Storage Structure

Invert Level (m) 26.575 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.22356 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.22356

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	84.0	84.0	0.900	0.0	116.0
0.800	84.0	116.0			

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