

Cotswold Transport Planning				Page 1																																																																																																																																																																																																																			
CTP House, Knapp Road Cheltenham Gloucestershire, GL50 3QQ		Moun-ton Road Chepstow Basin 1																																																																																																																																																																																																																					
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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 95 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>0.367</td><td>0.367</td><td>58.4</td><td>374.3</td><td>O K</td></tr><tr><td>30 min Summer</td><td>0.479</td><td>0.479</td><td>62.6</td><td>498.2</td><td>O K</td></tr><tr><td>60 min Summer</td><td>0.566</td><td>0.566</td><td>66.0</td><td>598.6</td><td>O K</td></tr><tr><td>120 min Summer</td><td>0.601</td><td>0.601</td><td>67.3</td><td>640.3</td><td>O K</td></tr><tr><td>180 min Summer</td><td>0.596</td><td>0.596</td><td>67.1</td><td>633.8</td><td>O K</td></tr><tr><td>240 min Summer</td><td>0.582</td><td>0.582</td><td>66.6</td><td>617.4</td><td>O K</td></tr><tr><td>360 min Summer</td><td>0.549</td><td>0.549</td><td>65.3</td><td>579.1</td><td>O K</td></tr><tr><td>480 min Summer</td><td>0.513</td><td>0.513</td><td>63.9</td><td>537.7</td><td>O K</td></tr><tr><td>600 min Summer</td><td>0.477</td><td>0.477</td><td>62.5</td><td>496.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>0.441</td><td>0.441</td><td>61.2</td><td>456.0</td><td>O K</td></tr><tr><td>960 min Summer</td><td>0.374</td><td>0.374</td><td>58.6</td><td>381.6</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>0.260</td><td>0.260</td><td>54.3</td><td>259.3</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>0.138</td><td>0.138</td><td>49.8</td><td>134.7</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>0.068</td><td>0.068</td><td>47.2</td><td>65.4</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>0.041</td><td>0.041</td><td>38.3</td><td>39.3</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>0.033</td><td>0.033</td><td>30.7</td><td>31.7</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>0.028</td><td>0.028</td><td>26.1</td><td>26.8</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>0.025</td><td>0.025</td><td>22.8</td><td>23.5</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>0.022</td><td>0.022</td><td>20.0</td><td>20.5</td><td>O K</td></tr><tr><td>15 min Winter</td><td>0.367</td><td>0.367</td><td>58.4</td><td>374.2</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>125.216</td><td>0.0</td><td>23</td></tr><tr><td>30 min Summer</td><td>86.254</td><td>0.0</td><td>36</td></tr><tr><td>60 min Summer</td><td>56.713</td><td>0.0</td><td>62</td></tr><tr><td>120 min Summer</td><td>35.847</td><td>0.0</td><td>100</td></tr><tr><td>180 min Summer</td><td>26.880</td><td>0.0</td><td>134</td></tr><tr><td>240 min Summer</td><td>21.831</td><td>0.0</td><td>168</td></tr><tr><td>360 min Summer</td><td>16.267</td><td>0.0</td><td>236</td></tr><tr><td>480 min Summer</td><td>13.176</td><td>0.0</td><td>304</td></tr><tr><td>600 min Summer</td><td>11.178</td><td>0.0</td><td>372</td></tr><tr><td>720 min Summer</td><td>9.765</td><td>0.0</td><td>438</td></tr><tr><td>960 min Summer</td><td>7.881</td><td>0.0</td><td>566</td></tr><tr><td>1440 min Summer</td><td>5.811</td><td>0.0</td><td>810</td></tr><tr><td>2160 min Summer</td><td>4.273</td><td>0.0</td><td>1156</td></tr><tr><td>2880 min Summer</td><td>3.430</td><td>0.0</td><td>1496</td></tr><tr><td>4320 min Summer</td><td>2.516</td><td>0.0</td><td>2200</td></tr><tr><td>5760 min Summer</td><td>2.021</td><td>0.0</td><td>2896</td></tr><tr><td>7200 min Summer</td><td>1.706</td><td>0.0</td><td>3664</td></tr><tr><td>8640 min Summer</td><td>1.486</td><td>0.0</td><td>4400</td></tr><tr><td>10080 min Summer</td><td>1.323</td><td>0.0</td><td>4976</td></tr><tr><td>15 min Winter</td><td>125.216</td><td>0.0</td><td>23</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	0.367	0.367	58.4	374.3	O K	30 min Summer	0.479	0.479	62.6	498.2	O K	60 min Summer	0.566	0.566	66.0	598.6	O K	120 min Summer	0.601	0.601	67.3	640.3	O K	180 min Summer	0.596	0.596	67.1	633.8	O K	240 min Summer	0.582	0.582	66.6	617.4	O K	360 min Summer	0.549	0.549	65.3	579.1	O K	480 min Summer	0.513	0.513	63.9	537.7	O K	600 min Summer	0.477	0.477	62.5	496.2	O K	720 min Summer	0.441	0.441	61.2	456.0	O K	960 min Summer	0.374	0.374	58.6	381.6	O K	1440 min Summer	0.260	0.260	54.3	259.3	O K	2160 min Summer	0.138	0.138	49.8	134.7	O K	2880 min Summer	0.068	0.068	47.2	65.4	O K	4320 min Summer	0.041	0.041	38.3	39.3	O K	5760 min Summer	0.033	0.033	30.7	31.7	O K	7200 min Summer	0.028	0.028	26.1	26.8	O K	8640 min Summer	0.025	0.025	22.8	23.5	O K	10080 min Summer	0.022	0.022	20.0	20.5	O K	15 min Winter	0.367	0.367	58.4	374.2	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	125.216	0.0	23	30 min Summer	86.254	0.0	36	60 min Summer	56.713	0.0	62	120 min Summer	35.847	0.0	100	180 min Summer	26.880	0.0	134	240 min Summer	21.831	0.0	168	360 min Summer	16.267	0.0	236	480 min Summer	13.176	0.0	304	600 min Summer	11.178	0.0	372	720 min Summer	9.765	0.0	438	960 min Summer	7.881	0.0	566	1440 min Summer	5.811	0.0	810	2160 min Summer	4.273	0.0	1156	2880 min Summer	3.430	0.0	1496	4320 min Summer	2.516	0.0	2200	5760 min Summer	2.021	0.0	2896	7200 min Summer	1.706	0.0	3664	8640 min Summer	1.486	0.0	4400	10080 min Summer	1.323	0.0	4976	15 min Winter	125.216	0.0	23
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Cotswold Transport Planning				Page 2	
CTP House, Knapp Road Cheltenham Gloucestershire, GL50 3QQ		Mounon Road Chepstow Basin 1			
Date 28/03/2024 10:03 File Basin 1.SRCX		Designed by SC Checked by SM			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 100 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	0.479	0.479	62.6	499.1	O K
60 min Winter	0.569	0.569	66.1	602.1	O K
120 min Winter	0.602	0.602	67.4	641.4	O K
180 min Winter	0.591	0.591	66.9	627.9	O K
240 min Winter	0.568	0.568	66.0	600.9	O K
360 min Winter	0.514	0.514	64.0	538.3	O K
480 min Winter	0.457	0.457	61.8	473.9	O K
600 min Winter	0.402	0.402	59.7	412.6	O K
720 min Winter	0.350	0.350	57.7	355.5	O K
960 min Winter	0.256	0.256	54.2	255.8	O K
1440 min Winter	0.114	0.114	48.9	111.0	O K
2160 min Winter	0.045	0.045	41.6	42.9	O K
2880 min Winter	0.036	0.036	33.5	34.5	O K
4320 min Winter	0.027	0.027	24.7	25.4	O K
5760 min Winter	0.022	0.022	20.0	20.6	O K
7200 min Winter	0.018	0.018	16.8	17.3	O K
8640 min Winter	0.016	0.016	14.9	15.3	O K
10080 min Winter	0.014	0.014	13.1	13.4	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	86.254	0.0	36		
60 min Winter	56.713	0.0	62		
120 min Winter	35.847	0.0	102		
180 min Winter	26.880	0.0	140		
240 min Winter	21.831	0.0	180		
360 min Winter	16.267	0.0	254		
480 min Winter	13.176	0.0	324		
600 min Winter	11.178	0.0	394		
720 min Winter	9.765	0.0	460		
960 min Winter	7.881	0.0	586		
1440 min Winter	5.811	0.0	816		
2160 min Winter	4.273	0.0	1104		
2880 min Winter	3.430	0.0	1452		
4320 min Winter	2.516	0.0	2196		
5760 min Winter	2.021	0.0	2904		
7200 min Winter	1.706	0.0	3560		
8640 min Winter	1.486	0.0	4384		
10080 min Winter	1.323	0.0	5048		
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Cotswold Transport Planning			Page 3
CTP House, Knapp Road Cheltenham Gloucestershire, GL50 3QQ		Mounton Road Chepstow Basin 1	
Date 28/03/2024 10:03 File Basin 1.SRCX		Designed by SC Checked by SM	
Innovyze		Source Control 2020.1.3	

Cotswold Transport Planning		Page 4								
CTP House, Knapp Road Cheltenham Gloucestershire, GL50 3QQ	Mounton Road Chepstow Basin 1									
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Source Control 2020.1.3										
Model Details Storage is Online Cover Level (m) 1.000 Infiltration Basin Structure Invert Level (m) 0.000 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.33840 Porosity 1.00 Infiltration Coefficient Side (m/hr) 0.33840 <table><thead><tr><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th></tr></thead><tbody><tr><td>0.000</td><td>951.0</td><td>1.000</td><td>1350.0</td></tr></tbody></table>			Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	951.0	1.000	1350.0
Depth (m)	Area (m²)	Depth (m)	Area (m²)							
0.000	951.0	1.000	1350.0							
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