

Cotswold Transport Planning					Page 1																																																																																																																																																																																																																		
CTP House, Knapp Road Cheltenham Gloucestershire, GL50 3QQ			Moun-ton Road Chepstow Basin 2																																																																																																																																																																																																																				
Date 28/03/2024 10:08 File Basin 2.SRCX			Designed by SC Checked by SM																																																																																																																																																																																																																				
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 84 minutes. <table><thead><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></thead><tbody><tr><td>15 min Summer</td><td>0.362</td><td>0.362</td><td>32.4</td><td>191.7</td><td>O K</td></tr><tr><td>30 min Summer</td><td>0.466</td><td>0.466</td><td>35.4</td><td>254.1</td><td>O K</td></tr><tr><td>60 min Summer</td><td>0.545</td><td>0.545</td><td>37.6</td><td>302.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>0.575</td><td>0.575</td><td>38.4</td><td>322.3</td><td>O K</td></tr><tr><td>180 min Summer</td><td>0.569</td><td>0.569</td><td>38.2</td><td>318.0</td><td>O K</td></tr><tr><td>240 min Summer</td><td>0.554</td><td>0.554</td><td>37.8</td><td>308.6</td><td>O K</td></tr><tr><td>360 min Summer</td><td>0.521</td><td>0.521</td><td>36.9</td><td>287.6</td><td>O K</td></tr><tr><td>480 min Summer</td><td>0.485</td><td>0.485</td><td>35.9</td><td>265.4</td><td>O K</td></tr><tr><td>600 min Summer</td><td>0.450</td><td>0.450</td><td>34.9</td><td>243.9</td><td>O K</td></tr><tr><td>720 min Summer</td><td>0.415</td><td>0.415</td><td>33.9</td><td>223.2</td><td>O K</td></tr><tr><td>960 min Summer</td><td>0.351</td><td>0.351</td><td>32.2</td><td>185.8</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>0.245</td><td>0.245</td><td>29.2</td><td>126.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>0.133</td><td>0.133</td><td>26.2</td><td>66.6</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>0.068</td><td>0.068</td><td>24.5</td><td>33.2</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>0.041</td><td>0.041</td><td>19.7</td><td>20.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>0.033</td><td>0.033</td><td>15.8</td><td>16.1</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>0.028</td><td>0.028</td><td>13.4</td><td>13.6</td><td>O K</td></tr><tr><td>8640 min 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Summer</td><td>13.176</td><td>0.0</td><td>302</td></tr><tr><td>600 min Summer</td><td>11.178</td><td>0.0</td><td>368</td></tr><tr><td>720 min Summer</td><td>9.765</td><td>0.0</td><td>432</td></tr><tr><td>960 min Summer</td><td>7.881</td><td>0.0</td><td>560</td></tr><tr><td>1440 min Summer</td><td>5.811</td><td>0.0</td><td>802</td></tr><tr><td>2160 min Summer</td><td>4.273</td><td>0.0</td><td>1152</td></tr><tr><td>2880 min Summer</td><td>3.430</td><td>0.0</td><td>1484</td></tr><tr><td>4320 min Summer</td><td>2.516</td><td>0.0</td><td>2184</td></tr><tr><td>5760 min Summer</td><td>2.021</td><td>0.0</td><td>2936</td></tr><tr><td>7200 min Summer</td><td>1.706</td><td>0.0</td><td>3648</td></tr><tr><td>8640 min Summer</td><td>1.486</td><td>0.0</td><td>4408</td></tr><tr><td>10080 min Summer</td><td>1.323</td><td>0.0</td><td>5096</td></tr><tr><td>15 min Winter</td><td>125.216</td><td>0.0</td><td>23</td></tr></tbody></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	0.362	0.362	32.4	191.7	O K	30 min Summer	0.466	0.466	35.4	254.1	O K	60 min Summer	0.545	0.545	37.6	302.8	O K	120 min Summer	0.575	0.575	38.4	322.3	O K	180 min Summer	0.569	0.569	38.2	318.0	O K	240 min Summer	0.554	0.554	37.8	308.6	O K	360 min Summer	0.521	0.521	36.9	287.6	O K	480 min Summer	0.485	0.485	35.9	265.4	O K	600 min Summer	0.450	0.450	34.9	243.9	O K	720 min Summer	0.415	0.415	33.9	223.2	O K	960 min Summer	0.351	0.351	32.2	185.8	O K	1440 min Summer	0.245	0.245	29.2	126.1	O K	2160 min Summer	0.133	0.133	26.2	66.6	O K	2880 min Summer	0.068	0.068	24.5	33.2	O K	4320 min Summer	0.041	0.041	19.7	20.0	O K	5760 min Summer	0.033	0.033	15.8	16.1	O K	7200 min Summer	0.028	0.028	13.4	13.6	O K	8640 min Summer	0.025	0.025	11.7	11.9	O K	10080 min Summer	0.022	0.022	10.5	10.7	O K	15 min Winter	0.362	0.362	32.4	191.7	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 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Cotswold Transport Planning					Page 2	
CTP House, Knapp Road Cheltenham Gloucestershire, GL50 3QQ		Mounon Road Chepstow Basin 2				
Date 28/03/2024 10:08 File Basin 2.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	0.467	0.467	35.4	254.6	O K	
60 min Winter	0.548	0.548	37.7	304.6	O K	
120 min Winter	0.575	0.575	38.4	322.1	O K	
180 min Winter	0.561	0.561	38.0	313.2	O K	
240 min Winter	0.537	0.537	37.4	297.9	O K	
360 min Winter	0.483	0.483	35.8	264.2	O K	
480 min Winter	0.428	0.428	34.3	230.9	O K	
600 min Winter	0.376	0.376	32.8	199.8	O K	
720 min Winter	0.326	0.326	31.5	171.5	O K	
960 min Winter	0.240	0.240	29.1	123.2	O K	
1440 min Winter	0.110	0.110	25.6	54.7	O K	
2160 min Winter	0.045	0.045	21.4	21.9	O K	
2880 min Winter	0.036	0.036	17.2	17.5	O K	
4320 min Winter	0.027	0.027	12.7	12.9	O K	
5760 min Winter	0.022	0.022	10.3	10.5	O K	
7200 min Winter	0.018	0.018	8.6	8.8	O K	
8640 min Winter	0.016	0.016	7.6	7.8	O K	
10080 min Winter	0.014	0.014	6.7	6.8	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	100			
180 min Winter	26.880	0.0	138			
240 min Winter	21.831	0.0	176			
360 min Winter	16.267	0.0	250			
480 min Winter	13.176	0.0	320			
600 min Winter	11.178	0.0	388			
720 min Winter	9.765	0.0	454			
960 min Winter	7.881	0.0	578			
1440 min Winter	5.811	0.0	810			
2160 min Winter	4.273	0.0	1104			
2880 min Winter	3.430	0.0	1468			
4320 min Winter	2.516	0.0	2200			
5760 min Winter	2.021	0.0	2920			
7200 min Winter	1.706	0.0	3568			
8640 min Winter	1.486	0.0	4384			
10080 min Winter	1.323	0.0	5136			
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Cotswold Transport Planning			Page 3
CTP House, Knapp Road Cheltenham Gloucestershire, GL50 3QQ		Mounton Road Chepstow Basin 2	
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Source Control 2020.1.3										
<u>Model Details</u> Storage is Online Cover Level (m) 1.000 <u>Infiltration Basin Structure</u> 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><tr><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th></tr><tr><td>0.000</td><td>482.0</td><td>1.000</td><td>775.0</td></tr></table>			Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	0.000	482.0	1.000	775.0
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