

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	Maximum Rainfall (mm/hr)	200.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.750
Ratio-R	0.300	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	x
Time of Entry (mins)	5.00	Enforce best practice design rules	x

D AND CG Manhole Type

Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)
299	1200	599	1500	1199	2100
449	1350	899	1800	1800	2700

>1800 Link+900 mm

SW CIRCULAR Link Type

Shape	Circular	Auto Increment (mm)	75
Barrels	1	Follow Ground	x

Available Diameters (mm)

225	375	525	750	900	1200	1500
300	450	600	825	1050	1350	1800

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.030	5.00	108.922	1350	385245.711	407713.666	1.425
2	0.113	5.00	109.549	1350	385245.042	407689.994	2.205
3	0.089	5.00	109.136	1200	385237.390	407678.796	1.872
4	0.084	5.00	108.171	1350	385225.902	407668.363	1.426
5	0.026	5.00	106.960	1350	385221.260	407650.780	1.428
6	0.021	5.00	105.700	2700	385257.678	407618.932	3.897
7	0.069	5.00	105.315	2700	385235.044	407616.497	3.570
8	0.028	5.00	105.380	2700	385217.456	407619.557	3.683
9	0.041	5.00	105.211	2700	385194.627	407618.052	3.573
10	0.021	5.00	105.794	2700	385164.398	407622.228	4.141
11	0.000	5.00	105.384	2700	385182.086	407619.674	3.778
HB1	0.023	5.00	104.986	2700	385180.871	407611.292	3.402
13	0.000		103.086	1350	385172.256	407602.066	1.586
HW	0.000		102.000		385169.878	407588.399	0.587

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	2	23.681	0.600	107.497	107.344	0.153	154.8	225	5.38	58.8
1.001	2	3	13.563	0.600	107.344	107.264	0.080	169.5	225	5.60	57.9
1.002	3	4	15.518	0.600	107.264	106.745	0.519	29.9	225	5.71	57.8
1.003	4	5	18.185	0.600	106.745	105.532	1.213	15.0	225	5.80	57.4
1.004	5	8	31.455	0.600	105.532	102.972	2.560	12.3	225	5.94	56.4
2.000	6	7	22.765	0.600	101.803	101.745	0.058	392.5	1500	5.18	59.7
2.001	7	8	17.852	0.600	101.745	101.697	0.048	371.9	1500	5.31	59.1
1.005	8	9	22.878	0.600	101.697	101.638	0.059	387.8	1500	6.11	55.7
1.006	9	11	12.646	0.600	101.638	101.606	0.032	395.2	1500	6.21	55.3
3.000	10	11	17.872	0.600	101.653	101.606	0.047	380.3	1500	5.14	59.9
1.007	11	HB1	8.469	0.600	101.606	101.584	0.022	385.0	1500	6.28	55.1
1.008	HB1	13	12.623	0.600	101.584	101.500	0.084	150.3	225	6.48	54.4
1.009	13	HW	13.873	0.600	101.500	101.413	0.087	159.5	225	6.70	53.6

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.048	41.7	4.8	1.200	1.980	0.030	0.0	51	0.703
1.001	1.001	39.8	22.4	1.980	1.647	0.143	0.0	121	1.030
1.002	2.401	95.5	36.3	1.647	1.201	0.232	0.0	96	2.243
1.003	3.396	135.0	49.2	1.201	1.203	0.316	0.0	94	3.133
1.004	3.753	149.2	52.3	1.203	2.183	0.342	0.0	92	3.432
2.000	2.159	3814.5	3.4	2.397	2.070	0.021	0.0	33	0.350
2.001	2.218	3919.3	14.4	2.070	2.183	0.090	0.0	64	0.554
1.005	2.172	3837.9	69.4	2.183	2.073	0.460	0.0	136	0.869
1.006	2.151	3801.4	75.1	2.073	2.278	0.501	0.0	142	0.884
3.000	2.193	3875.8	3.4	2.641	2.278	0.021	0.0	33	0.351
1.007	2.180	3851.9	78.0	2.278	1.902	0.522	0.0	144	0.904
1.008	1.064	42.3	80.4	3.177	1.361	0.545	0.0	225	1.084
1.009	1.033	41.1	79.2	1.361	0.362	0.545	0.0	225	1.052

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	23.681	154.8	225	SW CIRCULAR	108.922	107.497	1.200	109.549	107.344	1.980
1.001	13.563	169.5	225	SW CIRCULAR	109.549	107.344	1.980	109.136	107.264	1.647
1.002	15.518	29.9	225	SW CIRCULAR	109.136	107.264	1.647	108.171	106.745	1.201
1.003	18.185	15.0	225	SW CIRCULAR	108.171	106.745	1.201	106.960	105.532	1.203
1.004	31.455	12.3	225	SW CIRCULAR	106.960	105.532	1.203	105.380	102.972	2.183
2.000	22.765	392.5	1500	SW CIRCULAR	105.700	101.803	2.397	105.315	101.745	2.070
2.001	17.852	371.9	1500	SW CIRCULAR	105.315	101.745	2.070	105.380	101.697	2.183

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1	1350	Manhole	D AND CG	2	1350	Manhole	D AND CG
1.001	2	1350	Manhole	D AND CG	3	1200	Manhole	D AND CG
1.002	3	1200	Manhole	D AND CG	4	1350	Manhole	D AND CG
1.003	4	1350	Manhole	D AND CG	5	1350	Manhole	D AND CG
1.004	5	1350	Manhole	D AND CG	8	2700	Manhole	D AND CG
2.000	6	2700	Manhole	D AND CG	7	2700	Manhole	D AND CG
2.001	7	2700	Manhole	D AND CG	8	2700	Manhole	D AND CG

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.005	22.878	387.8	1500	SW CIRCULAR	105.380	101.697	2.183	105.211	101.638	2.073
1.006	12.646	395.2	1500	SW CIRCULAR	105.211	101.638	2.073	105.384	101.606	2.278
3.000	17.872	380.3	1500	SW CIRCULAR	105.794	101.653	2.641	105.384	101.606	2.278
1.007	8.469	385.0	1500	SW CIRCULAR	105.384	101.606	2.278	104.986	101.584	1.902
1.008	12.623	150.3	225	SW CIRCULAR	104.986	101.584	3.177	103.086	101.500	1.361
1.009	13.873	159.5	225	SW CIRCULAR	103.086	101.500	1.361	102.000	101.413	0.362

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.005	8	2700	Manhole	D AND CG	9	2700	Manhole	D AND CG
1.006	9	2700	Manhole	D AND CG	11	2700	Manhole	D AND CG
3.000	10	2700	Manhole	D AND CG	11	2700	Manhole	D AND CG
1.007	11	2700	Manhole	D AND CG	HB1	2700	Manhole	D AND CG
1.008	HB1	2700	Manhole	D AND CG	13	1350	Manhole	D AND CG
1.009	13	1350	Manhole	D AND CG	HW		Junction	

Simulation Settings

Rainfall Methodology	FSR	Drain Down Time (mins)	2880
FSR Region	England and Wales	Additional Storage (m³/ha)	20.0
M5-60 (mm)	20.000	Check Discharge Rate(s)	✓
Ratio-R	0.300	2 year (l/s)	10.6
Summer CV	0.750	30 year (l/s)	10.6
Winter CV	0.840	100 year (l/s)	10.6
Analysis Speed	Detailed	Check Discharge Volume	x
Skip Steady State	✓		

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	0	0	0
100	40	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.95
Greenfield Method	IH124	Growth Factor 100 year	2.48
Positively Drained Area (ha)		Betterment (%)	0
SAAR (mm)		QBar	
Soil Index	1	Q 1 year (l/s)	
SPR	0.10	Q 30 year (l/s)	
Region	1	Q 100 year (l/s)	
Growth Factor 1 year	0.85		

Node HW Surcharged Outfall

Overrides Design Area	x	Depression Storage Area (m²)	0	Evapo-transpiration (mm/day)	0
Overrides Design Additional Inflow	x	Depression Storage Depth (mm)	0		

Applies to 30yr, 100yr+40% CC 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440 minute storms

Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)
0	0.014	490	0.685	980	0.644	1470	0.000	1960	0.000	2450	0.000
10	0.027	500	0.699	990	0.630	1480	0.000	1970	0.000	2460	0.000
20	0.041	510	0.712	1000	0.616	1490	0.000	1980	0.000	2470	0.000
30	0.055	520	0.726	1010	0.603	1500	0.000	1990	0.000	2480	0.000
40	0.068	530	0.740	1020	0.589	1510	0.000	2000	0.000	2490	0.000
50	0.082	540	0.753	1030	0.575	1520	0.000	2010	0.000	2500	0.000
60	0.096	550	0.767	1040	0.562	1530	0.000	2020	0.000	2510	0.000
70	0.110	560	0.781	1050	0.548	1540	0.000	2030	0.000	2520	0.000
80	0.123	570	0.795	1060	0.534	1550	0.000	2040	0.000	2530	0.000
90	0.137	580	0.808	1070	0.521	1560	0.000	2050	0.000	2540	0.000
100	0.151	590	0.822	1080	0.507	1570	0.000	2060	0.000	2550	0.000
110	0.164	600	0.836	1090	0.493	1580	0.000	2070	0.000	2560	0.000
120	0.178	610	0.849	1100	0.479	1590	0.000	2080	0.000	2570	0.000
130	0.192	620	0.863	1110	0.466	1600	0.000	2090	0.000	2580	0.000
140	0.205	630	0.877	1120	0.452	1610	0.000	2100	0.000	2590	0.000
150	0.219	640	0.890	1130	0.438	1620	0.000	2110	0.000	2600	0.000
160	0.233	650	0.904	1140	0.425	1630	0.000	2120	0.000	2610	0.000
170	0.247	660	0.918	1150	0.411	1640	0.000	2130	0.000	2620	0.000
180	0.260	670	0.932	1160	0.397	1650	0.000	2140	0.000	2630	0.000
190	0.274	680	0.945	1170	0.384	1660	0.000	2150	0.000	2640	0.000
200	0.288	690	0.959	1180	0.370	1670	0.000	2160	0.000	2650	0.000
210	0.301	700	0.973	1190	0.356	1680	0.000	2170	0.000	2660	0.000
220	0.315	710	0.986	1200	0.342	1690	0.000	2180	0.000	2670	0.000
230	0.329	720	1.000	1210	0.329	1700	0.000	2190	0.000	2680	0.000
240	0.342	730	0.986	1220	0.315	1710	0.000	2200	0.000	2690	0.000
250	0.356	740	0.973	1230	0.301	1720	0.000	2210	0.000	2700	0.000
260	0.370	750	0.959	1240	0.288	1730	0.000	2220	0.000	2710	0.000
270	0.384	760	0.945	1250	0.274	1740	0.000	2230	0.000	2720	0.000
280	0.397	770	0.932	1260	0.260	1750	0.000	2240	0.000	2730	0.000
290	0.411	780	0.918	1270	0.247	1760	0.000	2250	0.000	2740	0.000
300	0.425	790	0.904	1280	0.233	1770	0.000	2260	0.000	2750	0.000
310	0.438	800	0.890	1290	0.219	1780	0.000	2270	0.000	2760	0.000
320	0.452	810	0.877	1300	0.205	1790	0.000	2280	0.000	2770	0.000
330	0.466	820	0.863	1310	0.192	1800	0.000	2290	0.000	2780	0.000
340	0.479	830	0.849	1320	0.178	1810	0.000	2300	0.000	2790	0.000
350	0.493	840	0.836	1330	0.164	1820	0.000	2310	0.000	2800	0.000
360	0.507	850	0.822	1340	0.151	1830	0.000	2320	0.000	2810	0.000
370	0.521	860	0.808	1350	0.137	1840	0.000	2330	0.000	2820	0.000
380	0.534	870	0.795	1360	0.123	1850	0.000	2340	0.000	2830	0.000
390	0.548	880	0.781	1370	0.110	1860	0.000	2350	0.000	2840	0.000
400	0.562	890	0.767	1380	0.096	1870	0.000	2360	0.000	2850	0.000
410	0.575	900	0.753	1390	0.082	1880	0.000	2370	0.000	2860	0.000
420	0.589	910	0.740	1400	0.068	1890	0.000	2380	0.000	2870	0.000
430	0.603	920	0.726	1410	0.055	1900	0.000	2390	0.000	2880	0.000
440	0.616	930	0.712	1420	0.041	1910	0.000	2400	0.000		
450	0.630	940	0.699	1430	0.027	1920	0.000	2410	0.000		
460	0.644	950	0.685	1440	0.014	1930	0.000	2420	0.000		
470	0.658	960	0.671	1450	0.000	1940	0.000	2430	0.000		
480	0.671	970	0.658	1460	0.000	1950	0.000	2440	0.000		

Node HB1 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	101.584	Product Number	CTL-SHE-0127-1060-2600-1060
Design Depth (m)	2.600	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	10.6	Min Node Diameter (mm)	1500

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
2 year 15 minute summer	128.797	36.445	30 year 360 minute summer	35.178	9.053
2 year 15 minute winter	90.384	36.445	30 year 360 minute winter	22.867	9.053
2 year 30 minute summer	87.307	24.705	30 year 480 minute summer	27.920	7.379
2 year 30 minute winter	61.268	24.705	30 year 480 minute winter	18.550	7.379
2 year 60 minute summer	61.301	16.200	30 year 600 minute summer	23.001	6.291
2 year 60 minute winter	40.727	16.200	30 year 600 minute winter	15.716	6.291
2 year 120 minute summer	39.487	10.435	30 year 720 minute summer	20.598	5.520
2 year 120 minute winter	26.234	10.435	30 year 720 minute winter	13.843	5.520
2 year 180 minute summer	31.221	8.034	30 year 960 minute summer	17.043	4.488
2 year 180 minute winter	20.295	8.034	30 year 960 minute winter	11.289	4.488
2 year 240 minute summer	25.171	6.652	30 year 1440 minute summer	12.485	3.346
2 year 240 minute winter	16.723	6.652	30 year 1440 minute winter	8.390	3.346
2 year 360 minute summer	19.759	5.085	100 year +40% CC 15 minute summer	441.486	124.925
2 year 360 minute winter	12.844	5.085	100 year +40% CC 15 minute winter	309.815	124.925
2 year 480 minute summer	15.896	4.201	100 year +40% CC 30 minute summer	304.460	86.152
2 year 480 minute winter	10.561	4.201	100 year +40% CC 30 minute winter	213.656	86.152
2 year 600 minute summer	13.242	3.622	100 year +40% CC 60 minute summer	214.603	56.713
2 year 600 minute winter	9.048	3.622	100 year +40% CC 60 minute winter	142.577	56.713
2 year 720 minute summer	11.973	3.209	100 year +40% CC 120 minute summer	135.791	35.885
2 year 720 minute winter	8.047	3.209	100 year +40% CC 120 minute winter	90.216	35.885
2 year 960 minute summer	10.067	2.651	100 year +40% CC 180 minute summer	104.615	26.921
2 year 960 minute winter	6.669	2.651	100 year +40% CC 180 minute winter	68.003	26.921
2 year 1440 minute summer	7.548	2.023	100 year +40% CC 240 minute summer	82.776	21.875
2 year 1440 minute winter	5.073	2.023	100 year +40% CC 240 minute winter	54.994	21.875
30 year 15 minute summer	243.818	68.992	100 year +40% CC 360 minute summer	63.377	16.309
30 year 15 minute winter	171.101	68.992	100 year +40% CC 360 minute winter	41.197	16.309
30 year 30 minute summer	166.387	47.082	100 year +40% CC 480 minute summer	50.006	13.215
30 year 30 minute winter	116.763	47.082	100 year +40% CC 480 minute winter	33.223	13.215
30 year 60 minute summer	116.589	30.811	100 year +40% CC 600 minute summer	40.997	11.214
30 year 60 minute winter	77.459	30.811	100 year +40% CC 600 minute winter	28.011	11.214
30 year 120 minute summer	73.902	19.530	100 year +40% CC 720 minute summer	36.560	9.799
30 year 120 minute winter	49.099	19.530	100 year +40% CC 720 minute winter	24.571	9.799
30 year 180 minute summer	57.313	14.749	100 year +40% CC 960 minute summer	30.041	7.911
30 year 180 minute winter	37.255	14.749	100 year +40% CC 960 minute winter	19.900	7.911
30 year 240 minute summer	45.598	12.050	100 year +40% CC 1440 minute summer	21.775	5.836
30 year 240 minute winter	30.295	12.050	100 year +40% CC 1440 minute winter	14.634	5.836

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.09%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	107.549	0.052	5.0	0.0956	0.0000	OK
15 minute winter	2	10	107.473	0.129	23.6	0.3166	0.0000	OK
15 minute winter	3	10	107.369	0.105	37.8	0.2181	0.0000	OK
15 minute winter	4	10	106.847	0.102	51.3	0.2654	0.0000	OK
15 minute winter	5	11	105.630	0.098	55.2	0.1760	0.0000	OK
120 minute winter	6	94	102.057	0.253	3.1	1.4786	0.0000	OK
120 minute winter	7	94	102.056	0.311	6.4	1.9004	0.0000	OK
120 minute winter	8	94	102.056	0.359	22.5	2.1076	0.0000	OK
120 minute winter	9	92	102.056	0.418	20.2	2.4883	0.0000	OK
120 minute winter	10	92	102.056	0.403	2.6	2.3488	0.0000	OK
120 minute winter	11	92	102.056	0.450	15.5	2.5770	0.0000	OK
120 minute winter	HB1	92	102.056	0.472	10.6	2.7669	0.0000	SURCHARGED
120 minute winter	13	92	101.573	0.073	9.0	0.1044	0.0000	OK
120 minute winter	HW	92	101.484	0.071	9.0	0.0000	0.0000	OK

Link Event (Velocity)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	4.9	0.328	0.117	0.3595	
15 minute winter	2	1.001	3	23.0	1.114	0.578	0.2822	
15 minute winter	3	1.002	4	37.4	2.114	0.392	0.2756	
15 minute winter	4	1.003	5	50.9	3.001	0.377	0.3083	
15 minute winter	5	1.004	8	55.1	3.410	0.369	0.5082	
15 minute winter	6	2.000	7	-13.3	-0.202	-0.003	3.0703	
30 minute summer	7	2.001	8	-13.7	0.204	-0.003	3.6712	
15 minute winter	8	1.005	9	63.0	0.677	0.016	5.5920	
15 minute winter	9	1.006	11	50.7	0.639	0.013	3.8227	
15 minute winter	10	3.000	11	-12.6	-0.246	-0.003	5.2803	
15 minute winter	11	1.007	HB1	16.9	0.358	0.004	2.8567	
120 minute winter	HB1	Hydro-Brake®	13	9.0				
120 minute winter	13	1.009	HW	9.0	0.825	0.220	0.1518	95.5

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.09%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	107.569	0.071	9.4	0.1324	0.0000	OK
15 minute winter	2	11	107.560	0.216	44.7	0.5300	0.0000	OK
15 minute winter	3	10	107.424	0.160	70.7	0.3333	0.0000	OK
15 minute winter	4	10	106.899	0.154	96.4	0.4026	0.0000	OK
15 minute winter	5	11	105.678	0.146	103.9	0.2630	0.0000	OK
1440 minute summer	6	840	102.637	0.834	1.3	4.8655	0.0000	OK
1440 minute summer	7	840	102.637	0.892	3.0	5.4527	0.0000	OK
1440 minute summer	8	840	102.637	0.940	10.0	5.5260	0.0000	OK
1440 minute summer	9	840	102.637	0.999	9.8	5.9497	0.0000	OK
1440 minute summer	10	840	102.637	0.984	1.2	5.7344	0.0000	OK
1440 minute summer	11	840	102.637	1.031	8.7	5.9041	0.0000	OK
1440 minute summer	HB1	840	102.637	1.053	8.9	6.1723	0.0000	SURCHARGED
1440 minute winter	13	720	102.415	0.915	9.0	1.3087	0.0000	SURCHARGED
240 minute winter	HW	420	102.000	0.587	9.6	0.0000	0.0000	OK

Link Event (Velocity)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	9.2	0.360	0.222	0.5900	
15 minute winter	2	1.001	3	43.5	1.269	1.093	0.4700	
15 minute winter	3	1.002	4	70.1	2.382	0.735	0.4596	
15 minute winter	4	1.003	5	95.7	3.402	0.708	0.5114	
15 minute winter	5	1.004	8	103.7	3.937	0.695	0.8283	
15 minute summer	6	2.000	7	-27.2	-0.187	-0.007	7.2361	
30 minute summer	7	2.001	8	-19.3	0.205	-0.005	9.3339	
15 minute winter	8	1.005	9	83.0	0.713	0.022	11.7822	
15 minute winter	9	1.006	11	71.3	0.700	0.019	7.4079	
15 minute summer	10	3.000	11	-17.8	-0.252	-0.005	9.1235	
30 minute summer	11	1.007	HB1	14.1	0.370	0.004	5.9865	
1440 minute summer	HB1	Hydro-Brake®	13	9.0				
15 minute winter	13	1.009	HW	9.1	0.826	0.221	0.5107	75.6

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.09%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	12	108.604	1.107	17.1	2.0495	0.0000	SURCHARGED
15 minute winter	2	12	108.585	1.241	70.4	3.0469	0.0000	SURCHARGED
15 minute winter	3	12	108.326	1.062	108.0	2.2101	0.0000	SURCHARGED
15 minute winter	4	12	107.563	0.818	145.8	2.1353	0.0000	SURCHARGED
15 minute winter	5	13	106.019	0.487	150.8	0.8750	0.0000	SURCHARGED
240 minute winter	6	232	104.120	2.317	7.6	13.5131	0.0000	SURCHARGED
240 minute winter	7	232	104.120	2.375	17.0	14.5135	0.0000	SURCHARGED
240 minute winter	8	232	104.120	2.423	47.3	14.2396	0.0000	SURCHARGED
240 minute winter	9	232	104.119	2.481	34.2	14.7769	0.0000	SURCHARGED
240 minute winter	10	232	104.119	2.466	6.1	14.3716	0.0000	SURCHARGED
240 minute winter	11	232	104.119	2.513	23.9	14.3917	0.0000	SURCHARGED
240 minute winter	HB1	232	104.119	2.535	12.6	14.8599	0.0000	SURCHARGED
600 minute winter	13	720	102.418	0.918	9.1	1.3136	0.0000	SURCHARGED
60 minute summer	HW	419	102.000	0.587	9.1	0.0000	0.0000	OK

Link Event (Velocity)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	20.1	0.505	0.482	0.9418	
15 minute summer	2	1.001	3	62.4	1.569	1.567	0.5394	
15 minute summer	3	1.002	4	101.2	2.545	1.060	0.6172	
30 minute summer	4	1.003	5	134.4	3.568	0.995	0.6975	
15 minute winter	5	1.004	8	143.8	4.095	0.963	1.1411	
30 minute summer	6	2.000	7	-25.2	-0.183	-0.007	23.9649	
60 minute winter	7	2.001	8	-29.1	0.211	-0.007	29.8647	
15 minute winter	8	1.005	9	116.3	0.733	0.030	22.9649	
15 minute winter	9	1.006	11	94.7	0.754	0.025	13.5975	
15 minute summer	10	3.000	11	-18.6	-0.288	-0.005	16.9463	
15 minute summer	11	1.007	HB1	35.0	0.406	0.009	8.4930	
240 minute winter	HB1	Hydro-Brake®	13	10.2				
60 minute summer	13	1.009	HW	9.1	0.826	0.221	0.5517	185.8