

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	19.000	Minimum Backdrop Height (m)	0.650
Ratio-R	0.250	Preferred Cover Depth (m)	1.200
CV	1.000	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.175	5.00	98.348	1350	375152.585	441486.944	1.927
2	0.000		98.430	1350	375136.780	441498.650	2.206
3	0.139	5.00	97.904	1350	375104.162	441507.340	2.018
4	0.104	5.00	96.169	1350	375068.503	441517.424	1.417
5	0.079	5.00	95.595	1350	375057.846	441526.304	1.421
6			95.250	1800	375053.313	441541.555	2.344
8	0.015	5.00	95.000	1800	375052.034	441554.621	2.119
9	0.048	5.00	95.534	1800	375061.610	441557.360	2.678
10	0.000	5.00	95.754	1800	375068.966	441564.220	2.923
11	0.000	5.00	95.769	1800	375072.018	441572.775	2.961
12	0.000		95.807	1800	375073.925	441602.403	3.073
13	0.000		95.717	1800	375077.791	441611.401	3.007
14	0.103	5.00	95.747	2100	375083.542	441616.100	3.056
15	0.174	5.00	97.652	1350	375138.538	441578.532	1.500
16	0.129	5.00	96.647	1350	375126.652	441614.270	1.700
17	0.073	5.00	96.241	1800	375119.676	441628.046	3.645
18	0.132	5.00	99.434	1500	375243.470	441619.678	2.100
19	0.109	5.00	98.991	1500	375222.886	441601.681	1.930
20	0.080	5.00	98.791	1500	375212.291	441613.181	1.886
21			98.519	1500	375204.772	441617.142	1.699
22	0.159	5.00	98.151	1500	375190.039	441618.938	2.000
23	0.141	5.00	96.700	1500	375154.321	441658.811	2.690
24	0.077	5.00	96.405	2100	375145.843	441651.283	3.896
25	0.120	5.00	95.449	1800	375103.444	441699.849	3.101
26	0.059	5.00	95.383	1800	375082.262	441724.737	3.117
27	0.069	5.00	95.040	1800	375086.728	441728.889	2.789
28	0.158	5.00	97.516	1350	375209.415	441683.185	1.500
29	0.109	5.00	96.591	1350	375192.602	441699.519	1.500
30	0.102	5.00	95.670	1350	375163.952	441724.684	1.532
31	0.063	5.00	94.800	2700	375127.586	441766.871	2.688
31_OUT			93.250	1350	375107.326	441785.438	1.320
32	0.034	5.00	93.250	1350	375100.737	441807.482	1.363
33			93.600	2100	375097.946	441817.816	1.820
33_OUT			93.000		375099.128	441840.563	2.287
35	0.000		97.300	1350	375188.122	441690.691	1.695
34	0.000	5.00	97.150	1350	375180.394	441683.011	1.500

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)	Design Flow (l/s)
1.000	1	2	19.668	0.600	96.421	96.224	0.197	100.0	300	5.21	50.0	20.0
1.001	2	3	33.756	0.600	96.224	95.886	0.338	100.0	300	5.57	50.0	
1.002	3	4	37.057	0.600	95.886	94.827	1.059	35.0	300	5.80	49.6	
1.003	4	5	13.872	0.600	94.752	94.174	0.578	24.0	375	5.86	49.4	
1.004	5	6	15.910	0.600	94.174	93.581	0.593	26.8	375	5.94	49.2	
1.005	6	8	13.128	0.600	92.906	92.881	0.025	525.0	750	6.12	48.6	
1.006	8	9	9.960	0.600	92.881	92.856	0.025	398.4	750	6.24	48.3	
1.007	9	10	10.058	0.600	92.856	92.831	0.025	402.3	750	6.36	47.9	
1.008	10	11	9.083	0.600	92.831	92.808	0.023	400.0	750	6.46	47.6	
1.009	11	12	29.689	0.600	92.808	92.734	0.074	400.0	750	6.82	46.6	
1.010	12	13	9.793	0.600	92.734	92.710	0.024	400.0	750	6.94	46.3	
1.011	13	14	7.427	0.600	92.710	92.691	0.019	400.0	750	7.03	46.0	
1.012	14	17	38.057	0.600	92.691	92.596	0.095	400.0	750	7.48	44.9	
2.000	15	16	37.663	0.600	96.152	94.947	1.205	31.2	300	5.22	50.0	
2.001	16	17	15.442	0.600	94.947	94.638	0.309	50.0	300	5.34	50.0	
1.013	17	24	34.995	0.600	92.596	92.509	0.087	400.0	750	7.90	43.8	20.0
3.000	18	19	27.342	0.600	97.334	97.061	0.273	100.0	300	5.29	50.0	
3.001	19	20	15.637	0.600	97.061	96.905	0.156	100.0	300	5.46	50.0	
3.002	20	21	8.499	0.600	96.905	96.820	0.085	100.0	300	5.55	50.0	
3.003	21	22	14.842	0.600	96.820	96.226	0.594	25.0	300	5.62	50.0	
3.004	22	23	53.532	0.600	96.151	94.010	2.141	25.0	375	5.87	49.4	
3.005	23	24	11.338	0.600	94.010	93.443	0.567	20.0	375	5.92	49.3	
1.014	24	25	64.470	0.600	92.509	92.348	0.161	400.0	750	8.67	0.0	
1.015	25	26	32.682	0.600	92.348	92.266	0.082	400.0	750	9.06	41.3	

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	1.572	111.1	31.6	1.627	1.906	0.175	0.0	109	1.361
1.001	1.572	111.1	31.6	1.906	1.718	0.175	0.0	109	1.361
1.002	2.666	188.5	56.3	1.718	1.042	0.314	0.0	112	2.339
1.003	3.711	409.9	74.7	1.042	1.046	0.418	0.0	107	2.843
1.004	3.509	387.6	88.4	1.046	1.294	0.497	0.0	121	2.866
1.005	1.214	536.4	87.3	1.594	1.369	0.497	0.0	203	0.904
1.006	1.396	616.5	89.3	1.369	1.928	0.512	0.0	191	1.007
1.007	1.389	613.5	97.0	1.928	2.173	0.560	0.0	200	1.027
1.008	1.393	615.3	96.3	2.173	2.211	0.560	0.0	199	1.028
1.009	1.393	615.3	94.3	2.211	2.323	0.560	0.0	197	1.022
1.010	1.393	615.3	93.6	2.323	2.257	0.560	0.0	196	1.020
1.011	1.393	615.3	93.2	2.257	2.306	0.560	0.0	195	1.018
1.012	1.393	615.3	107.5	2.306	2.895	0.663	0.0	211	1.060
2.000	2.822	199.5	31.4	1.200	1.400	0.174	0.0	80	2.077
2.001	2.229	157.6	54.8	1.400	1.303	0.303	0.0	122	2.032
1.013	1.393	615.3	164.7	2.895	3.146	1.039	0.0	263	1.188
3.000	1.572	111.1	23.9	1.800	1.630	0.132	0.0	94	1.260
3.001	1.572	111.1	43.5	1.630	1.586	0.241	0.0	130	1.480
3.002	1.572	111.1	58.0	1.586	1.399	0.321	0.0	154	1.588
3.003	3.157	223.1	58.0	1.399	1.625	0.321	0.0	104	2.668
3.004	3.636	401.6	20.0	1.625	2.315	0.480	0.0	56	1.922
3.005	4.067	449.2	110.5	2.315	2.587	0.621	0.0	126	3.392
1.014	1.393	615.3	0.0	3.146	2.351	1.737	0.0	0	0.000
1.015	1.393	615.3	277.3	2.351	2.367	1.857	0.0	353	1.358

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)	Design Flow (l/s)
1.016	26	27	6.098	0.600	92.266	92.251	0.015	400.0	750	9.14	41.2	40.0
1.017	27	31	55.785	0.600	92.251	92.112	0.139	401.3	750	9.80	0.0	
4.000	28	29	23.441	0.600	96.016	95.091	0.925	25.3	300	5.12	50.0	
4.001	29	30	38.133	0.600	95.091	94.138	0.953	40.0	300	5.48	50.0	
4.002	30	31	55.698	0.600	94.138	92.412	1.726	32.3	300	5.82	49.6	
1.018	31	31_OUT	27.481	0.600	92.112	92.000	0.112	245.4	300	10.26	39.1	
6.000	32	33	10.704	0.600	91.887	91.780	0.107	100.0	300	5.11	50.0	
6.001	33	33_OUT	16.000	0.600	91.780	90.713	1.067	15.0	300	5.18	50.0	
7.000	34	35	10.895	0.600	95.650	95.605	0.045	242.1	300	5.18	50.0	
7.001	35	29	9.900	0.600	95.605	95.091	0.514	19.3	300	5.23	50.0	

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)
1.016	1.393	615.3	285.1	2.367	2.039	1.916	0.0	359	1.368
1.017	1.390	614.3	0.0	2.039	1.938	1.985	0.0	0	0.000
4.000	3.135	221.6	28.6	1.200	1.200	0.158	0.0	72	2.183
4.001	2.493	176.2	48.2	1.200	1.232	0.267	0.0	107	2.136
4.002	2.777	196.3	66.1	1.232	2.088	0.369	0.0	120	2.515
1.018	0.999	70.6	40.0	2.388	0.950	2.417	0.0	162	1.030
6.000	1.572	111.1	6.1	1.063	1.520	0.034	0.0	48	0.857
6.001	4.079	288.3	6.1	1.520	1.987	0.034	0.0	30	1.680
7.000	1.006	71.1	0.0	1.200	1.395	0.000	0.0	0	0.000
7.001	3.598	254.4	0.0	1.395	1.200	0.000	0.0	0	0.000

Simulation Settings

Rainfall Methodology	FSR	Skip Steady State	✓
Rainfall Events	Singular	Drain Down Time (mins)	240
FSR Region	England and Wales	Additional Storage (m³/ha)	0.0
M5-60 (mm)	19.000	Starting Level (m)	
Ratio-R	0.250	Check Discharge Rate(s)	x
Summer CV	1.000	Check Discharge Volume	✓
Winter CV	1.000	100 year 360 minute (m³)	
Analysis Speed	Detailed		

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 %)
30	40	10	0
100	40	10	0

Pre-development Discharge Volume

Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	FSR/FEH	Climate Change (%)	0
Positively Drained Area (ha)	2.452	Storm Duration (mins)	360
Soil Index	4	Betterment (%)	0
SPR	0.47	PR	
CWI		Runoff Volume (m³)	

Node 33 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	91.780	Product Number	CTL-SHE-0210-2310-1100-2310
Design Depth (m)	1.100	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	23.1	Min Node Diameter (mm)	1800

Node 31 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	92.112	Product Number	CTL-SHE-0205-2350-1600-2350
Design Depth (m)	1.600	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	23.5	Min Node Diameter (mm)	1800

Node 32 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	17.210
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	91.887	Main Channel Slope (1:X)	400.0
Safety Factor	2.0	Time to half empty (mins)	0	Main Channel n	0.250

Inlets

31_OUT

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	165.0	163.0	1.400	336.0	547.7

Node 31 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	92.112
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	1300.0	0.0	1.600	1300.0	0.0	1.601	0.0	0.0

Node 25 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	92.800
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	255

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	150.0	150.0	1.600	150.0	202.1	1.601	0.0	202.1

Node 12 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	93.300
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	135

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	274.0	215.0	0.800	274.0	277.4	0.801	0.0	277.4

Results for 30 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	96.664	0.243	95.5	0.3476	0.0000	OK
15 minute summer	2	10	96.454	0.230	94.9	0.3286	0.0000	OK
15 minute summer	3	11	96.128	0.242	169.4	0.3458	0.0000	OK
15 minute summer	4	10	94.982	0.230	223.0	0.3293	0.0000	OK
15 minute summer	5	10	94.448	0.274	265.4	0.3923	0.0000	OK
15 minute summer	6	11	93.440	0.534	265.1	1.3586	0.0000	OK
15 minute summer	8	11	93.419	0.538	267.2	1.3695	0.0000	OK
1440 minute summer	9	1050	93.416	0.560	32.5	1.4260	0.0000	OK
1440 minute summer	10	1050	93.416	0.585	32.3	1.4896	0.0000	OK
1440 minute summer	11	1050	93.416	0.608	32.3	1.5481	0.0000	OK
1440 minute summer	12	1050	93.416	0.682	32.2	32.1356	0.0000	OK
1440 minute summer	13	1050	93.416	0.706	31.8	1.7975	0.0000	OK
1440 minute summer	14	1050	93.416	0.725	37.4	2.5124	0.0000	OK
15 minute summer	15	10	96.296	0.144	94.9	0.2061	0.0000	OK
15 minute summer	16	11	95.381	0.434	164.9	0.6212	0.0000	SURCHARGED
1440 minute summer	17	1050	93.416	0.820	57.7	2.0876	0.0000	SURCHARGED
15 minute summer	18	11	97.859	0.525	72.0	0.9281	0.0000	SURCHARGED
15 minute summer	19	11	97.723	0.662	126.5	1.1691	0.0000	SURCHARGED
15 minute summer	20	11	97.426	0.521	168.9	0.9213	0.0000	SURCHARGED
15 minute summer	21	11	97.054	0.234	169.3	0.4140	0.0000	OK
15 minute summer	22	11	96.363	0.212	252.4	0.3752	0.0000	OK
15 minute summer	23	11	94.324	0.314	326.2	0.5544	0.0000	OK
1440 minute summer	24	1080	93.416	0.907	95.7	3.1428	0.0000	SURCHARGED
1440 minute summer	25	1050	93.416	1.068	99.5	90.5844	0.0000	SURCHARGED
1440 minute summer	26	1050	93.416	1.150	89.1	2.9268	0.0000	SURCHARGED

Link Event (Upstream Depth)	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	94.9	1.594	0.854	1.1700	
15 minute summer	2	1.001	3	93.5	1.582	0.842	2.0010	
15 minute summer	3	1.002	4	168.1	2.904	0.892	2.1416	
15 minute summer	4	1.003	5	222.7	2.833	0.543	1.0907	
15 minute summer	5	1.004	6	265.1	3.413	0.684	1.2324	
15 minute summer	6	1.005	8	259.4	0.928	0.484	4.4203	
15 minute summer	8	1.006	9	260.8	0.934	0.423	3.3819	
1440 minute summer	9	1.007	10	32.3	0.657	0.053	3.6287	
1440 minute summer	10	1.008	11	32.3	0.694	0.052	3.4118	
1440 minute summer	11	1.009	12	32.2	0.659	0.052	11.9220	
1440 minute summer	12	1.010	13	31.8	0.611	0.052	4.1648	
1440 minute summer	13	1.011	14	31.4	0.628	0.051	3.2155	
1440 minute summer	14	1.012	17	36.0	0.620	0.058	16.6695	
15 minute summer	15	2.000	16	94.5	1.696	0.474	1.9554	
15 minute summer	16	2.001	17	160.7	2.282	1.020	1.0770	
1440 minute summer	17	1.013	24	55.4	0.667	0.090	15.4020	
15 minute summer	18	3.000	19	69.7	1.072	0.627	1.9254	
15 minute summer	19	3.001	20	127.2	1.806	1.145	1.1011	
15 minute summer	20	3.002	21	169.3	2.463	1.524	0.5501	
15 minute summer	21	3.003	22	169.5	3.156	0.760	0.7943	
15 minute summer	22	3.004	23	252.8	3.061	0.629	4.3590	
15 minute summer	23	3.005	24	327.1	3.798	0.728	0.9672	
1440 minute summer	24	1.014	25	92.5	0.808	0.150	28.3746	
1440 minute summer	25	1.015	26	85.7	0.708	0.139	14.3840	
1440 minute summer	26	1.016	27	88.1	0.718	0.143	2.6839	

Results for 30 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	27	1050	93.416	1.165	92.1	2.9648	0.0000	SURCHARGED
15 minute summer	28	10	96.145	0.129	86.2	0.1840	0.0000	OK
15 minute summer	29	10	95.307	0.216	145.4	0.3091	0.0000	OK
15 minute summer	30	10	94.403	0.265	199.8	0.3792	0.0000	OK
1440 minute summer	31	1080	93.416	1.304	115.9	1617.7590	0.0000	SURCHARGED
1440 minute winter	31_OUT	810	92.169	0.239	23.4	0.3416	0.0000	OK
1440 minute winter	32	810	92.168	0.281	23.7	0.4025	0.0000	OK
1440 minute winter	33	810	92.161	0.381	23.0	1.3208	0.0000	SURCHARGED
15 minute summer	33_OUT	1	91.713	1.000	22.3	0.0000	0.0000	OK
15 minute summer	35	1	95.605	0.000	0.0	0.0000	0.0000	OK
15 minute summer	34	1	95.650	0.000	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	27	1.017	31	90.8	0.979	0.148	24.5521	
15 minute summer	28	4.000	29	86.0	2.054	0.388	0.9744	
15 minute summer	29	4.001	30	144.1	2.399	0.818	2.2911	
15 minute summer	30	4.002	31	198.4	3.095	1.011	3.7950	
1440 minute summer	31	Hydro-Brake®	31_OUT	23.4				
1440 minute winter	31_OUT	Flow through Pond	32	22.5	0.022	0.009	47.0945	
1440 minute winter	32	6.000	33	23.0	0.565	0.207	0.7441	
1440 minute winter	33	6.001	33_OUT	23.0	0.479	0.080	0.6377	1788.0
15 minute summer	35	7.001	29	0.0	0.000	0.000	0.2688	
15 minute summer	34	7.000	35	0.0	0.000	0.000	0.0000	

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.89%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	97.336	0.915	123.0	1.3089	0.0000	SURCHARGED
15 minute summer	2	11	97.045	0.821	115.6	1.1744	0.0000	SURCHARGED
15 minute summer	3	11	96.604	0.718	207.1	1.0281	0.0000	SURCHARGED
15 minute summer	4	11	95.029	0.277	276.0	0.3960	0.0000	OK
15 minute summer	5	11	94.516	0.342	328.9	0.4899	0.0000	OK
960 minute winter	6	915	93.957	1.051	32.1	2.6742	0.0000	SURCHARGED
960 minute winter	8	915	93.957	1.076	32.7	2.7378	0.0000	SURCHARGED
960 minute winter	9	915	93.957	1.101	35.1	2.8014	0.0000	SURCHARGED
960 minute winter	10	915	93.957	1.126	34.8	2.8650	0.0000	SURCHARGED
960 minute winter	11	915	93.957	1.149	34.3	2.9236	0.0000	SURCHARGED
960 minute winter	12	915	93.957	1.223	33.4	174.1917	0.0000	SURCHARGED
960 minute winter	13	915	93.957	1.247	32.5	3.1729	0.0000	SURCHARGED
960 minute winter	14	915	93.957	1.266	38.2	4.3845	0.0000	SURCHARGED
15 minute summer	15	10	96.351	0.199	122.3	0.2841	0.0000	OK
15 minute summer	16	11	95.689	0.742	210.9	1.0616	0.0000	SURCHARGED
960 minute winter	17	915	93.957	1.361	59.9	3.4630	0.0000	SURCHARGED
15 minute summer	18	11	98.489	1.155	92.7	2.0400	0.0000	SURCHARGED
15 minute summer	19	11	98.275	1.214	162.7	2.1447	0.0000	SURCHARGED
15 minute summer	20	11	97.814	0.909	212.1	1.6063	0.0000	SURCHARGED
15 minute summer	21	11	97.267	0.447	210.5	0.7906	0.0000	SURCHARGED
15 minute summer	22	11	96.408	0.257	315.2	0.4550	0.0000	OK
15 minute summer	23	11	94.614	0.604	409.3	1.0673	0.0000	SURCHARGED
960 minute winter	24	915	93.957	1.448	102.0	5.0147	0.0000	SURCHARGED
960 minute winter	25	915	93.956	1.608	106.7	168.9652	0.0000	SURCHARGED
960 minute winter	26	915	93.956	1.690	97.2	4.3020	0.0000	SURCHARGED

Link Event (Upstream Depth)	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	115.6	1.642	1.040	1.3850	
15 minute summer	2	1.001	3	113.9	1.618	1.025	2.3771	
15 minute summer	3	1.002	4	206.1	2.928	1.094	2.6094	
15 minute summer	4	1.003	5	275.8	2.876	0.673	1.3370	
15 minute summer	5	1.004	6	328.3	3.487	0.847	1.4876	
960 minute winter	6	1.005	8	31.7	0.597	0.059	5.7779	
960 minute winter	8	1.006	9	32.1	0.608	0.052	4.3836	
960 minute winter	9	1.007	10	34.8	0.662	0.057	4.4267	
960 minute winter	10	1.008	11	34.3	0.696	0.056	3.9976	
960 minute winter	11	1.009	12	33.4	0.666	0.054	13.0667	
960 minute winter	12	1.010	13	32.5	0.628	0.053	4.3101	
960 minute winter	13	1.011	14	31.9	0.649	0.052	3.2688	
960 minute winter	14	1.012	17	36.8	0.626	0.060	16.7497	
15 minute summer	15	2.000	16	120.3	1.830	0.603	2.2578	
15 minute summer	16	2.001	17	207.6	2.948	1.317	1.0764	
960 minute winter	17	1.013	24	57.5	0.691	0.093	15.4020	
15 minute summer	18	3.000	19	86.9	1.234	0.782	1.9254	
15 minute summer	19	3.001	20	158.3	2.249	1.425	1.1011	
15 minute summer	20	3.002	21	210.5	2.990	1.895	0.5985	
15 minute summer	21	3.003	22	208.5	3.258	0.934	0.9459	
15 minute summer	22	3.004	23	314.7	3.043	0.784	5.1114	
15 minute summer	23	3.005	24	407.1	3.863	0.906	1.1142	
960 minute winter	24	1.014	25	98.9	0.831	0.161	28.3746	
960 minute winter	25	1.015	26	93.4	0.741	0.152	14.3840	
960 minute winter	26	1.016	27	97.0	0.773	0.158	2.6839	

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.89%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	27	915	93.956	1.705	101.5	4.3400	0.0000	SURCHARGED
30 minute summer	28	19	96.220	0.204	108.5	0.2925	0.0000	OK
15 minute summer	29	12	96.022	0.931	185.6	1.3321	0.0000	SURCHARGED
30 minute summer	30	19	95.089	0.951	220.3	1.3605	0.0000	SURCHARGED
960 minute winter	31	915	93.956	1.844	129.2	1987.1770	0.0000	SURCHARGED
960 minute winter	31_OUT	990	92.277	0.347	24.2	0.4959	0.0000	OK
960 minute winter	32	990	92.276	0.389	23.9	0.5572	0.0000	SURCHARGED
960 minute winter	33	990	92.269	0.489	23.1	1.6934	0.0000	SURCHARGED
15 minute summer	33_OUT	1	91.713	1.000	22.6	0.0000	0.0000	OK
15 minute summer	35	12	96.037	0.432	32.1	0.6175	0.0000	SURCHARGED
15 minute summer	34	12	96.022	0.372	5.4	0.5323	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	27	1.017	31	101.2	1.081	0.165	24.5521	
30 minute summer	28	4.000	29	107.1	2.081	0.483	1.4246	
15 minute summer	29	4.001	30	163.0	2.424	0.925	2.6853	
30 minute summer	30	4.002	31	219.0	3.110	1.116	3.9211	
960 minute winter	31	Hydro-Brake®	31_OUT	24.2				
960 minute winter	31_OUT	Flow through Pond	32	23.5	0.022	0.009	69.0463	
960 minute winter	32	6.000	33	23.1	0.475	0.208	0.7538	
960 minute winter	33	6.001	33_OUT	23.1	0.480	0.080	0.6378	1391.6
15 minute summer	35	7.001	29	43.0	0.688	0.169	0.6972	
15 minute summer	34	7.000	35	15.3	0.433	0.215	0.7672	