

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	100	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)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.300	Preferred Cover Depth (m)	1.200
CV	0.750	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	0.005	5.00	73.655	1350	498585.007	885444.337	1.575
2	0.005	5.00	73.330	1350	498581.177	885458.315	1.494
3			73.027	1350	498580.555	885469.496	1.380

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)
25.000	1	2	14.493	0.600	72.080	71.836	0.244	59.4	375	5.10	50.0
25.001	2	3	11.198	0.600	71.836	71.647	0.189	59.3	375	5.18	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)
25.000	2.354	260.0	0.7	1.200	1.119	0.005	0.0	14	0.513
25.001	2.357	260.4	1.4	1.119	1.005	0.010	0.0	19	0.632

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)
25.000	14.493	59.4	375	Circular_Default Sewer Type	73.655	72.080	1.200	73.330	71.836	1.119
25.001	11.198	59.3	375	Circular_Default Sewer Type	73.330	71.836	1.119	73.027	71.647	1.005

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
25.000	1	1350	Manhole	Adoptable	2	1350	Manhole	Adoptable
25.001	2	1350	Manhole	Adoptable	3	1350	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
1	498585.007	885444.337	73.655	1.575	1350				
						0	25.000	72.080	375
2	498581.177	885458.315	73.330	1.494	1350		1	25.000	71.836
						0	25.001	71.836	375

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
3	498580.555	885469.496	73.027	1.380	1350	1	25.001	71.647	375



Simulation Settings

Rainfall Methodology	FSR	Drain Down Time (mins)	240
FSR Region	England and Wales	Additional Storage (m³/ha)	20.0
M5-60 (mm)	20.000	Check Discharge Rate(s)	✓
Ratio-R	0.300	1 year (l/s)	
Summer CV	0.750	30 year (l/s)	
Winter CV	0.840	100 year (l/s)	
Analysis Speed	Normal	Check Discharge Volume	✓
Skip Steady State	✓	100 year 360 minute (m³)	

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 %)
100	40	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 years	1.95
Greenfield Method	IH124	Growth Factor 100 years	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		

Pre-development Discharge Volume

Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	FSR/FEH	Climate Change (%)	0
Positively Drained Area (ha)		Storm Duration (mins)	360
Soil Index	1	Betterment (%)	0
SPR	0.10	PR	
CWI		Runoff Volume (m³)	

Node 3 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	71.647	Product Number	CTL-SHE-0031-5000-1200-5000
Design Depth (m)	1.200	Min Outlet Diameter (m)	0.075
Design Flow (l/s)	0.5	Min Node Diameter (mm)	1200

Approval Settings

Node Size	✓	Proportional Velocity	✓
Node Losses	✓	Return Period (years)	100
Link Size	✓	Minimum Proportional Velocity (m/s)	0.750
Minimum Diameter (mm)	150	Maximum Proportional Velocity (m/s)	3.000
Link Length	✓	Surcharged Depth	✓
Maximum Length (m)	100.000	Return Period (years)	100
Coordinates	✓	Maximum Surcharged Depth (m)	0.100
Accuracy (m)	1.000	Flooding	✓
Crossings	✓	Return Period (years)	30
Cover Depth	✓	Time to Half Empty	✓
Minimum Cover Depth (m)	1.200	Return Period (years)	100
Maximum Cover Depth (m)	3.000	Discharge Rates	✓
Backdrops	✓	1 year (l/s)	
Minimum Backdrop Height (m)	0.200	30 year (l/s)	
Maximum Backdrop Height (m)	1.500	100 year (l/s)	
Full Bore Velocity	✓	Discharge Volume	✓
Minimum Full Bore Velocity (m/s)	1.000	100 year 360 minute (m³)	
Maximum Full Bore Velocity (m/s)	3.000		

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 15 minute summer	441.486	124.925	100 year +40% CC 360 minute summer	63.377	16.309
100 year +40% CC 15 minute winter	309.815	124.925	100 year +40% CC 360 minute winter	41.197	16.309
100 year +40% CC 30 minute summer	304.460	86.152	100 year +40% CC 480 minute summer	50.006	13.215
100 year +40% CC 30 minute winter	213.656	86.152	100 year +40% CC 480 minute winter	33.223	13.215
100 year +40% CC 60 minute summer	214.603	56.713	100 year +40% CC 600 minute summer	40.997	11.214
100 year +40% CC 60 minute winter	142.577	56.713	100 year +40% CC 600 minute winter	28.011	11.214
100 year +40% CC 120 minute summer	135.791	35.885	100 year +40% CC 720 minute summer	36.560	9.799
100 year +40% CC 120 minute winter	90.216	35.885	100 year +40% CC 720 minute winter	24.571	9.799
100 year +40% CC 180 minute summer	104.615	26.921	100 year +40% CC 960 minute summer	30.041	7.911
100 year +40% CC 180 minute winter	68.003	26.921	100 year +40% CC 960 minute winter	19.900	7.911
100 year +40% CC 240 minute summer	82.776	21.875	100 year +40% CC 1440 minute summer	21.775	5.836
100 year +40% CC 240 minute winter	54.994	21.875	100 year +40% CC 1440 minute winter	14.634	5.836

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.04%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	1	116	72.218	0.138	1.0	0.2061	0.0000	OK
120 minute winter	2	116	72.218	0.382	2.1	0.5720	0.0000	SURCHARGED
120 minute winter	3	116	72.218	0.571	1.8	0.8169	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)
120 minute winter	1	25.000	2	1.0	0.381	0.004	1.0652	
120 minute winter	2	25.001	3	1.8	0.371	0.007	1.2351	
120 minute winter	3	Hydro-Brake®		0.4				6.1

Results for 100 year +40% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	72.107	0.027	2.7	0.0401	0.0000	OK
15 minute summer	2	19	72.013	0.177	7.4	0.2658	0.0000	OK
15 minute summer	3	18	72.016	0.369	6.6	0.5281	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	25.000	2	2.7	0.588	0.010	0.3753	
15 minute summer	2	25.001	3	6.6	0.522	0.025	0.9021	
15 minute summer	3	Hydro-Brake®		0.3				2.3

Results for 100 year +40% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	72.107	0.027	2.8	0.0408	0.0000	OK
15 minute winter	2	19	72.046	0.210	5.6	0.3148	0.0000	OK
15 minute winter	3	18	72.047	0.400	5.4	0.5720	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	25.000	2	2.8	0.596	0.011	0.4642	
15 minute winter	2	25.001	3	5.4	0.522	0.021	0.9733	
15 minute winter	3	Hydro-Brake®		0.3				2.6

Results for 100 year +40% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	18	72.106	0.026	2.6	0.0396	0.0000	OK
30 minute summer	2	33	72.092	0.256	6.8	0.3829	0.0000	OK
30 minute summer	3	32	72.092	0.445	5.4	0.6363	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	25.000	2	2.6	0.533	0.010	0.5866	
30 minute summer	2	25.001	3	5.4	0.471	0.021	1.0656	
30 minute summer	3	Hydro-Brake®		0.3				3.2

Results for 100 year +40% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	32	72.131	0.051	2.3	0.0764	0.0000	OK
30 minute winter	2	32	72.131	0.295	6.6	0.4421	0.0000	OK
30 minute winter	3	32	72.131	0.484	4.8	0.6928	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	1	25.000	2	2.3	0.520	0.009	0.7394	
30 minute winter	2	25.001	3	4.8	0.506	0.018	1.1386	
30 minute winter	3	Hydro-Brake®		0.3				3.7

Results for 100 year +40% CC 60 minute summer. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	61	72.136	0.056	2.0	0.0830	0.0000	OK
60 minute summer	2	61	72.136	0.300	4.6	0.4497	0.0000	OK
60 minute summer	3	61	72.136	0.489	3.6	0.7002	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	1	25.000	2	2.0	0.449	0.008	0.7589	
60 minute summer	2	25.001	3	3.6	0.429	0.014	1.1472	
60 minute summer	3	Hydro-Brake®		0.3				4.2

Results for 100 year +40% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	1	59	72.188	0.108	1.6	0.1611	0.0000	OK
60 minute winter	2	60	72.188	0.352	3.5	0.5273	0.0000	OK
60 minute winter	3	60	72.188	0.541	3.1	0.7743	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	1	25.000	2	1.6	0.424	0.006	0.9670	
60 minute winter	2	25.001	3	3.1	0.429	0.012	1.2192	
60 minute winter	3	Hydro-Brake®		0.4				4.8

Results for 100 year +40% CC 120 minute summer. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	1	104	72.160	0.080	1.4	0.1201	0.0000	OK
120 minute summer	2	104	72.160	0.324	2.8	0.4860	0.0000	OK
120 minute summer	3	104	72.160	0.513	1.8	0.7347	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	1	25.000	2	1.4	0.399	0.005	0.8595	
120 minute summer	2	25.001	3	1.8	0.371	0.007	1.1850	
120 minute summer	3	Hydro-Brake®		0.3				5.4

Results for 100 year +40% CC 120 minute winter. 360 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	1	116	72.218	0.138	1.0	0.2061	0.0000	OK
120 minute winter	2	116	72.218	0.382	2.1	0.5720	0.0000	SURCHARGED
120 minute winter	3	116	72.218	0.571	1.8	0.8169	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	1	25.000	2	1.0	0.381	0.004	1.0652	
120 minute winter	2	25.001	3	1.8	0.371	0.007	1.2351	
120 minute winter	3	Hydro-Brake®		0.4				6.1

Results for 100 year +40% CC 180 minute summer. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	1	136	72.158	0.078	1.0	0.1172	0.0000	OK
180 minute summer	2	136	72.158	0.322	2.2	0.4830	0.0000	OK
180 minute summer	3	136	72.158	0.511	1.2	0.7319	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	1	25.000	2	1.0	0.382	0.004	0.8516	
180 minute summer	2	25.001	3	1.2	0.357	0.004	1.1822	
180 minute summer	3	Hydro-Brake®		0.3				6.0

Results for 100 year +40% CC 180 minute winter. 420 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	1	148	72.207	0.127	0.8	0.1899	0.0000	OK
180 minute winter	2	148	72.207	0.371	1.6	0.5559	0.0000	OK
180 minute winter	3	148	72.207	0.560	0.9	0.8015	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	1	25.000	2	0.8	0.353	0.003	1.0356	
180 minute winter	2	25.001	3	0.9	0.357	0.003	1.2339	
180 minute winter	3	Hydro-Brake®		0.4				6.7

Results for 100 year +40% CC 240 minute summer. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	1	172	72.143	0.063	0.9	0.0937	0.0000	OK
240 minute summer	2	172	72.143	0.307	1.8	0.4596	0.0000	OK
240 minute summer	3	172	72.143	0.496	0.8	0.7095	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	1	25.000	2	0.9	0.353	0.003	0.7871	
240 minute summer	2	25.001	3	0.8	0.357	0.003	1.1581	
240 minute summer	3	Hydro-Brake®		0.3				6.6

Results for 100 year +40% CC 240 minute winter. 480 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	1	184	72.176	0.096	0.6	0.1432	0.0000	OK
240 minute winter	2	184	72.176	0.340	1.2	0.5090	0.0000	OK
240 minute winter	3	184	72.176	0.529	0.8	0.7567	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	1	25.000	2	0.6	0.336	0.002	0.9217	
240 minute winter	2	25.001	3	0.8	0.357	0.003	1.2056	
240 minute winter	3	Hydro-Brake®		0.4				7.1

Results for 100 year +40% CC 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 99.35%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	1	240	72.131	0.051	0.7	0.0756	0.0000	OK
360 minute summer	2	240	72.131	0.295	1.4	0.4414	0.0000	OK
360 minute summer	3	240	72.131	0.484	0.9	0.6921	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	1	25.000	2	0.7	0.336	0.003	0.7372	
360 minute summer	2	25.001	3	0.9	0.133	0.004	1.1377	
360 minute summer	3	Hydro-Brake®		0.3				8.1

Results for 100 year +40% CC 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 99.56%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	1	256	72.146	0.066	0.5	0.0983	0.0000	OK
360 minute winter	2	256	72.146	0.310	1.0	0.4639	0.0000	OK
360 minute winter	3	256	72.146	0.499	0.7	0.7136	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	1	25.000	2	0.5	0.332	0.002	0.7992	
360 minute winter	2	25.001	3	0.7	0.248	0.003	1.1626	
360 minute winter	3	Hydro-Brake®		0.3				8.1

Results for 100 year +40% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	1	304	72.095	0.015	0.5	0.0224	0.0000	OK
480 minute summer	2	304	72.095	0.259	1.0	0.3880	0.0000	OK
480 minute summer	3	304	72.095	0.448	0.8	0.6411	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	1	25.000	2	0.5	0.332	0.002	0.5987	
480 minute summer	2	25.001	3	0.8	0.248	0.003	1.0721	
480 minute summer	3	Hydro-Brake®		0.3				8.2

Results for 100 year +40% CC 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 99.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	1	336	72.123	0.043	0.4	0.0645	0.0000	OK
480 minute winter	2	336	72.123	0.287	0.8	0.4303	0.0000	OK
480 minute winter	3	336	72.123	0.476	0.6	0.6815	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	1	25.000	2	0.4	0.308	0.002	0.7072	
480 minute winter	2	25.001	3	0.6	0.248	0.002	1.1248	
480 minute winter	3	Hydro-Brake®		0.3				9.3

Results for 100 year +40% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 99.33%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	1	315	72.091	0.011	0.4	0.0168	0.0000	OK
600 minute summer	2	375	72.056	0.220	0.8	0.3295	0.0000	OK
600 minute summer	3	375	72.056	0.409	0.6	0.5852	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	1	25.000	2	0.4	0.307	0.002	0.4907	
600 minute summer	2	25.001	3	0.6	0.138	0.002	0.9935	
600 minute summer	3	Hydro-Brake®		0.3				7.9

Results for 100 year +40% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 99.24%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	1	405	72.094	0.014	0.3	0.0207	0.0000	OK
600 minute winter	2	405	72.094	0.258	0.6	0.3862	0.0000	OK
600 minute winter	3	405	72.094	0.447	0.6	0.6394	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	1	25.000	2	0.3	0.307	0.001	0.5946	
600 minute winter	2	25.001	3	0.6	0.138	0.002	1.0699	
600 minute winter	3	Hydro-Brake®		0.3				10.4

Results for 100 year +40% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 99.33%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	1	375	72.091	0.011	0.4	0.0168	0.0000	OK
720 minute summer	2	435	72.056	0.220	0.8	0.3295	0.0000	OK
720 minute summer	3	435	72.056	0.409	0.6	0.5852	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	1	25.000	2	0.4	0.307	0.002	0.4907	
720 minute summer	2	25.001	3	0.6	0.138	0.002	0.9935	
720 minute summer	3	Hydro-Brake®		0.3				7.9

Results for 100 year +40% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 99.15%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
720 minute winter	1	345	72.090	0.010	0.3	0.0148	0.0000	OK
720 minute winter	2	465	72.055	0.219	0.6	0.3286	0.0000	OK
720 minute winter	3	465	72.055	0.408	0.6	0.5844	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m ³)	Discharge Vol (m ³)
720 minute winter	1	25.000	2	0.3	0.307	0.001	0.4892	
720 minute winter	2	25.001	3	0.6	0.138	0.002	0.9923	
720 minute winter	3	Hydro-Brake®		0.3				10.3

Results for 100 year +40% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 99.33%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	1	480	72.090	0.010	0.3	0.0148	0.0000	OK
960 minute summer	2	585	71.999	0.163	0.6	0.2437	0.0000	OK
960 minute summer	3	585	71.999	0.352	0.6	0.5032	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	1	25.000	2	0.3	0.307	0.001	0.3346	
960 minute summer	2	25.001	3	0.6	0.138	0.002	0.8578	
960 minute summer	3	Hydro-Brake®		0.3				7.9

Results for 100 year +40% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 99.31%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
960 minute winter	1	390	72.088	0.008	0.2	0.0125	0.0000	OK
960 minute winter	2	615	71.962	0.126	0.4	0.1883	0.0000	OK
960 minute winter	3	615	71.962	0.315	0.4	0.4504	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m ³)	Discharge Vol (m ³)
960 minute winter	1	25.000	2	0.2	0.272	0.001	0.2372	
960 minute winter	2	25.001	3	0.4	0.138	0.002	0.7343	
960 minute winter	3	Hydro-Brake®		0.3				8.9

Results for 100 year +40% CC 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 99.19%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
1440 minute summer	1	690	72.088	0.008	0.2	0.0125	0.0000	OK
1440 minute summer	2	840	71.906	0.070	0.4	0.1048	0.0000	OK
1440 minute summer	3	840	71.906	0.259	0.4	0.3705	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m ³)	Discharge Vol (m ³)
1440 minute summer	1	25.000	2	0.2	0.272	0.001	0.1052	
1440 minute summer	2	25.001	3	0.4	0.101	0.002	0.5337	
1440 minute summer	3	Hydro-Brake®		0.3				7.8

Results for 100 year +40% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 99.04%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	1	690	72.088	0.008	0.2	0.0125	0.0000	OK
1440 minute winter	2	840	71.906	0.070	0.4	0.1048	0.0000	OK
1440 minute winter	3	840	71.906	0.259	0.4	0.3705	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	1	25.000	2	0.2	0.272	0.001	0.1052	
1440 minute winter	2	25.001	3	0.4	0.101	0.002	0.5337	
1440 minute winter	3	Hydro-Brake®		0.3				10.0