



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)	20.000	Minimum Backdrop Height (m)	1.000
Ratio-R	0.400	Preferred Cover Depth (m)	0.900
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Adoptable Manhole Type

Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)
374	1200	499	1350	749	1500	900	1800

>900 Link+900 mm

Max Depth (m)	Diameter (mm)	Max Depth (m)	Diameter (mm)
1.500	1050	99.999	1200

Circular Default Sewer Type Link Type

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

Available Diameters (mm)
100 | 150

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.062	5.00	14.867	1200	344705.004	386295.739	1.420
2	0.039	5.00	14.951	1200	344733.146	386273.611	1.721
3			14.899	1200	344737.101	386270.548	1.699

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	35.800	0.600	13.447	13.230	0.217	165.0	225	5.59	50.0
1.001	2	3	5.002	0.600	13.230	13.200	0.030	165.0	225	5.67	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)
1.000	1.015	40.4	8.4	1.195	1.496	0.062	0.0	70	0.807
1.001	1.015	40.4	13.7	1.496	1.474	0.101	0.0	90	0.919

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	35.800	165.0	225	Circular_Default Sewer Type	14.867	13.447	1.195	14.951	13.230	1.496
1.001	5.002	165.0	225	Circular_Default Sewer Type	14.951	13.230	1.496	14.899	13.200	1.474

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1	1200	Manhole	Adoptable	2	1200	Manhole	Adoptable
1.001	2	1200	Manhole	Adoptable	3	1200	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
1	344705.004	386295.739	14.867	1.420	1200		0	1.000	13.447	225
2	344733.146	386273.611	14.951	1.721	1200		1	1.000	13.230	225
3	344737.101	386270.548	14.899	1.699	1200		0	1.001	13.230	225
							1	1.001	13.200	225

Node 2 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	13.230	Product Number	CTL-SHE-0100-5000-1402-5000
Design Depth (m)	1.402	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	13.447
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	0

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	53.0	0.0	0.520	53.0	0.0	0.521	0.0	0.0

Other (defaults)

Entry Loss (manhole)	0.250	Entry Loss (junction)	0.000	Apply Recommended Losses	x
Exit Loss (manhole)	0.250	Exit Loss (junction)	0.000	Flood Risk (m)	0.300

Approval Settings

Node Size	✓	Backdrops	✓	Maximum Surcharged Depth (m)	0.100
Node Losses	✓	Minimum Backdrop Height (m)	1.000	Flooding	✓
Link Size	✓	Maximum Backdrop Height (m)	1.500	Return Period (years)	30
Minimum Diameter (mm)	150	Full Bore Velocity	✓	Time to Half Empty	✓
Link Length	✓	Minimum Full Bore Velocity (m/s)	1.000	Return Period (years)	2
Maximum Length (m)	100.000	Maximum Full Bore Velocity (m/s)	3.000	Discharge Rates	✓
Coordinates	✓	Proportional Velocity	✓	1 year (l/s)	5.0
Accuracy (m)	1.000	Return Period (years)	2	2 year (l/s)	5.0
Crossings	✓	Minimum Proportional Velocity (m/s)	0.750	30 year (l/s)	5.0
Cover Depth	✓	Maximum Proportional Velocity (m/s)	3.000	100 year (l/s)	5.0
Minimum Cover Depth (m)	0.900	Surcharged Depth	✓	Discharge Volume	x
Maximum Cover Depth (m)	3.000	Return Period (years)	2		

Approval Results

The network has been designed for a 1 in 2 year storm using FSR rainfall
It contains 3 nodes (1 outfall) and 2 links
The total impermeable area is 0.101 ha
1 online control has been defined
1 structure has been defined, providing 28m³ of storage below the flood risk level
Infiltration has not been utilised
Simulations have been completed using FSR summer and winter storms from 15 to 1440 minute duration

No manholes are smaller than that required by the library

No connections have combined exit and entry losses less than the recommended total

No circular links have diameters < 150mm

No links have lengths > 100.000m

No links have lengths that differ from their coordinated length by more than 1.000m

No links cross one or more other links

No links have cover depth outside the range 0.900-3.000m

No nodes have backdrops outside the range 1.000-1.500m

No links have full bore velocity outside the range 1.000-3.000m/s

1 link has peak proportional velocity outside the range 0.750-3.000m/s during the 2 year return period

US Node	DS Node	Link	Velocity (m/s)	Event
1	2	1.000	0.222	2 year 60 minute summer

No links have a surcharged depth greater than 0.100m during the 2 year return period

No nodes flood during the 30 year return period

No infiltrating structures failed to half empty in 1440 minutes during the 2 year return period

No outfalls have a discharge rate greater than 5.0l/s during the 1 year return period

No outfalls have a discharge rate greater than 5.0l/s during the 2 year return period

No outfalls have a discharge rate greater than 5.0l/s during the 30 year return period

No outfalls have a discharge rate greater than 5.0l/s during the 100 year return period

The discharge volume test has not been completed

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	109.521	30.991	2 year 180 minute summer	28.672	7.378
1 year 15 minute winter	76.857	30.991	2 year 180 minute winter	18.637	7.378
1 year 30 minute summer	71.439	20.215	2 year 240 minute summer	22.636	5.982
1 year 30 minute winter	50.133	20.215	2 year 240 minute winter	15.039	5.982
1 year 60 minute summer	48.435	12.800	2 year 360 minute summer	17.235	4.435
1 year 60 minute winter	32.179	12.800	2 year 360 minute winter	11.203	4.435
1 year 120 minute summer	30.053	7.942	2 year 480 minute summer	13.550	3.581
1 year 120 minute winter	19.966	7.942	2 year 480 minute winter	9.003	3.581
1 year 180 minute summer	23.233	5.979	2 year 600 minute summer	11.088	3.033
1 year 180 minute winter	15.102	5.979	2 year 600 minute winter	7.576	3.033
1 year 240 minute summer	18.475	4.882	2 year 720 minute summer	9.878	2.647
1 year 240 minute winter	12.274	4.882	2 year 720 minute winter	6.639	2.647
1 year 360 minute summer	14.169	3.646	2 year 960 minute summer	8.113	2.136
1 year 360 minute winter	9.210	3.646	2 year 960 minute winter	5.374	2.136
1 year 480 minute summer	11.185	2.956	2 year 1440 minute summer	5.891	1.579
1 year 480 minute winter	7.431	2.956	2 year 1440 minute winter	3.959	1.579
1 year 600 minute summer	9.182	2.511	30 year 15 minute summer	268.706	76.035
1 year 600 minute winter	6.274	2.511	30 year 15 minute winter	188.566	76.035
1 year 720 minute summer	8.203	2.199	30 year 30 minute summer	174.929	49.499
1 year 720 minute winter	5.513	2.199	30 year 30 minute winter	122.757	49.499
1 year 960 minute summer	6.768	1.782	30 year 60 minute summer	116.589	30.811
1 year 960 minute winter	4.483	1.782	30 year 60 minute winter	77.459	30.811
1 year 1440 minute summer	4.949	1.326	30 year 120 minute summer	70.438	18.615
1 year 1440 minute winter	3.326	1.326	30 year 120 minute winter	46.797	18.615
2 year 15 minute summer	141.566	40.058	30 year 180 minute summer	53.298	13.715
2 year 15 minute winter	99.345	40.058	30 year 180 minute winter	34.645	13.715
2 year 30 minute summer	91.753	25.963	30 year 240 minute summer	41.604	10.995
2 year 30 minute winter	64.388	25.963	30 year 240 minute winter	27.641	10.995
2 year 60 minute summer	61.301	16.200	30 year 360 minute summer	31.221	8.034
2 year 60 minute winter	40.727	16.200	30 year 360 minute winter	20.295	8.034
2 year 120 minute summer	37.449	9.897	30 year 480 minute summer	24.324	6.428
2 year 120 minute winter	24.880	9.897	30 year 480 minute winter	16.160	6.428

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 600 minute summer	19.756	5.404	100 year +40% CC 180 minute summer	97.729	25.149
30 year 600 minute winter	13.498	5.404	100 year +40% CC 180 minute winter	63.526	25.149
30 year 720 minute summer	17.490	4.687	100 year +40% CC 240 minute summer	75.977	20.078
30 year 720 minute winter	11.754	4.687	100 year +40% CC 240 minute winter	50.477	20.078
30 year 960 minute summer	14.215	3.743	100 year +40% CC 360 minute summer	56.677	14.585
30 year 960 minute winter	9.416	3.743	100 year +40% CC 360 minute winter	36.841	14.585
30 year 1440 minute summer	10.161	2.723	100 year +40% CC 480 minute summer	43.979	11.622
30 year 1440 minute winter	6.829	2.723	100 year +40% CC 480 minute winter	29.219	11.622
100 year +40% CC 15 minute summer	488.233	138.153	100 year +40% CC 600 minute summer	35.604	9.738
100 year +40% CC 15 minute winter	342.620	138.153	100 year +40% CC 600 minute winter	24.327	9.738
100 year +40% CC 30 minute summer	320.551	90.705	100 year +40% CC 720 minute summer	31.433	8.424
100 year +40% CC 30 minute winter	224.948	90.705	100 year +40% CC 720 minute winter	21.125	8.424
100 year +40% CC 60 minute summer	214.603	56.713	100 year +40% CC 960 minute summer	25.432	6.697
100 year +40% CC 60 minute winter	142.577	56.713	100 year +40% CC 960 minute winter	16.847	6.697
100 year +40% CC 120 minute summer	129.587	34.246	100 year +40% CC 1440 minute summer	18.055	4.839
100 year +40% CC 120 minute winter	86.094	34.246	100 year +40% CC 1440 minute winter	12.134	4.839

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	23	13.499	0.052	6.7	2.8412	0.0000	OK
30 minute winter	2	21	13.506	0.276	7.4	0.4366	0.0000	SURCHARGED
15 minute summer	3	1	13.200	0.000	4.7	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)
30 minute winter	1	1.000	2	3.9	0.220	0.098	0.8347	
30 minute winter	2	Hydro-Brake®	3	4.8				8.4

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	24	13.526	0.079	11.4	4.3688	0.0000	OK
30 minute winter	2	25	13.531	0.301	9.3	0.4772	0.0000	SURCHARGED
15 minute summer	3	1	13.200	0.000	4.9	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)
30 minute winter	1	1.000	2	4.6	0.220	0.115	0.9359	
30 minute winter	2	Hydro-Brake®	3	4.9				10.9

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	29	13.663	0.216	21.3	11.8589	0.0000	OK
60 minute winter	2	46	13.662	0.432	9.1	0.6843	0.0000	SURCHARGED
15 minute summer	3	1	13.200	0.000	5.0	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)
30 minute winter	1	1.000	2	-5.9	0.220	-0.145	1.4131	
60 minute winter	2	Hydro-Brake®	3	5.0				26.0

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	1	59	14.555	1.108	27.1	29.8063	0.0000	SURCHARGED
60 minute winter	2	59	14.553	1.323	12.7	2.0959	0.0000	SURCHARGED
15 minute summer	3	1	13.200	0.000	5.0	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)
60 minute winter	1	1.000	2	-7.0	0.220	-0.174	1.4238	
60 minute winter	2	Hydro-Brake®	3	5.0				47.7

Results for 1 year 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	14	13.490	0.043	8.3	2.3528	0.0000	OK
15 minute summer	2	14	13.449	0.219	7.2	0.3471	0.0000	OK
15 minute summer	3	1	13.200	0.000	4.7	0.0000	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	1.000	2	3.2	0.221	0.080	0.8002	
15 minute summer	2	Hydro-Brake®	3	4.7				5.7

Results for 1 year 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	15	13.495	0.048	8.7	2.6559	0.0000	OK
15 minute winter	2	14	13.495	0.265	7.8	0.4204	0.0000	SURCHARGED
15 minute winter	3	1	13.200	0.000	4.8	0.0000	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	1.000	2	3.8	0.219	0.094	0.8234	
15 minute winter	2	Hydro-Brake®	3	4.8				6.4

Results for 1 year 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	23	13.494	0.047	7.4	2.5596	0.0000	OK
30 minute summer	2	22	13.497	0.267	7.4	0.4235	0.0000	SURCHARGED
30 minute summer	3	1	13.200	0.000	4.8	0.0000	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	1.000	2	3.8	0.222	0.094	0.8177	
30 minute summer	2	Hydro-Brake®	3	4.8				7.5

Results for 1 year 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	23	13.499	0.052	6.7	2.8412	0.0000	OK
30 minute winter	2	21	13.506	0.276	7.4	0.4366	0.0000	SURCHARGED
30 minute winter	3	1	13.200	0.000	4.8	0.0000	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	1.000	2	3.9	0.220	0.098	0.8347	
30 minute winter	2	Hydro-Brake®	3	4.8				8.4

Results for 1 year 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	37	13.492	0.045	5.6	2.4992	0.0000	OK
60 minute summer	2	39	13.493	0.263	6.6	0.4164	0.0000	SURCHARGED
60 minute summer	3	1	13.200	0.000	4.8	0.0000	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	1.000	2	3.7	0.214	0.091	0.8141	
60 minute summer	2	Hydro-Brake®	3	4.8				9.5

Results for 1 year 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	38	13.492	0.045	4.5	2.4618	0.0000	OK
60 minute winter	2	40	13.493	0.263	6.0	0.4171	0.0000	SURCHARGED
60 minute winter	3	1	13.200	0.000	4.8	0.0000	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	1.000	2	3.5	0.218	0.088	0.8119	
60 minute winter	2	Hydro-Brake®	3	4.8				10.7

Results for 1 year 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	68	13.488	0.041	3.7	2.2369	0.0000	OK
120 minute summer	2	70	13.393	0.163	4.9	0.2586	0.0000	OK
120 minute summer	3	2	13.200	0.000	4.3	0.0000	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	1.000	2	2.9	0.216	0.072	0.6393	
120 minute summer	2	Hydro-Brake®	3	4.3				11.8

Results for 1 year 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	70	13.485	0.038	2.9	2.1078	0.0000	OK
120 minute winter	2	70	13.364	0.134	4.3	0.2117	0.0000	OK
120 minute winter	3	2	13.200	0.000	4.1	0.0000	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	1.000	2	2.6	0.219	0.064	0.5196	
120 minute winter	2	Hydro-Brake®	3	4.1				13.3

Results for 1 year 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	100	13.484	0.037	2.8	2.0353	0.0000	OK
180 minute summer	2	100	13.352	0.122	4.1	0.1927	0.0000	OK
180 minute summer	3	4	13.200	0.000	3.9	0.0000	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	1.000	2	2.4	0.217	0.059	0.4681	
180 minute summer	2	Hydro-Brake®	3	3.9				13.6

Results for 1 year 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	100	13.481	0.034	2.2	1.8761	0.0000	OK
180 minute winter	2	100	13.332	0.102	3.4	0.1610	0.0000	OK
180 minute winter	3	4	13.200	0.000	3.3	0.0000	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	1.000	2	2.0	0.214	0.050	0.3790	
180 minute winter	2	Hydro-Brake®	3	3.3				15.1

Results for 1 year 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	132	13.481	0.034	2.4	1.8771	0.0000	OK
240 minute summer	2	128	13.332	0.102	3.4	0.1619	0.0000	OK
240 minute summer	3	4	13.200	0.000	3.4	0.0000	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	1.000	2	2.0	0.214	0.050	0.3812	
240 minute summer	2	Hydro-Brake®	3	3.4				14.4

Results for 1 year 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	128	13.478	0.031	1.8	1.7199	0.0000	OK
240 minute winter	2	128	13.316	0.086	2.8	0.1354	0.0000	OK
240 minute winter	3	4	13.200	0.000	2.8	0.0000	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	1.000	2	1.7	0.212	0.042	0.3071	
240 minute winter	2	Hydro-Brake®	3	2.8				16.3

Results for 1 year 360 minute summer. 600 minute analysis at 8 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
360 minute summer	1	192	13.477	0.030	1.8	1.6713	0.0000	OK
360 minute summer	2	192	13.314	0.084	2.7	0.1329	0.0000	OK
360 minute summer	3	8	13.200	0.000	2.7	0.0000	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	1.000	2	1.6	0.211	0.039	0.2982	
360 minute summer	2	Hydro-Brake®	3	2.7				16.5

Results for 1 year 360 minute winter. 600 minute analysis at 8 minute timestep. Mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	1	184	13.474	0.027	1.3	1.4691	0.0000	OK
360 minute winter	2	184	13.298	0.068	2.0	0.1076	0.0000	OK
360 minute winter	3	8	13.200	0.000	2.0	0.0000	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	1.000	2	1.2	0.203	0.030	0.2277	
360 minute winter	2	Hydro-Brake®	3	2.0				17.9

Results for 1 year 480 minute summer. 720 minute analysis at 8 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
480 minute summer	1	248	13.475	0.028	1.4	1.5210	0.0000	OK
480 minute summer	2	248	13.302	0.072	2.2	0.1142	0.0000	OK
480 minute summer	3	8	13.200	0.000	2.2	0.0000	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	1.000	2	1.3	0.205	0.032	0.2459	
480 minute summer	2	Hydro-Brake®	3	2.2				17.7

Results for 1 year 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	1	248	13.472	0.025	1.1	1.3570	0.0000	OK
480 minute winter	2	248	13.292	0.062	1.7	0.0976	0.0000	OK
480 minute winter	3	8	13.200	0.000	1.7	0.0000	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	1.000	2	1.0	0.195	0.025	0.1995	
480 minute winter	2	Hydro-Brake®	3	1.7				19.9

Results for 1 year 600 minute summer. 840 minute analysis at 15 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
600 minute summer	1	315	13.473	0.026	1.2	1.4158	0.0000	OK
600 minute summer	2	315	13.294	0.064	1.8	0.1009	0.0000	OK
600 minute summer	3	15	13.200	0.000	1.8	0.0000	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	1.000	2	1.1	0.202	0.028	0.2098	
600 minute summer	2	Hydro-Brake®	3	1.8				19.2

Results for 1 year 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 99.83%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	1	315	13.470	0.023	0.9	1.2486	0.0000	OK
600 minute winter	2	315	13.285	0.055	1.5	0.0874	0.0000	OK
600 minute winter	3	15	13.200	0.000	1.4	0.0000	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	1.000	2	0.9	0.192	0.021	0.1720	
600 minute winter	2	Hydro-Brake®	3	1.4				21.2

Results for 1 year 720 minute summer. 960 minute analysis at 15 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
720 minute summer	1	375	13.472	0.025	1.1	1.3576	0.0000	OK
720 minute summer	2	375	13.292	0.062	1.7	0.0976	0.0000	OK
720 minute summer	3	15	13.200	0.000	1.7	0.0000	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	1.000	2	1.0	0.195	0.025	0.1996	
720 minute summer	2	Hydro-Brake®	3	1.7				20.4

Results for 1 year 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 99.40%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	1	360	13.468	0.021	0.8	1.1649	0.0000	OK
720 minute winter	2	360	13.281	0.051	1.2	0.0804	0.0000	OK
720 minute winter	3	15	13.200	0.000	1.2	0.0000	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 winter	1	1.000	2	0.7	0.186	0.018	0.1534	
720 minute winter	2	Hydro-Brake®	3	1.2				22.0

Results for 1 year 960 minute summer. 1200 minute analysis at 15 minute timestep. Mass balance: 99.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	1	495	13.469	0.022	0.9	1.2337	0.0000	OK
960 minute summer	2	495	13.283	0.053	1.3	0.0839	0.0000	OK
960 minute summer	3	15	13.200	0.000	1.3	0.0000	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	1.000	2	0.8	0.193	0.021	0.1638	
960 minute summer	2	Hydro-Brake®	3	1.3				22.5

Results for 1 year 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 99.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	1	450	13.465	0.018	0.6	1.0169	0.0000	OK
960 minute winter	2	450	13.274	0.044	1.0	0.0691	0.0000	OK
960 minute winter	3	15	13.200	0.000	0.9	0.0000	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 winter	1	1.000	2	0.6	0.175	0.014	0.1239	
960 minute winter	2	Hydro-Brake®	3	0.9				23.6

Results for 1 year 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 99.78%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	1	750	13.466	0.019	0.6	1.0178	0.0000	OK
1440 minute summer	2	750	13.274	0.044	1.0	0.0691	0.0000	OK
1440 minute summer	3	30	13.200	0.000	1.0	0.0000	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 summer	1	1.000	2	0.6	0.175	0.014	0.1240	
1440 minute summer	2	Hydro-Brake®	3	1.0				23.8

Results for 1 year 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 99.43%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	1	720	13.464	0.017	0.5	0.9361	0.0000	OK
1440 minute winter	2	720	13.269	0.039	0.8	0.0611	0.0000	OK
1440 minute winter	3	30	13.200	0.000	0.8	0.0000	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	1.000	2	0.5	0.168	0.012	0.1051	
1440 minute winter	2	Hydro-Brake®	3	0.8				28.1

Results for 2 year 15 minute summer. 1455 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	15	13.509	0.062	11.1	3.4105	0.0000	OK
15 minute summer	2	14	13.522	0.292	10.0	0.4624	0.0000	SURCHARGED
15 minute summer	3	1	13.200	0.000	4.9	0.0000	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	1.000	2	5.3	0.220	0.132	0.8708	
15 minute summer	2	Hydro-Brake®	3	4.9				7.5

Results for 2 year 15 minute winter. 1455 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	15	13.520	0.073	12.2	4.0129	0.0000	OK
15 minute winter	2	16	13.524	0.294	9.9	0.4661	0.0000	SURCHARGED
15 minute winter	3	1	13.200	0.000	4.9	0.0000	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	1.000	2	5.1	0.220	0.128	0.9112	
15 minute winter	2	Hydro-Brake®	3	4.9				8.4

Results for 2 year 30 minute summer. 1470 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	22	13.518	0.071	10.6	3.8897	0.0000	OK
30 minute summer	2	21	13.529	0.299	9.8	0.4730	0.0000	SURCHARGED
30 minute summer	3	1	13.200	0.000	4.9	0.0000	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	1.000	2	5.0	0.220	0.124	0.9028	
30 minute summer	2	Hydro-Brake®	3	4.9				9.8

Results for 2 year 30 minute winter. 1470 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	24	13.526	0.079	11.4	4.3688	0.0000	OK
30 minute winter	2	25	13.531	0.301	9.3	0.4772	0.0000	SURCHARGED
30 minute winter	3	1	13.200	0.000	4.9	0.0000	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	1.000	2	4.6	0.220	0.115	0.9359	
30 minute winter	2	Hydro-Brake®	3	4.9				10.9

Results for 2 year 60 minute summer. 1500 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	40	13.515	0.068	7.1	3.7259	0.0000	OK
60 minute summer	2	36	13.521	0.291	8.5	0.4609	0.0000	SURCHARGED
60 minute summer	3	1	13.200	0.000	4.9	0.0000	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	1.000	2	4.2	0.222	0.104	0.8917	
60 minute summer	2	Hydro-Brake®	3	4.9				12.2

Results for 2 year 60 minute winter. 1500 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	42	13.516	0.069	5.9	3.8158	0.0000	OK
60 minute winter	2	40	13.519	0.289	7.6	0.4584	0.0000	SURCHARGED
60 minute winter	3	1	13.200	0.000	4.9	0.0000	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	1.000	2	4.0	0.221	0.100	0.8977	
60 minute winter	2	Hydro-Brake®	3	4.9				13.6

Results for 2 year 120 minute summer. 1560 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	72	13.496	0.049	4.6	2.7165	0.0000	OK
120 minute summer	2	70	13.493	0.263	6.4	0.4167	0.0000	SURCHARGED
120 minute summer	3	2	13.200	0.000	4.8	0.0000	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	1.000	2	3.7	0.214	0.091	0.8270	
120 minute summer	2	Hydro-Brake®	3	4.8				14.9

Results for 2 year 120 minute winter. 1560 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	68	13.490	0.043	3.6	2.3670	0.0000	OK
120 minute winter	2	74	13.479	0.249	5.4	0.3940	0.0000	SURCHARGED
120 minute winter	3	2	13.200	0.000	4.8	0.0000	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	1.000	2	3.3	0.216	0.081	0.8064	
120 minute winter	2	Hydro-Brake®	3	4.8				16.7

Results for 2 year 180 minute summer. 1620 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	100	13.489	0.042	3.5	2.2844	0.0000	OK
180 minute summer	2	104	13.416	0.186	5.1	0.2952	0.0000	OK
180 minute summer	3	4	13.200	0.000	4.5	0.0000	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	1.000	2	3.0	0.216	0.075	0.7168	
180 minute summer	2	Hydro-Brake®	3	4.5				16.6

Results for 2 year 180 minute winter. 1620 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	100	13.485	0.038	2.7	2.0860	0.0000	OK
180 minute winter	2	100	13.359	0.129	4.2	0.2045	0.0000	OK
180 minute winter	3	4	13.200	0.000	4.0	0.0000	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	1.000	2	2.5	0.214	0.063	0.5005	
180 minute winter	2	Hydro-Brake®	3	4.0				18.8

Results for 2 year 240 minute summer. 1680 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	132	13.485	0.038	2.9	2.0982	0.0000	OK
240 minute summer	2	132	13.361	0.131	4.2	0.2071	0.0000	OK
240 minute summer	3	4	13.200	0.000	4.1	0.0000	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	1.000	2	2.6	0.212	0.063	0.5076	
240 minute summer	2	Hydro-Brake®	3	4.1				18.2

Results for 2 year 240 minute winter. 1680 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	128	13.481	0.034	2.2	1.8850	0.0000	OK
240 minute winter	2	128	13.333	0.103	3.4	0.1634	0.0000	OK
240 minute winter	3	4	13.200	0.000	3.4	0.0000	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	1.000	2	2.0	0.214	0.051	0.3854	
240 minute winter	2	Hydro-Brake®	3	3.4				20.0

Results for 2 year 360 minute summer. 1800 minute analysis at 8 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
360 minute summer	1	192	13.481	0.033	2.2	1.8426	0.0000	OK
360 minute summer	2	192	13.328	0.098	3.3	0.1559	0.0000	OK
360 minute summer	3	8	13.200	0.000	3.2	0.0000	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	1.000	2	2.0	0.213	0.048	0.3644	
360 minute summer	2	Hydro-Brake®	3	3.2				19.7

Results for 2 year 360 minute winter. 1800 minute analysis at 8 minute timestep. Mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	1	184	13.477	0.030	1.6	1.6245	0.0000	OK
360 minute winter	2	184	13.308	0.078	2.5	0.1243	0.0000	OK
360 minute winter	3	8	13.200	0.000	2.5	0.0000	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	1.000	2	1.5	0.207	0.037	0.2751	
360 minute winter	2	Hydro-Brake®	3	2.5				22.6

Results for 2 year 480 minute summer. 1920 minute analysis at 8 minute timestep. Mass balance: 99.77%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	1	248	13.478	0.031	1.8	1.7122	0.0000	OK
480 minute summer	2	248	13.315	0.085	2.8	0.1346	0.0000	OK
480 minute summer	3	8	13.200	0.000	2.7	0.0000	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	1.000	2	1.7	0.210	0.042	0.3046	
480 minute summer	2	Hydro-Brake®	3	2.7				21.9

Results for 2 year 480 minute winter. 1920 minute analysis at 8 minute timestep. Mass balance: 99.61%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	1	240	13.474	0.027	1.3	1.4687	0.0000	OK
480 minute winter	2	240	13.298	0.068	2.0	0.1076	0.0000	OK
480 minute winter	3	8	13.200	0.000	2.0	0.0000	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	1.000	2	1.2	0.203	0.030	0.2277	
480 minute winter	2	Hydro-Brake®	3	2.0				23.7

Results for 2 year 600 minute summer. 2040 minute analysis at 15 minute timestep. Mass balance: 99.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	1	315	13.475	0.028	1.4	1.5215	0.0000	OK
600 minute summer	2	315	13.302	0.072	2.2	0.1142	0.0000	OK
600 minute summer	3	15	13.200	0.000	2.2	0.0000	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	1.000	2	1.3	0.208	0.032	0.2459	
600 minute summer	2	Hydro-Brake®	3	2.2				22.5

Results for 2 year 600 minute winter. 2040 minute analysis at 15 minute timestep. Mass balance: 99.73%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	1	300	13.472	0.025	1.1	1.3561	0.0000	OK
600 minute winter	2	300	13.292	0.062	1.7	0.0976	0.0000	OK
600 minute winter	3	15	13.200	0.000	1.7	0.0000	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	1.000	2	1.0	0.201	0.025	0.1994	
600 minute winter	2	Hydro-Brake®	3	1.7				25.3

Results for 2 year 720 minute summer. 2160 minute analysis at 15 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
720 minute summer	1	375	13.474	0.027	1.3	1.4694	0.0000	OK
720 minute summer	2	375	13.298	0.068	2.0	0.1076	0.0000	OK
720 minute summer	3	15	13.200	0.000	2.0	0.0000	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	1.000	2	1.2	0.202	0.030	0.2277	
720 minute summer	2	Hydro-Brake®	3	2.0				24.3

Results for 2 year 720 minute winter. 2160 minute analysis at 15 minute timestep. Mass balance: 99.88%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	1	375	13.471	0.024	1.0	1.2961	0.0000	OK
720 minute winter	2	375	13.287	0.057	1.5	0.0908	0.0000	OK
720 minute winter	3	15	13.200	0.000	1.5	0.0000	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 winter	1	1.000	2	0.9	0.196	0.023	0.1816	
720 minute winter	2	Hydro-Brake®	3	1.5				27.3

Results for 2 year 960 minute summer. 2400 minute analysis at 15 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
960 minute summer	1	495	13.471	0.024	1.0	1.2960	0.0000	OK
960 minute summer	2	495	13.290	0.060	1.6	0.0943	0.0000	OK
960 minute summer	3	15	13.200	0.000	1.6	0.0000	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	1.000	2	0.9	0.192	0.023	0.1893	
960 minute summer	2	Hydro-Brake®	3	1.6				26.3

Results for 2 year 960 minute winter. 2400 minute analysis at 15 minute timestep. Mass balance: 99.67%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	1	480	13.468	0.021	0.8	1.1650	0.0000	OK
960 minute winter	2	480	13.281	0.051	1.2	0.0805	0.0000	OK
960 minute winter	3	15	13.200	0.000	1.2	0.0000	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 winter	1	1.000	2	0.7	0.186	0.018	0.1534	
960 minute winter	2	Hydro-Brake®	3	1.2				29.0

Results for 2 year 1440 minute summer. 2880 minute analysis at 30 minute timestep. Mass balance: 99.73%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	1	750	13.468	0.021	0.8	1.1653	0.0000	OK
1440 minute summer	2	750	13.281	0.051	1.2	0.0805	0.0000	OK
1440 minute summer	3	30	13.200	0.000	1.2	0.0000	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 summer	1	1.000	2	0.7	0.182	0.018	0.1534	
1440 minute summer	2	Hydro-Brake®	3	1.2				29.3

Results for 2 year 1440 minute winter. 2880 minute analysis at 30 minute timestep. Mass balance: 99.82%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	1	780	13.466	0.019	0.6	1.0366	0.0000	OK
1440 minute winter	2	720	13.274	0.044	1.0	0.0692	0.0000	OK
1440 minute winter	3	30	13.200	0.000	1.0	0.0000	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	1.000	2	0.6	0.179	0.014	0.1248	
1440 minute winter	2	Hydro-Brake®	3	1.0				33.4

Results for 30 year 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	16	13.605	0.158	30.1	8.6675	0.0000	OK
15 minute summer	2	15	13.603	0.373	13.2	0.5911	0.0000	SURCHARGED
15 minute summer	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	-9.7	-0.316	-0.242	1.2436	
15 minute summer	2	Hydro-Brake®	3	5.0				14.2

Results for 30 year 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	17	13.631	0.184	29.0	10.0966	0.0000	OK
15 minute winter	2	16	13.629	0.399	13.5	0.6323	0.0000	SURCHARGED
15 minute winter	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	-7.8	-0.271	-0.194	1.3329	
15 minute winter	2	Hydro-Brake®	3	5.0				15.9

Results for 30 year 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	26	13.630	0.183	23.6	10.0853	0.0000	OK
30 minute summer	2	25	13.629	0.399	12.2	0.6326	0.0000	SURCHARGED
30 minute summer	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	-5.9	0.220	-0.147	1.3323	
30 minute summer	2	Hydro-Brake®	3	5.0				18.5

Results for 30 year 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	29	13.663	0.216	21.3	11.8589	0.0000	OK
30 minute winter	2	29	13.661	0.431	11.4	0.6833	0.0000	SURCHARGED
30 minute winter	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	-5.9	0.220	-0.145	1.4131	
30 minute winter	2	Hydro-Brake®	3	5.0				20.8

Results for 30 year 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	44	13.635	0.188	17.3	10.3343	0.0000	OK
60 minute summer	2	43	13.635	0.405	9.2	0.6417	0.0000	SURCHARGED
60 minute summer	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	4.7	0.220	0.117	1.3462	
60 minute summer	2	Hydro-Brake®	3	5.0				23.2

Results for 30 year 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	47	13.662	0.215	13.3	11.8434	0.0000	OK
60 minute winter	2	46	13.662	0.432	9.1	0.6843	0.0000	SURCHARGED
60 minute winter	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	4.8	0.220	0.119	1.4126	
60 minute winter	2	Hydro-Brake®	3	5.0				26.0

Results for 30 year 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	78	13.608	0.161	10.5	8.8292	0.0000	OK
120 minute summer	2	76	13.608	0.378	7.5	0.5987	0.0000	SURCHARGED
120 minute summer	3	2	13.200	0.000	5.0	0.0000	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	1.000	2	4.2	0.219	0.103	1.2543	
120 minute summer	2	Hydro-Brake®	3	5.0				28.0

Results for 30 year 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	84	13.616	0.169	6.7	9.2789	0.0000	OK
120 minute winter	2	84	13.615	0.385	7.0	0.6095	0.0000	SURCHARGED
120 minute winter	3	2	13.200	0.000	5.0	0.0000	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	1.000	2	4.6	0.220	0.114	1.2836	
120 minute winter	2	Hydro-Brake®	3	5.0				31.4

Results for 30 year 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	112	13.574	0.127	6.4	6.9940	0.0000	OK
180 minute summer	2	112	13.572	0.342	6.0	0.5423	0.0000	SURCHARGED
180 minute summer	3	4	13.200	0.000	5.0	0.0000	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	1.000	2	4.1	0.213	0.102	1.1258	
180 minute summer	2	Hydro-Brake®	3	5.0				31.0

Results for 30 year 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	116	13.565	0.118	4.9	6.5012	0.0000	OK
180 minute winter	2	116	13.564	0.334	5.8	0.5292	0.0000	SURCHARGED
180 minute winter	3	4	13.200	0.000	5.0	0.0000	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	1.000	2	4.1	0.211	0.101	1.0899	
180 minute winter	2	Hydro-Brake®	3	5.0				34.9

Results for 30 year 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	140	13.547	0.100	5.4	5.4780	0.0000	OK
240 minute summer	2	144	13.545	0.315	6.1	0.4997	0.0000	SURCHARGED
240 minute summer	3	4	13.200	0.000	4.9	0.0000	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	1.000	2	4.0	0.212	0.099	1.0152	
240 minute summer	2	Hydro-Brake®	3	4.9				33.0

Results for 30 year 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	148	13.525	0.078	4.0	4.2797	0.0000	OK
240 minute winter	2	148	13.524	0.294	5.5	0.4653	0.0000	SURCHARGED
240 minute winter	3	4	13.200	0.000	4.9	0.0000	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	1.000	2	3.8	0.211	0.093	0.9297	
240 minute winter	2	Hydro-Brake®	3	4.9				37.0

Results for 30 year 360 minute summer. 600 minute analysis at 8 minute timestep. Mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	1	200	13.506	0.059	4.0	3.2275	0.0000	OK
360 minute summer	2	200	13.505	0.275	5.2	0.4352	0.0000	SURCHARGED
360 minute summer	3	8	13.200	0.000	4.8	0.0000	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	1.000	2	3.4	0.211	0.084	0.8590	
360 minute summer	2	Hydro-Brake®	3	4.8				36.2

Results for 30 year 360 minute winter. 600 minute analysis at 8 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
360 minute winter	1	192	13.487	0.040	2.9	2.2214	0.0000	OK
360 minute winter	2	192	13.411	0.181	4.7	0.2875	0.0000	OK
360 minute winter	3	8	13.200	0.000	4.5	0.0000	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	1.000	2	2.9	0.212	0.071	0.7007	
360 minute winter	2	Hydro-Brake®	3	4.5				40.8

Results for 30 year 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 99.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	1	256	13.488	0.041	3.1	2.2731	0.0000	OK
480 minute summer	2	256	13.439	0.209	5.0	0.3309	0.0000	OK
480 minute summer	3	8	13.200	0.000	4.6	0.0000	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	1.000	2	3.0	0.211	0.075	0.7780	
480 minute summer	2	Hydro-Brake®	3	4.6				38.8

Results for 30 year 480 minute winter. 720 minute analysis at 8 minute timestep. Mass balance: 99.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	1	240	13.483	0.036	2.3	1.9589	0.0000	OK
480 minute winter	2	240	13.340	0.110	3.7	0.1749	0.0000	OK
480 minute winter	3	8	13.200	0.000	3.6	0.0000	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	1.000	2	2.2	0.212	0.055	0.4187	
480 minute winter	2	Hydro-Brake®	3	3.6				43.3

Results for 30 year 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 99.89%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	1	315	13.485	0.038	2.6	2.0774	0.0000	OK
600 minute summer	2	315	13.356	0.126	4.1	0.1995	0.0000	OK
600 minute summer	3	15	13.200	0.000	4.0	0.0000	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	1.000	2	2.5	0.211	0.062	0.4874	
600 minute summer	2	Hydro-Brake®	3	4.0				40.8

Results for 30 year 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 99.48%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	1	315	13.480	0.033	2.0	1.8082	0.0000	OK
600 minute winter	2	315	13.323	0.093	3.1	0.1474	0.0000	OK
600 minute winter	3	15	13.200	0.000	3.0	0.0000	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	1.000	2	1.9	0.209	0.047	0.3414	
600 minute winter	2	Hydro-Brake®	3	3.0				44.9

Results for 30 year 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	1	375	13.482	0.035	2.3	1.9445	0.0000	OK
720 minute summer	2	375	13.337	0.107	3.6	0.1701	0.0000	OK
720 minute summer	3	15	13.200	0.000	3.5	0.0000	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	1.000	2	2.2	0.211	0.054	0.4057	
720 minute summer	2	Hydro-Brake®	3	3.5				41.9

Results for 30 year 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 99.73%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	1	375	13.478	0.031	1.7	1.6780	0.0000	OK
720 minute winter	2	375	13.313	0.083	2.7	0.1316	0.0000	OK
720 minute winter	3	15	13.200	0.000	2.7	0.0000	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 winter	1	1.000	2	1.6	0.208	0.040	0.2956	
720 minute winter	2	Hydro-Brake®	3	2.7				47.2

Results for 30 year 960 minute summer. 1200 minute analysis at 15 minute timestep. 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 summer	1	495	13.478	0.031	1.8	1.7221	0.0000	OK
960 minute summer	2	495	13.318	0.088	2.9	0.1392	0.0000	OK
960 minute summer	3	15	13.200	0.000	2.8	0.0000	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	1.000	2	1.7	0.208	0.042	0.3165	
960 minute summer	2	Hydro-Brake®	3	2.8				45.4

Results for 30 year 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 99.83%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	1	495	13.475	0.028	1.4	1.5268	0.0000	OK
960 minute winter	2	495	13.302	0.072	2.2	0.1143	0.0000	OK
960 minute winter	3	15	13.200	0.000	2.2	0.0000	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 winter	1	1.000	2	1.3	0.203	0.033	0.2463	
960 minute winter	2	Hydro-Brake®	3	2.2				50.9

Results for 30 year 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 99.72%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	1	750	13.474	0.027	1.3	1.4711	0.0000	OK
1440 minute summer	2	750	13.298	0.068	2.0	0.1076	0.0000	OK
1440 minute summer	3	30	13.200	0.000	2.0	0.0000	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 summer	1	1.000	2	1.2	0.202	0.030	0.2278	
1440 minute summer	2	Hydro-Brake®	3	2.0				48.8

Results for 30 year 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	1	750	13.471	0.024	1.0	1.2959	0.0000	OK
1440 minute winter	2	750	13.287	0.057	1.5	0.0908	0.0000	OK
1440 minute winter	3	30	13.200	0.000	1.5	0.0000	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	1.000	2	0.9	0.193	0.023	0.1816	
1440 minute winter	2	Hydro-Brake®	3	1.5				55.0

Results for 100 year +40% CC 15 minute summer. 255 minute analysis at 1 minute timestep. Mass balance: 99.70%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	18	13.796	0.349	53.1	19.2126	0.0000	SURCHARGED
15 minute summer	2	16	13.795	0.565	23.3	0.8951	0.0000	SURCHARGED
15 minute summer	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	-16.0	-0.455	-0.397	1.4238	
15 minute summer	2	Hydro-Brake®	3	5.0				25.8

Results for 100 year +40% CC 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 99.71%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	18	13.851	0.404	56.2	22.2411	0.0000	SURCHARGED
15 minute winter	2	17	13.848	0.618	24.5	0.9796	0.0000	SURCHARGED
15 minute winter	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	-17.2	-0.436	-0.427	1.4238	
15 minute winter	2	Hydro-Brake®	3	5.0				29.0

Results for 100 year +40% CC 30 minute summer. 270 minute analysis at 1 minute timestep. Mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	31	13.881	0.434	48.1	23.8668	0.0000	SURCHARGED
30 minute summer	2	31	13.879	0.649	21.0	1.0278	0.0000	SURCHARGED
30 minute summer	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	-14.7	-0.370	-0.365	1.4238	
30 minute summer	2	Hydro-Brake®	3	5.0				34.0

Results for 100 year +40% CC 30 minute winter. 270 minute analysis at 1 minute timestep. Mass balance: 99.90%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	32	13.955	0.508	42.9	27.9200	0.0000	SURCHARGED
30 minute winter	2	31	13.952	0.722	19.0	1.1435	0.0000	SURCHARGED
30 minute winter	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	-12.7	-0.319	-0.314	1.4238	
30 minute winter	2	Hydro-Brake®	3	5.0				38.2

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	53	13.916	0.469	34.6	25.8157	0.0000	SURCHARGED
60 minute summer	2	53	13.915	0.685	15.6	1.0852	0.0000	SURCHARGED
60 minute summer	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	-9.7	-0.243	-0.240	1.4238	
60 minute summer	2	Hydro-Brake®	3	5.0				42.7

Results for 100 year +40% CC 60 minute winter. 300 minute analysis at 1 minute timestep. Mass balance: 99.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	1	59	14.555	1.108	27.1	29.8063	0.0000	SURCHARGED
60 minute winter	2	59	14.553	1.323	12.7	2.0959	0.0000	SURCHARGED
60 minute winter	3	1	13.200	0.000	5.0	0.0000	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	1.000	2	-7.0	0.220	-0.174	1.4238	
60 minute winter	2	Hydro-Brake®	3	5.0				47.7

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	88	13.894	0.447	20.5	24.5986	0.0000	SURCHARGED
120 minute summer	2	88	13.893	0.663	10.1	1.0499	0.0000	SURCHARGED
120 minute summer	3	2	13.200	0.000	5.0	0.0000	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	1.000	2	4.9	0.220	0.120	1.4238	
120 minute summer	2	Hydro-Brake®	3	5.0				51.6

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	98	14.071	0.624	14.9	28.8370	0.0000	SURCHARGED
120 minute winter	2	98	14.069	0.839	7.8	1.3287	0.0000	SURCHARGED
120 minute winter	3	2	13.200	0.000	5.0	0.0000	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	1.000	2	4.9	0.220	0.120	1.4238	
120 minute winter	2	Hydro-Brake®	3	5.0				57.9

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	124	13.850	0.403	13.9	22.1529	0.0000	SURCHARGED
180 minute summer	2	124	13.848	0.618	7.4	0.9795	0.0000	SURCHARGED
180 minute summer	3	4	13.200	0.000	5.0	0.0000	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	1.000	2	4.8	0.219	0.120	1.4238	
180 minute summer	2	Hydro-Brake®	3	5.0				56.8

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	132	13.906	0.459	9.6	25.2355	0.0000	SURCHARGED
180 minute winter	2	132	13.904	0.674	6.1	1.0683	0.0000	SURCHARGED
180 minute winter	3	4	13.200	0.000	5.0	0.0000	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	1.000	2	4.9	0.220	0.120	1.4238	
180 minute winter	2	Hydro-Brake®	3	5.0				63.7

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	156	13.805	0.358	10.3	19.6663	0.0000	SURCHARGED
240 minute summer	2	156	13.803	0.573	6.2	0.9077	0.0000	SURCHARGED
240 minute summer	3	4	13.200	0.000	5.0	0.0000	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	1.000	2	4.6	0.219	0.115	1.4238	
240 minute summer	2	Hydro-Brake®	3	5.0				60.6

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	168	13.831	0.384	7.3	21.1389	0.0000	SURCHARGED
240 minute winter	2	168	13.830	0.600	6.1	0.9503	0.0000	SURCHARGED
240 minute winter	3	4	13.200	0.000	5.0	0.0000	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	1.000	2	4.8	0.220	0.118	1.4238	
240 minute winter	2	Hydro-Brake®	3	5.0				67.7

Results for 100 year +40% CC 360 minute summer. 600 minute analysis at 8 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
360 minute summer	1	224	13.717	0.270	7.3	14.8632	0.0000	SURCHARGED
360 minute summer	2	224	13.716	0.486	5.4	0.7700	0.0000	SURCHARGED
360 minute summer	3	8	13.200	0.000	5.0	0.0000	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	1.000	2	4.2	0.208	0.105	1.4238	
360 minute summer	2	Hydro-Brake®	3	5.0				65.9

Results for 100 year +40% CC 360 minute winter. 600 minute analysis at 8 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
360 minute winter	1	232	13.701	0.254	5.3	13.9694	0.0000	SURCHARGED
360 minute winter	2	232	13.700	0.470	5.5	0.7438	0.0000	SURCHARGED
360 minute winter	3	8	13.200	0.000	5.0	0.0000	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	1.000	2	4.2	0.208	0.104	1.4238	
360 minute winter	2	Hydro-Brake®	3	5.0				74.0

Results for 100 year +40% CC 480 minute summer. 720 minute analysis at 8 minute timestep. Mass balance: 99.89%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	1	280	13.647	0.200	5.7	11.0167	0.0000	OK
480 minute summer	2	280	13.646	0.416	5.5	0.6591	0.0000	SURCHARGED
480 minute summer	3	8	13.200	0.000	5.0	0.0000	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	1.000	2	4.1	0.210	0.101	1.3805	
480 minute summer	2	Hydro-Brake®	3	5.0				70.0

Results for 100 year +40% CC 480 minute winter. 720 minute analysis at 8 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
480 minute winter	1	288	13.598	0.151	4.2	8.2871	0.0000	OK
480 minute winter	2	288	13.597	0.367	5.5	0.5808	0.0000	SURCHARGED
480 minute winter	3	8	13.200	0.000	5.0	0.0000	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	1.000	2	3.9	0.210	0.097	1.2176	
480 minute winter	2	Hydro-Brake®	3	5.0				78.5

Results for 100 year +40% CC 600 minute summer. 840 minute analysis at 15 minute timestep. Mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	1	345	13.587	0.140	4.6	7.7030	0.0000	OK
600 minute summer	2	345	13.585	0.355	5.7	0.5624	0.0000	SURCHARGED
600 minute summer	3	15	13.200	0.000	5.0	0.0000	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	1.000	2	3.8	0.208	0.095	1.1767	
600 minute summer	2	Hydro-Brake®	3	5.0				73.7

Results for 100 year +40% CC 600 minute winter. 840 minute analysis at 15 minute timestep. Mass balance: 99.96%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	1	345	13.527	0.080	3.5	4.3910	0.0000	OK
600 minute winter	2	345	13.526	0.296	4.9	0.4686	0.0000	SURCHARGED
600 minute winter	3	15	13.200	0.000	4.9	0.0000	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	1.000	2	3.4	0.211	0.085	0.9374	
600 minute winter	2	Hydro-Brake®	3	4.9				81.9

Results for 100 year +40% CC 720 minute summer. 960 minute analysis at 15 minute timestep. Mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	1	405	13.550	0.103	4.1	5.6871	0.0000	OK
720 minute summer	2	405	13.550	0.320	5.2	0.5067	0.0000	SURCHARGED
720 minute summer	3	15	13.200	0.000	4.9	0.0000	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	1.000	2	3.6	0.207	0.089	1.0304	
720 minute summer	2	Hydro-Brake®	3	4.9				76.7

Results for 100 year +40% CC 720 minute winter. 960 minute analysis at 15 minute timestep. Mass balance: 99.89%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	1	375	13.489	0.042	3.1	2.2943	0.0000	OK
720 minute winter	2	375	13.472	0.242	5.0	0.3831	0.0000	SURCHARGED
720 minute winter	3	15	13.200	0.000	4.8	0.0000	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 winter	1	1.000	2	3.1	0.211	0.076	0.8023	
720 minute winter	2	Hydro-Brake®	3	4.8				84.4

Results for 100 year +40% CC 960 minute summer. 1200 minute analysis at 15 minute timestep. 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 summer	1	510	13.499	0.052	3.3	2.8420	0.0000	OK
960 minute summer	2	510	13.498	0.268	5.2	0.4238	0.0000	SURCHARGED
960 minute summer	3	15	13.200	0.000	4.8	0.0000	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	1.000	2	3.2	0.209	0.079	0.8347	
960 minute summer	2	Hydro-Brake®	3	4.8				80.6

Results for 100 year +40% CC 960 minute winter. 1200 minute analysis at 15 minute timestep. Mass balance: 99.20%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	1	465	13.483	0.036	2.4	1.9903	0.0000	OK
960 minute winter	2	465	13.344	0.114	3.8	0.1801	0.0000	OK
960 minute winter	3	15	13.200	0.000	3.7	0.0000	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 winter	1	1.000	2	2.3	0.211	0.057	0.4336	
960 minute winter	2	Hydro-Brake®	3	3.7				90.0

Results for 100 year +40% CC 1440 minute summer. 1680 minute analysis at 30 minute timestep. Mass balance: 99.64%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	1	750	13.482	0.035	2.3	1.9460	0.0000	OK
1440 minute summer	2	750	13.340	0.110	3.7	0.1749	0.0000	OK
1440 minute summer	3	30	13.200	0.000	3.6	0.0000	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 summer	1	1.000	2	2.2	0.209	0.054	0.4180	
1440 minute summer	2	Hydro-Brake®	3	3.6				86.3

Results for 100 year +40% CC 1440 minute winter. 1680 minute analysis at 30 minute timestep. Mass balance: 99.27%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	1	720	13.478	0.031	1.8	1.7164	0.0000	OK
1440 minute winter	2	720	13.315	0.085	2.8	0.1354	0.0000	OK
1440 minute winter	3	30	13.200	0.000	2.8	0.0000	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	1.000	2	1.7	0.211	0.042	0.3069	
1440 minute winter	2	Hydro-Brake®	3	2.8				98.4