

Drainage Design Report

Flow+

v7.0

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Network

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Rainfall Methodology	FSR
Return Period (years)	100
Additional Flow (%)	40
FSR Region	England and Wales
M5-60 (mm)	20.000
Ratio-R	0.400
CV	0.750
Time of Entry (mins)	5.00
Maximum Time of Concentration (mins)	5.00
Maximum Rainfall (mm/hr)	0.0
Minimum Velocity (m/s)	1.00
Connection Type	Level Soffits
Minimum Backdrop Height (m)	1.000
Preferred Cover Depth (m)	1.200
Enforce best practice design rules	

	Name	Area (ha)	T of E (mins)	Add Inflow (l/s)	Cover Level (m)	Node Type	Manhole Type	Diameter (mm)	Width (mm)	Easting (m)	Northing (m)	Depth (m)	Notes
	S2	0.120	5.00		61.683	Manhole	Adoptable	1200		442873.778	406942.837	1.874	
	S4	0.115	5.00		61.064	Manhole	Adoptable	1200		442888.583	406956.654	1.458	
	S6	0.070	5.00		61.137	Manhole	Adoptable	1200		442918.221	406935.834	1.712	
	S8	0.090	5.00		61.006	Manhole	Adoptable	1200		442925.779	406938.385	1.881	
	S10	0.110	5.00		59.163	Manhole	Adoptable	1200		442952.752	406976.429	2.038	
	S16	0.160	5.00		57.799	Manhole	Adoptable	1500		442977.210	407010.740	2.599	
	S18	0.163	5.00		56.508	Manhole	Adoptable	1500		443011.195	407055.827	2.137	
	S20	0.101	5.00		56.050	Manhole	Adoptable	1500		443034.015	407086.151	1.755	
	S28				56.000	Manhole	Adoptable	3000		443060.633	407108.709	1.780	
	S30				55.500	Manhole	Adoptable	1200		443074.522	407109.433	1.350	
	S12	0.201	5.00		58.019	Manhole	Adoptable	1200		442902.215	407064.400	1.854	
	S14	0.167	5.00		57.443	Manhole	Adoptable	1200		442946.135	407033.145	1.818	
	S24	0.243	5.00		55.800	Manhole	Adoptable	3000		443050.725	407113.289	1.500	

	Name	US Node	DS Node	Length (m)	ks (mm) / n	Velocity Equation	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	Link Type	T of C (mins)	Rain (mm/hr)	Con Offset (m)	Min DS IL (m)	Lateral Area (ha)	Lateral Ins Point (%)	Lateral T of E (mins)
	S2-S4	S2	S4	20.250	0.600	Colebrook-White	59.809	59.606	0.203	99.8	300	Circular	5.00	0.0					
	S4-S6	S4	S6	36.220	0.600	Colebrook-White	59.606	59.425	0.181	200.1	300	Circular	5.00	0.0					
	S6-S8	S6	S8	7.977	0.600	Colebrook-White	59.425	59.125	0.300	26.6	300	Circular	5.00	0.0					
	S8-S10	S8	S10	46.635	0.600	Colebrook-White	59.125	57.200	1.925	24.2	300	Circular	5.00	0.0					
	S10-S16	S10	S16	42.136	0.600	Colebrook-White	57.125	55.350	1.775	23.7	375	Circular	5.00	0.0					
	S12-S14	S12	S14	53.906	0.600	Colebrook-White	56.165	55.625	0.540	99.8	375	Circular	5.00	0.0					
	S14-S16	S14	S16	38.310	0.600	Colebrook-White	55.625	55.350	0.275	139.3	375	Circular	5.00	0.0					
	S16-S18	S16	S18	56.461	0.600	Colebrook-White	55.200	54.446	0.754	74.9	525	Circular	5.00	0.0					
	S18-S20	S18	S20	37.952	0.600	Colebrook-White	54.371	54.295	0.076	499.4	600	Circular	5.00	0.0					
	S20-S28	S20	S28	34.841	0.600	Colebrook-White	54.295	54.220	0.075	464.5	600	Circular	5.00	0.0					
	S24-S28	S24	S28	10.915	0.600	Colebrook-White	54.300	54.220	0.080	136.4	900	Circular	5.00	0.0					
	S28-S30	S28	S30	13.908	0.600	Colebrook-White	54.220	54.150	0.070	198.7	300	Circular	5.00	0.0					

	Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Minimum Depth (m)	Maximum Depth (m)	Σ Area (ha)	Σ Add Inflow (ha)	Pro Depth (mm)	Pro Velocity (m/s)	Notes
	S2-S4	S2	S4	1.574	111.3	0.0	1.574	1.158	1.158	1.574	0.120	0.0			
	S4-S6	S4	S6	1.108	78.3	0.0	1.158	1.412	1.158	1.412	0.235	0.0			
	S6-S8	S6	S8	3.061	216.3	0.0	1.412	1.581	1.412	1.581	0.305	0.0			
	S8-S10	S8	S10	3.207	226.7	0.0	1.581	1.663	1.581	1.663	0.395	0.0			
	S10-S16	S10	S16	3.732	412.2	0.0	1.663	2.074	1.663	2.074	0.505	0.0			
	S12-S14	S12	S14	1.813	200.3	0.0	1.479	1.443	1.443	1.479	0.201	0.0			
	S14-S16	S14	S16	1.533	169.3	0.0	1.443	2.074	1.443	2.074	0.368	0.0			
	S16-S18	S16	S18	2.590	560.7	0.0	2.074	1.537	1.537	2.074	1.033	0.0			
	S18-S20	S18	S20	1.083	306.1	0.0	1.537	1.155	1.155	1.537	1.196	0.0			
	S20-S28	S20	S28	1.123	317.5	0.0	1.155	1.180	1.155	1.180	1.297	0.0			
	S24-S28	S24	S28	2.680	1705.2	0.0	0.600	0.880	0.600	0.880	0.243	0.0			
	S28-S30	S28	S30	1.112	78.6	0.0	1.480	1.050	1.050	1.480	1.540	0.0			

Link Name	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)	US Node Name	Dia (mm)	Width (mm)	Node Type	MH Type	DS Node Name	Dia (mm)	Width (mm)	Node Type	MH Type
S2-S4	20.250	99.8	300	Circular	61.683	59.809	1.574	61.064	59.606	1.158	S2	1200		Manhole	Adoptable	S4	1200		Manhole	Adoptable
S4-S6	36.220	200.1	300	Circular	61.064	59.606	1.158	61.137	59.425	1.412	S4	1200		Manhole	Adoptable	S6	1200		Manhole	Adoptable
S6-S8	7.977	26.6	300	Circular	61.137	59.425	1.412	61.006	59.125	1.581	S6	1200		Manhole	Adoptable	S8	1200		Manhole	Adoptable
S8-S10	46.635	24.2	300	Circular	61.006	59.125	1.581	59.163	57.200	1.663	S8	1200		Manhole	Adoptable	S10	1200		Manhole	Adoptable
S10-S16	42.136	23.7	375	Circular	59.163	57.125	1.663	57.799	55.350	2.074	S10	1200		Manhole	Adoptable	S16	1500		Manhole	Adoptable
S12-S14	53.906	99.8	375	Circular	58.019	56.165	1.479	57.443	55.625	1.443	S12	1200		Manhole	Adoptable	S14	1200		Manhole	Adoptable
S14-S16	38.310	139.3	375	Circular	57.443	55.625	1.443	57.799	55.350	2.074	S14	1200		Manhole	Adoptable	S16	1500		Manhole	Adoptable
S16-S18	56.461	74.9	525	Circular	57.799	55.200	2.074	56.508	54.446	1.537	S16	1500		Manhole	Adoptable	S18	1500		Manhole	Adoptable
S18-S20	37.952	499.4	600	Circular	56.508	54.371	1.537	56.050	54.295	1.155	S18	1500		Manhole	Adoptable	S20	1500		Manhole	Adoptable
S20-S28	34.841	464.5	600	Circular	56.050	54.295	1.155	56.000	54.220	1.180	S20	1500		Manhole	Adoptable	S28	3000		Manhole	Adoptable
S24-S28	10.915	136.4	900	Circular	55.800	54.300	0.600	56.000	54.220	0.880	S24	3000		Manhole	Adoptable	S28	3000		Manhole	Adoptable
S28-S30	13.908	198.7	300	Circular	56.000	54.220	1.480	55.500	54.150	1.050	S28	3000		Manhole	Adoptable	S30	1200		Manhole	Adoptable

Node Name	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Node Type	MH Type		Link ID	IL (m)	Dia (mm)	Link Type
S2	442873.778	406942.837	61.683	1.874	1200		Manhole	Adoptable					
									0	S2-S4	59.809	300	Circular
S4	442888.583	406956.654	61.064	1.458	1200		Manhole	Adoptable	1	S2-S4	59.606	300	Circular
									0	S4-S6	59.606	300	Circular
S6	442918.221	406935.834	61.137	1.712	1200		Manhole	Adoptable	1	S4-S6	59.425	300	Circular
									0	S6-S8	59.425	300	Circular
S8	442925.779	406938.385	61.006	1.881	1200		Manhole	Adoptable	1	S6-S8	59.125	300	Circular
									0	S8-S10	59.125	300	Circular
S10	442952.752	406976.429	59.163	2.038	1200		Manhole	Adoptable	1	S8-S10	57.200	300	Circular
									0	S10-S16	57.125	375	Circular
S16	442977.210	407010.740	57.799	2.599	1500		Manhole	Adoptable	1	S14-S16	55.350	375	Circular
									2	S10-S16	55.350	375	Circular
									0	S16-S18	55.200	525	Circular
S18	443011.195	407055.827	56.508	2.137	1500		Manhole	Adoptable	1	S16-S18	54.446	525	Circular
									0	S18-S20	54.371	600	Circular
S20	443034.015	407086.151	56.050	1.755	1500		Manhole	Adoptable	1	S18-S20	54.295	600	Circular

									0	S20-S28	54.295	600	Circular
S28	443060.633	407108.709	56.000	1.780	3000		Manhole	Adoptable	1	S24-S28	54.220	900	Circular
									2	S20-S28	54.220	600	Circular
									0	S28-S30	54.220	300	Circular
S30	443074.522	407109.433	55.500	1.350	1200		Manhole	Adoptable	1	S28-S30	54.150	300	Circular
S12	442902.215	407064.400	58.019	1.854	1200		Manhole	Adoptable					
									0	S12-S14	56.165	375	Circular
S14	442946.135	407033.145	57.443	1.818	1200		Manhole	Adoptable	1	S12-S14	55.625	375	Circular
									0	S14-S16	55.625	375	Circular
S24	443050.725	407113.289	55.800	1.500	3000		Manhole	Adoptable					
									0	S24-S28	54.300	900	Circular

Rainfall Methodology	FSR		Return Period (years)	Climate Change (%)
FSR Region	England and Wales		1	0
M5-60 (mm)	20.000		30	0
Ratio-R	0.400		100	40
Summer CV	0.750			
Winter CV	0.840			
Analysis Speed	Normal			
Drain Down Time (mins)	1440			
Additional Storage (m³/ha)	0.0			
Storm Durations (mins)	15			
	30			
	60			
	120			
	180			
	240			
	360			
	480			
	600			
	720			
	960			
	1440			
Check Discharge Rate(s)	x			
1 year (l/s)				
30 year (l/s)				
100 year (l/s)				
Check Discharge Volume	x			
100 year 360 minute (m³)				

Hydro-Brake®													
Node	Flap Valve	Online / Offline	Downstream Link	Replaces Downstream Link	Loop to Node	Invert Level (m)	Design Depth (m)	Design Flow (l/s)	Objective	Sump Available	Product Number	Min Outlet Diameter (m)	Min Node Diameter (mm)
S28	x	Online				54.220	1.280	16.5(HE)	Minimise upstream storage		CTL-SHE-0179-1650-1280-1650	0.225	1500

Depth/Area/Inf Area									
Node	Base Inf Coefficient (m/hr)	Side Inf Coefficient (m/hr)	Safety Factor	Porosity	Invert Level (m)	Time to half empty (mins)	Depth (m)	Area (m ²)	Inf. Area (m ²)
S24	0.00000	0.00000	2.0	1.00	54.300	380	0.000	549.0	0.0
							0.915	847.6	0.0
							0.916	905.7	0.0
							1.500	1259.7	0.0
							1.501	0.0	0.0

Default Values		Overrides						
Entry Loss (manhole)	0.250	Link	Entry Loss	Exit Loss		Node	Flood Risk (m)	
Exit Loss (manhole)	0.250							
Entry Loss (junction)	0.000							
Exit Loss (junction)	0.000							
Flood Risk (m)	0.300							

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

100 year 360 minute (m³)	
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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.52%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S2	10	59.887	0.078	16.9	0.0882	0.0000	OK	S2-S4	S4	16.7	0.726	0.151	0.4724	
15 minute winter	S4	10	59.746	0.140	32.9	0.1580	0.0000	OK	S4-S6	S6	32.3	1.242	0.412	0.9505	
15 minute winter	S6	10	59.524	0.099	42.1	0.1124	0.0000	OK	S6-S8	S8	41.8	2.021	0.193	0.1650	
15 minute winter	S8	11	59.227	0.102	54.4	0.1154	0.0000	OK	S8-S10	S10	54.3	2.622	0.239	0.9656	
15 minute winter	S10	11	57.231	0.106	68.9	0.1203	0.0000	OK	S10-S16	S16	69.4	2.765	0.168	1.0570	
15 minute winter	S16	11	55.376	0.176	140.9	0.3113	0.0000	OK	S16-S18	S18	141.3	1.694	0.252	5.3409	
15 minute winter	S18	11	54.743	0.372	162.9	0.6565	0.0000	OK	S18-S20	S20	163.6	0.911	0.534	7.3287	
15 minute winter	S20	11	54.701	0.406	174.7	0.7174	0.0000	OK	S20-S28	S28	189.8	1.051	0.598	7.3352	
15 minute summer	S28	11	54.659	0.439	175.3	3.1036	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				88.6
15 minute summer	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
15 minute winter	S12	10	56.258	0.093	28.3	0.1055	0.0000	OK	S12-S14	S14	27.8	0.937	0.139	1.6182	
15 minute winter	S14	11	55.769	0.144	51.3	0.1634	0.0000	OK	S14-S16	S16	50.4	1.328	0.297	1.4536	
120 minute winter	S24	96	54.490	0.190	54.3	111.7809	0.0000	OK	S24-S28	S28	-43.3	-0.556	-0.025	1.4055	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.52%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S2	10	59.934	0.125	41.5	0.1415	0.0000	OK	S2-S4	S4	41.2	0.890	0.371	0.9186	
15 minute winter	S4	10	59.857	0.251	81.0	0.2836	0.0000	OK	S4-S6	S6	79.3	1.492	1.013	1.9201	
15 minute winter	S6	10	59.602	0.177	103.5	0.1997	0.0000	OK	S6-S8	S8	102.5	2.418	0.474	0.3388	
15 minute winter	S8	11	59.297	0.172	133.6	0.1951	0.0000	OK	S8-S10	S10	133.1	3.279	0.587	1.8934	
15 minute winter	S10	11	57.301	0.176	169.6	0.1988	0.0000	OK	S10-S16	S16	170.1	3.488	0.413	2.0556	
15 minute winter	S16	11	55.510	0.310	346.2	0.5470	0.0000	OK	S16-S18	S18	350.8	1.802	0.626	9.8373	
15 minute summer	S18	10	55.135	0.764	388.2	1.3496	0.0000	SURCHARGED	S18-S20	S20	395.9	1.406	1.293	10.6902	
15 minute summer	S20	10	54.969	0.674	427.6	1.1901	0.0000	SURCHARGED	S20-S28	S28	430.3	1.567	1.355	9.7015	
180 minute winter	S28	176	54.841	0.621	98.7	4.3926	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				531.8
15 minute summer	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
15 minute winter	S12	10	56.314	0.149	69.4	0.1687	0.0000	OK	S12-S14	S14	68.6	1.154	0.343	3.2123	
15 minute winter	S14	11	55.877	0.252	126.4	0.2850	0.0000	OK	S14-S16	S16	123.9	1.643	0.732	2.8898	
180 minute winter	S24	176	54.841	0.541	98.7	348.8930	0.0000	OK	S24-S28	S28	-79.3	-0.499	-0.046	4.7228	

Results for 100 year +40% Critical Storm Duration. Lowest mass balance: 99.52%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S2	11	60.996	1.187	75.4	1.3424	0.0000	SURCHARGED	S2-S4	S4	70.5	1.001	0.634	1.4260	
15 minute winter	S4	11	60.898	1.292	142.7	1.4617	0.0000	FLOOD RISK	S4-S6	S6	137.4	1.951	1.755	2.5506	
15 minute winter	S6	11	60.306	0.881	181.4	0.9960	0.0000	SURCHARGED	S6-S8	S8	169.8	2.549	0.785	0.5617	
15 minute winter	S8	11	59.980	0.855	226.0	0.9670	0.0000	SURCHARGED	S8-S10	S10	220.5	3.472	0.973	3.2840	
15 minute winter	S10	11	57.917	0.792	279.5	0.8957	0.0000	SURCHARGED	S10-S16	S16	281.5	3.318	0.683	4.6475	
15 minute winter	S16	11	56.910	1.710	585.1	3.0219	0.0000	SURCHARGED	S16-S18	S18	585.5	2.711	1.044	12.1974	
15 minute winter	S18	11	55.898	1.527	681.9	2.6979	0.0000	SURCHARGED	S18-S20	S20	682.8	2.424	2.231	10.6902	
15 minute winter	S20	11	55.378	1.083	742.5	1.9138	0.0000	SURCHARGED	S20-S28	S28	743.1	2.638	2.340	9.8139	
240 minute winter	S28	240	55.360	1.140	148.5	8.0586	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1036.8
15 minute summer	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
15 minute winter	S12	11	57.658	1.493	126.2	1.6886	0.0000	SURCHARGED	S12-S14	S14	118.0	1.249	0.589	5.9457	
15 minute winter	S14	11	57.443	1.818	218.5	2.0562	0.3268	FLOOD	S14-S16	S16	211.4	1.916	1.248	4.2255	
240 minute winter	S24	240	55.360	1.060	159.0	784.0631	0.0000	SURCHARGED	S24-S28	S28	-130.8	0.476	-0.077	6.9176	

Results for 1 year 15 minute summer. 1455 minute analysis at 1 minute timestep. Mass balance: 99.59%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S2	10	59.885	0.076	16.1	0.0862	0.0000	OK	S2-S4	S4	16.0	0.717	0.144	0.4572	
15 minute summer	S4	10	59.742	0.136	31.4	0.1541	0.0000	OK	S4-S6	S6	30.9	1.228	0.395	0.9189	
15 minute summer	S6	10	59.522	0.097	40.3	0.1095	0.0000	OK	S6-S8	S8	40.1	2.001	0.185	0.1597	
15 minute summer	S8	11	59.225	0.100	52.0	0.1127	0.0000	OK	S8-S10	S10	52.0	2.591	0.229	0.9357	
15 minute summer	S10	11	57.229	0.104	66.1	0.1176	0.0000	OK	S10-S16	S16	66.4	2.732	0.161	1.0246	
15 minute summer	S16	11	55.372	0.172	135.1	0.3044	0.0000	OK	S16-S18	S18	135.4	1.695	0.242	5.0918	
15 minute summer	S18	12	54.736	0.365	156.3	0.6445	0.0000	OK	S18-S20	S20	150.1	0.925	0.490	7.0894	
15 minute summer	S20	11	54.690	0.395	160.7	0.6983	0.0000	OK	S20-S28	S28	175.3	1.001	0.552	7.2789	
15 minute summer	S28	11	54.659	0.439	175.3	3.1036	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				88.6
15 minute summer	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
15 minute summer	S12	10	56.256	0.091	27.0	0.1032	0.0000	OK	S12-S14	S14	26.6	0.935	0.133	1.5687	
15 minute summer	S14	11	55.766	0.141	49.0	0.1595	0.0000	OK	S14-S16	S16	48.2	1.312	0.285	1.4078	
15 minute summer	S24	20	54.421	0.121	202.9	69.5403	0.0000	OK	S24-S28	S28	-177.5	-1.519	-0.104	1.7212	

Results for 1 year 15 minute winter. 1455 minute analysis at 1 minute timestep. Mass balance: 99.73%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S2	10	59.887	0.078	16.9	0.0882	0.0000	OK	S2-S4	S4	16.7	0.726	0.151	0.4724	
15 minute winter	S4	10	59.746	0.140	32.9	0.1580	0.0000	OK	S4-S6	S6	32.3	1.242	0.412	0.9505	
15 minute winter	S6	10	59.524	0.099	42.1	0.1124	0.0000	OK	S6-S8	S8	41.8	2.021	0.193	0.1650	
15 minute winter	S8	11	59.227	0.102	54.4	0.1154	0.0000	OK	S8-S10	S10	54.3	2.622	0.239	0.9656	
15 minute winter	S10	11	57.231	0.106	68.9	0.1203	0.0000	OK	S10-S16	S16	69.4	2.765	0.168	1.0570	
15 minute winter	S16	11	55.376	0.176	140.9	0.3113	0.0000	OK	S16-S18	S18	141.3	1.694	0.252	5.3409	
15 minute winter	S18	11	54.743	0.372	162.9	0.6565	0.0000	OK	S18-S20	S20	163.6	0.911	0.534	7.3287	
15 minute winter	S20	11	54.701	0.406	174.7	0.7174	0.0000	OK	S20-S28	S28	189.8	1.051	0.598	7.3352	
15 minute winter	S28	11	54.654	0.434	189.8	3.0654	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				99.4
15 minute winter	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
15 minute winter	S12	10	56.258	0.093	28.3	0.1055	0.0000	OK	S12-S14	S14	27.8	0.937	0.139	1.6182	
15 minute winter	S14	11	55.769	0.144	51.3	0.1634	0.0000	OK	S14-S16	S16	50.4	1.328	0.297	1.4536	
15 minute winter	S24	20	54.437	0.137	214.8	79.1927	0.0000	OK	S24-S28	S28	-188.0	-1.531	-0.110	1.7120	

Results for 1 year 30 minute summer. 1470 minute analysis at 1 minute timestep. Mass balance: 99.94%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S2	18	59.881	0.072	14.4	0.0817	0.0000	OK	S2-S4	S4	14.4	0.697	0.129	0.4255	
30 minute summer	S4	18	59.735	0.129	28.2	0.1460	0.0000	OK	S4-S6	S6	28.2	1.199	0.360	0.8555	
30 minute summer	S6	18	59.517	0.092	36.6	0.1039	0.0000	OK	S6-S8	S8	36.6	1.961	0.169	0.1489	
30 minute summer	S8	18	59.220	0.095	47.4	0.1072	0.0000	OK	S8-S10	S10	47.2	2.522	0.208	0.8724	
30 minute summer	S10	18	57.224	0.099	60.4	0.1118	0.0000	OK	S10-S16	S16	60.0	2.654	0.146	0.9535	
30 minute summer	S16	18	55.363	0.163	122.6	0.2881	0.0000	OK	S16-S18	S18	121.8	1.675	0.217	4.3986	
30 minute summer	S18	19	54.692	0.321	141.4	0.5675	0.0000	OK	S18-S20	S20	141.2	0.912	0.461	5.9369	
30 minute summer	S20	18	54.634	0.339	152.2	0.5986	0.0000	OK	S20-S28	S28	155.7	1.024	0.490	5.8574	
30 minute summer	S28	18	54.573	0.353	155.7	2.4937	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				115.7
30 minute summer	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
30 minute summer	S12	18	56.252	0.087	24.1	0.0981	0.0000	OK	S12-S14	S14	24.1	0.904	0.120	1.4663	
30 minute summer	S14	18	55.759	0.134	44.1	0.1510	0.0000	OK	S14-S16	S16	43.3	1.275	0.256	1.3056	
30 minute summer	S24	33	54.445	0.145	173.9	84.0573	0.0000	OK	S24-S28	S28	-147.4	-1.415	-0.086	1.3297	

Results for 1 year 30 minute winter. 1470 minute analysis at 1 minute timestep. Mass balance: 99.83%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	S2	18	59.878	0.069	13.0	0.0776	0.0000	OK	S2-S4	S4	13.0	0.677	0.117	0.3957	
30 minute winter	S4	18	59.728	0.122	25.5	0.1383	0.0000	OK	S4-S6	S6	25.5	1.170	0.326	0.7931	
30 minute winter	S6	18	59.512	0.087	33.1	0.0980	0.0000	OK	S6-S8	S8	33.1	1.915	0.153	0.1378	
30 minute winter	S8	18	59.215	0.090	42.9	0.1017	0.0000	OK	S8-S10	S10	42.7	2.456	0.189	0.8119	
30 minute winter	S10	18	57.219	0.094	54.6	0.1062	0.0000	OK	S10-S16	S16	54.5	2.584	0.132	0.8883	
30 minute winter	S16	18	55.355	0.155	111.3	0.2744	0.0000	OK	S16-S18	S18	110.9	1.647	0.198	3.9882	
30 minute winter	S18	18	54.670	0.299	128.6	0.5287	0.0000	OK	S18-S20	S20	129.4	0.913	0.423	5.4282	
30 minute winter	S20	17	54.607	0.312	139.8	0.5511	0.0000	OK	S20-S28	S28	142.4	1.023	0.448	5.2935	
30 minute winter	S28	16	54.548	0.328	142.4	2.3214	0.0000	SURCHARGED	Hydro-Brake®	S30	16.4				129.3
30 minute winter	S30	1	54.150	0.000	16.4	0.0000	0.0000	OK							
30 minute winter	S12	18	56.248	0.083	21.8	0.0933	0.0000	OK	S12-S14	S14	21.8	0.873	0.109	1.3651	
30 minute winter	S14	18	55.752	0.127	39.9	0.1434	0.0000	OK	S14-S16	S16	39.5	1.244	0.233	1.2181	
30 minute winter	S24	33	54.465	0.165	155.1	96.3477	0.0000	OK	S24-S28	S28	-130.1	-1.348	-0.076	1.2322	

Results for 1 year 60 minute summer. 1500 minute analysis at 1 minute timestep. Mass balance: 99.90%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S2	33	59.872	0.063	10.9	0.0711	0.0000	OK	S2-S4	S4	10.9	0.645	0.098	0.3483	
60 minute summer	S4	33	59.717	0.111	21.3	0.1256	0.0000	OK	S4-S6	S6	21.3	1.119	0.272	0.6932	
60 minute summer	S6	33	59.503	0.078	27.6	0.0884	0.0000	OK	S6-S8	S8	27.6	1.833	0.127	0.1200	
60 minute summer	S8	33	59.207	0.082	35.8	0.0924	0.0000	OK	S8-S10	S10	35.6	2.335	0.157	0.7118	
60 minute summer	S10	33	57.211	0.086	45.6	0.0967	0.0000	OK	S10-S16	S16	45.5	2.458	0.110	0.7795	
60 minute summer	S16	33	55.342	0.142	92.9	0.2501	0.0000	OK	S16-S18	S18	92.4	1.633	0.165	3.2704	
60 minute summer	S18	34	54.633	0.262	107.2	0.4634	0.0000	OK	S18-S20	S20	106.8	0.888	0.349	4.5687	
60 minute summer	S20	34	54.564	0.269	115.5	0.4756	0.0000	OK	S20-S28	S28	116.3	0.966	0.366	4.2152	
60 minute summer	S28	37	54.496	0.276	116.3	1.9493	0.0000	OK	Hydro-Brake®	S30	16.2				146.5
60 minute summer	S30	1	54.150	0.000	16.2	0.0000	0.0000	OK							
60 minute summer	S12	33	56.240	0.075	18.2	0.0853	0.0000	OK	S12-S14	S14	18.2	0.834	0.091	1.1950	
60 minute summer	S14	33	55.740	0.115	33.3	0.1299	0.0000	OK	S14-S16	S16	32.9	1.185	0.194	1.0655	
60 minute summer	S24	57	54.460	0.160	122.3	93.1175	0.0000	OK	S24-S28	S28	-101.4	-1.188	-0.059	1.1555	

Results for 1 year 60 minute winter. 1500 minute analysis at 1 minute timestep. Mass balance: 99.96%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	S2	33	59.866	0.057	8.8	0.0640	0.0000	OK	S2-S4	S4	8.8	0.606	0.079	0.2994	
60 minute winter	S4	33	59.705	0.099	17.2	0.1124	0.0000	OK	S4-S6	S6	17.2	1.059	0.220	0.5921	
60 minute winter	S6	33	59.494	0.069	22.3	0.0786	0.0000	OK	S6-S8	S8	22.3	1.740	0.103	0.1022	
60 minute winter	S8	33	59.198	0.073	28.9	0.0829	0.0000	OK	S8-S10	S10	28.8	2.202	0.127	0.6110	
60 minute winter	S10	33	57.202	0.077	36.9	0.0869	0.0000	OK	S10-S16	S16	36.9	2.318	0.089	0.6705	
60 minute winter	S16	33	55.328	0.128	75.3	0.2256	0.0000	OK	S16-S18	S18	75.3	1.609	0.134	2.6705	
60 minute winter	S18	34	54.603	0.232	87.2	0.4101	0.0000	OK	S18-S20	S20	86.7	0.851	0.283	3.9623	
60 minute winter	S20	34	54.540	0.245	94.1	0.4332	0.0000	OK	S20-S28	S28	93.1	0.891	0.293	4.0446	
60 minute winter	S28	36	54.493	0.273	93.1	1.9283	0.0000	OK	Hydro-Brake®	S30	16.2				164.5
60 minute winter	S30	1	54.150	0.000	16.2	0.0000	0.0000	OK							
60 minute winter	S12	33	56.233	0.068	14.7	0.0769	0.0000	OK	S12-S14	S14	14.7	0.782	0.073	1.0260	
60 minute winter	S14	33	55.728	0.103	26.9	0.1163	0.0000	OK	S14-S16	S16	26.8	1.120	0.158	0.9163	
60 minute winter	S24	60	54.485	0.185	93.2	108.2164	0.0000	OK	S24-S28	S28	-76.4	-1.035	-0.045	1.3563	

Results for 1 year 120 minute summer. 1560 minute analysis at 2 minute timestep. Mass balance: 99.98%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S2	64	59.860	0.051	7.2	0.0581	0.0000	OK	S2-S4	S4	7.2	0.572	0.065	0.2600	
120 minute summer	S4	64	59.696	0.090	14.1	0.1015	0.0000	OK	S4-S6	S6	14.1	1.005	0.180	0.5119	
120 minute summer	S6	64	59.487	0.062	18.3	0.0706	0.0000	OK	S6-S8	S8	18.3	1.657	0.085	0.0881	
120 minute summer	S8	64	59.191	0.066	23.7	0.0749	0.0000	OK	S8-S10	S10	23.7	2.084	0.105	0.5304	
120 minute summer	S10	64	57.195	0.070	30.3	0.0787	0.0000	OK	S10-S16	S16	30.3	2.190	0.073	0.5828	
120 minute summer	S16	64	55.316	0.116	61.8	0.2057	0.0000	OK	S16-S18	S18	61.8	1.600	0.110	2.2097	
120 minute summer	S18	64	54.579	0.208	71.6	0.3670	0.0000	OK	S18-S20	S20	71.2	0.793	0.233	3.4110	
120 minute summer	S20	64	54.514	0.219	77.2	0.3878	0.0000	OK	S20-S28	S28	76.2	0.746	0.240	3.6002	
120 minute summer	S28	66	54.474	0.254	76.2	1.7961	0.0000	OK	Hydro-Brake®	S30	16.0				181.8
120 minute summer	S30	2	54.150	0.000	16.0	0.0000	0.0000	OK							
120 minute summer	S12	64	56.227	0.062	12.0	0.0696	0.0000	OK	S12-S14	S14	12.0	0.741	0.060	0.8876	
120 minute summer	S14	64	55.718	0.093	22.0	0.1049	0.0000	OK	S14-S16	S16	21.9	1.060	0.130	0.7937	
120 minute summer	S24	90	54.467	0.167	73.5	97.5265	0.0000	OK	S24-S28	S28	-60.0	-0.715	-0.035	1.2125	

Results for 1 year 120 minute winter. 1560 minute analysis at 2 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S2	64	59.854	0.045	5.5	0.0509	0.0000	OK	S2-S4	S4	5.5	0.528	0.049	0.2154	
120 minute winter	S4	64	59.685	0.079	10.8	0.0888	0.0000	OK	S4-S6	S6	10.8	0.937	0.138	0.4215	
120 minute winter	S6	64	59.479	0.054	14.0	0.0612	0.0000	OK	S6-S8	S8	14.0	1.543	0.065	0.0724	
120 minute winter	S8	64	59.183	0.058	18.2	0.0656	0.0000	OK	S8-S10	S10	18.2	1.931	0.080	0.4396	
120 minute winter	S10	64	57.186	0.061	23.3	0.0690	0.0000	OK	S10-S16	S16	23.3	2.031	0.057	0.4833	
120 minute winter	S16	64	55.304	0.104	47.7	0.1835	0.0000	OK	S16-S18	S18	47.7	1.580	0.085	1.7081	
120 minute winter	S18	64	54.550	0.179	55.2	0.3168	0.0000	OK	S18-S20	S20	55.1	0.746	0.180	2.8120	
120 minute winter	S20	98	54.491	0.196	59.8	0.3460	0.0000	OK	S20-S28	S28	59.5	0.672	0.187	3.5344	
120 minute winter	S28	96	54.490	0.270	59.5	1.9106	0.0000	OK	Hydro-Brake®	S30	16.1				204.6
120 minute winter	S30	2	54.150	0.000	16.1	0.0000	0.0000	OK							
120 minute winter	S12	64	56.219	0.054	9.3	0.0615	0.0000	OK	S12-S14	S14	9.3	0.688	0.046	0.7377	
120 minute winter	S14	64	55.706	0.081	17.0	0.0919	0.0000	OK	S14-S16	S16	17.0	0.987	0.100	0.6596	
120 minute winter	S24	96	54.490	0.190	54.3	111.7809	0.0000	OK	S24-S28	S28	-43.3	-0.556	-0.025	1.4055	

Results for 1 year 180 minute summer. 1620 minute analysis at 4 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S2	96	59.854	0.045	5.4	0.0505	0.0000	OK	S2-S4	S4	5.4	0.526	0.049	0.2125	
180 minute summer	S4	96	59.684	0.078	10.6	0.0880	0.0000	OK	S4-S6	S6	10.6	0.931	0.135	0.4164	
180 minute summer	S6	96	59.479	0.054	13.8	0.0607	0.0000	OK	S6-S8	S8	13.8	1.539	0.064	0.0716	
180 minute summer	S8	96	59.183	0.058	17.9	0.0650	0.0000	OK	S8-S10	S10	17.9	1.922	0.079	0.4345	
180 minute summer	S10	96	57.186	0.061	22.9	0.0684	0.0000	OK	S10-S16	S16	22.9	2.021	0.056	0.4774	
180 minute summer	S16	96	55.303	0.103	46.7	0.1819	0.0000	OK	S16-S18	S18	46.7	1.574	0.083	1.6751	
180 minute summer	S18	96	54.548	0.177	54.1	0.3134	0.0000	OK	S18-S20	S20	54.1	0.743	0.177	2.7641	
180 minute summer	S20	96	54.484	0.189	58.7	0.3344	0.0000	OK	S20-S28	S28	58.4	0.669	0.184	3.0599	
180 minute summer	S28	128	54.466	0.246	58.4	1.7408	0.0000	OK	Hydro-Brake®	S30	15.9				206.3
180 minute summer	S30	4	54.150	0.000	15.9	0.0000	0.0000	OK							
180 minute summer	S12	96	56.219	0.054	9.1	0.0609	0.0000	OK	S12-S14	S14	9.1	0.687	0.045	0.7259	
180 minute summer	S14	96	55.705	0.080	16.6	0.0908	0.0000	OK	S14-S16	S16	16.6	0.980	0.098	0.6488	
180 minute summer	S24	124	54.466	0.166	53.1	97.0223	0.0000	OK	S24-S28	S28	-42.1	-0.543	-0.025	1.2055	

Results for 1 year 180 minute winter. 1620 minute analysis at 4 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	S2	96	59.849	0.040	4.2	0.0448	0.0000	OK	S2-S4	S4	4.2	0.489	0.038	0.1777	
180 minute winter	S4	96	59.674	0.068	8.2	0.0775	0.0000	OK	S4-S6	S6	8.2	0.869	0.105	0.3452	
180 minute winter	S6	96	59.472	0.047	10.6	0.0529	0.0000	OK	S6-S8	S8	10.6	1.437	0.049	0.0589	
180 minute winter	S8	96	59.175	0.050	13.7	0.0570	0.0000	OK	S8-S10	S10	13.7	1.778	0.060	0.3595	
180 minute winter	S10	96	57.178	0.053	17.5	0.0599	0.0000	OK	S10-S16	S16	17.5	1.869	0.042	0.3947	
180 minute winter	S16	96	55.290	0.090	35.9	0.1599	0.0000	OK	S16-S18	S18	35.9	1.474	0.064	1.3755	
180 minute winter	S18	96	54.524	0.153	41.6	0.2709	0.0000	OK	S18-S20	S20	41.6	0.703	0.136	2.2586	
180 minute winter	S20	136	54.488	0.193	45.1	0.3414	0.0000	OK	S20-S28	S28	44.9	0.612	0.141	3.4804	
180 minute winter	S28	136	54.488	0.268	44.9	1.8911	0.0000	OK	Hydro-Brake®	S30	16.1				229.7
180 minute winter	S30	4	54.150	0.000	16.1	0.0000	0.0000	OK							
180 minute winter	S12	96	56.213	0.048	7.0	0.0537	0.0000	OK	S12-S14	S14	7.0	0.634	0.035	0.6027	
180 minute winter	S14	96	55.695	0.070	12.8	0.0796	0.0000	OK	S14-S16	S16	12.8	0.910	0.076	0.5392	
180 minute winter	S24	136	54.488	0.188	37.0	110.0641	0.0000	OK	S24-S28	S28	-28.6	-0.416	-0.017	1.3822	

Results for 1 year 240 minute summer. 1680 minute analysis at 4 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S2	124	59.850	0.041	4.6	0.0467	0.0000	OK	S2-S4	S4	4.6	0.501	0.041	0.1887	
240 minute summer	S4	124	59.677	0.071	9.0	0.0807	0.0000	OK	S4-S6	S6	8.9	0.887	0.114	0.3672	
240 minute summer	S6	124	59.474	0.049	11.6	0.0553	0.0000	OK	S6-S8	S8	11.6	1.468	0.053	0.0628	
240 minute summer	S8	124	59.178	0.053	15.1	0.0596	0.0000	OK	S8-S10	S10	15.0	1.823	0.066	0.3826	
240 minute summer	S10	124	57.180	0.055	19.2	0.0625	0.0000	OK	S10-S16	S16	19.1	1.916	0.046	0.4193	
240 minute summer	S16	124	55.294	0.094	39.1	0.1664	0.0000	OK	S16-S18	S18	38.8	1.506	0.069	1.4546	
240 minute summer	S18	124	54.531	0.160	45.1	0.2825	0.0000	OK	S18-S20	S20	44.8	0.719	0.146	2.3658	
240 minute summer	S20	128	54.465	0.170	48.7	0.2999	0.0000	OK	S20-S28	S28	48.1	0.634	0.152	2.9946	
240 minute summer	S28	160	54.463	0.243	48.1	1.7171	0.0000	OK	Hydro-Brake®	S30	15.9				223.5
240 minute summer	S30	4	54.150	0.000	15.9	0.0000	0.0000	OK							
240 minute summer	S12	124	56.215	0.050	7.7	0.0561	0.0000	OK	S12-S14	S14	7.6	0.651	0.038	0.6392	
240 minute summer	S14	124	55.698	0.073	14.0	0.0829	0.0000	OK	S14-S16	S16	13.8	0.930	0.082	0.5703	
240 minute summer	S24	160	54.463	0.163	41.1	94.9572	0.0000	OK	S24-S28	S28	-32.4	-0.457	-0.019	1.1779	

Results for 1 year 240 minute winter. 1680 minute analysis at 4 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	S2	124	59.845	0.036	3.4	0.0405	0.0000	OK	S2-S4	S4	3.4	0.460	0.031	0.1539	
240 minute winter	S4	124	59.668	0.062	6.7	0.0701	0.0000	OK	S4-S6	S6	6.7	0.820	0.085	0.2986	
240 minute winter	S6	124	59.467	0.042	8.7	0.0477	0.0000	OK	S6-S8	S8	8.7	1.360	0.040	0.0509	
240 minute winter	S8	124	59.171	0.046	11.3	0.0517	0.0000	OK	S8-S10	S10	11.3	1.680	0.050	0.3125	
240 minute winter	S10	124	57.173	0.048	14.5	0.0546	0.0000	OK	S10-S16	S16	14.4	1.765	0.035	0.3446	
240 minute winter	S16	124	55.282	0.082	29.6	0.1450	0.0000	OK	S16-S18	S18	29.5	1.394	0.053	1.1951	
240 minute winter	S18	124	54.509	0.138	34.2	0.2435	0.0000	OK	S18-S20	S20	34.1	0.672	0.112	2.1401	
240 minute winter	S20	172	54.482	0.187	37.0	0.3308	0.0000	OK	S20-S28	S28	36.6	0.567	0.115	3.3578	
240 minute winter	S28	172	54.481	0.261	36.6	1.8473	0.0000	OK	Hydro-Brake®	S30	16.1				252.2
240 minute winter	S30	4	54.150	0.000	16.1	0.0000	0.0000	OK							
240 minute winter	S12	124	56.208	0.043	5.8	0.0491	0.0000	OK	S12-S14	S14	5.8	0.600	0.029	0.5258	
240 minute winter	S14	124	55.689	0.064	10.6	0.0723	0.0000	OK	S14-S16	S16	10.5	0.860	0.062	0.4696	
240 minute winter	S24	172	54.481	0.181	27.6	106.2287	0.0000	OK	S24-S28	S28	-20.6	0.378	-0.012	1.3297	

Results for 1 year 360 minute summer. 1800 minute analysis at 8 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S2	184	59.845	0.036	3.5	0.0410	0.0000	OK	S2-S4	S4	3.5	0.461	0.031	0.1564	
360 minute summer	S4	184	59.669	0.063	6.9	0.0708	0.0000	OK	S4-S6	S6	6.8	0.823	0.087	0.3035	
360 minute summer	S6	184	59.468	0.043	8.9	0.0483	0.0000	OK	S6-S8	S8	8.9	1.369	0.041	0.0518	
360 minute summer	S8	184	59.171	0.046	11.6	0.0523	0.0000	OK	S8-S10	S10	11.5	1.691	0.051	0.3174	
360 minute summer	S10	184	57.174	0.049	14.7	0.0550	0.0000	OK	S10-S16	S16	14.6	1.772	0.035	0.3478	
360 minute summer	S16	184	55.282	0.082	29.9	0.1455	0.0000	OK	S16-S18	S18	29.6	1.395	0.053	1.2000	
360 minute summer	S18	184	54.509	0.138	34.4	0.2443	0.0000	OK	S18-S20	S20	34.2	0.679	0.112	1.9118	
360 minute summer	S20	224	54.453	0.158	37.2	0.2786	0.0000	OK	S20-S28	S28	36.6	0.575	0.115	2.7687	
360 minute summer	S28	224	54.451	0.231	36.6	1.6331	0.0000	OK	Hydro-Brake®	S30	15.8				249.7
360 minute summer	S30	8	54.150	0.000	15.8	0.0000	0.0000	OK							
360 minute summer	S12	184	56.209	0.044	5.9	0.0494	0.0000	OK	S12-S14	S14	5.9	0.603	0.029	0.5287	
360 minute summer	S14	184	55.689	0.064	10.8	0.0725	0.0000	OK	S14-S16	S16	10.6	0.860	0.063	0.4713	
360 minute summer	S24	224	54.451	0.151	28.0	87.7551	0.0000	OK	S24-S28	S28	-20.8	-0.334	-0.012	1.0828	

Results for 1 year 360 minute winter. 1800 minute analysis at 8 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S2	184	59.841	0.032	2.6	0.0357	0.0000	OK	S2-S4	S4	2.6	0.421	0.023	0.1273	
360 minute winter	S4	184	59.660	0.054	5.1	0.0614	0.0000	OK	S4-S6	S6	5.1	0.758	0.065	0.2456	
360 minute winter	S6	184	59.462	0.037	6.6	0.0415	0.0000	OK	S6-S8	S8	6.6	1.262	0.030	0.0416	
360 minute winter	S8	184	59.165	0.040	8.5	0.0450	0.0000	OK	S8-S10	S10	8.5	1.544	0.037	0.2556	
360 minute winter	S10	184	57.167	0.042	10.9	0.0477	0.0000	OK	S10-S16	S16	10.9	1.621	0.026	0.2821	
360 minute winter	S16	184	55.271	0.071	22.1	0.1258	0.0000	OK	S16-S18	S18	22.1	1.280	0.039	0.9736	
360 minute winter	S18	184	54.489	0.118	25.6	0.2080	0.0000	OK	S18-S20	S20	25.6	0.628	0.083	1.7990	
360 minute winter	S20	240	54.463	0.168	27.8	0.2965	0.0000	OK	S20-S28	S28	27.4	0.504	0.086	2.9683	
360 minute winter	S28	248	54.462	0.242	27.4	1.7077	0.0000	OK	Hydro-Brake®	S30	15.9				282.2
360 minute winter	S30	8	54.150	0.000	15.9	0.0000	0.0000	OK							
360 minute winter	S12	184	56.203	0.038	4.3	0.0426	0.0000	OK	S12-S14	S14	4.3	0.549	0.021	0.4263	
360 minute winter	S14	184	55.680	0.055	7.9	0.0625	0.0000	OK	S14-S16	S16	7.9	0.790	0.046	0.3814	
360 minute winter	S24	248	54.462	0.162	17.1	94.1296	0.0000	OK	S24-S28	S28	14.8	0.402	0.009	1.1670	

Results for 1 year 480 minute summer. 1920 minute analysis at 8 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S2	248	59.842	0.033	2.8	0.0370	0.0000	OK	S2-S4	S4	2.8	0.431	0.025	0.1344	
480 minute summer	S4	248	59.662	0.056	5.5	0.0637	0.0000	OK	S4-S6	S6	5.5	0.777	0.070	0.2595	
480 minute summer	S6	248	59.463	0.038	7.1	0.0431	0.0000	OK	S6-S8	S8	7.1	1.289	0.033	0.0440	
480 minute summer	S8	248	59.166	0.041	9.2	0.0469	0.0000	OK	S8-S10	S10	9.2	1.582	0.041	0.2712	
480 minute summer	S10	248	57.169	0.044	11.8	0.0496	0.0000	OK	S10-S16	S16	11.8	1.662	0.029	0.2993	
480 minute summer	S16	248	55.274	0.074	24.1	0.1312	0.0000	OK	S16-S18	S18	24.1	1.313	0.043	1.0361	
480 minute summer	S18	248	54.495	0.124	27.9	0.2187	0.0000	OK	S18-S20	S20	27.9	0.648	0.091	1.6535	
480 minute summer	S20	288	54.441	0.146	30.3	0.2576	0.0000	OK	S20-S28	S28	30.1	0.531	0.095	2.5353	
480 minute summer	S28	296	54.439	0.219	30.1	1.5473	0.0000	OK	Hydro-Brake®	S30	15.6				271.1
480 minute summer	S30	8	54.150	0.000	15.6	0.0000	0.0000	OK							
480 minute summer	S12	248	56.204	0.039	4.7	0.0445	0.0000	OK	S12-S14	S14	4.7	0.565	0.023	0.4539	
480 minute summer	S14	248	55.683	0.058	8.6	0.0654	0.0000	OK	S14-S16	S16	8.6	0.812	0.051	0.4059	
480 minute summer	S24	296	54.439	0.139	20.5	80.4021	0.0000	OK	S24-S28	S28	-14.8	0.383	-0.009	0.9867	

Results for 1 year 480 minute winter. 1920 minute analysis at 8 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	S2	248	59.838	0.028	2.1	0.0322	0.0000	OK	S2-S4	S4	2.1	0.397	0.019	0.1096	
480 minute winter	S4	248	59.655	0.049	4.1	0.0553	0.0000	OK	S4-S6	S6	4.1	0.713	0.052	0.2105	
480 minute winter	S6	248	59.458	0.033	5.3	0.0373	0.0000	OK	S6-S8	S8	5.3	1.183	0.024	0.0357	
480 minute winter	S8	248	59.161	0.036	6.9	0.0408	0.0000	OK	S8-S10	S10	6.9	1.451	0.030	0.2218	
480 minute winter	S10	248	57.163	0.038	8.8	0.0430	0.0000	OK	S10-S16	S16	8.8	1.523	0.021	0.2436	
480 minute winter	S16	248	55.264	0.064	18.0	0.1139	0.0000	OK	S16-S18	S18	18.0	1.204	0.032	0.8440	
480 minute winter	S18	240	54.476	0.105	20.8	0.1863	0.0000	OK	S18-S20	S20	20.8	0.599	0.068	1.5047	
480 minute winter	S20	312	54.443	0.148	22.6	0.2619	0.0000	OK	S20-S28	S28	22.4	0.461	0.070	2.5865	
480 minute winter	S28	312	54.442	0.222	22.4	1.5658	0.0000	OK	Hydro-Brake®	S30	15.7				304.6
480 minute winter	S30	8	54.150	0.000	15.7	0.0000	0.0000	OK							
480 minute winter	S12	248	56.199	0.034	3.5	0.0387	0.0000	OK	S12-S14	S14	3.5	0.519	0.017	0.3683	
480 minute winter	S14	248	55.675	0.050	6.4	0.0566	0.0000	OK	S14-S16	S16	6.4	0.744	0.038	0.3295	
480 minute winter	S24	312	54.442	0.142	12.0	81.9649	0.0000	OK	S24-S28	S28	12.4	0.326	0.007	1.0073	

Results for 1 year 600 minute summer. 2040 minute analysis at 15 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S2	315	59.839	0.030	2.3	0.0336	0.0000	OK	S2-S4	S4	2.3	0.408	0.021	0.1170	
600 minute summer	S4	315	59.657	0.051	4.5	0.0579	0.0000	OK	S4-S6	S6	4.5	0.733	0.057	0.2249	
600 minute summer	S6	315	59.459	0.034	5.8	0.0390	0.0000	OK	S6-S8	S8	5.8	1.216	0.027	0.0380	
600 minute summer	S8	315	59.163	0.038	7.5	0.0425	0.0000	OK	S8-S10	S10	7.5	1.488	0.033	0.2351	
600 minute summer	S10	315	57.165	0.040	9.6	0.0449	0.0000	OK	S10-S16	S16	9.6	1.563	0.023	0.2589	
600 minute summer	S16	315	55.267	0.067	19.7	0.1190	0.0000	OK	S16-S18	S18	19.7	1.238	0.035	0.8988	
600 minute summer	S18	315	54.482	0.111	22.8	0.1961	0.0000	OK	S18-S20	S20	22.8	0.623	0.075	1.4484	
600 minute summer	S20	360	54.429	0.134	24.7	0.2374	0.0000	OK	S20-S28	S28	24.5	0.493	0.077	2.3202	
600 minute summer	S28	360	54.427	0.207	24.5	1.4641	0.0000	OK	Hydro-Brake®	S30	15.5				288.1
600 minute summer	S30	15	54.150	0.000	15.5	0.0000	0.0000	OK							
600 minute summer	S12	315	56.201	0.036	3.8	0.0402	0.0000	OK	S12-S14	S14	3.8	0.530	0.019	0.3918	
600 minute summer	S14	315	55.677	0.052	7.0	0.0591	0.0000	OK	S14-S16	S16	7.0	0.764	0.041	0.3511	
600 minute summer	S24	360	54.427	0.127	15.1	73.3374	0.0000	OK	S24-S28	S28	-10.5	0.267	-0.006	0.8976	

Results for 1 year 600 minute winter. 2040 minute analysis at 15 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	S2	315	59.836	0.027	1.8	0.0300	0.0000	OK	S2-S4	S4	1.8	0.379	0.016	0.0982	
600 minute winter	S4	315	59.651	0.045	3.5	0.0513	0.0000	OK	S4-S6	S6	3.5	0.682	0.045	0.1880	
600 minute winter	S6	315	59.455	0.030	4.5	0.0344	0.0000	OK	S6-S8	S8	4.5	1.134	0.021	0.0317	
600 minute winter	S8	315	59.158	0.033	5.8	0.0376	0.0000	OK	S8-S10	S10	5.8	1.378	0.026	0.1963	
600 minute winter	S10	315	57.160	0.035	7.4	0.0396	0.0000	OK	S10-S16	S16	7.4	1.447	0.018	0.2154	
600 minute winter	S16	315	55.259	0.059	15.0	0.1044	0.0000	OK	S16-S18	S18	15.0	1.141	0.027	0.7423	
600 minute winter	S18	300	54.467	0.096	17.4	0.1703	0.0000	OK	S18-S20	S20	17.4	0.574	0.057	1.3135	
600 minute winter	S20	375	54.426	0.131	18.9	0.2313	0.0000	OK	S20-S28	S28	18.7	0.424	0.059	2.2536	
600 minute winter	S28	375	54.423	0.203	18.7	1.4377	0.0000	OK	Hydro-Brake®	S30	15.4				322.7
600 minute winter	S30	15	54.150	0.000	15.4	0.0000	0.0000	OK							
600 minute winter	S12	315	56.196	0.031	2.9	0.0355	0.0000	OK	S12-S14	S14	2.9	0.490	0.014	0.3228	
600 minute winter	S14	315	55.671	0.046	5.3	0.0516	0.0000	OK	S14-S16	S16	5.3	0.703	0.031	0.2889	
600 minute winter	S24	375	54.423	0.123	8.8	71.1058	0.0000	OK	S24-S28	S28	8.2	0.257	0.005	0.8695	

Results for 1 year 720 minute summer. 2160 minute analysis at 15 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S2	375	59.838	0.028	2.1	0.0322	0.0000	OK	S2-S4	S4	2.1	0.397	0.019	0.1096	
720 minute summer	S4	375	59.655	0.049	4.1	0.0553	0.0000	OK	S4-S6	S6	4.1	0.713	0.052	0.2106	
720 minute summer	S6	375	59.458	0.033	5.3	0.0373	0.0000	OK	S6-S8	S8	5.3	1.189	0.024	0.0356	
720 minute summer	S8	375	59.161	0.036	6.8	0.0405	0.0000	OK	S8-S10	S10	6.8	1.445	0.030	0.2195	
720 minute summer	S10	375	57.163	0.038	8.7	0.0428	0.0000	OK	S10-S16	S16	8.7	1.517	0.021	0.2416	
720 minute summer	S16	375	55.264	0.064	17.7	0.1130	0.0000	OK	S16-S18	S18	17.7	1.198	0.032	0.8341	
720 minute summer	S18	360	54.476	0.105	20.5	0.1859	0.0000	OK	S18-S20	S20	20.5	0.607	0.067	1.3386	
720 minute summer	S20	420	54.421	0.126	22.2	0.2228	0.0000	OK	S20-S28	S28	22.0	0.466	0.069	2.1629	
720 minute summer	S28	420	54.418	0.198	22.0	1.4019	0.0000	OK	Hydro-Brake®	S30	15.3				305.4
720 minute summer	S30	15	54.150	0.000	15.3	0.0000	0.0000	OK							
720 minute summer	S12	375	56.199	0.034	3.4	0.0382	0.0000	OK	S12-S14	S14	3.4	0.513	0.017	0.3628	
720 minute summer	S14	375	55.675	0.050	6.3	0.0561	0.0000	OK	S14-S16	S16	6.3	0.741	0.037	0.3259	
720 minute summer	S24	420	54.418	0.118	12.7	68.0943	0.0000	OK	S24-S28	S28	-8.5	0.251	-0.005	0.8314	

Results for 1 year 720 minute winter. 2160 minute analysis at 15 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	S2	360	59.833	0.024	1.5	0.0275	0.0000	OK	S2-S4	S4	1.5	0.361	0.013	0.0878	
720 minute winter	S4	375	59.648	0.042	3.0	0.0476	0.0000	OK	S4-S6	S6	3.0	0.651	0.038	0.1690	
720 minute winter	S6	375	59.453	0.028	3.9	0.0320	0.0000	OK	S6-S8	S8	3.9	1.083	0.018	0.0287	
720 minute winter	S8	375	59.156	0.031	5.1	0.0353	0.0000	OK	S8-S10	S10	5.1	1.326	0.022	0.1794	
720 minute winter	S10	375	57.158	0.033	6.5	0.0373	0.0000	OK	S10-S16	S16	6.5	1.394	0.016	0.1964	
720 minute winter	S16	375	55.256	0.056	13.3	0.0985	0.0000	OK	S16-S18	S18	13.3	1.101	0.024	0.6822	
720 minute winter	S18	360	54.462	0.091	15.4	0.1600	0.0000	OK	S18-S20	S20	15.4	0.555	0.050	1.1765	
720 minute winter	S20	435	54.413	0.118	16.7	0.2079	0.0000	OK	S20-S28	S28	16.6	0.398	0.052	2.0037	
720 minute winter	S28	435	54.409	0.189	16.6	1.3380	0.0000	OK	Hydro-Brake®	S30	15.1				342.0
720 minute winter	S30	15	54.150	0.000	15.1	0.0000	0.0000	OK							
720 minute winter	S12	375	56.195	0.030	2.6	0.0337	0.0000	OK	S12-S14	S14	2.6	0.476	0.013	0.2977	
720 minute winter	S14	375	55.668	0.043	4.7	0.0488	0.0000	OK	S14-S16	S16	4.7	0.678	0.028	0.2655	
720 minute winter	S24	435	54.409	0.109	6.8	62.7129	0.0000	OK	S24-S28	S28	6.6	0.203	0.004	0.7663	

Results for 1 year 960 minute summer. 2400 minute analysis at 15 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S2	495	59.835	0.026	1.7	0.0292	0.0000	OK	S2-S4	S4	1.7	0.373	0.015	0.0943	
960 minute summer	S4	495	59.650	0.044	3.3	0.0498	0.0000	OK	S4-S6	S6	3.3	0.669	0.042	0.1808	
960 minute summer	S6	495	59.455	0.030	4.3	0.0336	0.0000	OK	S6-S8	S8	4.3	1.115	0.020	0.0308	
960 minute summer	S8	495	59.158	0.033	5.6	0.0370	0.0000	OK	S8-S10	S10	5.6	1.364	0.025	0.1915	
960 minute summer	S10	495	57.160	0.035	7.2	0.0391	0.0000	OK	S10-S16	S16	7.2	1.436	0.017	0.2113	
960 minute summer	S16	495	55.259	0.059	14.7	0.1035	0.0000	OK	S16-S18	S18	14.7	1.134	0.026	0.7317	
960 minute summer	S18	480	54.467	0.096	17.0	0.1696	0.0000	OK	S18-S20	S20	17.0	0.580	0.056	1.1539	
960 minute summer	S20	540	54.406	0.111	18.4	0.1954	0.0000	OK	S20-S28	S28	18.3	0.427	0.058	1.8744	
960 minute summer	S28	540	54.402	0.182	18.3	1.2856	0.0000	OK	Hydro-Brake®	S30	14.5				327.2
960 minute summer	S30	15	54.150	0.000	14.5	0.0000	0.0000	OK							
960 minute summer	S12	495	56.196	0.031	2.8	0.0349	0.0000	OK	S12-S14	S14	2.8	0.482	0.014	0.3173	
960 minute summer	S14	495	55.670	0.045	5.2	0.0512	0.0000	OK	S14-S16	S16	5.2	0.699	0.031	0.2851	
960 minute summer	S24	540	54.402	0.102	9.1	58.3430	0.0000	OK	S24-S28	S28	6.4	0.183	0.004	0.7132	

Results for 1 year 960 minute winter. 2400 minute analysis at 15 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	S2	495	59.832	0.023	1.3	0.0258	0.0000	OK	S2-S4	S4	1.3	0.344	0.012	0.0781	
960 minute winter	S4	495	59.645	0.039	2.5	0.0437	0.0000	OK	S4-S6	S6	2.5	0.619	0.032	0.1483	
960 minute winter	S6	495	59.451	0.026	3.2	0.0291	0.0000	OK	S6-S8	S8	3.2	1.033	0.015	0.0248	
960 minute winter	S8	495	59.153	0.028	4.1	0.0318	0.0000	OK	S8-S10	S10	4.1	1.243	0.018	0.1539	
960 minute winter	S10	495	57.155	0.030	5.3	0.0338	0.0000	OK	S10-S16	S16	5.3	1.307	0.013	0.1709	
960 minute winter	S16	495	55.250	0.050	10.8	0.0891	0.0000	OK	S16-S18	S18	10.8	1.035	0.019	0.5891	
960 minute winter	S18	480	54.453	0.082	12.5	0.1446	0.0000	OK	S18-S20	S20	12.5	0.527	0.041	0.9723	
960 minute winter	S20	555	54.394	0.099	13.6	0.1745	0.0000	OK	S20-S28	S28	13.5	0.364	0.043	1.6596	
960 minute winter	S28	555	54.389	0.169	13.5	1.1951	0.0000	OK	Hydro-Brake®	S30	13.4				367.7
960 minute winter	S30	15	54.150	0.000	13.4	0.0000	0.0000	OK							
960 minute winter	S12	480	56.192	0.027	2.1	0.0306	0.0000	OK	S12-S14	S14	2.1	0.448	0.010	0.2565	
960 minute winter	S14	480	55.664	0.039	3.8	0.0440	0.0000	OK	S14-S16	S16	3.8	0.637	0.022	0.2287	
960 minute winter	S24	555	54.389	0.089	4.5	50.8100	0.0000	OK	S24-S28	S28	5.0	0.178	0.003	0.6254	

Results for 1 year 1440 minute summer. 2880 minute analysis at 30 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S2	750	59.831	0.022	1.2	0.0249	0.0000	OK	S2-S4	S4	1.2	0.331	0.011	0.0753	
1440 minute summer	S4	750	59.644	0.038	2.4	0.0429	0.0000	OK	S4-S6	S6	2.4	0.610	0.031	0.1444	
1440 minute summer	S6	750	59.450	0.025	3.1	0.0287	0.0000	OK	S6-S8	S8	3.1	1.022	0.014	0.0243	
1440 minute summer	S8	750	59.153	0.028	4.0	0.0315	0.0000	OK	S8-S10	S10	4.0	1.234	0.018	0.1512	
1440 minute summer	S10	750	57.154	0.029	5.1	0.0332	0.0000	OK	S10-S16	S16	5.1	1.291	0.012	0.1665	
1440 minute summer	S16	750	55.250	0.050	10.5	0.0879	0.0000	OK	S16-S18	S18	10.5	1.027	0.019	0.5775	
1440 minute summer	S18	720	54.453	0.082	12.2	0.1441	0.0000	OK	S18-S20	S20	12.2	0.529	0.040	0.8960	
1440 minute summer	S20	780	54.383	0.088	13.2	0.1562	0.0000	OK	S20-S28	S28	13.1	0.373	0.041	1.4711	
1440 minute summer	S28	780	54.377	0.157	13.1	1.1110	0.0000	OK	Hydro-Brake®	S30	12.3				364.7
1440 minute summer	S30	30	54.150	0.000	12.3	0.0000	0.0000	OK							
1440 minute summer	S12	750	56.192	0.027	2.1	0.0306	0.0000	OK	S12-S14	S14	2.1	0.448	0.010	0.2565	
1440 minute summer	S14	750	55.664	0.039	3.8	0.0440	0.0000	OK	S14-S16	S16	3.8	0.637	0.022	0.2287	
1440 minute summer	S24	780	54.377	0.077	5.0	43.8889	0.0000	OK	S24-S28	S28	4.5	0.157	0.003	0.5461	

Results for 1 year 1440 minute winter. 2880 minute analysis at 30 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S2	720	59.828	0.019	0.9	0.0218	0.0000	OK	S2-S4	S4	0.9	0.303	0.008	0.0617	
1440 minute winter	S4	720	59.639	0.033	1.8	0.0375	0.0000	OK	S4-S6	S6	1.8	0.561	0.023	0.1178	
1440 minute winter	S6	720	59.447	0.022	2.3	0.0248	0.0000	OK	S6-S8	S8	2.3	0.929	0.011	0.0198	
1440 minute winter	S8	720	59.149	0.024	3.0	0.0275	0.0000	OK	S8-S10	S10	3.0	1.130	0.013	0.1239	
1440 minute winter	S10	750	57.151	0.026	3.9	0.0294	0.0000	OK	S10-S16	S16	3.9	1.189	0.009	0.1382	
1440 minute winter	S16	750	55.244	0.044	8.0	0.0773	0.0000	OK	S16-S18	S18	8.0	0.946	0.014	0.4775	
1440 minute winter	S18	720	54.443	0.072	9.3	0.1266	0.0000	OK	S18-S20	S20	9.3	0.489	0.030	0.7267	
1440 minute winter	S20	780	54.370	0.075	10.1	0.1319	0.0000	OK	S20-S28	S28	10.1	0.322	0.032	1.2383	
1440 minute winter	S28	810	54.363	0.143	10.9	1.0074	0.0000	OK	Hydro-Brake®	S30	10.9				409.8
1440 minute winter	S30	30	54.150	0.000	10.9	0.0000	0.0000	OK							
1440 minute winter	S12	750	56.189	0.024	1.6	0.0270	0.0000	OK	S12-S14	S14	1.6	0.410	0.008	0.2119	
1440 minute winter	S14	750	55.659	0.034	2.9	0.0387	0.0000	OK	S14-S16	S16	2.9	0.588	0.017	0.1889	
1440 minute winter	S24	810	54.362	0.062	2.3	35.3682	0.0000	OK	S24-S28	S28	3.6	0.148	0.002	0.4544	

Results for 30 year 15 minute summer. 1455 minute analysis at 1 minute timestep. Mass balance: 99.52%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S2	10	59.931	0.122	39.5	0.1378	0.0000	OK	S2-S4	S4	39.3	0.884	0.353	0.8866	
15 minute summer	S4	10	59.847	0.241	77.2	0.2728	0.0000	OK	S4-S6	S6	76.0	1.481	0.970	1.8516	
15 minute summer	S6	10	59.596	0.171	99.0	0.1936	0.0000	OK	S6-S8	S8	98.3	2.399	0.454	0.3269	
15 minute summer	S8	11	59.293	0.168	127.8	0.1897	0.0000	OK	S8-S10	S10	127.5	3.247	0.562	1.8310	
15 minute summer	S10	11	57.296	0.171	162.4	0.1938	0.0000	OK	S10-S16	S16	162.9	3.451	0.395	1.9894	
15 minute summer	S16	11	55.492	0.292	331.7	0.5165	0.0000	OK	S16-S18	S18	337.0	1.761	0.601	9.5852	
15 minute summer	S18	10	55.135	0.764	388.2	1.3496	0.0000	SURCHARGED	S18-S20	S20	395.9	1.406	1.293	10.6902	
15 minute summer	S20	10	54.969	0.674	427.6	1.1901	0.0000	SURCHARGED	S20-S28	S28	430.3	1.567	1.355	9.7015	
15 minute summer	S28	10	54.785	0.565	430.3	3.9949	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				219.0
15 minute summer	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
15 minute summer	S12	10	56.310	0.145	66.2	0.1645	0.0000	OK	S12-S14	S14	65.5	1.150	0.327	3.1024	
15 minute summer	S14	11	55.869	0.244	120.5	0.2764	0.0000	OK	S14-S16	S16	118.6	1.628	0.701	2.7912	
15 minute summer	S24	20	54.606	0.306	507.7	185.5350	0.0000	OK	S24-S28	S28	-431.4	-2.135	-0.253	2.4617	

Results for 30 year 15 minute winter. 1455 minute analysis at 1 minute timestep. Mass balance: 99.61%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S2	10	59.934	0.125	41.5	0.1415	0.0000	OK	S2-S4	S4	41.2	0.890	0.371	0.9186	
15 minute winter	S4	10	59.857	0.251	81.0	0.2836	0.0000	OK	S4-S6	S6	79.3	1.492	1.013	1.9201	
15 minute winter	S6	10	59.602	0.177	103.5	0.1997	0.0000	OK	S6-S8	S8	102.5	2.418	0.474	0.3388	
15 minute winter	S8	11	59.297	0.172	133.6	0.1951	0.0000	OK	S8-S10	S10	133.1	3.279	0.587	1.8934	
15 minute winter	S10	11	57.301	0.176	169.6	0.1988	0.0000	OK	S10-S16	S16	170.1	3.488	0.413	2.0556	
15 minute winter	S16	11	55.510	0.310	346.2	0.5470	0.0000	OK	S16-S18	S18	350.8	1.802	0.626	9.8373	
15 minute winter	S18	10	55.132	0.761	403.9	1.3442	0.0000	SURCHARGED	S18-S20	S20	408.7	1.451	1.335	10.6902	
15 minute winter	S20	10	54.950	0.655	441.6	1.1582	0.0000	SURCHARGED	S20-S28	S28	443.5	1.618	1.397	9.5255	
15 minute winter	S28	10	54.755	0.535	443.5	3.7786	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				245.3
15 minute winter	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
15 minute winter	S12	10	56.314	0.149	69.4	0.1687	0.0000	OK	S12-S14	S14	68.6	1.154	0.343	3.2123	
15 minute winter	S14	11	55.877	0.252	126.4	0.2850	0.0000	OK	S14-S16	S16	123.9	1.643	0.732	2.8898	
15 minute winter	S24	19	54.642	0.342	518.1	208.9712	0.0000	OK	S24-S28	S28	-439.0	-2.127	-0.257	2.7927	

Results for 30 year 30 minute summer. 1470 minute analysis at 1 minute timestep. Mass balance: 99.65%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S2	18	59.924	0.115	35.3	0.1300	0.0000	OK	S2-S4	S4	35.3	0.869	0.317	0.8194	
30 minute summer	S4	18	59.829	0.223	69.1	0.2520	0.0000	OK	S4-S6	S6	69.2	1.456	0.884	1.7106	
30 minute summer	S6	18	59.585	0.160	89.8	0.1815	0.0000	OK	S6-S8	S8	89.8	2.361	0.415	0.3034	
30 minute summer	S8	18	59.283	0.158	116.3	0.1791	0.0000	OK	S8-S10	S10	116.1	3.174	0.512	1.7054	
30 minute summer	S10	18	57.287	0.162	148.3	0.1835	0.0000	OK	S10-S16	S16	148.0	3.365	0.359	1.8533	
30 minute summer	S16	17	55.475	0.275	302.3	0.4852	0.0000	OK	S16-S18	S18	304.7	1.766	0.543	9.2284	
30 minute summer	S18	18	54.964	0.593	352.6	1.0476	0.0000	OK	S18-S20	S20	345.1	1.253	1.127	10.4266	
30 minute summer	S20	18	54.838	0.543	374.7	0.9602	0.0000	OK	S20-S28	S28	376.3	1.536	1.185	8.4752	
30 minute summer	S28	35	54.677	0.457	376.3	3.2314	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				285.4
30 minute summer	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
30 minute summer	S12	18	56.303	0.138	59.1	0.1556	0.0000	OK	S12-S14	S14	59.1	1.117	0.295	2.8894	
30 minute summer	S14	18	55.854	0.229	108.2	0.2594	0.0000	OK	S14-S16	S16	107.3	1.591	0.634	2.5877	
30 minute summer	S24	34	54.678	0.378	427.7	233.2121	0.0000	OK	S24-S28	S28	-362.7	-1.883	-0.213	3.1404	

Results for 30 year 30 minute winter. 1470 minute analysis at 1 minute timestep. Mass balance: 99.74%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	S2	18	59.918	0.109	31.9	0.1231	0.0000	OK	S2-S4	S4	31.9	0.850	0.287	0.7597	
30 minute winter	S4	18	59.813	0.207	62.5	0.2346	0.0000	OK	S4-S6	S6	62.5	1.430	0.799	1.5782	
30 minute winter	S6	18	59.575	0.150	81.1	0.1695	0.0000	OK	S6-S8	S8	81.1	2.318	0.375	0.2793	
30 minute winter	S8	18	59.274	0.149	105.0	0.1683	0.0000	OK	S8-S10	S10	104.9	3.100	0.463	1.5784	
30 minute winter	S10	18	57.278	0.153	134.1	0.1731	0.0000	OK	S10-S16	S16	133.9	3.284	0.325	1.7188	
30 minute winter	S16	18	55.460	0.260	273.7	0.4599	0.0000	OK	S16-S18	S18	274.7	1.731	0.490	8.7101	
30 minute winter	S18	19	54.910	0.539	318.0	0.9530	0.0000	OK	S18-S20	S20	314.3	1.207	1.027	9.8718	
30 minute winter	S20	19	54.800	0.505	340.1	0.8931	0.0000	OK	S20-S28	S28	341.1	1.468	1.074	8.4696	
30 minute winter	S28	34	54.723	0.503	341.1	3.5523	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				319.6
30 minute winter	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
30 minute winter	S12	18	56.295	0.130	53.4	0.1474	0.0000	OK	S12-S14	S14	53.4	1.086	0.267	2.6751	
30 minute winter	S14	18	55.840	0.215	97.8	0.2429	0.0000	OK	S14-S16	S16	97.3	1.557	0.575	2.3961	
30 minute winter	S24	34	54.723	0.423	383.8	264.4325	0.0000	OK	S24-S28	S28	-322.7	-1.727	-0.189	3.5837	

Results for 30 year 60 minute summer. 1500 minute analysis at 1 minute timestep. Mass balance: 99.71%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S2	33	59.907	0.098	26.2	0.1110	0.0000	OK	S2-S4	S4	26.2	0.813	0.235	0.6565	
60 minute summer	S4	33	59.788	0.182	51.3	0.2063	0.0000	OK	S4-S6	S6	51.3	1.375	0.656	1.3515	
60 minute summer	S6	33	59.557	0.132	66.6	0.1491	0.0000	OK	S6-S8	S8	66.6	2.231	0.308	0.2382	
60 minute summer	S8	33	59.257	0.132	86.2	0.1496	0.0000	OK	S8-S10	S10	86.1	2.954	0.380	1.3597	
60 minute summer	S10	33	57.262	0.137	110.1	0.1547	0.0000	OK	S10-S16	S16	109.9	3.122	0.267	1.4838	
60 minute summer	S16	33	55.432	0.232	224.6	0.4095	0.0000	OK	S16-S18	S18	224.3	1.723	0.400	7.4059	
60 minute summer	S18	34	54.837	0.466	259.8	0.8227	0.0000	OK	S18-S20	S20	254.6	1.126	0.832	8.8655	
60 minute summer	S20	34	54.756	0.461	276.5	0.8151	0.0000	OK	S20-S28	S28	273.3	1.297	0.861	8.3240	
60 minute summer	S28	64	54.734	0.514	273.3	3.6355	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				355.4
60 minute summer	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
60 minute summer	S12	33	56.283	0.118	43.8	0.1329	0.0000	OK	S12-S14	S14	43.8	1.038	0.219	2.2997	
60 minute summer	S14	33	55.815	0.190	80.2	0.2144	0.0000	OK	S14-S16	S16	79.8	1.487	0.471	2.0568	
60 minute summer	S24	63	54.734	0.434	297.8	272.4113	0.0000	OK	S24-S28	S28	-247.5	-1.414	-0.145	3.6968	

Results for 30 year 60 minute winter. 1500 minute analysis at 1 minute timestep. Mass balance: 99.74%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	S2	33	59.897	0.088	21.2	0.0994	0.0000	OK	S2-S4	S4	21.2	0.771	0.191	0.5621	
60 minute winter	S4	33	59.766	0.160	41.5	0.1815	0.0000	OK	S4-S6	S6	41.5	1.314	0.530	1.1463	
60 minute winter	S6	33	59.540	0.115	53.8	0.1305	0.0000	OK	S6-S8	S8	53.8	2.134	0.249	0.2012	
60 minute winter	S8	33	59.242	0.117	69.7	0.1325	0.0000	OK	S8-S10	S10	69.7	2.799	0.307	1.1608	
60 minute winter	S10	33	57.247	0.122	89.1	0.1378	0.0000	OK	S10-S16	S16	89.0	2.953	0.216	1.2698	
60 minute winter	S16	33	55.402	0.202	182.0	0.3578	0.0000	OK	S16-S18	S18	182.0	1.677	0.325	6.3285	
60 minute winter	S18	64	54.789	0.418	210.8	0.7386	0.0000	OK	S18-S20	S20	208.8	1.007	0.682	8.6962	
60 minute winter	S20	63	54.790	0.495	226.3	0.8748	0.0000	OK	S20-S28	S28	224.4	1.085	0.707	9.1542	
60 minute winter	S28	63	54.791	0.571	224.4	4.0367	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				398.3
60 minute winter	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
60 minute winter	S12	33	56.270	0.105	35.5	0.1193	0.0000	OK	S12-S14	S14	35.5	0.983	0.177	1.9648	
60 minute winter	S14	33	55.792	0.167	65.0	0.1892	0.0000	OK	S14-S16	S16	64.8	1.414	0.383	1.7577	
60 minute winter	S24	63	54.791	0.491	245.9	312.5704	0.0000	OK	S24-S28	S28	-203.9	-1.216	-0.120	4.2468	

Results for 30 year 120 minute summer. 1560 minute analysis at 2 minute timestep. Mass balance: 99.79%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S2	64	59.887	0.078	16.8	0.0883	0.0000	OK	S2-S4	S4	16.8	0.726	0.151	0.4751	
120 minute summer	S4	64	59.746	0.140	32.9	0.1589	0.0000	OK	S4-S6	S6	32.9	1.244	0.420	0.9605	
120 minute summer	S6	64	59.525	0.100	42.7	0.1136	0.0000	OK	S6-S8	S8	42.7	2.029	0.197	0.1679	
120 minute summer	S8	64	59.228	0.103	55.3	0.1167	0.0000	OK	S8-S10	S10	55.3	2.633	0.244	0.9796	
120 minute summer	S10	64	57.233	0.108	70.7	0.1217	0.0000	OK	S10-S16	S16	70.7	2.778	0.172	1.0727	
120 minute summer	S16	64	55.378	0.178	144.7	0.3151	0.0000	OK	S16-S18	S18	144.7	1.626	0.258	5.1558	
120 minute summer	S18	120	54.768	0.397	167.6	0.7022	0.0000	OK	S18-S20	S20	165.8	0.928	0.542	8.2832	
120 minute summer	S20	120	54.768	0.473	180.0	0.8361	0.0000	OK	S20-S28	S28	177.5	0.939	0.559	8.8544	
120 minute summer	S28	122	54.768	0.548	177.5	3.8753	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				427.8
120 minute summer	S30	2	54.150	0.000	16.5	0.0000	0.0000	OK							
120 minute summer	S12	64	56.259	0.094	28.2	0.1062	0.0000	OK	S12-S14	S14	28.2	0.930	0.141	1.6560	
120 minute summer	S14	64	55.772	0.147	51.6	0.1659	0.0000	OK	S14-S16	S16	51.6	1.334	0.305	1.4811	
120 minute summer	S24	122	54.768	0.468	191.3	296.2219	0.0000	OK	S24-S28	S28	-157.2	-0.809	-0.092	4.0263	

Results for 30 year 120 minute winter. 1560 minute analysis at 2 minute timestep. Mass balance: 99.83%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S2	64	59.878	0.069	13.0	0.0776	0.0000	OK	S2-S4	S4	13.0	0.677	0.117	0.3948	
120 minute winter	S4	64	59.728	0.122	25.4	0.1379	0.0000	OK	S4-S6	S6	25.4	1.169	0.324	0.7908	
120 minute winter	S6	64	59.512	0.087	33.0	0.0978	0.0000	OK	S6-S8	S8	33.0	1.914	0.153	0.1376	
120 minute winter	S8	64	59.215	0.090	42.7	0.1016	0.0000	OK	S8-S10	S10	42.7	2.456	0.188	0.8110	
120 minute winter	S10	64	57.219	0.094	54.6	0.1063	0.0000	OK	S10-S16	S16	54.6	2.587	0.132	0.8895	
120 minute winter	S16	64	55.356	0.156	111.8	0.2755	0.0000	OK	S16-S18	S18	111.8	1.594	0.199	5.2255	
120 minute winter	S18	118	54.833	0.462	129.4	0.8169	0.0000	OK	S18-S20	S20	127.6	0.852	0.417	9.4809	
120 minute winter	S20	120	54.834	0.539	138.5	0.9517	0.0000	OK	S20-S28	S28	135.6	0.814	0.427	9.5521	
120 minute winter	S28	120	54.834	0.614	135.6	4.3402	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				479.9
120 minute winter	S30	2	54.150	0.000	16.5	0.0000	0.0000	OK							
120 minute winter	S12	64	56.248	0.083	21.8	0.0933	0.0000	OK	S12-S14	S14	21.8	0.867	0.109	1.3700	
120 minute winter	S14	64	55.752	0.127	39.9	0.1439	0.0000	OK	S14-S16	S16	39.9	1.247	0.236	1.2259	
120 minute winter	S24	120	54.834	0.534	141.8	343.5296	0.0000	OK	S24-S28	S28	-115.5	-0.677	-0.068	4.6542	

Results for 30 year 180 minute summer. 1620 minute analysis at 4 minute timestep. Mass balance: 99.83%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S2	96	59.876	0.067	12.4	0.0758	0.0000	OK	S2-S4	S4	12.4	0.668	0.111	0.3822	
180 minute summer	S4	96	59.725	0.119	24.3	0.1347	0.0000	OK	S4-S6	S6	24.3	1.157	0.310	0.7646	
180 minute summer	S6	96	59.509	0.084	31.5	0.0953	0.0000	OK	S6-S8	S8	31.5	1.893	0.146	0.1328	
180 minute summer	S8	96	59.213	0.088	40.8	0.0992	0.0000	OK	S8-S10	S10	40.8	2.426	0.180	0.7845	
180 minute summer	S10	96	57.217	0.092	52.2	0.1038	0.0000	OK	S10-S16	S16	52.2	2.555	0.127	0.8611	
180 minute summer	S16	96	55.352	0.152	106.9	0.2693	0.0000	OK	S16-S18	S18	106.9	1.592	0.191	4.2671	
180 minute summer	S18	168	54.770	0.399	123.8	0.7059	0.0000	OK	S18-S20	S20	122.4	0.846	0.400	8.3259	
180 minute summer	S20	168	54.770	0.475	132.9	0.8400	0.0000	OK	S20-S28	S28	130.3	0.796	0.410	8.8869	
180 minute summer	S28	168	54.770	0.550	130.3	3.8897	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				475.3
180 minute summer	S30	4	54.150	0.000	16.5	0.0000	0.0000	OK							
180 minute summer	S12	96	56.246	0.081	20.8	0.0912	0.0000	OK	S12-S14	S14	20.8	0.859	0.104	1.3243	
180 minute summer	S14	96	55.749	0.124	38.1	0.1404	0.0000	OK	S14-S16	S16	38.1	1.232	0.225	1.1852	
180 minute summer	S24	168	54.770	0.470	135.6	297.5826	0.0000	OK	S24-S28	S28	-110.5	-0.604	-0.065	4.0455	

Results for 30 year 180 minute winter. 1620 minute analysis at 4 minute timestep. Mass balance: 99.89%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	S2	96	59.868	0.059	9.6	0.0668	0.0000	OK	S2-S4	S4	9.6	0.621	0.086	0.3186	
180 minute winter	S4	96	59.710	0.104	18.8	0.1177	0.0000	OK	S4-S6	S6	18.8	1.084	0.240	0.6323	
180 minute winter	S6	96	59.498	0.073	24.4	0.0826	0.0000	OK	S6-S8	S8	24.4	1.779	0.113	0.1094	
180 minute winter	S8	96	59.202	0.077	31.6	0.0868	0.0000	OK	S8-S10	S10	31.6	2.259	0.139	0.6525	
180 minute winter	S10	96	57.205	0.080	40.4	0.0910	0.0000	OK	S10-S16	S16	40.4	2.379	0.098	0.7157	
180 minute winter	S16	96	55.334	0.134	82.5	0.2361	0.0000	OK	S16-S18	S18	82.5	1.584	0.147	5.2609	
180 minute winter	S18	176	54.841	0.470	95.5	0.8312	0.0000	OK	S18-S20	S20	93.0	0.775	0.304	9.6093	
180 minute winter	S20	176	54.841	0.546	101.1	0.9655	0.0000	OK	S20-S28	S28	98.7	0.688	0.311	9.5994	
180 minute winter	S28	176	54.841	0.621	98.7	4.3926	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				531.8
180 minute winter	S30	4	54.150	0.000	16.5	0.0000	0.0000	OK							
180 minute winter	S12	96	56.236	0.071	16.0	0.0801	0.0000	OK	S12-S14	S14	16.0	0.798	0.080	1.0933	
180 minute winter	S14	96	55.733	0.108	29.3	0.1219	0.0000	OK	S14-S16	S16	29.3	1.148	0.173	0.9780	
180 minute winter	S24	176	54.841	0.541	98.7	348.8930	0.0000	OK	S24-S28	S28	-79.3	-0.499	-0.046	4.7228	

Results for 30 year 240 minute summer. 1680 minute analysis at 4 minute timestep. Mass balance: 99.87%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S2	124	59.870	0.061	10.4	0.0694	0.0000	OK	S2-S4	S4	10.4	0.635	0.093	0.3362	
240 minute summer	S4	124	59.714	0.108	20.4	0.1224	0.0000	OK	S4-S6	S6	20.2	1.103	0.258	0.6683	
240 minute summer	S6	124	59.501	0.076	26.3	0.0860	0.0000	OK	S6-S8	S8	26.2	1.812	0.121	0.1155	
240 minute summer	S8	124	59.205	0.080	34.0	0.0900	0.0000	OK	S8-S10	S10	33.9	2.303	0.149	0.6860	
240 minute summer	S10	124	57.208	0.083	43.4	0.0942	0.0000	OK	S10-S16	S16	43.2	2.424	0.105	0.7511	
240 minute summer	S16	124	55.338	0.138	88.5	0.2443	0.0000	OK	S16-S18	S18	88.2	1.584	0.157	4.2001	
240 minute summer	S18	196	54.766	0.395	102.3	0.6974	0.0000	OK	S18-S20	S20	101.2	0.779	0.331	8.2291	
240 minute summer	S20	196	54.766	0.471	110.0	0.8315	0.0000	OK	S20-S28	S28	107.0	0.693	0.337	8.8172	
240 minute summer	S28	196	54.765	0.545	107.0	3.8556	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				506.6
240 minute summer	S30	4	54.150	0.000	16.5	0.0000	0.0000	OK							
240 minute summer	S12	124	56.239	0.074	17.4	0.0833	0.0000	OK	S12-S14	S14	17.3	0.817	0.086	1.1544	
240 minute summer	S14	124	55.737	0.112	31.8	0.1267	0.0000	OK	S14-S16	S16	31.4	1.169	0.186	1.0301	
240 minute summer	S24	196	54.765	0.465	108.4	294.1617	0.0000	OK	S24-S28	S28	-87.3	-0.483	-0.051	3.9988	

Results for 30 year 240 minute winter. 1680 minute analysis at 4 minute timestep. Mass balance: 99.93%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	S2	124	59.862	0.053	7.7	0.0600	0.0000	OK	S2-S4	S4	7.7	0.582	0.069	0.2726	
240 minute winter	S4	124	59.699	0.093	15.1	0.1051	0.0000	OK	S4-S6	S6	15.1	1.023	0.193	0.5375	
240 minute winter	S6	124	59.490	0.065	19.6	0.0732	0.0000	OK	S6-S8	S8	19.6	1.685	0.090	0.0927	
240 minute winter	S8	124	59.194	0.069	25.4	0.0775	0.0000	OK	S8-S10	S10	25.3	2.123	0.112	0.5566	
240 minute winter	S10	124	57.197	0.072	32.4	0.0814	0.0000	OK	S10-S16	S16	32.4	2.233	0.079	0.6116	
240 minute winter	S16	124	55.320	0.120	66.4	0.2117	0.0000	OK	S16-S18	S18	66.4	1.580	0.118	5.1348	
240 minute winter	S18	228	54.834	0.463	76.9	0.8181	0.0000	OK	S18-S20	S20	74.6	0.722	0.244	9.4903	
240 minute winter	S20	228	54.834	0.539	81.1	0.9522	0.0000	OK	S20-S28	S28	78.7	0.613	0.248	9.5539	
240 minute winter	S28	228	54.834	0.614	78.7	4.3388	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				569.1
240 minute winter	S30	4	54.150	0.000	16.5	0.0000	0.0000	OK							
240 minute winter	S12	124	56.229	0.064	13.0	0.0724	0.0000	OK	S12-S14	S14	13.0	0.753	0.065	0.9388	
240 minute winter	S14	124	55.721	0.096	23.8	0.1091	0.0000	OK	S14-S16	S16	23.7	1.082	0.140	0.8392	
240 minute winter	S24	228	54.834	0.534	75.5	343.3182	0.0000	OK	S24-S28	S28	-59.8	0.424	-0.035	4.6519	

Results for 30 year 360 minute summer. 1800 minute analysis at 8 minute timestep. Mass balance: 99.92%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S2	184	59.862	0.053	7.8	0.0603	0.0000	OK	S2-S4	S4	7.8	0.585	0.070	0.2742	
360 minute summer	S4	184	59.699	0.093	15.3	0.1055	0.0000	OK	S4-S6	S6	15.2	1.023	0.194	0.5404	
360 minute summer	S6	184	59.490	0.065	19.8	0.0734	0.0000	OK	S6-S8	S8	19.7	1.688	0.091	0.0931	
360 minute summer	S8	184	59.194	0.069	25.6	0.0777	0.0000	OK	S8-S10	S10	25.4	2.125	0.112	0.5584	
360 minute summer	S10	184	57.197	0.072	32.6	0.0815	0.0000	OK	S10-S16	S16	32.5	2.234	0.079	0.6129	
360 minute summer	S16	184	55.320	0.120	66.5	0.2115	0.0000	OK	S16-S18	S18	66.2	1.573	0.118	3.9704	
360 minute summer	S18	264	54.749	0.378	76.8	0.6685	0.0000	OK	S18-S20	S20	75.5	0.698	0.247	7.8955	
360 minute summer	S20	264	54.749	0.454	82.1	0.8026	0.0000	OK	S20-S28	S28	79.6	0.572	0.251	8.5707	
360 minute summer	S28	264	54.749	0.529	79.6	3.7402	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				555.3
360 minute summer	S30	8	54.150	0.000	16.5	0.0000	0.0000	OK							
360 minute summer	S12	184	56.229	0.064	13.1	0.0725	0.0000	OK	S12-S14	S14	13.0	0.756	0.065	0.9384	
360 minute summer	S14	184	55.721	0.096	23.9	0.1090	0.0000	OK	S14-S16	S16	23.6	1.080	0.139	0.8370	
360 minute summer	S24	264	54.749	0.449	76.4	282.6508	0.0000	OK	S24-S28	S28	-60.6	0.391	-0.036	3.8403	

Results for 30 year 360 minute winter. 1800 minute analysis at 8 minute timestep. Mass balance: 99.95%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S2	184	59.855	0.046	5.7	0.0518	0.0000	OK	S2-S4	S4	5.7	0.535	0.051	0.2197	
360 minute winter	S4	184	59.686	0.080	11.1	0.0899	0.0000	OK	S4-S6	S6	11.1	0.942	0.141	0.4295	
360 minute winter	S6	184	59.480	0.055	14.4	0.0620	0.0000	OK	S6-S8	S8	14.4	1.555	0.066	0.0737	
360 minute winter	S8	184	59.184	0.059	18.7	0.0664	0.0000	OK	S8-S10	S10	18.6	1.945	0.082	0.4471	
360 minute winter	S10	184	57.187	0.062	23.8	0.0698	0.0000	OK	S10-S16	S16	23.8	2.044	0.058	0.4911	
360 minute winter	S16	184	55.303	0.103	48.8	0.1816	0.0000	OK	S16-S18	S18	48.7	1.527	0.087	4.8426	
360 minute winter	S18	280	54.811	0.440	56.4	0.7773	0.0000	OK	S18-S20	S20	54.7	0.661	0.179	9.0930	
360 minute winter	S20	280	54.811	0.516	59.5	0.9114	0.0000	OK	S20-S28	S28	57.8	0.527	0.182	9.3809	
360 minute winter	S28	280	54.811	0.591	57.8	4.1755	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				622.4
360 minute winter	S30	8	54.150	0.000	16.5	0.0000	0.0000	OK							
360 minute winter	S12	184	56.220	0.055	9.5	0.0622	0.0000	OK	S12-S14	S14	9.5	0.691	0.047	0.7489	
360 minute winter	S14	184	55.707	0.082	17.4	0.0929	0.0000	OK	S14-S16	S16	17.3	0.992	0.102	0.6697	
360 minute winter	S24	280	54.811	0.511	51.1	326.5335	0.0000	OK	S24-S28	S28	-39.6	0.301	-0.023	4.4332	

Results for 30 year 480 minute summer. 1920 minute analysis at 8 minute timestep. Mass balance: 99.95%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S2	248	59.856	0.047	6.1	0.0536	0.0000	OK	S2-S4	S4	6.1	0.546	0.055	0.2309	
480 minute summer	S4	248	59.688	0.082	11.9	0.0932	0.0000	OK	S4-S6	S6	11.9	0.962	0.152	0.4521	
480 minute summer	S6	248	59.482	0.057	15.4	0.0643	0.0000	OK	S6-S8	S8	15.4	1.584	0.071	0.0776	
480 minute summer	S8	248	59.186	0.061	20.0	0.0688	0.0000	OK	S8-S10	S10	20.0	1.985	0.088	0.4699	
480 minute summer	S10	248	57.189	0.064	25.6	0.0724	0.0000	OK	S10-S16	S16	25.6	2.086	0.062	0.5171	
480 minute summer	S16	248	55.307	0.107	52.4	0.1882	0.0000	OK	S16-S18	S18	52.4	1.539	0.093	3.6877	
480 minute summer	S18	328	54.730	0.359	60.7	0.6348	0.0000	OK	S18-S20	S20	59.1	0.658	0.193	7.4958	
480 minute summer	S20	328	54.730	0.435	64.2	0.7689	0.0000	OK	S20-S28	S28	62.5	0.519	0.197	8.2610	
480 minute summer	S28	328	54.730	0.510	62.5	3.6053	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				593.3
480 minute summer	S30	8	54.150	0.000	16.5	0.0000	0.0000	OK							
480 minute summer	S12	248	56.222	0.057	10.2	0.0644	0.0000	OK	S12-S14	S14	10.2	0.705	0.051	0.7898	
480 minute summer	S14	248	55.710	0.085	18.7	0.0965	0.0000	OK	S14-S16	S16	18.7	1.014	0.110	0.7068	
480 minute summer	S24	328	54.730	0.430	56.5	269.2981	0.0000	OK	S24-S28	S28	-44.2	0.361	-0.026	3.6544	

Results for 30 year 480 minute winter. 1920 minute analysis at 8 minute timestep. Mass balance: 99.97%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	S2	248	59.850	0.041	4.5	0.0463	0.0000	OK	S2-S4	S4	4.5	0.498	0.040	0.1867	
480 minute winter	S4	248	59.677	0.071	8.8	0.0802	0.0000	OK	S4-S6	S6	8.8	0.886	0.112	0.3635	
480 minute winter	S6	248	59.474	0.049	11.4	0.0549	0.0000	OK	S6-S8	S8	11.4	1.462	0.053	0.0622	
480 minute winter	S8	248	59.177	0.052	14.8	0.0592	0.0000	OK	S8-S10	S10	14.8	1.818	0.065	0.3797	
480 minute winter	S10	248	57.180	0.055	18.9	0.0622	0.0000	OK	S10-S16	S16	18.9	1.911	0.046	0.4167	
480 minute winter	S16	248	55.292	0.092	38.8	0.1626	0.0000	OK	S16-S18	S18	38.8	1.448	0.069	4.4549	
480 minute winter	S18	360	54.783	0.412	44.9	0.7283	0.0000	OK	S18-S20	S20	43.6	0.625	0.142	8.5751	
480 minute winter	S20	360	54.783	0.488	47.4	0.8624	0.0000	OK	S20-S28	S28	46.1	0.479	0.145	9.0601	
480 minute winter	S28	360	54.783	0.563	46.1	3.9794	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				662.6
480 minute winter	S30	8	54.150	0.000	16.5	0.0000	0.0000	OK							
480 minute winter	S12	248	56.214	0.049	7.6	0.0559	0.0000	OK	S12-S14	S14	7.6	0.648	0.038	0.6388	
480 minute winter	S14	248	55.698	0.073	13.9	0.0830	0.0000	OK	S14-S16	S16	13.9	0.932	0.082	0.5716	
480 minute winter	S24	360	54.783	0.483	37.5	306.6132	0.0000	OK	S24-S28	S28	-28.3	0.445	-0.017	4.1678	

Results for 30 year 600 minute summer. 2040 minute analysis at 15 minute timestep. Mass balance: 99.96%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S2	315	59.852	0.043	4.9	0.0482	0.0000	OK	S2-S4	S4	4.9	0.511	0.044	0.1983	
600 minute summer	S4	315	59.680	0.074	9.6	0.0837	0.0000	OK	S4-S6	S6	9.6	0.905	0.123	0.3876	
600 minute summer	S6	315	59.476	0.051	12.5	0.0577	0.0000	OK	S6-S8	S8	12.5	1.501	0.058	0.0665	
600 minute summer	S8	315	59.180	0.055	16.2	0.0619	0.0000	OK	S8-S10	S10	16.2	1.866	0.071	0.4049	
600 minute summer	S10	315	57.183	0.058	20.7	0.0651	0.0000	OK	S10-S16	S16	20.7	1.964	0.050	0.4441	
600 minute summer	S16	300	55.297	0.097	42.5	0.1707	0.0000	OK	S16-S18	S18	42.5	1.471	0.076	3.3543	
600 minute summer	S18	405	54.708	0.337	49.2	0.5949	0.0000	OK	S18-S20	S20	47.7	0.632	0.156	7.0086	
600 minute summer	S20	405	54.708	0.413	51.9	0.7289	0.0000	OK	S20-S28	S28	50.5	0.485	0.159	7.8707	
600 minute summer	S28	405	54.707	0.487	50.5	3.4456	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				619.7
600 minute summer	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
600 minute summer	S12	315	56.217	0.052	8.3	0.0583	0.0000	OK	S12-S14	S14	8.3	0.666	0.041	0.6809	
600 minute summer	S14	315	55.702	0.077	15.2	0.0868	0.0000	OK	S14-S16	S16	15.2	0.956	0.090	0.6092	
600 minute summer	S24	405	54.707	0.407	42.6	253.6496	0.0000	OK	S24-S28	S28	-32.6	0.459	-0.019	3.4342	

Results for 30 year 600 minute winter. 2040 minute analysis at 15 minute timestep. Mass balance: 99.97%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	S2	315	59.847	0.038	3.8	0.0427	0.0000	OK	S2-S4	S4	3.8	0.475	0.034	0.1655	
600 minute winter	S4	315	59.671	0.065	7.4	0.0736	0.0000	OK	S4-S6	S6	7.4	0.843	0.095	0.3209	
600 minute winter	S6	315	59.469	0.044	9.6	0.0503	0.0000	OK	S6-S8	S8	9.6	1.401	0.044	0.0547	
600 minute winter	S8	315	59.173	0.048	12.4	0.0542	0.0000	OK	S8-S10	S10	12.4	1.728	0.055	0.3348	
600 minute winter	S10	315	57.176	0.051	15.9	0.0572	0.0000	OK	S10-S16	S16	15.9	1.817	0.039	0.3687	
600 minute winter	S16	315	55.284	0.084	32.5	0.1491	0.0000	OK	S16-S18	S18	32.5	1.380	0.058	4.0019	
600 minute winter	S18	435	54.752	0.381	37.6	0.6738	0.0000	OK	S18-S20	S20	37.0	0.599	0.121	7.9567	
600 minute winter	S20	435	54.752	0.457	40.2	0.8078	0.0000	OK	S20-S28	S28	39.1	0.446	0.123	8.6161	
600 minute winter	S28	435	54.752	0.532	39.1	3.7610	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				700.6
600 minute winter	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
600 minute winter	S12	315	56.210	0.045	6.3	0.0511	0.0000	OK	S12-S14	S14	6.3	0.612	0.031	0.5611	
600 minute winter	S14	315	55.692	0.067	11.6	0.0759	0.0000	OK	S14-S16	S16	11.6	0.884	0.069	0.5027	
600 minute winter	S24	435	54.752	0.452	29.4	284.7142	0.0000	OK	S24-S28	S28	-21.7	0.338	-0.013	3.8689	

Results for 30 year 720 minute summer. 2160 minute analysis at 15 minute timestep. Mass balance: 99.97%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S2	375	59.849	0.040	4.4	0.0458	0.0000	OK	S2-S4	S4	4.4	0.495	0.040	0.1837	
720 minute summer	S4	375	59.676	0.070	8.6	0.0793	0.0000	OK	S4-S6	S6	8.6	0.879	0.110	0.3580	
720 minute summer	S6	375	59.473	0.048	11.2	0.0544	0.0000	OK	S6-S8	S8	11.2	1.457	0.052	0.0613	
720 minute summer	S8	375	59.177	0.052	14.5	0.0586	0.0000	OK	S8-S10	S10	14.5	1.807	0.064	0.3742	
720 minute summer	S10	375	57.179	0.054	18.5	0.0616	0.0000	OK	S10-S16	S16	18.5	1.899	0.045	0.4104	
720 minute summer	S16	360	55.292	0.092	37.7	0.1623	0.0000	OK	S16-S18	S18	37.7	1.464	0.067	3.0336	
720 minute summer	S18	465	54.687	0.316	43.6	0.5577	0.0000	OK	S18-S20	S20	42.5	0.614	0.139	6.5447	
720 minute summer	S20	465	54.686	0.391	46.2	0.6916	0.0000	OK	S20-S28	S28	45.2	0.463	0.142	7.4849	
720 minute summer	S28	465	54.686	0.466	45.2	3.2958	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				647.1
720 minute summer	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
720 minute summer	S12	375	56.213	0.048	7.3	0.0548	0.0000	OK	S12-S14	S14	7.3	0.641	0.036	0.6219	
720 minute summer	S14	375	55.697	0.072	13.4	0.0815	0.0000	OK	S14-S16	S16	13.4	0.922	0.079	0.5570	
720 minute summer	S24	465	54.686	0.386	36.5	239.1256	0.0000	OK	S24-S28	S28	-27.6	0.297	-0.016	3.2277	

Results for 30 year 720 minute winter. 2160 minute analysis at 15 minute timestep. Mass balance: 99.97%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	S2	375	59.844	0.035	3.3	0.0399	0.0000	OK	S2-S4	S4	3.3	0.452	0.030	0.1509	
720 minute winter	S4	375	59.667	0.061	6.5	0.0691	0.0000	OK	S4-S6	S6	6.5	0.814	0.083	0.2922	
720 minute winter	S6	375	59.466	0.041	8.4	0.0469	0.0000	OK	S6-S8	S8	8.4	1.348	0.039	0.0497	
720 minute winter	S8	375	59.170	0.045	10.9	0.0509	0.0000	OK	S8-S10	S10	10.9	1.664	0.048	0.3055	
720 minute winter	S10	375	57.172	0.047	13.9	0.0536	0.0000	OK	S10-S16	S16	13.9	1.745	0.034	0.3356	
720 minute winter	S16	375	55.279	0.079	28.4	0.1396	0.0000	OK	S16-S18	S18	28.4	1.356	0.051	3.5123	
720 minute winter	S18	510	54.719	0.348	32.9	0.6149	0.0000	OK	S18-S20	S20	32.3	0.584	0.106	7.2533	
720 minute winter	S20	510	54.719	0.424	35.1	0.7489	0.0000	OK	S20-S28	S28	34.3	0.426	0.108	8.0683	
720 minute winter	S28	510	54.719	0.499	34.3	3.5251	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				727.2
720 minute winter	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
720 minute winter	S12	375	56.207	0.042	5.5	0.0480	0.0000	OK	S12-S14	S14	5.5	0.589	0.027	0.5088	
720 minute winter	S14	375	55.688	0.063	10.1	0.0708	0.0000	OK	S14-S16	S16	10.1	0.850	0.060	0.4555	
720 minute winter	S24	510	54.719	0.419	23.8	261.4208	0.0000	OK	S24-S28	S28	21.5	0.415	0.013	3.5438	

Results for 30 year 960 minute summer. 2400 minute analysis at 15 minute timestep. Mass balance: 99.98%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S2	495	59.846	0.037	3.6	0.0416	0.0000	OK	S2-S4	S4	3.6	0.467	0.032	0.1593	
960 minute summer	S4	495	59.669	0.063	7.0	0.0716	0.0000	OK	S4-S6	S6	7.0	0.831	0.089	0.3086	
960 minute summer	S6	495	59.468	0.043	9.1	0.0489	0.0000	OK	S6-S8	S8	9.1	1.378	0.042	0.0527	
960 minute summer	S8	495	59.172	0.047	11.8	0.0529	0.0000	OK	S8-S10	S10	11.8	1.704	0.052	0.3230	
960 minute summer	S10	495	57.174	0.049	15.1	0.0558	0.0000	OK	S10-S16	S16	15.1	1.790	0.037	0.3555	
960 minute summer	S16	480	55.283	0.083	30.7	0.1470	0.0000	OK	S16-S18	S18	30.7	1.404	0.055	2.4547	
960 minute summer	S18	600	54.647	0.276	35.5	0.4869	0.0000	OK	S18-S20	S20	35.0	0.587	0.114	5.6469	
960 minute summer	S20	600	54.646	0.351	38.0	0.6206	0.0000	OK	S20-S28	S28	37.0	0.430	0.117	6.7133	
960 minute summer	S28	600	54.646	0.426	37.0	3.0117	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				690.8
960 minute summer	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
960 minute summer	S12	495	56.209	0.044	6.0	0.0500	0.0000	OK	S12-S14	S14	6.0	0.607	0.030	0.5386	
960 minute summer	S14	495	55.690	0.065	10.9	0.0735	0.0000	OK	S14-S16	S16	10.9	0.868	0.064	0.4809	
960 minute summer	S24	600	54.646	0.346	26.9	211.9755	0.0000	OK	S24-S28	S28	-19.7	0.344	-0.012	2.8374	

Results for 30 year 960 minute winter. 2400 minute analysis at 15 minute timestep. Mass balance: 99.99%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	S2	480	59.841	0.032	2.6	0.0357	0.0000	OK	S2-S4	S4	2.6	0.421	0.023	0.1276	
960 minute winter	S4	495	59.660	0.054	5.1	0.0615	0.0000	OK	S4-S6	S6	5.1	0.760	0.065	0.2462	
960 minute winter	S6	510	59.462	0.037	6.6	0.0416	0.0000	OK	S6-S8	S8	6.6	1.263	0.031	0.0418	
960 minute winter	S8	495	59.165	0.040	8.6	0.0454	0.0000	OK	S8-S10	S10	8.6	1.551	0.038	0.2585	
960 minute winter	S10	495	57.167	0.042	11.0	0.0480	0.0000	OK	S10-S16	S16	11.0	1.628	0.027	0.2848	
960 minute winter	S16	465	55.271	0.071	22.6	0.1258	0.0000	OK	S16-S18	S18	22.6	1.281	0.040	2.5997	
960 minute winter	S18	645	54.657	0.286	26.2	0.5058	0.0000	OK	S18-S20	S20	25.8	0.559	0.084	5.8880	
960 minute winter	S20	645	54.657	0.362	28.0	0.6396	0.0000	OK	S20-S28	S28	27.5	0.398	0.087	6.9234	
960 minute winter	S28	645	54.657	0.437	27.5	3.0873	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				772.1
960 minute winter	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
960 minute winter	S12	495	56.203	0.038	4.4	0.0431	0.0000	OK	S12-S14	S14	4.4	0.552	0.022	0.4345	
960 minute winter	S14	495	55.681	0.056	8.1	0.0634	0.0000	OK	S14-S16	S16	8.1	0.797	0.048	0.3892	
960 minute winter	S24	645	54.657	0.357	15.9	219.1440	0.0000	OK	S24-S28	S28	16.2	0.417	0.010	2.9407	

Results for 30 year 1440 minute summer. 2880 minute analysis at 30 minute timestep. Mass balance: 99.99%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S2	750	59.840	0.031	2.5	0.0350	0.0000	OK	S2-S4	S4	2.5	0.417	0.022	0.1240	
1440 minute summer	S4	750	59.659	0.053	4.9	0.0603	0.0000	OK	S4-S6	S6	4.9	0.749	0.063	0.2396	
1440 minute summer	S6	750	59.461	0.036	6.4	0.0409	0.0000	OK	S6-S8	S8	6.4	1.250	0.030	0.0409	
1440 minute summer	S8	750	59.164	0.039	8.3	0.0446	0.0000	OK	S8-S10	S10	8.3	1.535	0.037	0.2522	
1440 minute summer	S10	750	57.167	0.042	10.6	0.0471	0.0000	OK	S10-S16	S16	10.6	1.610	0.026	0.2774	
1440 minute summer	S16	750	55.271	0.071	21.8	0.1250	0.0000	OK	S16-S18	S18	21.8	1.276	0.039	1.4088	
1440 minute summer	S18	870	54.570	0.199	25.3	0.3513	0.0000	OK	S18-S20	S20	25.1	0.552	0.082	3.9254	
1440 minute summer	S20	870	54.569	0.274	27.2	0.4844	0.0000	OK	S20-S28	S28	26.7	0.388	0.084	5.1443	
1440 minute summer	S28	870	54.569	0.349	31.0	2.4656	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				745.9
1440 minute summer	S30	30	54.150	0.000	16.5	0.0000	0.0000	OK							
1440 minute summer	S12	750	56.203	0.038	4.3	0.0427	0.0000	OK	S12-S14	S14	4.3	0.552	0.021	0.4247	
1440 minute summer	S14	750	55.680	0.055	7.8	0.0623	0.0000	OK	S14-S16	S16	7.8	0.788	0.046	0.3790	
1440 minute summer	S24	870	54.569	0.269	15.3	161.2577	0.0000	OK	S24-S28	S28	22.4	0.387	0.013	2.1045	

Results for 30 year 1440 minute winter. 2880 minute analysis at 30 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S2	750	59.836	0.027	1.9	0.0308	0.0000	OK	S2-S4	S4	1.9	0.385	0.017	0.1020	
1440 minute winter	S4	750	59.653	0.047	3.7	0.0526	0.0000	OK	S4-S6	S6	3.7	0.692	0.047	0.1959	
1440 minute winter	S6	750	59.456	0.031	4.8	0.0355	0.0000	OK	S6-S8	S8	4.8	1.156	0.022	0.0332	
1440 minute winter	S8	750	59.159	0.034	6.2	0.0388	0.0000	OK	S8-S10	S10	6.2	1.405	0.027	0.2057	
1440 minute winter	S10	750	57.161	0.036	8.0	0.0411	0.0000	OK	S10-S16	S16	8.0	1.480	0.019	0.2277	
1440 minute winter	S16	750	55.262	0.062	16.4	0.1089	0.0000	OK	S16-S18	S18	16.4	1.171	0.029	1.1255	
1440 minute winter	S18	900	54.548	0.177	19.0	0.3122	0.0000	OK	S18-S20	S20	18.9	0.529	0.062	3.4374	
1440 minute winter	S20	900	54.547	0.252	20.5	0.4444	0.0000	OK	S20-S28	S28	20.2	0.356	0.064	4.6751	
1440 minute winter	S28	900	54.546	0.326	20.2	2.3046	0.0000	SURCHARGED	Hydro-Brake®	S30	16.4				852.0
1440 minute winter	S30	30	54.150	0.000	16.4	0.0000	0.0000	OK							
1440 minute winter	S12	750	56.198	0.033	3.2	0.0372	0.0000	OK	S12-S14	S14	3.2	0.503	0.016	0.3469	
1440 minute winter	S14	750	55.673	0.048	5.9	0.0544	0.0000	OK	S14-S16	S16	5.9	0.726	0.035	0.3113	
1440 minute winter	S24	900	54.546	0.246	8.0	146.6788	0.0000	OK	S24-S28	S28	10.3	0.193	0.006	1.8959	

Results for 100 year +40% 15 minute summer. 1455 minute analysis at 1 minute timestep. Mass balance: 99.91%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S2	11	60.636	0.827	71.8	0.9356	0.0000	SURCHARGED	S2-S4	S4	68.7	0.976	0.618	1.4260	
15 minute summer	S4	11	60.544	0.938	137.5	1.0606	0.0000	SURCHARGED	S4-S6	S6	133.8	1.900	1.709	2.5506	
15 minute summer	S6	11	59.995	0.570	175.7	0.6450	0.0000	SURCHARGED	S6-S8	S8	171.1	2.517	0.791	0.5617	
15 minute summer	S8	11	59.689	0.564	224.9	0.6382	0.0000	SURCHARGED	S8-S10	S10	224.3	3.536	0.990	3.2840	
15 minute summer	S10	11	57.750	0.625	290.1	0.7067	0.0000	SURCHARGED	S10-S16	S16	275.0	3.472	0.667	4.6475	
15 minute summer	S16	11	56.809	1.609	571.6	2.8438	0.0000	SURCHARGED	S16-S18	S18	571.4	2.645	1.019	12.1974	
15 minute summer	S18	11	55.839	1.468	664.4	2.5945	0.0000	SURCHARGED	S18-S20	S20	665.0	2.361	2.172	10.6902	
15 minute summer	S20	11	55.343	1.048	722.6	1.8520	0.0000	SURCHARGED	S20-S28	S28	723.1	2.567	2.277	9.8139	
15 minute summer	S28	13	54.847	0.627	723.1	4.4309	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				396.4
15 minute summer	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
15 minute summer	S12	11	57.552	1.387	120.2	1.5689	0.0000	SURCHARGED	S12-S14	S14	115.6	1.273	0.577	5.9457	
15 minute summer	S14	11	57.334	1.709	210.8	1.9327	0.0000	FLOOD RISK	S14-S16	S16	211.1	1.914	1.247	4.2255	
15 minute summer	S24	20	54.837	0.537	847.9	345.6778	0.0000	OK	S24-S28	S28	-709.5	-2.440	-0.416	4.6785	

Results for 100 year +40% 15 minute winter. 1455 minute analysis at 1 minute timestep. Mass balance: 100.00%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S2	11	60.996	1.187	75.4	1.3424	0.0000	SURCHARGED	S2-S4	S4	70.5	1.001	0.634	1.4260	
15 minute winter	S4	11	60.898	1.292	142.7	1.4617	0.0000	FLOOD RISK	S4-S6	S6	137.4	1.951	1.755	2.5506	
15 minute winter	S6	11	60.306	0.881	181.4	0.9960	0.0000	SURCHARGED	S6-S8	S8	169.8	2.549	0.785	0.5617	
15 minute winter	S8	11	59.980	0.855	226.0	0.9670	0.0000	SURCHARGED	S8-S10	S10	220.5	3.472	0.973	3.2840	
15 minute winter	S10	11	57.917	0.792	279.5	0.8957	0.0000	SURCHARGED	S10-S16	S16	281.5	3.318	0.683	4.6475	
15 minute winter	S16	11	56.910	1.710	585.1	3.0219	0.0000	SURCHARGED	S16-S18	S18	585.5	2.711	1.044	12.1974	
15 minute winter	S18	11	55.898	1.527	681.9	2.6979	0.0000	SURCHARGED	S18-S20	S20	682.8	2.424	2.231	10.6902	
15 minute winter	S20	11	55.378	1.083	742.5	1.9138	0.0000	SURCHARGED	S20-S28	S28	743.1	2.638	2.340	9.8139	
15 minute winter	S28	21	54.898	0.678	743.1	4.7920	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				444.0
15 minute winter	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
15 minute winter	S12	11	57.658	1.493	126.2	1.6886	0.0000	SURCHARGED	S12-S14	S14	118.0	1.249	0.589	5.9457	
15 minute winter	S14	11	57.443	1.818	218.5	2.0562	0.3268	FLOOD	S14-S16	S16	211.4	1.916	1.248	4.2255	
15 minute winter	S24	20	54.897	0.597	870.9	390.4544	0.0000	OK	S24-S28	S28	-727.2	-2.420	-0.426	5.2342	

Results for 100 year +40% 30 minute summer. 1470 minute analysis at 1 minute timestep. Mass balance: 99.98%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S2	18	60.305	0.496	64.6	0.5614	0.0000	SURCHARGED	S2-S4	S4	64.5	0.920	0.580	1.4260	
30 minute summer	S4	18	60.213	0.607	126.4	0.6861	0.0000	SURCHARGED	S4-S6	S6	126.1	1.794	1.611	2.4659	
30 minute summer	S6	18	59.689	0.264	163.8	0.2990	0.0000	OK	S6-S8	S8	163.6	2.545	0.756	0.5127	
30 minute summer	S8	18	59.375	0.250	212.1	0.2831	0.0000	OK	S8-S10	S10	210.9	3.533	0.931	2.7902	
30 minute summer	S10	19	57.401	0.276	270.1	0.3126	0.0000	OK	S10-S16	S16	265.7	3.419	0.645	4.1581	
30 minute summer	S16	19	56.503	1.303	531.5	2.3019	0.0000	SURCHARGED	S16-S18	S18	529.7	2.452	0.945	12.1974	
30 minute summer	S18	19	55.687	1.316	609.6	2.3245	0.0000	SURCHARGED	S18-S20	S20	607.1	2.156	1.983	10.6902	
30 minute summer	S20	19	55.285	0.990	656.6	1.7491	0.0000	SURCHARGED	S20-S28	S28	652.5	2.317	2.055	9.8139	
30 minute summer	S28	36	54.978	0.758	652.5	5.3582	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				521.7
30 minute summer	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
30 minute summer	S12	19	57.066	0.901	108.3	1.0188	0.0000	SURCHARGED	S12-S14	S14	102.6	1.241	0.512	5.9457	
30 minute summer	S14	19	56.907	1.282	192.5	1.4498	0.0000	SURCHARGED	S14-S16	S16	184.6	1.674	1.090	4.2255	
30 minute summer	S24	35	54.978	0.678	739.0	452.2174	0.0000	OK	S24-S28	S28	-614.4	-2.084	-0.360	5.9071	

Results for 100 year +40% 30 minute winter. 1470 minute analysis at 1 minute timestep. Mass balance: 99.91%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	S2	18	60.191	0.382	58.5	0.4325	0.0000	SURCHARGED	S2-S4	S4	58.4	0.901	0.525	1.4260	
30 minute winter	S4	18	60.115	0.509	114.4	0.5762	0.0000	SURCHARGED	S4-S6	S6	114.3	1.658	1.460	2.3566	
30 minute winter	S6	18	59.662	0.237	148.4	0.2681	0.0000	OK	S6-S8	S8	148.2	2.537	0.685	0.4658	
30 minute winter	S8	18	59.352	0.227	192.0	0.2563	0.0000	OK	S8-S10	S10	191.4	3.498	0.844	2.5510	
30 minute winter	S10	19	57.349	0.224	245.0	0.2534	0.0000	OK	S10-S16	S16	243.4	3.465	0.590	3.7703	
30 minute winter	S16	19	56.243	1.043	482.7	1.8426	0.0000	SURCHARGED	S16-S18	S18	474.1	2.195	0.846	12.1974	
30 minute winter	S18	19	55.571	1.200	549.2	2.1195	0.0000	SURCHARGED	S18-S20	S20	545.8	1.938	1.783	10.6902	
30 minute winter	S20	20	55.237	0.942	592.4	1.6643	0.0000	SURCHARGED	S20-S28	S28	589.7	2.094	1.857	9.8139	
30 minute winter	S28	35	55.058	0.838	589.7	5.9204	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				585.3
30 minute winter	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
30 minute winter	S12	19	56.716	0.551	97.9	0.6235	0.0000	SURCHARGED	S12-S14	S14	96.9	1.200	0.484	5.9457	
30 minute winter	S14	19	56.577	0.952	178.2	1.0766	0.0000	SURCHARGED	S14-S16	S16	171.1	1.647	1.011	4.2255	
30 minute winter	S24	35	55.058	0.758	692.3	515.0609	0.0000	OK	S24-S28	S28	-573.9	-1.980	-0.337	6.4643	

Results for 100 year +40% 60 minute summer. 1500 minute analysis at 1 minute timestep. Mass balance: 99.83%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S2	33	59.976	0.167	48.1	0.1887	0.0000	OK	S2-S4	S4	47.4	0.898	0.426	1.1204	
60 minute summer	S4	33	59.953	0.347	93.5	0.3930	0.0000	SURCHARGED	S4-S6	S6	92.1	1.506	1.177	2.1678	
60 minute summer	S6	33	59.623	0.198	120.2	0.2238	0.0000	OK	S6-S8	S8	119.8	2.475	0.554	0.3868	
60 minute summer	S8	33	59.317	0.192	155.8	0.2175	0.0000	OK	S8-S10	S10	155.3	3.380	0.685	2.1435	
60 minute summer	S10	31	57.308	0.183	199.4	0.2072	0.0000	OK	S10-S16	S16	199.2	3.487	0.483	3.4234	
60 minute summer	S16	34	55.777	0.577	409.1	1.0187	0.0000	SURCHARGED	S16-S18	S18	389.2	1.816	0.694	12.1974	
60 minute summer	S18	34	55.328	0.957	452.7	1.6911	0.0000	SURCHARGED	S18-S20	S20	452.5	1.607	1.478	10.6902	
60 minute summer	S20	36	55.109	0.814	493.0	1.4390	0.0000	SURCHARGED	S20-S28	S28	492.5	1.749	1.551	9.8139	
60 minute summer	S28	65	55.109	0.889	492.5	6.2829	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				654.0
60 minute summer	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
60 minute summer	S12	33	56.328	0.163	80.7	0.1844	0.0000	OK	S12-S14	S14	80.7	1.175	0.403	3.7324	
60 minute summer	S14	35	55.919	0.294	147.7	0.3327	0.0000	OK	S14-S16	S16	145.7	1.671	0.860	3.8892	
60 minute summer	S24	65	55.109	0.809	568.7	556.6616	0.0000	OK	S24-S28	S28	-471.3	-1.411	-0.276	6.7287	

Results for 100 year +40% 60 minute winter. 1500 minute analysis at 1 minute timestep. Mass balance: 99.83%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	S2	33	59.930	0.121	39.0	0.1372	0.0000	OK	S2-S4	S4	39.0	0.879	0.351	0.8837	
60 minute winter	S4	33	59.847	0.241	76.3	0.2723	0.0000	OK	S4-S6	S6	76.3	1.478	0.975	1.8524	
60 minute winter	S6	33	59.597	0.172	99.0	0.1942	0.0000	OK	S6-S8	S8	99.0	2.401	0.458	0.3289	
60 minute winter	S8	33	59.294	0.169	128.2	0.1907	0.0000	OK	S8-S10	S10	128.2	3.247	0.565	1.8407	
60 minute winter	S10	33	57.297	0.172	163.8	0.1947	0.0000	OK	S10-S16	S16	163.8	3.451	0.397	2.0029	
60 minute winter	S16	34	55.514	0.314	335.1	0.5548	0.0000	OK	S16-S18	S18	332.4	1.709	0.593	9.9014	
60 minute winter	S18	36	55.213	0.842	385.3	1.4878	0.0000	SURCHARGED	S18-S20	S20	381.7	1.355	1.247	10.6902	
60 minute winter	S20	65	55.202	0.907	414.5	1.6020	0.0000	SURCHARGED	S20-S28	S28	413.6	1.469	1.303	9.8139	
60 minute winter	S28	64	55.203	0.983	413.6	6.9455	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				732.8
60 minute winter	S30	1	54.150	0.000	16.5	0.0000	0.0000	OK							
60 minute winter	S12	33	56.310	0.145	65.3	0.1642	0.0000	OK	S12-S14	S14	65.3	1.126	0.326	3.1275	
60 minute winter	S14	33	55.871	0.246	119.5	0.2784	0.0000	OK	S14-S16	S16	119.3	1.627	0.705	2.8097	
60 minute winter	S24	64	55.203	0.903	471.8	634.9650	0.0000	SURCHARGED	S24-S28	S28	-392.9	-1.136	-0.230	6.9157	

Results for 100 year +40% 120 minute summer. 1560 minute analysis at 2 minute timestep. Mass balance: 99.87%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S2	64	59.916	0.107	31.0	0.1212	0.0000	OK	S2-S4	S4	31.0	0.845	0.279	0.7431	
120 minute summer	S4	64	59.809	0.203	60.7	0.2299	0.0000	OK	S4-S6	S6	60.7	1.422	0.775	1.5414	
120 minute summer	S6	64	59.572	0.147	78.8	0.1662	0.0000	OK	S6-S8	S8	78.8	2.305	0.364	0.2728	
120 minute summer	S8	64	59.271	0.146	102.0	0.1654	0.0000	OK	S8-S10	S10	102.0	3.080	0.450	1.5445	
120 minute summer	S10	64	57.276	0.151	130.4	0.1704	0.0000	OK	S10-S16	S16	130.4	3.263	0.316	1.6844	
120 minute summer	S16	64	55.449	0.249	266.7	0.4404	0.0000	OK	S16-S18	S18	266.7	1.625	0.476	8.9490	
120 minute summer	S18	124	55.206	0.835	308.8	1.4747	0.0000	SURCHARGED	S18-S20	S20	305.6	1.085	0.998	10.6902	
120 minute summer	S20	124	55.206	0.911	331.7	1.6103	0.0000	SURCHARGED	S20-S28	S28	331.0	1.175	1.042	9.8139	
120 minute summer	S28	124	55.207	0.987	331.0	6.9770	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				788.3
120 minute summer	S30	2	54.150	0.000	16.5	0.0000	0.0000	OK							
120 minute summer	S12	64	56.293	0.128	51.9	0.1452	0.0000	OK	S12-S14	S14	51.9	1.077	0.259	2.6202	
120 minute summer	S14	64	55.836	0.211	95.0	0.2388	0.0000	OK	S14-S16	S16	95.0	1.549	0.561	2.3491	
120 minute summer	S24	124	55.207	0.907	373.0	638.6859	0.0000	SURCHARGED	S24-S28	S28	-310.3	-0.805	-0.182	6.9168	

Results for 100 year +40% 120 minute winter. 1560 minute analysis at 2 minute timestep. Mass balance: 99.88%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S2	64	59.903	0.094	23.9	0.1058	0.0000	OK	S2-S4	S4	23.9	0.794	0.215	0.6134	
120 minute winter	S4	64	59.778	0.172	46.8	0.1949	0.0000	OK	S4-S6	S6	46.8	1.348	0.598	1.2575	
120 minute winter	S6	64	59.549	0.124	60.7	0.1406	0.0000	OK	S6-S8	S8	60.7	2.188	0.281	0.2213	
120 minute winter	S8	64	59.250	0.125	78.6	0.1419	0.0000	OK	S8-S10	S10	78.6	2.887	0.347	1.2697	
120 minute winter	S10	64	57.255	0.130	100.5	0.1472	0.0000	OK	S10-S16	S16	100.5	3.050	0.244	1.3885	
120 minute winter	S16	64	55.415	0.215	205.6	0.3805	0.0000	OK	S16-S18	S18	205.6	1.599	0.367	8.4514	
120 minute winter	S18	122	55.306	0.935	238.0	1.6513	0.0000	SURCHARGED	S18-S20	S20	236.3	0.900	0.772	10.6902	
120 minute winter	S20	122	55.306	1.011	256.4	1.7869	0.0000	SURCHARGED	S20-S28	S28	255.9	0.909	0.806	9.8139	
120 minute winter	S28	122	55.307	1.087	255.9	7.6837	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				885.7
120 minute winter	S30	2	54.150	0.000	16.5	0.0000	0.0000	OK							
120 minute winter	S12	64	56.277	0.112	40.0	0.1268	0.0000	OK	S12-S14	S14	40.0	1.011	0.200	2.1500	
120 minute winter	S14	64	55.805	0.180	73.2	0.2032	0.0000	OK	S14-S16	S16	73.2	1.457	0.432	1.9249	
120 minute winter	S24	122	55.307	1.007	284.6	731.9564	0.0000	SURCHARGED	S24-S28	S28	-236.2	-0.687	-0.139	6.9176	

Results for 100 year +40% 180 minute summer. 1620 minute analysis at 4 minute timestep. Mass balance: 99.90%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S2	96	59.900	0.091	22.8	0.1032	0.0000	OK	S2-S4	S4	22.8	0.786	0.205	0.5924	
180 minute summer	S4	96	59.773	0.167	44.6	0.1893	0.0000	OK	S4-S6	S6	44.6	1.334	0.570	1.2119	
180 minute summer	S6	96	59.546	0.121	57.9	0.1365	0.0000	OK	S6-S8	S8	57.9	2.167	0.268	0.2132	
180 minute summer	S8	96	59.247	0.122	75.0	0.1382	0.0000	OK	S8-S10	S10	75.0	2.853	0.331	1.2262	
180 minute summer	S10	96	57.252	0.127	95.9	0.1435	0.0000	OK	S10-S16	S16	95.9	3.013	0.233	1.3415	
180 minute summer	S16	96	55.410	0.210	196.1	0.3708	0.0000	OK	S16-S18	S18	196.1	1.584	0.350	8.3134	
180 minute summer	S18	184	55.240	0.869	227.0	1.5361	0.0000	SURCHARGED	S18-S20	S20	218.2	0.838	0.713	10.6902	
180 minute summer	S20	184	55.241	0.946	237.4	1.6709	0.0000	SURCHARGED	S20-S28	S28	236.4	0.848	0.745	9.8139	
180 minute summer	S28	184	55.241	1.021	236.4	7.2170	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				867.4
180 minute summer	S30	4	54.150	0.000	16.5	0.0000	0.0000	OK							
180 minute summer	S12	96	56.274	0.109	38.1	0.1237	0.0000	OK	S12-S14	S14	38.1	1.001	0.190	2.0738	
180 minute summer	S14	96	55.800	0.175	69.8	0.1975	0.0000	OK	S14-S16	S16	69.8	1.440	0.412	1.8570	
180 minute summer	S24	184	55.241	0.941	262.5	669.3144	0.0000	SURCHARGED	S24-S28	S28	-216.4	-0.565	-0.127	6.9176	

Results for 100 year +40% 180 minute winter. 1620 minute analysis at 4 minute timestep. Mass balance: 99.91%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	S2	96	59.889	0.080	17.5	0.0902	0.0000	OK	S2-S4	S4	17.5	0.733	0.157	0.4894	
180 minute winter	S4	96	59.750	0.144	34.3	0.1626	0.0000	OK	S4-S6	S6	34.3	1.257	0.438	0.9912	
180 minute winter	S6	96	59.528	0.103	44.5	0.1164	0.0000	OK	S6-S8	S8	44.5	2.047	0.206	0.1734	
180 minute winter	S8	96	59.231	0.106	57.7	0.1194	0.0000	OK	S8-S10	S10	57.7	2.664	0.255	1.0103	
180 minute winter	S10	96	57.235	0.110	73.8	0.1245	0.0000	OK	S10-S16	S16	73.8	2.810	0.179	1.1068	
180 minute winter	S16	96	55.382	0.182	151.0	0.3223	0.0000	OK	S16-S18	S18	151.0	1.587	0.269	7.9731	
180 minute winter	S18	180	55.345	0.974	174.8	1.7213	0.0000	SURCHARGED	S18-S20	S20	171.9	0.788	0.562	10.6902	
180 minute winter	S20	180	55.345	1.050	186.7	1.8560	0.0000	SURCHARGED	S20-S28	S28	186.2	0.708	0.587	9.8139	
180 minute winter	S28	180	55.346	1.126	186.2	7.9563	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				975.5
180 minute winter	S30	4	54.150	0.000	16.5	0.0000	0.0000	OK							
180 minute winter	S12	96	56.261	0.096	29.4	0.1084	0.0000	OK	S12-S14	S14	29.4	0.937	0.147	1.7084	
180 minute winter	S14	96	55.775	0.150	53.8	0.1699	0.0000	OK	S14-S16	S16	53.8	1.349	0.318	1.5283	
180 minute winter	S24	180	55.346	1.046	203.1	769.6653	0.0000	SURCHARGED	S24-S28	S28	-167.6	-0.498	-0.098	6.9176	

Results for 100 year +40% 240 minute summer. 1680 minute analysis at 4 minute timestep. Mass balance: 99.92%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S2	124	59.892	0.083	19.0	0.0939	0.0000	OK	S2-S4	S4	19.0	0.749	0.170	0.5176	
240 minute summer	S4	124	59.756	0.150	37.1	0.1698	0.0000	OK	S4-S6	S6	36.9	1.277	0.472	1.0498	
240 minute summer	S6	124	59.533	0.108	48.0	0.1217	0.0000	OK	S6-S8	S8	47.9	2.082	0.221	0.1835	
240 minute summer	S8	124	59.235	0.110	62.1	0.1241	0.0000	OK	S8-S10	S10	61.8	2.712	0.273	1.0632	
240 minute summer	S10	124	57.239	0.114	79.2	0.1292	0.0000	OK	S10-S16	S16	78.9	2.860	0.192	1.1632	
240 minute summer	S16	124	55.389	0.189	161.7	0.3337	0.0000	OK	S16-S18	S18	161.2	1.579	0.288	7.9101	
240 minute summer	S18	240	55.251	0.880	187.0	1.5543	0.0000	SURCHARGED	S18-S20	S20	179.9	0.744	0.588	10.6902	
240 minute summer	S20	240	55.250	0.955	195.8	1.6881	0.0000	SURCHARGED	S20-S28	S28	191.5	0.690	0.603	9.8139	
240 minute summer	S28	244	55.251	1.031	191.5	7.2863	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				923.4
240 minute summer	S30	4	54.150	0.000	16.5	0.0000	0.0000	OK							
240 minute summer	S12	124	56.265	0.100	31.8	0.1126	0.0000	OK	S12-S14	S14	31.7	0.956	0.158	1.7998	
240 minute summer	S14	124	55.781	0.156	58.1	0.1766	0.0000	OK	S14-S16	S16	57.4	1.370	0.339	1.6064	
240 minute summer	S24	244	55.251	0.951	209.8	678.4573	0.0000	SURCHARGED	S24-S28	S28	-171.3	0.483	-0.100	6.9176	

Results for 100 year +40% 240 minute winter. 1680 minute analysis at 4 minute timestep. Mass balance: 99.93%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	S2	124	59.881	0.071	14.1	0.0809	0.0000	OK	S2-S4	S4	14.1	0.691	0.127	0.4186	
240 minute winter	S4	124	59.733	0.127	27.6	0.1442	0.0000	OK	S4-S6	S6	27.6	1.193	0.352	0.8405	
240 minute winter	S6	124	59.516	0.091	35.8	0.1024	0.0000	OK	S6-S8	S8	35.7	1.948	0.165	0.1464	
240 minute winter	S8	124	59.219	0.094	46.3	0.1061	0.0000	OK	S8-S10	S10	46.3	2.511	0.204	0.8605	
240 minute winter	S10	124	57.223	0.098	59.3	0.1109	0.0000	OK	S10-S16	S16	59.3	2.646	0.144	0.9440	
240 minute winter	S16	124	55.363	0.163	121.3	0.2874	0.0000	OK	S16-S18	S18	121.3	1.577	0.216	7.6936	
240 minute winter	S18	236	55.360	0.989	140.5	1.7476	0.0000	SURCHARGED	S18-S20	S20	137.2	0.718	0.448	10.6902	
240 minute winter	S20	236	55.360	1.065	148.9	1.8818	0.0000	SURCHARGED	S20-S28	S28	148.5	0.600	0.468	9.8139	
240 minute winter	S28	240	55.360	1.140	148.5	8.0586	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1036.8
240 minute winter	S30	4	54.150	0.000	16.5	0.0000	0.0000	OK							
240 minute winter	S12	124	56.251	0.086	23.7	0.0973	0.0000	OK	S12-S14	S14	23.7	0.886	0.118	1.4552	
240 minute winter	S14	124	55.758	0.133	43.4	0.1505	0.0000	OK	S14-S16	S16	43.3	1.274	0.256	1.3015	
240 minute winter	S24	240	55.360	1.060	159.0	784.0631	0.0000	SURCHARGED	S24-S28	S28	-130.8	0.476	-0.077	6.9176	

Results for 100 year +40% 360 minute summer. 1800 minute analysis at 8 minute timestep. Mass balance: 99.94%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S2	184	59.881	0.072	14.2	0.0811	0.0000	OK	S2-S4	S4	14.2	0.693	0.127	0.4196	
360 minute summer	S4	184	59.734	0.128	27.8	0.1444	0.0000	OK	S4-S6	S6	27.6	1.191	0.352	0.8418	
360 minute summer	S6	184	59.516	0.091	35.9	0.1025	0.0000	OK	S6-S8	S8	35.8	1.950	0.165	0.1463	
360 minute summer	S8	184	59.219	0.094	46.4	0.1059	0.0000	OK	S8-S10	S10	46.1	2.507	0.203	0.8583	
360 minute summer	S10	184	57.223	0.098	59.1	0.1106	0.0000	OK	S10-S16	S16	58.9	2.640	0.143	0.9401	
360 minute summer	S16	184	55.362	0.162	120.6	0.2861	0.0000	OK	S16-S18	S18	120.2	1.551	0.214	7.4329	
360 minute summer	S18	360	55.243	0.872	139.4	1.5402	0.0000	SURCHARGED	S18-S20	S20	134.0	0.645	0.438	10.6902	
360 minute summer	S20	360	55.243	0.947	145.9	1.6742	0.0000	SURCHARGED	S20-S28	S28	142.5	0.518	0.449	9.8139	
360 minute summer	S28	360	55.242	1.022	142.5	7.2268	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1005.4
360 minute summer	S30	8	54.150	0.000	16.5	0.0000	0.0000	OK							
360 minute summer	S12	184	56.251	0.086	23.7	0.0971	0.0000	OK	S12-S14	S14	23.6	0.887	0.118	1.4472	
360 minute summer	S14	184	55.757	0.132	43.3	0.1497	0.0000	OK	S14-S16	S16	42.8	1.269	0.253	1.2915	
360 minute summer	S24	360	55.242	0.942	152.2	670.5399	0.0000	SURCHARGED	S24-S28	S28	-123.5	0.510	-0.072	6.9176	

Results for 100 year +40% 360 minute winter. 1800 minute analysis at 8 minute timestep. Mass balance: 99.96%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S2	184	59.870	0.061	10.3	0.0691	0.0000	OK	S2-S4	S4	10.3	0.633	0.093	0.3349	
360 minute winter	S4	184	59.714	0.108	20.2	0.1221	0.0000	OK	S4-S6	S6	20.2	1.104	0.258	0.6660	
360 minute winter	S6	184	59.501	0.076	26.2	0.0858	0.0000	OK	S6-S8	S8	26.1	1.810	0.121	0.1152	
360 minute winter	S8	184	59.204	0.079	33.8	0.0899	0.0000	OK	S8-S10	S10	33.8	2.302	0.149	0.6850	
360 minute winter	S10	184	57.208	0.083	43.3	0.0943	0.0000	OK	S10-S16	S16	43.3	2.426	0.105	0.7519	
360 minute winter	S16	352	55.360	0.160	88.7	0.2824	0.0000	OK	S16-S18	S18	88.6	1.537	0.158	7.6656	
360 minute winter	S18	352	55.360	0.989	102.6	1.7475	0.0000	SURCHARGED	S18-S20	S20	99.5	0.642	0.325	10.6902	
360 minute winter	S20	352	55.360	1.065	108.2	1.8818	0.0000	SURCHARGED	S20-S28	S28	107.6	0.495	0.339	9.8139	
360 minute winter	S28	352	55.360	1.140	107.6	8.0581	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1128.3
360 minute winter	S30	8	54.150	0.000	16.5	0.0000	0.0000	OK							
360 minute winter	S12	184	56.239	0.074	17.3	0.0832	0.0000	OK	S12-S14	S14	17.3	0.814	0.086	1.1558	
360 minute winter	S14	184	55.737	0.112	31.7	0.1270	0.0000	OK	S14-S16	S16	31.6	1.171	0.187	1.0335	
360 minute winter	S24	352	55.360	1.060	111.0	783.9590	0.0000	SURCHARGED	S24-S28	S28	-90.4	0.479	-0.053	6.9176	

Results for 100 year +40% 480 minute summer. 1920 minute analysis at 8 minute timestep. Mass balance: 99.96%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S2	248	59.872	0.063	11.0	0.0714	0.0000	OK	S2-S4	S4	11.0	0.646	0.099	0.3505	
480 minute summer	S4	248	59.718	0.112	21.5	0.1262	0.0000	OK	S4-S6	S6	21.5	1.122	0.275	0.6982	
480 minute summer	S6	248	59.504	0.079	27.9	0.0890	0.0000	OK	S6-S8	S8	27.9	1.839	0.129	0.1211	
480 minute summer	S8	248	59.207	0.082	36.1	0.0930	0.0000	OK	S8-S10	S10	36.1	2.345	0.159	0.7181	
480 minute summer	S10	248	57.211	0.086	46.2	0.0975	0.0000	OK	S10-S16	S16	46.2	2.470	0.112	0.7882	
480 minute summer	S16	248	55.343	0.143	94.6	0.2530	0.0000	OK	S16-S18	S18	94.6	1.512	0.169	7.2098	
480 minute summer	S18	416	55.223	0.852	109.5	1.5047	0.0000	SURCHARGED	S18-S20	S20	105.6	0.602	0.345	10.6902	
480 minute summer	S20	416	55.222	0.927	114.9	1.6387	0.0000	SURCHARGED	S20-S28	S28	113.1	0.449	0.356	9.8139	
480 minute summer	S28	416	55.222	1.002	113.1	7.0849	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1069.3
480 minute summer	S30	8	54.150	0.000	16.5	0.0000	0.0000	OK							
480 minute summer	S12	248	56.241	0.076	18.4	0.0858	0.0000	OK	S12-S14	S14	18.4	0.829	0.092	1.2105	
480 minute summer	S14	248	55.741	0.116	33.7	0.1314	0.0000	OK	S14-S16	S16	33.7	1.192	0.199	1.0831	
480 minute summer	S24	416	55.222	0.922	117.5	652.0150	0.0000	SURCHARGED	S24-S28	S28	-95.2	0.486	-0.056	6.9176	

Results for 100 year +40% 480 minute winter. 1920 minute analysis at 8 minute timestep. Mass balance: 99.97%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	S2	248	59.864	0.055	8.2	0.0619	0.0000	OK	S2-S4	S4	8.2	0.594	0.074	0.2845	
480 minute winter	S4	248	59.702	0.096	16.0	0.1083	0.0000	OK	S4-S6	S6	16.0	1.039	0.204	0.5618	
480 minute winter	S6	248	59.492	0.067	20.8	0.0756	0.0000	OK	S6-S8	S8	20.8	1.711	0.096	0.0970	
480 minute winter	S8	248	59.196	0.071	26.9	0.0799	0.0000	OK	S8-S10	S10	26.9	2.159	0.119	0.5811	
480 minute winter	S10	248	57.199	0.074	34.4	0.0839	0.0000	OK	S10-S16	S16	34.4	2.273	0.083	0.6378	
480 minute winter	S16	456	55.343	0.143	70.4	0.2520	0.0000	OK	S16-S18	S18	70.4	1.479	0.126	7.4350	
480 minute winter	S18	456	55.343	0.972	81.5	1.7167	0.0000	SURCHARGED	S18-S20	S20	79.4	0.603	0.259	10.6902	
480 minute winter	S20	456	55.342	1.047	86.3	1.8508	0.0000	SURCHARGED	S20-S28	S28	85.9	0.454	0.271	9.8139	
480 minute winter	S28	456	55.342	1.122	85.9	7.9332	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1200.4
480 minute winter	S30	8	54.150	0.000	16.5	0.0000	0.0000	OK							
480 minute winter	S12	248	56.231	0.066	13.7	0.0743	0.0000	OK	S12-S14	S14	13.7	0.764	0.068	0.9772	
480 minute winter	S14	248	55.724	0.099	25.1	0.1124	0.0000	OK	S14-S16	S16	25.1	1.100	0.148	0.8743	
480 minute winter	S24	456	55.342	1.042	85.7	766.3740	0.0000	SURCHARGED	S24-S28	S28	-69.1	0.382	-0.041	6.9176	

Results for 100 year +40% 600 minute summer. 2040 minute analysis at 15 minute timestep. Mass balance: 99.97%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S2	315	59.866	0.057	8.9	0.0644	0.0000	OK	S2-S4	S4	8.9	0.608	0.080	0.3018	
600 minute summer	S4	315	59.706	0.100	17.4	0.1131	0.0000	OK	S4-S6	S6	17.4	1.062	0.222	0.5975	
600 minute summer	S6	315	59.495	0.070	22.6	0.0792	0.0000	OK	S6-S8	S8	22.6	1.746	0.104	0.1033	
600 minute summer	S8	315	59.199	0.074	29.3	0.0835	0.0000	OK	S8-S10	S10	29.3	2.212	0.129	0.6179	
600 minute summer	S10	315	57.202	0.077	37.5	0.0876	0.0000	OK	S10-S16	S16	37.5	2.329	0.091	0.6785	
600 minute summer	S16	315	55.329	0.129	76.7	0.2276	0.0000	OK	S16-S18	S18	76.7	1.495	0.137	7.0973	
600 minute summer	S18	480	55.200	0.829	88.8	1.4646	0.0000	SURCHARGED	S18-S20	S20	85.8	0.581	0.280	10.6902	
600 minute summer	S20	480	55.200	0.905	93.3	1.5987	0.0000	SURCHARGED	S20-S28	S28	92.0	0.414	0.290	9.8139	
600 minute summer	S28	480	55.200	0.980	92.0	6.9246	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1119.6
600 minute summer	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
600 minute summer	S12	315	56.233	0.068	14.9	0.0774	0.0000	OK	S12-S14	S14	14.9	0.783	0.074	1.0387	
600 minute summer	S14	315	55.729	0.104	27.3	0.1175	0.0000	OK	S14-S16	S16	27.3	1.126	0.161	0.9292	
600 minute summer	S24	480	55.200	0.900	92.6	632.2717	0.0000	OK	S24-S28	S28	-74.6	0.450	-0.044	6.9150	

Results for 100 year +40% 600 minute winter. 2040 minute analysis at 15 minute timestep. Mass balance: 99.97%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	S2	315	59.859	0.050	6.8	0.0565	0.0000	OK	S2-S4	S4	6.8	0.562	0.061	0.2495	
600 minute winter	S4	315	59.693	0.087	13.3	0.0986	0.0000	OK	S4-S6	S6	13.3	0.990	0.170	0.4907	
600 minute winter	S6	315	59.486	0.061	17.3	0.0685	0.0000	OK	S6-S8	S8	17.3	1.633	0.080	0.0845	
600 minute winter	S8	315	59.189	0.064	22.4	0.0728	0.0000	OK	S8-S10	S10	22.4	2.050	0.099	0.5095	
600 minute winter	S10	315	57.193	0.068	28.6	0.0765	0.0000	OK	S10-S16	S16	28.6	2.154	0.069	0.5595	
600 minute winter	S16	555	55.315	0.115	58.6	0.2035	0.0000	OK	S16-S18	S18	58.6	1.448	0.105	7.0861	
600 minute winter	S18	555	55.315	0.944	67.9	1.6682	0.0000	SURCHARGED	S18-S20	S20	66.2	0.578	0.216	10.6902	
600 minute winter	S20	555	55.315	1.020	71.9	1.8022	0.0000	SURCHARGED	S20-S28	S28	71.6	0.421	0.226	9.8139	
600 minute winter	S28	555	55.315	1.095	71.6	7.7388	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1255.8
600 minute winter	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
600 minute winter	S12	315	56.225	0.060	11.4	0.0679	0.0000	OK	S12-S14	S14	11.4	0.726	0.057	0.8559	
600 minute winter	S14	315	55.715	0.090	20.9	0.1022	0.0000	OK	S14-S16	S16	20.9	1.045	0.123	0.7660	
600 minute winter	S24	555	55.315	1.015	68.8	739.3951	0.0000	SURCHARGED	S24-S28	S28	-55.0	0.412	-0.032	6.9176	

Results for 100 year +40% 720 minute summer. 2160 minute analysis at 15 minute timestep. Mass balance: 99.97%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S2	375	59.863	0.054	7.9	0.0608	0.0000	OK	S2-S4	S4	7.9	0.588	0.071	0.2770	
720 minute summer	S4	375	59.700	0.094	15.4	0.1062	0.0000	OK	S4-S6	S6	15.4	1.029	0.197	0.5461	
720 minute summer	S6	375	59.490	0.065	20.0	0.0740	0.0000	OK	S6-S8	S8	20.0	1.694	0.092	0.0942	
720 minute summer	S8	375	59.194	0.069	25.9	0.0784	0.0000	OK	S8-S10	S10	25.9	2.136	0.114	0.5655	
720 minute summer	S10	375	57.198	0.073	33.1	0.0822	0.0000	OK	S10-S16	S16	33.1	2.247	0.080	0.6207	
720 minute summer	S16	375	55.321	0.121	67.7	0.2138	0.0000	OK	S16-S18	S18	67.7	1.407	0.121	6.9217	
720 minute summer	S18	555	55.178	0.807	78.4	1.4260	0.0000	SURCHARGED	S18-S20	S20	75.8	0.571	0.248	10.6902	
720 minute summer	S20	555	55.178	0.883	82.4	1.5601	0.0000	SURCHARGED	S20-S28	S28	80.9	0.398	0.255	9.8139	
720 minute summer	S28	555	55.178	0.958	80.9	6.7706	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1164.8
720 minute summer	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
720 minute summer	S12	375	56.230	0.065	13.2	0.0730	0.0000	OK	S12-S14	S14	13.2	0.758	0.066	0.9498	
720 minute summer	S14	375	55.722	0.097	24.1	0.1100	0.0000	OK	S14-S16	S16	24.1	1.087	0.142	0.8491	
720 minute summer	S24	555	55.178	0.878	79.4	613.8340	0.0000	OK	S24-S28	S28	-63.5	0.484	-0.037	6.8951	

Results for 100 year +40% 720 minute winter. 2160 minute analysis at 15 minute timestep. Mass balance: 99.98%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	S2	375	59.856	0.047	5.9	0.0527	0.0000	OK	S2-S4	S4	5.9	0.538	0.053	0.2263	
720 minute winter	S4	375	59.687	0.081	11.6	0.0920	0.0000	OK	S4-S6	S6	11.6	0.953	0.148	0.4445	
720 minute winter	S6	375	59.481	0.056	15.1	0.0637	0.0000	OK	S6-S8	S8	15.1	1.578	0.070	0.0764	
720 minute winter	S8	375	59.185	0.060	19.5	0.0679	0.0000	OK	S8-S10	S10	19.5	1.971	0.086	0.4615	
720 minute winter	S10	375	57.188	0.063	24.9	0.0714	0.0000	OK	S10-S16	S16	24.9	2.070	0.060	0.5069	
720 minute winter	S16	375	55.305	0.105	50.9	0.1856	0.0000	OK	S16-S18	S18	50.9	1.395	0.091	6.9294	
720 minute winter	S18	570	55.290	0.919	58.9	1.6231	0.0000	SURCHARGED	S18-S20	S20	57.3	0.563	0.187	10.6902	
720 minute winter	S20	570	55.289	0.994	62.3	1.7572	0.0000	SURCHARGED	S20-S28	S28	61.9	0.397	0.195	9.8139	
720 minute winter	S28	570	55.289	1.069	61.9	7.5587	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1302.8
720 minute winter	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
720 minute winter	S12	375	56.221	0.056	9.9	0.0634	0.0000	OK	S12-S14	S14	9.9	0.699	0.049	0.7720	
720 minute winter	S14	375	55.709	0.084	18.1	0.0949	0.0000	OK	S14-S16	S16	18.1	1.005	0.107	0.6904	
720 minute winter	S24	570	55.289	0.989	57.3	714.8094	0.0000	SURCHARGED	S24-S28	S28	-45.3	0.428	-0.027	6.9176	

Results for 100 year +40% 960 minute summer. 2400 minute analysis at 15 minute timestep. Mass balance: 99.98%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S2	495	59.857	0.048	6.4	0.0548	0.0000	OK	S2-S4	S4	6.4	0.553	0.058	0.2390	
960 minute summer	S4	495	59.690	0.084	12.5	0.0955	0.0000	OK	S4-S6	S6	12.5	0.974	0.160	0.4686	
960 minute summer	S6	495	59.483	0.058	16.2	0.0661	0.0000	OK	S6-S8	S8	16.2	1.606	0.075	0.0805	
960 minute summer	S8	495	59.187	0.062	21.0	0.0705	0.0000	OK	S8-S10	S10	21.0	2.013	0.093	0.4866	
960 minute summer	S10	495	57.190	0.065	26.8	0.0740	0.0000	OK	S10-S16	S16	26.8	2.114	0.065	0.5342	
960 minute summer	S16	495	55.309	0.109	54.7	0.1922	0.0000	OK	S16-S18	S18	54.7	1.411	0.098	6.7866	
960 minute summer	S18	690	55.131	0.760	63.3	1.3425	0.0000	SURCHARGED	S18-S20	S20	61.2	0.560	0.200	10.6902	
960 minute summer	S20	690	55.131	0.836	66.6	1.4766	0.0000	SURCHARGED	S20-S28	S28	65.2	0.383	0.205	9.8139	
960 minute summer	S28	690	55.131	0.911	65.2	6.4367	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1231.6
960 minute summer	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
960 minute summer	S12	495	56.223	0.058	10.6	0.0656	0.0000	OK	S12-S14	S14	10.6	0.712	0.053	0.8113	
960 minute summer	S14	495	55.712	0.087	19.4	0.0984	0.0000	OK	S14-S16	S16	19.4	1.024	0.115	0.7259	
960 minute summer	S24	690	55.131	0.831	60.6	574.4050	0.0000	OK	S24-S28	S28	-47.7	0.425	-0.028	6.7965	

Results for 100 year +40% 960 minute winter. 2400 minute analysis at 15 minute timestep. Mass balance: 99.98%															
Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	S2	495	59.851	0.042	4.7	0.0472	0.0000	OK	S2-S4	S4	4.7	0.504	0.042	0.1925	
960 minute winter	S4	495	59.678	0.072	9.2	0.0820	0.0000	OK	S4-S6	S6	9.2	0.894	0.118	0.3760	
960 minute winter	S6	495	59.475	0.050	12.0	0.0564	0.0000	OK	S6-S8	S8	12.0	1.485	0.055	0.0645	
960 minute winter	S8	495	59.179	0.054	15.5	0.0606	0.0000	OK	S8-S10	S10	15.5	1.843	0.068	0.3924	
960 minute winter	S10	495	57.181	0.056	19.8	0.0637	0.0000	OK	S10-S16	S16	19.8	1.938	0.048	0.4305	
960 minute winter	S16	495	55.294	0.094	40.6	0.1662	0.0000	OK	S16-S18	S18	40.6	1.348	0.072	6.7831	
960 minute winter	S18	735	55.237	0.866	47.0	1.5303	0.0000	SURCHARGED	S18-S20	S20	45.6	0.546	0.149	10.6902	
960 minute winter	S20	735	55.237	0.942	49.6	1.6644	0.0000	SURCHARGED	S20-S28	S28	48.9	0.369	0.154	9.8139	
960 minute winter	S28	735	55.237	1.017	48.9	7.1877	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1381.7
960 minute winter	S30	15	54.150	0.000	16.5	0.0000	0.0000	OK							
960 minute winter	S12	495	56.215	0.050	7.9	0.0569	0.0000	OK	S12-S14	S14	7.9	0.654	0.039	0.6578	
960 minute winter	S14	495	55.700	0.075	14.5	0.0848	0.0000	OK	S14-S16	S16	14.5	0.943	0.086	0.5890	
960 minute winter	S24	735	55.237	0.937	41.9	665.4099	0.0000	SURCHARGED	S24-S28	S28	-32.3	0.357	-0.019	6.9176	

Results for 100 year +40% 1440 minute summer. 2880 minute analysis at 30 minute timestep. Mass balance: 99.98%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S2	750	59.850	0.041	4.5	0.0463	0.0000	OK	S2-S4	S4	4.5	0.498	0.040	0.1867	
1440 minute summer	S4	750	59.677	0.071	8.8	0.0802	0.0000	OK	S4-S6	S6	8.8	0.886	0.112	0.3635	
1440 minute summer	S6	750	59.474	0.049	11.4	0.0549	0.0000	OK	S6-S8	S8	11.4	1.462	0.053	0.0622	
1440 minute summer	S8	750	59.177	0.052	14.8	0.0592	0.0000	OK	S8-S10	S10	14.8	1.818	0.065	0.3797	
1440 minute summer	S10	750	57.180	0.055	18.9	0.0622	0.0000	OK	S10-S16	S16	18.9	1.911	0.046	0.4167	
1440 minute summer	S16	750	55.292	0.092	38.8	0.1626	0.0000	OK	S16-S18	S18	38.8	1.330	0.069	6.5659	
1440 minute summer	S18	960	55.031	0.660	44.9	1.1661	0.0000	SURCHARGED	S18-S20	S20	43.5	0.542	0.142	10.6902	
1440 minute summer	S20	960	55.031	0.736	47.3	1.3002	0.0000	SURCHARGED	S20-S28	S28	46.3	0.366	0.146	9.8139	
1440 minute summer	S28	960	55.031	0.811	46.3	5.7308	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1332.7
1440 minute summer	S30	30	54.150	0.000	16.5	0.0000	0.0000	OK							
1440 minute summer	S12	750	56.214	0.049	7.6	0.0559	0.0000	OK	S12-S14	S14	7.6	0.649	0.038	0.6388	
1440 minute summer	S14	750	55.698	0.073	13.9	0.0830	0.0000	OK	S14-S16	S16	13.9	0.932	0.082	0.5716	
1440 minute summer	S24	960	55.031	0.731	38.1	493.4390	0.0000	OK	S24-S28	S28	-29.0	0.307	-0.017	6.2921	

Results for 100 year +40% 1440 minute winter. 2880 minute analysis at 30 minute timestep. Mass balance: 99.99%

Event	US Node ID	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	Link ID	DS Node ID	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	S2	750	59.845	0.036	3.4	0.0405	0.0000	OK	S2-S4	S4	3.4	0.456	0.031	0.1541	
1440 minute winter	S4	750	59.668	0.062	6.7	0.0701	0.0000	OK	S4-S6	S6	6.7	0.820	0.086	0.2991	
1440 minute winter	S6	750	59.467	0.042	8.7	0.0478	0.0000	OK	S6-S8	S8	8.7	1.364	0.040	0.0509	
1440 minute winter	S8	750	59.171	0.046	11.2	0.0516	0.0000	OK	S8-S10	S10	11.2	1.678	0.049	0.3114	
1440 minute winter	S10	750	57.173	0.048	14.3	0.0543	0.0000	OK	S10-S16	S16	14.3	1.760	0.035	0.3423	
1440 minute winter	S16	750	55.280	0.080	29.2	0.1416	0.0000	OK	S16-S18	S18	29.2	1.278	0.052	6.5815	
1440 minute winter	S18	1050	55.112	0.741	33.8	1.3091	0.0000	SURCHARGED	S18-S20	S20	32.9	0.529	0.107	10.6902	
1440 minute winter	S20	1050	55.112	0.817	35.8	1.4432	0.0000	SURCHARGED	S20-S28	S28	35.1	0.353	0.111	9.8139	
1440 minute winter	S28	1050	55.112	0.892	35.1	6.3030	0.0000	SURCHARGED	Hydro-Brake®	S30	16.5				1500.6
1440 minute winter	S30	30	54.150	0.000	16.5	0.0000	0.0000	OK							
1440 minute winter	S12	750	56.208	0.043	5.7	0.0488	0.0000	OK	S12-S14	S14	5.7	0.597	0.028	0.5203	
1440 minute winter	S14	750	55.689	0.064	10.4	0.0718	0.0000	OK	S14-S16	S16	10.4	0.857	0.061	0.4651	
1440 minute winter	S24	1050	55.112	0.812	25.3	558.8189	0.0000	OK	S24-S28	S28	-18.4	0.329	-0.011	6.7399	

Adoptable						
Max Width (mm)	Diameter (mm)	Width (mm)		Max Depth (m)	Diameter (mm)	Width (mm)
374	1200				1050	
499	1350				1200	
749	1500					
900	1800					
>900	Link+900 mm					

Circular						
Shape	Circular		Dia (mm)			
Barrels	1		100			
Height (mm)			150			
Width (mm)						
Side Slope (1:X)						
Auto Increment (mm)	75					
Preferred Cover (m)						
Steep Slope (1:X)						
Follow Ground	x					
Velocity	Default					
ks (mm) / n						