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Project Title: Everill Gate, Wombwell

Project No: 86 - 06

Client: Everill Gate Properties

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Proposed Structural Design:

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Prepared by:	Date:	Checked by:	Date:	Approved by:	Date:
KA	Dec 2019	KGP	Dec 2019	KGP	Dec 2019

Revisions

Ref	Date	Description	Checked	Approved
A	20/03/20	Updated to 3.0 l/s discharge rate in line with Yorkshire Water comments	KGP	KGP

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Sheet: 1

Project Title: Everill Gate, Wombwell			
Project No: 86 - 06	Prepared By: KA	Date: Dec 2019	Checked By: KGP	Date: Dec 2019

Appliance	DU (l/s) System I,II,III,IV	MH Ref and Gulley Ref												Total
		F1	F2	F3	F4	F5	F6	F9	F10	F11	F12	F15	F16	
Wash basin, Bidet	0.5	1	1	1	1	1	1	1	1	1	1	3	5	
Shower without plug	0.6													
Shower with plug	1.3	1	1	1	1	1	1	1			1		1	
Single urinal with cistern	0.8													
Urinal with flushing valve	0.5												1	
Slab urinal (per person)	0.2													
Bath	1.3													
Kitchen Sink	1.3												1	
Fridge	0.2													
Dishwasher	0.8													
Washing MC up to 6kg	0.8													
Washing MC up to 12kg	1.5													
WC (4L)	1.8													
WC (6L)	2.0	1	1	1	1	1	1	1	1	1	1	3	5	
WC (7.5L)	2.0													
Cleaners Sink	1.5	1	1	1	1	1	1	1	1	1	1		1	
Floor gully - store rooms	0.1													
Industrial Fridges (allow)	10.0													
Total l/s		5.30	5.30	5.30	5.30	5.30	5.30	5.30	4.00	4.00	5.30	7.50	17.10	80.30
Pipe Flow, Qww l/s		1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.40	1.40	1.61	1.92	2.89	

Calculations based on BS EN 12056:Part 2

K Usage Factor = 0.7

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Drainage Design Report

Flow

v8.1

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Network	Storm Network
Filename	P:\Projects\86 - Benell Investments\86-06 Everill Gate, Barnsley\Design\Flow\FW Drainage Design - Current.pfd
Username	Kate Abbott (katie.abbott@beamconsulting.co.uk)
Last analysed	03/03/2020 09:41:40
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Rainfall Methodology	FSR
Return Period (years)	100
Additional Flow (%)	100
FSR Region	England and Wales
M5-60 (mm)	19.000
Ratio-R	0.350
CV	0.750
Time of Entry (mins)	1.00
Maximum Time of Concentration (mins)	30.00
Maximum Rainfall (mm/hr)	0.0
Minimum Velocity (m/s)	0.75
Connection Type	Level Soffits
Minimum Backdrop Height (m)	0.100
Preferred Cover Depth (m)	0.900
Include Intermediate Ground	✓
Enforce best practice design rules	✓

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	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
	F1		1.00		30.500	Manhole	Plastic	450		440885.429	402593.833	1.050	
	F2				30.500	Manhole	Plastic	450		440887.414	402594.321	1.066	
	F3				30.500	Manhole	Plastic	450		440906.842	402599.097	1.214	
	F4				30.500	Manhole	Plastic	450		440908.826	402599.585	1.230	
	F5				30.500	Manhole	Plastic	450		440928.254	402604.361	1.378	
	F6				30.500	Manhole	Plastic	450		440930.239	402604.849	1.394	
	F7				30.400	Manhole	Plastic	1200		440954.938	402610.921	1.481	
	F8				30.200	Manhole	Plastic	1200		440961.650	402583.618	1.488	
	F9		1.00		30.000	Manhole	Plastic	450		440931.494	402541.950	0.750	
	F10				30.000	Manhole	Plastic	450		440933.994	402542.565	0.769	
	F11				30.000	Manhole	Plastic	450		440948.130	402546.040	0.876	
	F12				30.000	Manhole	Plastic	450		440950.866	402546.712	0.897	
	F13				30.200	Manhole	Plastic	1200		440969.591	402551.315	1.239	
	F14				30.200	Manhole	Plastic	1200		440968.361	402556.316	1.802	
	F15		1.00		30.800	Manhole	Plastic	450		440981.909	402608.164	1.050	
	F16				30.800	Manhole	Plastic	450		440982.589	402605.398	1.071	
	F17				30.850	Manhole	Plastic	450		440987.329	402586.166	1.267	
	F18				30.850	Manhole	Plastic	450		440992.070	402566.834	1.414	
	F19				30.900	Manhole	Plastic	1200		440998.538	402563.734	2.731	
	F20				30.900	Manhole	Plastic	1200		441040.654	402574.088	3.050	
	F21				30.900	Manhole	Plastic	1200		441082.770	402584.441	3.369	
	F22				30.880	Manhole	Plastic	1200		441124.886	402594.795	3.668	
	F23				30.800	Manhole	Plastic	1200		441155.422	402580.639	3.836	
	F24				30.400	Manhole	Plastic	1200		441185.959	402566.483	3.684	
	C1				30.400	Manhole	Plastic	1200		441190.646	402564.311	3.722	

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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)
1.000	F1	F2	2.044	1.500	Colebrook-White	29.450	29.434	0.016	127.8	150	Circular	1.04	0.0					
1.001	F2	F3	20.006	1.500	Colebrook-White	29.434	29.286	0.148	135.2	150	Circular	1.49	0.0					
1.002	F3	F4	2.043	1.500	Colebrook-White	29.286	29.270	0.016	127.7	150	Circular	1.53	0.0					
1.003	F4	F5	20.006	1.500	Colebrook-White	29.270	29.122	0.148	135.2	150	Circular	1.97	0.0					
1.004	F5	F6	2.044	1.500	Colebrook-White	29.122	29.106	0.016	127.8	150	Circular	2.02	0.0					
1.005	F6	F7	25.434	1.500	Colebrook-White	29.106	28.919	0.187	136.0	150	Circular	2.58	0.0					
1.006	F7	F8	28.116	1.500	Colebrook-White	28.919	28.712	0.207	135.8	150	Circular	3.21	0.0					
1.007	F8	F14	28.115	1.500	Colebrook-White	28.712	28.505	0.207	135.8	150	Circular	3.83	0.0					
2.000	F9	F10	2.575	1.500	Colebrook-White	29.250	29.231	0.019	135.5	150	Circular	1.06	0.0					
2.001	F10	F11	14.557	1.500	Colebrook-White	29.231	29.124	0.107	136.0	150	Circular	1.38	0.0					
2.002	F11	F12	2.817	1.500	Colebrook-White	29.124	29.103	0.021	134.2	150	Circular	1.44	0.0					
2.003	F12	F13	19.282	1.500	Colebrook-White	29.103	28.961	0.142	135.8	150	Circular	1.87	0.0					
2.004	F13	F14	5.150	1.500	Colebrook-White	28.961	28.920	0.041	125.6	150	Circular	1.98	0.0					
1.008	F14	F19	31.075	1.500	Colebrook-White	28.398	28.169	0.229	135.7	150	Circular	4.52	0.0					
3.000	F15	F16	2.848	1.500	Colebrook-White	29.750	29.729	0.021	135.6	150	Circular	1.06	0.0					
3.001	F16	F17	19.808	1.500	Colebrook-White	29.729	29.583	0.146	135.7	150	Circular	1.50	0.0					
3.002	F17	F18	19.905	1.500	Colebrook-White	29.583	29.436	0.147	135.4	150	Circular	1.94	0.0					
3.003	F18	F19	7.173	1.500	Colebrook-White	29.436	29.383	0.053	135.3	150	Circular	2.10	0.0					
1.009	F19	F20	43.370	1.500	Colebrook-White	28.169	27.850	0.319	136.0	150	Circular	5.48	0.0					
1.010	F20	F21	43.370	1.500	Colebrook-White	27.850	27.531	0.319	136.0	150	Circular	6.45	0.0					
1.011	F21	F22	43.370	1.500	Colebrook-White	27.531	27.212	0.319	136.0	150	Circular	7.41	0.0					
1.012	F22	F23	33.658	1.500	Colebrook-White	27.212	26.964	0.248	135.7	150	Circular	8.16	0.0					
1.013	F23	F24	33.659	1.500	Colebrook-White	26.964	26.716	0.248	135.7	150	Circular	8.91	0.0					
1.014	F24	C1	5.166	1.500	Colebrook-White	26.716	26.678	0.038	135.9	150	Circular	9.02	0.0					

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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
1.000	F1	F2	0.774	13.7	0.0	0.900	0.916	0.900	0.916	0.000	0.0			
1.001	F2	F3	0.752	13.3	0.0	0.916	1.064	0.916	1.064	0.000	0.0			
1.002	F3	F4	0.774	13.7	0.0	1.064	1.080	1.064	1.080	0.000	0.0			
1.003	F4	F5	0.752	13.3	0.0	1.080	1.228	1.080	1.228	0.000	0.0			
1.004	F5	F6	0.774	13.7	0.0	1.228	1.244	1.228	1.244	0.000	0.0			
1.005	F6	F7	0.750	13.3	0.0	1.244	1.331	1.244	1.331	0.000	0.0			
1.006	F7	F8	0.751	13.3	0.0	1.331	1.338	1.331	1.338	0.000	0.0			
1.007	F8	F14	0.751	13.3	0.0	1.338	1.545	1.338	1.545	0.000	0.0			
2.000	F9	F10	0.752	13.3	0.0	0.600	0.619	0.600	0.619	0.000	0.0			
2.001	F10	F11	0.750	13.3	0.0	0.619	0.726	0.619	0.726	0.000	0.0			
2.002	F11	F12	0.755	13.3	0.0	0.726	0.747	0.726	0.747	0.000	0.0			
2.003	F12	F13	0.751	13.3	0.0	0.747	1.089	0.747	1.089	0.000	0.0			
2.004	F13	F14	0.781	13.8	0.0	1.089	1.130	1.089	1.130	0.000	0.0			
1.008	F14	F19	0.751	13.3	0.0	1.652	2.581	1.652	2.581	0.000	0.0			
3.000	F15	F16	0.751	13.3	0.0	0.900	0.921	0.900	0.921	0.000	0.0			
3.001	F16	F17	0.751	13.3	0.0	0.921	1.117	0.921	1.117	0.000	0.0			
3.002	F17	F18	0.752	13.3	0.0	1.117	1.264	1.117	1.264	0.000	0.0			
3.003	F18	F19	0.752	13.3	0.0	1.264	1.367	1.264	1.367	0.000	0.0			
1.009	F19	F20	0.750	13.3	0.0	2.581	2.900	2.581	2.900	0.000	0.0			
1.010	F20	F21	0.750	13.3	0.0	2.900	3.219	2.900	3.219	0.000	0.0			
1.011	F21	F22	0.750	13.3	0.0	3.219	3.518	3.219	3.518	0.000	0.0			
1.012	F22	F23	0.751	13.3	0.0	3.518	3.686	3.518	3.686	0.000	0.0			
1.013	F23	F24	0.751	13.3	0.0	3.686	3.534	3.534	3.686	0.000	0.0			
1.014	F24	C1	0.750	13.3	0.0	3.534	3.572	3.534	3.572	0.000	0.0			

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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
1.000	2.044	127.8	150	Circular	30.500	29.450	0.900	30.500	29.434	0.916	F1	450		Manhole	Plastic	F2	450		Manhole	Plastic
1.001	20.006	135.2	150	Circular	30.500	29.434	0.916	30.500	29.286	1.064	F2	450		Manhole	Plastic	F3	450		Manhole	Plastic
1.002	2.043	127.7	150	Circular	30.500	29.286	1.064	30.500	29.270	1.080	F3	450		Manhole	Plastic	F4	450		Manhole	Plastic
1.003	20.006	135.2	150	Circular	30.500	29.270	1.080	30.500	29.122	1.228	F4	450		Manhole	Plastic	F5	450		Manhole	Plastic
1.004	2.044	127.8	150	Circular	30.500	29.122	1.228	30.500	29.106	1.244	F5	450		Manhole	Plastic	F6	450		Manhole	Plastic
1.005	25.434	136.0	150	Circular	30.500	29.106	1.244	30.400	28.919	1.331	F6	450		Manhole	Plastic	F7	1200		Manhole	Plastic
1.006	28.116	135.8	150	Circular	30.400	28.919	1.331	30.200	28.712	1.338	F7	1200		Manhole	Plastic	F8	1200		Manhole	Plastic
1.007	28.115	135.8	150	Circular	30.200	28.712	1.338	30.200	28.505	1.545	F8	1200		Manhole	Plastic	F14	1200		Manhole	Plastic
2.000	2.575	135.5	150	Circular	30.000	29.250	0.600	30.000	29.231	0.619	F9	450		Manhole	Plastic	F10	450		Manhole	Plastic
2.001	14.557	136.0	150	Circular	30.000	29.231	0.619	30.000	29.124	0.726	F10	450		Manhole	Plastic	F11	450		Manhole	Plastic
2.002	2.817	134.2	150	Circular	30.000	29.124	0.726	30.000	29.103	0.747	F11	450		Manhole	Plastic	F12	450		Manhole	Plastic
2.003	19.282	135.8	150	Circular	30.000	29.103	0.747	30.200	28.961	1.089	F12	450		Manhole	Plastic	F13	1200		Manhole	Plastic
2.004	5.150	125.6	150	Circular	30.200	28.961	1.089	30.200	28.920	1.130	F13	1200		Manhole	Plastic	F14	1200		Manhole	Plastic
1.008	31.075	135.7	150	Circular	30.200	28.398	1.652	30.900	28.169	2.581	F14	1200		Manhole	Plastic	F19	1200		Manhole	Plastic
3.000	2.848	135.6	150	Circular	30.800	29.750	0.900	30.800	29.729	0.921	F15	450		Manhole	Plastic	F16	450		Manhole	Plastic
3.001	19.808	135.7	150	Circular	30.800	29.729	0.921	30.850	29.583	1.117	F16	450		Manhole	Plastic	F17	450		Manhole	Plastic
3.002	19.905	135.4	150	Circular	30.850	29.583	1.117	30.850	29.436	1.264	F17	450		Manhole	Plastic	F18	450		Manhole	Plastic
3.003	7.173	135.3	150	Circular	30.850	29.436	1.264	30.900	29.383	1.367	F18	450		Manhole	Plastic	F19	1200		Manhole	Plastic
1.009	43.370	136.0	150	Circular	30.900	28.169	2.581	30.900	27.850	2.900	F19	1200		Manhole	Plastic	F20	1200		Manhole	Plastic
1.010	43.370	136.0	150	Circular	30.900	27.850	2.900	30.900	27.531	3.219	F20	1200		Manhole	Plastic	F21	1200		Manhole	Plastic
1.011	43.370	136.0	150	Circular	30.900	27.531	3.219	30.880	27.212	3.518	F21	1200		Manhole	Plastic	F22	1200		Manhole	Plastic
1.012	33.658	135.7	150	Circular	30.880	27.212	3.518	30.800	26.964	3.686	F22	1200		Manhole	Plastic	F23	1200		Manhole	Plastic
1.013	33.659	135.7	150	Circular	30.800	26.964	3.686	30.400	26.716	3.534	F23	1200		Manhole	Plastic	F24	1200		Manhole	Plastic
1.014	5.166	135.9	150	Circular	30.400	26.716	3.534	30.400	26.678	3.572	F24	1200		Manhole	Plastic	C1	1200		Manhole	Plastic

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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
F1	440885.429	402593.833	30.500	1.050	450		Manhole	Plastic					
									0	1.000	29.450	150	Circular
F2	440887.414	402594.321	30.500	1.066	450		Manhole	Plastic	1	1.000	29.434	150	Circular
									0	1.001	29.434	150	Circular
F3	440906.842	402599.097	30.500	1.214	450		Manhole	Plastic	1	1.001	29.286	150	Circular
									0	1.002	29.286	150	Circular
F4	440908.826	402599.585	30.500	1.230	450		Manhole	Plastic	1	1.002	29.270	150	Circular
									0	1.003	29.270	150	Circular
F5	440928.254	402604.361	30.500	1.378	450		Manhole	Plastic	1	1.003	29.122	150	Circular
									0	1.004	29.122	150	Circular
F6	440930.239	402604.849	30.500	1.394	450		Manhole	Plastic	1	1.004	29.106	150	Circular
									0	1.005	29.106	150	Circular
F7	440954.938	402610.921	30.400	1.481	1200		Manhole	Plastic	1	1.005	28.919	150	Circular
									0	1.006	28.919	150	Circular
F8	440961.650	402583.618	30.200	1.488	1200		Manhole	Plastic	1	1.006	28.712	150	Circular

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									0	1.007	28.712	150	Circular
F9	440931.494	402541.950	30.000	0.750	450		Manhole	Plastic					
									0	2.000	29.250	150	Circular
F10	440933.994	402542.565	30.000	0.769	450		Manhole	Plastic	1	2.000	29.231	150	Circular
									0	2.001	29.231	150	Circular
F11	440948.130	402546.040	30.000	0.876	450		Manhole	Plastic	1	2.001	29.124	150	Circular
									0	2.002	29.124	150	Circular
F12	440950.866	402546.712	30.000	0.897	450		Manhole	Plastic	1	2.002	29.103	150	Circular
									0	2.003	29.103	150	Circular
F13	440969.591	402551.315	30.200	1.239	1200		Manhole	Plastic	1	2.003	28.961	150	Circular
									0	2.004	28.961	150	Circular
F14	440968.361	402556.316	30.200	1.802	1200		Manhole	Plastic	1	2.004	28.920	150	Circular
									2	1.007	28.505	150	Circular
									0	1.008	28.398	150	Circular
F15	440981.909	402608.164	30.800	1.050	450		Manhole	Plastic					
									0	3.000	29.750	150	Circular
F16	440982.589	402605.398	30.800	1.071	450		Manhole	Plastic	1	3.000	29.729	150	Circular

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									0	3.001	29.729	150	Circular
F17	440987.329	402586.166	30.850	1.267	450		Manhole	Plastic	1	3.001	29.583	150	Circular
									0	3.002	29.583	150	Circular
F18	440992.070	402566.834	30.850	1.414	450		Manhole	Plastic	1	3.002	29.436	150	Circular
									0	3.003	29.436	150	Circular
F19	440998.538	402563.734	30.900	2.731	1200		Manhole	Plastic	1	3.003	29.383	150	Circular
									2	1.008	28.169	150	Circular
									0	1.009	28.169	150	Circular
F20	441040.654	402574.088	30.900	3.050	1200		Manhole	Plastic	1	1.009	27.850	150	Circular
									0	1.010	27.850	150	Circular
F21	441082.770	402584.441	30.900	3.369	1200		Manhole	Plastic	1	1.010	27.531	150	Circular
									0	1.011	27.531	150	Circular
F22	441124.886	402594.795	30.880	3.668	1200		Manhole	Plastic	1	1.011	27.212	150	Circular
									0	1.012	27.212	150	Circular
F23	441155.422	402580.639	30.800	3.836	1200		Manhole	Plastic	1	1.012	26.964	150	Circular
									0	1.013	26.964	150	Circular
F24	441185.959	402566.483	30.400	3.684	1200		Manhole	Plastic	1	1.013	26.716	150	Circular
									0	1.014	26.716	150	Circular

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C1	441190.646	402564.311	30.400	3.722	1200		Manhole	Plastic	1	1.014	26.678	150	Circular

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Rainfall Methodology	FSR		Return Period (years)	Climate Change (%)
FSR Region	England and Wales		1	0
M5-60 (mm)	19.000			
Ratio-R	0.350			
Summer CV	0.750			
Winter CV	0.840			
Analysis Speed	Normal			
Skip Steady State	x			
Drain Down Time (mins)	240			
Additional Storage (m³/ha)	0.0			
Storm Durations (mins)	15			
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)				

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Input Hydrograph

Node	Overrides Design Area	Overrides Design Additional Inflow	Depression Storage Area (m²)	Depression Storage Depth (mm)	Evapo-transpiration (mm/day)	Duration (mins)	Timestep (mins)	Time (mins)	Flow (l/s)	Applies To
F1	x	x	0	0	0	15	2	2	1.6	All storms
								4	0.0	
								6	0.0	
								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	
F2	x	x	0	0	0	15	2	2	1.6	All storms
								4	0.0	
								6	0.0	
								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	
F3	x	x	0	0	0	15	2	2	1.6	All storms
								4	0.0	
								6	0.0	
								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	
F4	x	x	0	0	0	15	2	2	1.6	All storms
								4	0.0	
								6	0.0	

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								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	
F5	x	x	0	0	0	15	2	2	1.6	All storms
								4	0.0	
								6	0.0	
								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	
F6	x	x	0	0	0	15	2	2	0.0	All storms
								4	0.0	
								6	0.0	
								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	
F9	x	x	0	0	0	15	2	2	1.6	All storms
								4	0.0	
								6	0.0	
								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	
F10	x	x	0	0	0	15	2	2	1.4	All storms
								4	0.0	
								6	0.0	

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								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	
F11	x	x	0	0	0	15	2	2	1.4	All storms
								4	0.0	
								6	0.0	
								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	
F12	x	x	0	0	0	15	2	2	1.6	All storms
								4	0.0	
								6	0.0	
								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	
F15	x	x	0	0	0	15	2	2	1.9	All storms
								4	0.0	
								6	0.0	
								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	
F16	x	x	0	0	0	15	2	2	2.9	All storms
								4	0.0	
								6	0.0	

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								8	0.0	
								10	0.0	
								12	0.0	
								14	0.0	
								16	0.0	

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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							

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Node Size	✓
Node Losses	x
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)	0.900
Maximum Cover Depth (m)	4.000
Backdrops	✓
Minimum Backdrop Height (m)	0.100
Maximum Backdrop Height (m)	1.500
Full Bore Velocity	✓
Minimum Full Bore Velocity (m/s)	0.750
Maximum Full Bore Velocity (m/s)	3.000
Proportional Velocity	x
Return Period (years)	100
Minimum Proportional Velocity (m/s)	0.750
Maximum Proportional Velocity (m/s)	3.000
Surcharged Depth	✓
Return Period (years)	100
Maximum Surcharged Depth (m)	0.100
Flooding	✓
Return Period (years)	30
Discharge Rates	x
1 year (l/s)	
30 year (l/s)	
100 year (l/s)	
Discharge Volume	x

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100 year 360 minute (m³)	

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Summary

The network has been designed for a 1 in 100 year storm using FSR rainfall
It contains 25 nodes (1 outfall) and 24 links
The total impermeable area is 0.000 ha
Input hydrographs have been defined at 12 nodes
No additional storage is present
Simulations have been completed using FSR summer and winter storms from 15 to 1440 minute duration

Test Results

No manholes are smaller than that required by the library
The node losses test has not been completed
No circular links have diameters < 150mm
No links have lengths > 100.000m
No links have lengths that differ from their coordinated length by more than 1.000m
No links cross one or more other links
4 links have cover depth outside the range 0.900-4.000m

	US Node	DS Node	Link	Minimum Depth (m)	Maximum Depth (m)
	F9	F10	2.000	0.600	0.619
	F10	F11	2.001	0.619	0.726
	F11	F12	2.002	0.726	0.747
	F12	F13	2.003	0.747	1.089

No nodes have backdrops outside the range 0.100-1.500m
No links have full bore velocity outside the range 0.750-3.000m/s
The proportional velocity test has not been completed
No links have a surcharged depth greater than 0.100m during the 100 year return period
No nodes flood during the 30 year return period
The 1 year discharge rate test has not been completed
The 30 year discharge rate test has not been completed
The 100 year discharge rate test has not been completed
The discharge volume test has not been completed

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Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 15 minute summer	243.268	68.836
30 year 15 minute winter	170.714	68.836
30 year 30 minute summer	161.958	45.828
30 year 30 minute winter	113.654	45.828
30 year 60 minute summer	110.635	29.238
30 year 60 minute winter	73.503	29.238
30 year 120 minute summer	68.536	18.112
30 year 120 minute winter	45.534	18.112
30 year 180 minute summer	52.594	13.534
30 year 180 minute winter	34.187	13.534
30 year 240 minute summer	41.442	10.952
30 year 240 minute winter	27.533	10.952
30 year 360 minute summer	31.498	8.106
30 year 360 minute winter	20.475	8.106
30 year 480 minute summer	24.762	6.544
30 year 480 minute winter	16.451	6.544
30 year 600 minute summer	20.251	5.539
30 year 600 minute winter	13.837	5.539
30 year 720 minute summer	18.029	4.832
30 year 720 minute winter	12.116	4.832
30 year 960 minute summer	14.782	3.892
30 year 960 minute winter	9.792	3.892
30 year 1440 minute summer	10.694	2.866
30 year 1440 minute winter	7.187	2.866
100 year 15 minute summer	314.610	89.024
100 year 15 minute winter	220.779	89.024
100 year 30 minute summer	211.508	59.849
100 year 30 minute winter	148.427	59.849
100 year 60 minute summer	145.356	38.413

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100 year 60 minute winter	96.571	38.413
100 year 120 minute summer	90.105	23.812
100 year 120 minute winter	59.863	23.812
100 year 180 minute summer	68.926	17.737
100 year 180 minute winter	44.804	17.737
100 year 240 minute summer	54.073	14.290
100 year 240 minute winter	35.925	14.290
100 year 360 minute summer	40.821	10.505
100 year 360 minute winter	26.534	10.505
100 year 480 minute summer	31.942	8.441
100 year 480 minute winter	21.222	8.441
100 year 600 minute summer	26.025	7.118
100 year 600 minute winter	17.782	7.118
100 year 720 minute summer	23.094	6.190
100 year 720 minute winter	15.521	6.190
100 year 960 minute summer	18.834	4.959
100 year 960 minute winter	12.476	4.959
100 year 1440 minute summer	13.516	3.622
100 year 1440 minute winter	9.084	3.622

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Results for 30 year Critical Storm Duration. Lowest 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 summer	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
15 minute summer	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
15 minute summer	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
15 minute summer	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
15 minute summer	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
15 minute summer	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
180 minute summer	F7	8	28.976	0.057	3.0	0.0642	0.0000	OK	1.006	F8	3.8	0.716	0.284	0.1482	
15 minute summer	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
15 minute summer	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
15 minute summer	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
15 minute summer	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
15 minute summer	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
15 minute summer	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
180 minute summer	F14	8	28.458	0.060	4.6	0.0674	0.0000	OK	1.008	F19	4.4	0.574	0.329	0.2369	
15 minute summer	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
15 minute summer	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
15 minute summer	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
15 minute summer	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
180 minute summer	F19	8	28.244	0.075	6.4	0.0843	0.0000	OK	1.009	F20	5.7	0.834	0.432	0.2988	
15 minute summer	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
15 minute summer	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
180 minute summer	F22	12	27.278	0.066	4.8	0.0749	0.0000	OK	1.012	F23	5.1	0.720	0.381	0.2362	
180 minute summer	F23	12	27.024	0.060	5.1	0.0675	0.0000	OK	1.013	F24	3.8	0.724	0.288	0.1783	
15 minute summer	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
15 minute summer	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 100 year Critical Storm Duration. Lowest 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 summer	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
15 minute summer	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
15 minute summer	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
15 minute summer	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
15 minute summer	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
15 minute summer	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
180 minute summer	F7	8	28.976	0.057	3.0	0.0642	0.0000	OK	1.006	F8	3.8	0.716	0.284	0.1482	
15 minute summer	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
15 minute summer	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
15 minute summer	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
15 minute summer	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
15 minute summer	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
15 minute summer	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
180 minute summer	F14	8	28.458	0.060	4.6	0.0674	0.0000	OK	1.008	F19	4.4	0.574	0.329	0.2369	
15 minute summer	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
15 minute summer	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
15 minute summer	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
15 minute summer	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
180 minute summer	F19	8	28.244	0.075	6.4	0.0843	0.0000	OK	1.009	F20	5.7	0.834	0.432	0.2988	
15 minute summer	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
15 minute summer	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
180 minute summer	F22	12	27.278	0.066	4.8	0.0749	0.0000	OK	1.012	F23	5.1	0.720	0.381	0.2362	
180 minute summer	F23	12	27.024	0.060	5.1	0.0675	0.0000	OK	1.013	F24	3.8	0.724	0.288	0.1783	
15 minute summer	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
15 minute summer	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 30 year 15 minute summer. 255 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 summer	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
15 minute summer	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
15 minute summer	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
15 minute summer	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
15 minute summer	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
15 minute summer	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
15 minute summer	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
15 minute summer	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
15 minute summer	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
15 minute summer	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
15 minute summer	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
15 minute summer	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
15 minute summer	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
15 minute summer	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
15 minute summer	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
15 minute summer	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
15 minute summer	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
15 minute summer	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
15 minute summer	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
15 minute summer	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
15 minute summer	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
15 minute summer	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
15 minute summer	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
15 minute summer	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
15 minute summer	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 30 year 15 minute winter. 255 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	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
15 minute winter	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
15 minute winter	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
15 minute winter	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
15 minute winter	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
15 minute winter	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
15 minute winter	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
15 minute winter	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
15 minute winter	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
15 minute winter	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
15 minute winter	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
15 minute winter	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
15 minute winter	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
15 minute winter	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
15 minute winter	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
15 minute winter	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
15 minute winter	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
15 minute winter	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
15 minute winter	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
15 minute winter	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
15 minute winter	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
15 minute winter	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
15 minute winter	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
15 minute winter	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
15 minute winter	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 30 year 30 minute summer. 270 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)
30 minute summer	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
30 minute summer	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
30 minute summer	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
30 minute summer	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
30 minute summer	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
30 minute summer	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
30 minute summer	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
30 minute summer	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
30 minute summer	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
30 minute summer	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
30 minute summer	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
30 minute summer	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
30 minute summer	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
30 minute summer	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
30 minute summer	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
30 minute summer	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
30 minute summer	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
30 minute summer	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
30 minute summer	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
30 minute summer	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
30 minute summer	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
30 minute summer	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
30 minute summer	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
30 minute summer	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
30 minute summer	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 30 year 30 minute winter. 270 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)
30 minute winter	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
30 minute winter	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
30 minute winter	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
30 minute winter	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
30 minute winter	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
30 minute winter	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
30 minute winter	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
30 minute winter	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
30 minute winter	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
30 minute winter	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
30 minute winter	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
30 minute winter	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
30 minute winter	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
30 minute winter	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
30 minute winter	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
30 minute winter	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
30 minute winter	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
30 minute winter	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
30 minute winter	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
30 minute winter	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
30 minute winter	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
30 minute winter	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
30 minute winter	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
30 minute winter	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
30 minute winter	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 30 year 60 minute summer. 300 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)
60 minute summer	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
60 minute summer	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
60 minute summer	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
60 minute summer	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
60 minute summer	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
60 minute summer	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
60 minute summer	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
60 minute summer	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
60 minute summer	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
60 minute summer	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
60 minute summer	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
60 minute summer	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
60 minute summer	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
60 minute summer	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
60 minute summer	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
60 minute summer	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
60 minute summer	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
60 minute summer	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
60 minute summer	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
60 minute summer	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
60 minute summer	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
60 minute summer	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
60 minute summer	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
60 minute summer	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
60 minute summer	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 30 year 60 minute winter. 300 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)
60 minute winter	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
60 minute winter	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
60 minute winter	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
60 minute winter	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
60 minute winter	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
60 minute winter	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
60 minute winter	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
60 minute winter	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
60 minute winter	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
60 minute winter	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
60 minute winter	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
60 minute winter	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
60 minute winter	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
60 minute winter	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
60 minute winter	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
60 minute winter	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
60 minute winter	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
60 minute winter	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
60 minute winter	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
60 minute winter	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
60 minute winter	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
60 minute winter	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
60 minute winter	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
60 minute winter	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
60 minute winter	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 30 year 120 minute summer. 360 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 summer	F1	4	29.465	0.015	1.4	0.0025	0.0000	OK	1.000	F2	0.3	0.201	0.022	0.0032	
120 minute summer	F2	4	29.461	0.027	1.4	0.0043	0.0000	OK	1.001	F3	0.9	0.334	0.071	0.0567	
120 minute summer	F3	4	29.324	0.038	1.4	0.0061	0.0000	OK	1.002	F4	1.6	0.436	0.117	0.0075	
120 minute summer	F4	4	29.310	0.040	1.6	0.0064	0.0000	OK	1.003	F5	2.1	0.500	0.157	0.0838	
120 minute summer	F5	4	29.168	0.046	2.1	0.0073	0.0000	OK	1.004	F6	2.3	0.508	0.167	0.0092	
120 minute summer	F6	4	29.151	0.045	2.3	0.0071	0.0000	OK	1.005	F7	2.1	0.708	0.156	0.0767	
120 minute summer	F7	6	28.957	0.038	2.1	0.0425	0.0000	OK	1.006	F8	1.7	0.592	0.125	0.0791	
120 minute summer	F8	8	28.741	0.029	1.7	0.0331	0.0000	OK	1.007	F14	1.1	0.452	0.082	0.0680	
120 minute summer	F9	4	29.266	0.016	1.4	0.0025	0.0000	OK	2.000	F10	0.3	0.205	0.023	0.0038	
120 minute summer	F10	4	29.257	0.026	1.3	0.0041	0.0000	OK	2.001	F11	0.9	0.327	0.065	0.0384	
120 minute summer	F11	4	29.160	0.036	1.3	0.0058	0.0000	OK	2.002	F12	1.5	0.416	0.112	0.0101	
120 minute summer	F12	4	29.144	0.041	1.5	0.0066	0.0000	OK	2.003	F13	2.2	0.571	0.163	0.0731	
120 minute summer	F13	4	29.000	0.039	2.2	0.0443	0.0000	OK	2.004	F14	1.8	0.520	0.133	0.0181	
120 minute summer	F14	6	28.435	0.037	1.8	0.0413	0.0000	OK	1.008	F19	1.7	0.491	0.129	0.1239	
120 minute summer	F15	4	29.767	0.017	1.7	0.0027	0.0000	OK	3.000	F16	0.4	0.189	0.027	0.0054	
120 minute summer	F16	4	29.761	0.032	2.6	0.0051	0.0000	OK	3.001	F17	1.3	0.404	0.101	0.0660	
120 minute summer	F17	4	29.624	0.041	1.3	0.0065	0.0000	OK	3.002	F18	2.0	0.619	0.151	0.0649	
120 minute summer	F18	4	29.467	0.031	2.0	0.0049	0.0000	OK	3.003	F19	1.1	0.432	0.081	0.0179	
120 minute summer	F19	6	28.216	0.047	2.5	0.0527	0.0000	OK	1.009	F20	2.3	0.696	0.176	0.1788	
120 minute summer	F20	8	27.894	0.044	2.3	0.0494	0.0000	OK	1.010	F21	2.2	0.625	0.165	0.1618	
120 minute summer	F21	10	27.572	0.041	2.2	0.0465	0.0000	OK	1.011	F22	2.0	0.613	0.154	0.1546	
120 minute summer	F22	12	27.250	0.038	2.0	0.0435	0.0000	OK	1.012	F23	1.9	0.603	0.140	0.1178	
120 minute summer	F23	12	27.002	0.038	1.9	0.0425	0.0000	OK	1.013	F24	1.6	0.558	0.124	0.1117	
120 minute summer	F24	14	26.754	0.038	1.6	0.0426	0.0000	OK	1.014	C1	1.7	0.498	0.127	0.0174	1.2
120 minute summer	C1	14	26.714	0.036	1.7	0.0000	0.0000	OK							

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Results for 30 year 120 minute winter. 360 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	F1	4	29.465	0.015	1.4	0.0025	0.0000	OK	1.000	F2	0.3	0.201	0.022	0.0032	
120 minute winter	F2	4	29.461	0.027	1.4	0.0043	0.0000	OK	1.001	F3	0.9	0.334	0.071	0.0567	
120 minute winter	F3	4	29.324	0.038	1.4	0.0061	0.0000	OK	1.002	F4	1.6	0.436	0.117	0.0075	
120 minute winter	F4	4	29.310	0.040	1.6	0.0064	0.0000	OK	1.003	F5	2.1	0.500	0.157	0.0838	
120 minute winter	F5	4	29.168	0.046	2.1	0.0073	0.0000	OK	1.004	F6	2.3	0.508	0.167	0.0092	
120 minute winter	F6	4	29.151	0.045	2.3	0.0071	0.0000	OK	1.005	F7	2.1	0.708	0.156	0.0767	
120 minute winter	F7	6	28.957	0.038	2.1	0.0425	0.0000	OK	1.006	F8	1.7	0.592	0.125	0.0791	
120 minute winter	F8	8	28.741	0.029	1.7	0.0331	0.0000	OK	1.007	F14	1.1	0.452	0.082	0.0680	
120 minute winter	F9	4	29.266	0.016	1.4	0.0025	0.0000	OK	2.000	F10	0.3	0.205	0.023	0.0038	
120 minute winter	F10	4	29.257	0.026	1.3	0.0041	0.0000	OK	2.001	F11	0.9	0.327	0.065	0.0384	
120 minute winter	F11	4	29.160	0.036	1.3	0.0058	0.0000	OK	2.002	F12	1.5	0.416	0.112	0.0101	
120 minute winter	F12	4	29.144	0.041	1.5	0.0066	0.0000	OK	2.003	F13	2.2	0.571	0.163	0.0731	
120 minute winter	F13	4	29.000	0.039	2.2	0.0443	0.0000	OK	2.004	F14	1.8	0.520	0.133	0.0181	
120 minute winter	F14	6	28.435	0.037	1.8	0.0413	0.0000	OK	1.008	F19	1.7	0.491	0.129	0.1239	
120 minute winter	F15	4	29.767	0.017	1.7	0.0027	0.0000	OK	3.000	F16	0.4	0.189	0.027	0.0054	
120 minute winter	F16	4	29.761	0.032	2.6	0.0051	0.0000	OK	3.001	F17	1.3	0.404	0.101	0.0660	
120 minute winter	F17	4	29.624	0.041	1.3	0.0065	0.0000	OK	3.002	F18	2.0	0.619	0.151	0.0649	
120 minute winter	F18	4	29.467	0.031	2.0	0.0049	0.0000	OK	3.003	F19	1.1	0.432	0.081	0.0179	
120 minute winter	F19	6	28.216	0.047	2.5	0.0527	0.0000	OK	1.009	F20	2.3	0.696	0.176	0.1788	
120 minute winter	F20	8	27.894	0.044	2.3	0.0494	0.0000	OK	1.010	F21	2.2	0.625	0.165	0.1618	
120 minute winter	F21	10	27.572	0.041	2.2	0.0465	0.0000	OK	1.011	F22	2.0	0.613	0.154	0.1546	
120 minute winter	F22	12	27.250	0.038	2.0	0.0435	0.0000	OK	1.012	F23	1.9	0.603	0.140	0.1178	
120 minute winter	F23	12	27.002	0.038	1.9	0.0425	0.0000	OK	1.013	F24	1.6	0.558	0.124	0.1117	
120 minute winter	F24	14	26.754	0.038	1.6	0.0426	0.0000	OK	1.014	C1	1.7	0.498	0.127	0.0174	1.2
120 minute winter	C1	14	26.714	0.036	1.7	0.0000	0.0000	OK							

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Results for 30 year 180 minute summer. 420 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	F1	8	29.462	0.012	1.4	0.0019	0.0000	OK	1.000	F2	0.2	0.167	0.013	0.0023	
180 minute summer	F2	8	29.456	0.022	1.4	0.0035	0.0000	OK	1.001	F3	0.6	0.278	0.045	0.0440	
180 minute summer	F3	8	29.319	0.033	1.4	0.0052	0.0000	OK	1.002	F4	1.2	0.387	0.087	0.0063	
180 minute summer	F4	8	29.307	0.037	1.4	0.0058	0.0000	OK	1.003	F5	1.7	0.426	0.131	0.0823	
180 minute summer	F5	8	29.170	0.048	1.7	0.0077	0.0000	OK	1.004	F6	2.4	0.494	0.178	0.0101	
180 minute summer	F6	8	29.155	0.049	2.4	0.0078	0.0000	OK	1.005	F7	3.0	0.547	0.229	0.1410	
180 minute summer	F7	8	28.976	0.057	3.0	0.0642	0.0000	OK	1.006	F8	3.8	0.716	0.284	0.1482	
180 minute summer	F8	8	28.757	0.045	3.8	0.0509	0.0000	OK	1.007	F14	2.4	0.555	0.181	0.1218	
180 minute summer	F9	8	29.262	0.012	1.4	0.0020	0.0000	OK	2.000	F10	0.2	0.176	0.014	0.0028	
180 minute summer	F10	8	29.252	0.021	1.3	0.0033	0.0000	OK	2.001	F11	0.5	0.280	0.041	0.0282	
180 minute summer	F11	8	29.153	0.029	1.3	0.0047	0.0000	OK	2.002	F12	1.0	0.372	0.077	0.0078	
180 minute summer	F12	8	29.138	0.035	1.4	0.0056	0.0000	OK	2.003	F13	1.6	0.443	0.119	0.0688	
180 minute summer	F13	8	29.003	0.042	1.6	0.0474	0.0000	OK	2.004	F14	2.2	0.558	0.159	0.0203	
180 minute summer	F14	8	28.458	0.060	4.6	0.0674	0.0000	OK	1.008	F19	4.4	0.574	0.329	0.2369	
180 minute summer	F15	8	29.763	0.013	1.7	0.0021	0.0000	OK	3.000	F16	0.2	0.163	0.016	0.0038	
180 minute summer	F16	8	29.754	0.025	2.6	0.0039	0.0000	OK	3.001	F17	0.8	0.328	0.059	0.0477	
180 minute summer	F17	8	29.616	0.033	0.8	0.0053	0.0000	OK	3.002	F18	1.4	0.431	0.109	0.0668	
180 minute summer	F18	8	29.476	0.040	1.4	0.0064	0.0000	OK	3.003	F19	2.0	0.532	0.150	0.0269	
180 minute summer	F19	8	28.244	0.075	6.4	0.0843	0.0000	OK	1.009	F20	5.7	0.834	0.432	0.2988	
180 minute summer	F20	12	27.906	0.056	5.7	0.0630	0.0000	OK	1.010	F21	3.9	0.785	0.294	0.2806	
180 minute summer	F21	12	27.594	0.063	3.9	0.0710	0.0000	OK	1.011	F22	4.8	0.669	0.365	0.3142	
180 minute summer	F22	12	27.278	0.066	4.8	0.0749	0.0000	OK	1.012	F23	5.1	0.720	0.381	0.2362	
180 minute summer	F23	12	27.024	0.060	5.1	0.0675	0.0000	OK	1.013	F24	3.8	0.724	0.288	0.1783	
180 minute summer	F24	16	26.770	0.054	3.8	0.0605	0.0000	OK	1.014	C1	3.3	0.598	0.246	0.0282	2.2
180 minute summer	C1	16	26.729	0.051	3.3	0.0000	0.0000	OK							

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Results for 30 year 180 minute winter. 420 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	F1	8	29.462	0.012	1.4	0.0019	0.0000	OK	1.000	F2	0.2	0.167	0.013	0.0023	
180 minute winter	F2	8	29.456	0.022	1.4	0.0035	0.0000	OK	1.001	F3	0.6	0.278	0.045	0.0440	
180 minute winter	F3	8	29.319	0.033	1.4	0.0052	0.0000	OK	1.002	F4	1.2	0.387	0.087	0.0063	
180 minute winter	F4	8	29.307	0.037	1.4	0.0058	0.0000	OK	1.003	F5	1.7	0.426	0.131	0.0823	
180 minute winter	F5	8	29.170	0.048	1.7	0.0077	0.0000	OK	1.004	F6	2.4	0.494	0.178	0.0101	
180 minute winter	F6	8	29.155	0.049	2.4	0.0078	0.0000	OK	1.005	F7	3.0	0.547	0.229	0.1410	
180 minute winter	F7	8	28.976	0.057	3.0	0.0642	0.0000	OK	1.006	F8	3.8	0.716	0.284	0.1482	
180 minute winter	F8	8	28.757	0.045	3.8	0.0509	0.0000	OK	1.007	F14	2.4	0.555	0.181	0.1218	
180 minute winter	F9	8	29.262	0.012	1.4	0.0020	0.0000	OK	2.000	F10	0.2	0.176	0.014	0.0028	
180 minute winter	F10	8	29.252	0.021	1.3	0.0033	0.0000	OK	2.001	F11	0.5	0.280	0.041	0.0282	
180 minute winter	F11	8	29.153	0.029	1.3	0.0047	0.0000	OK	2.002	F12	1.0	0.372	0.077	0.0078	
180 minute winter	F12	8	29.138	0.035	1.4	0.0056	0.0000	OK	2.003	F13	1.6	0.443	0.119	0.0688	
180 minute winter	F13	8	29.003	0.042	1.6	0.0474	0.0000	OK	2.004	F14	2.2	0.558	0.159	0.0203	
180 minute winter	F14	8	28.458	0.060	4.6	0.0674	0.0000	OK	1.008	F19	4.4	0.574	0.329	0.2369	
180 minute winter	F15	8	29.763	0.013	1.7	0.0021	0.0000	OK	3.000	F16	0.2	0.163	0.016	0.0038	
180 minute winter	F16	8	29.754	0.025	2.6	0.0039	0.0000	OK	3.001	F17	0.8	0.328	0.059	0.0477	
180 minute winter	F17	8	29.616	0.033	0.8	0.0053	0.0000	OK	3.002	F18	1.4	0.431	0.109	0.0668	
180 minute winter	F18	8	29.476	0.040	1.4	0.0064	0.0000	OK	3.003	F19	2.0	0.532	0.150	0.0269	
180 minute winter	F19	8	28.244	0.075	6.4	0.0843	0.0000	OK	1.009	F20	5.7	0.834	0.432	0.2988	
180 minute winter	F20	12	27.906	0.056	5.7	0.0630	0.0000	OK	1.010	F21	3.9	0.785	0.294	0.2806	
180 minute winter	F21	12	27.594	0.063	3.9	0.0710	0.0000	OK	1.011	F22	4.8	0.669	0.365	0.3142	
180 minute winter	F22	12	27.278	0.066	4.8	0.0749	0.0000	OK	1.012	F23	5.1	0.720	0.381	0.2362	
180 minute winter	F23	12	27.024	0.060	5.1	0.0675	0.0000	OK	1.013	F24	3.8	0.724	0.288	0.1783	
180 minute winter	F24	16	26.770	0.054	3.8	0.0605	0.0000	OK	1.014	C1	3.3	0.598	0.246	0.0282	2.2
180 minute winter	C1	16	26.729	0.051	3.3	0.0000	0.0000	OK							

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Results for 30 year 240 minute summer. 480 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	F1	8	29.462	0.012	1.4	0.0019	0.0000	OK	1.000	F2	0.2	0.167	0.013	0.0023	
240 minute summer	F2	8	29.456	0.022	1.4	0.0035	0.0000	OK	1.001	F3	0.6	0.278	0.045	0.0440	
240 minute summer	F3	8	29.319	0.033	1.4	0.0052	0.0000	OK	1.002	F4	1.2	0.387	0.087	0.0063	
240 minute summer	F4	8	29.307	0.037	1.4	0.0058	0.0000	OK	1.003	F5	1.7	0.426	0.131	0.0823	
240 minute summer	F5	8	29.170	0.048	1.7	0.0077	0.0000	OK	1.004	F6	2.4	0.494	0.178	0.0101	
240 minute summer	F6	8	29.155	0.049	2.4	0.0078	0.0000	OK	1.005	F7	3.0	0.547	0.229	0.1410	
240 minute summer	F7	8	28.976	0.057	3.0	0.0642	0.0000	OK	1.006	F8	3.8	0.716	0.284	0.1482	
240 minute summer	F8	8	28.757	0.045	3.8	0.0509	0.0000	OK	1.007	F14	2.4	0.555	0.181	0.1218	
240 minute summer	F9	8	29.262	0.012	1.4	0.0020	0.0000	OK	2.000	F10	0.2	0.176	0.014	0.0028	
240 minute summer	F10	8	29.252	0.021	1.3	0.0033	0.0000	OK	2.001	F11	0.5	0.280	0.041	0.0282	
240 minute summer	F11	8	29.153	0.029	1.3	0.0047	0.0000	OK	2.002	F12	1.0	0.372	0.077	0.0078	
240 minute summer	F12	8	29.138	0.035	1.4	0.0056	0.0000	OK	2.003	F13	1.6	0.443	0.119	0.0688	
240 minute summer	F13	8	29.003	0.042	1.6	0.0474	0.0000	OK	2.004	F14	2.2	0.558	0.159	0.0203	
240 minute summer	F14	8	28.458	0.060	4.6	0.0674	0.0000	OK	1.008	F19	4.4	0.574	0.329	0.2369	
240 minute summer	F15	8	29.763	0.013	1.7	0.0021	0.0000	OK	3.000	F16	0.2	0.163	0.016	0.0038	
240 minute summer	F16	8	29.754	0.025	2.6	0.0039	0.0000	OK	3.001	F17	0.8	0.328	0.059	0.0477	
240 minute summer	F17	8	29.616	0.033	0.8	0.0053	0.0000	OK	3.002	F18	1.4	0.431	0.109	0.0668	
240 minute summer	F18	8	29.476	0.040	1.4	0.0064	0.0000	OK	3.003	F19	2.0	0.532	0.150	0.0269	
240 minute summer	F19	8	28.244	0.075	6.4	0.0843	0.0000	OK	1.009	F20	5.7	0.834	0.432	0.2988	
240 minute summer	F20	12	27.906	0.056	5.7	0.0630	0.0000	OK	1.010	F21	3.9	0.785	0.294	0.2806	
240 minute summer	F21	12	27.594	0.063	3.9	0.0710	0.0000	OK	1.011	F22	4.8	0.669	0.365	0.3142	
240 minute summer	F22	12	27.278	0.066	4.8	0.0749	0.0000	OK	1.012	F23	5.1	0.720	0.381	0.2362	
240 minute summer	F23	12	27.024	0.060	5.1	0.0675	0.0000	OK	1.013	F24	3.8	0.724	0.288	0.1783	
240 minute summer	F24	16	26.770	0.054	3.8	0.0605	0.0000	OK	1.014	C1	3.3	0.598	0.246	0.0282	2.2
240 minute summer	C1	16	26.729	0.051	3.3	0.0000	0.0000	OK							

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Results for 30 year 240 minute winter. 480 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	F1	8	29.462	0.012	1.4	0.0019	0.0000	OK	1.000	F2	0.2	0.167	0.013	0.0023	
240 minute winter	F2	8	29.456	0.022	1.4	0.0035	0.0000	OK	1.001	F3	0.6	0.278	0.045	0.0440	
240 minute winter	F3	8	29.319	0.033	1.4	0.0052	0.0000	OK	1.002	F4	1.2	0.387	0.087	0.0063	
240 minute winter	F4	8	29.307	0.037	1.4	0.0058	0.0000	OK	1.003	F5	1.7	0.426	0.131	0.0823	
240 minute winter	F5	8	29.170	0.048	1.7	0.0077	0.0000	OK	1.004	F6	2.4	0.494	0.178	0.0101	
240 minute winter	F6	8	29.155	0.049	2.4	0.0078	0.0000	OK	1.005	F7	3.0	0.547	0.229	0.1410	
240 minute winter	F7	8	28.976	0.057	3.0	0.0642	0.0000	OK	1.006	F8	3.8	0.716	0.284	0.1482	
240 minute winter	F8	8	28.757	0.045	3.8	0.0509	0.0000	OK	1.007	F14	2.4	0.555	0.181	0.1218	
240 minute winter	F9	8	29.262	0.012	1.4	0.0020	0.0000	OK	2.000	F10	0.2	0.176	0.014	0.0028	
240 minute winter	F10	8	29.252	0.021	1.3	0.0033	0.0000	OK	2.001	F11	0.5	0.280	0.041	0.0282	
240 minute winter	F11	8	29.153	0.029	1.3	0.0047	0.0000	OK	2.002	F12	1.0	0.372	0.077	0.0078	
240 minute winter	F12	8	29.138	0.035	1.4	0.0056	0.0000	OK	2.003	F13	1.6	0.443	0.119	0.0688	
240 minute winter	F13	8	29.003	0.042	1.6	0.0474	0.0000	OK	2.004	F14	2.2	0.558	0.159	0.0203	
240 minute winter	F14	8	28.458	0.060	4.6	0.0674	0.0000	OK	1.008	F19	4.4	0.574	0.329	0.2369	
240 minute winter	F15	8	29.763	0.013	1.7	0.0021	0.0000	OK	3.000	F16	0.2	0.163	0.016	0.0038	
240 minute winter	F16	8	29.754	0.025	2.6	0.0039	0.0000	OK	3.001	F17	0.8	0.328	0.059	0.0477	
240 minute winter	F17	8	29.616	0.033	0.8	0.0053	0.0000	OK	3.002	F18	1.4	0.431	0.109	0.0668	
240 minute winter	F18	8	29.476	0.040	1.4	0.0064	0.0000	OK	3.003	F19	2.0	0.532	0.150	0.0269	
240 minute winter	F19	8	28.244	0.075	6.4	0.0843	0.0000	OK	1.009	F20	5.7	0.834	0.432	0.2988	
240 minute winter	F20	12	27.906	0.056	5.7	0.0630	0.0000	OK	1.010	F21	3.9	0.785	0.294	0.2806	
240 minute winter	F21	12	27.594	0.063	3.9	0.0710	0.0000	OK	1.011	F22	4.8	0.669	0.365	0.3142	
240 minute winter	F22	12	27.278	0.066	4.8	0.0749	0.0000	OK	1.012	F23	5.1	0.720	0.381	0.2362	
240 minute winter	F23	12	27.024	0.060	5.1	0.0675	0.0000	OK	1.013	F24	3.8	0.724	0.288	0.1783	
240 minute winter	F24	16	26.770	0.054	3.8	0.0605	0.0000	OK	1.014	C1	3.3	0.598	0.246	0.0282	2.2
240 minute winter	C1	16	26.729	0.051	3.3	0.0000	0.0000	OK							

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Results for 30 year 360 minute summer. 600 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	F1	16	29.458	0.008	0.7	0.0013	0.0000	OK	1.000	F2	0.1	0.130	0.005	0.0012	
360 minute summer	F2	16	29.448	0.014	0.7	0.0022	0.0000	OK	1.001	F3	0.2	0.220	0.017	0.0203	
360 minute summer	F3	16	29.305	0.019	0.7	0.0030	0.0000	OK	1.002	F4	0.4	0.294	0.031	0.0029	
360 minute summer	F4	16	29.292	0.022	0.7	0.0035	0.0000	OK	1.003	F5	0.6	0.326	0.047	0.0384	
360 minute summer	F5	16	29.150	0.028	0.7	0.0044	0.0000	OK	1.004	F6	0.9	0.377	0.064	0.0047	
360 minute summer	F6	16	29.135	0.029	0.9	0.0047	0.0000	OK	1.005	F7	1.1	0.412	0.083	0.0682	
360 minute summer	F7	16	28.953	0.034	1.1	0.0380	0.0000	OK	1.006	F8	1.4	0.450	0.109	0.0905	
360 minute summer	F8	16	28.750	0.038	1.4	0.0430	0.0000	OK	1.007	F14	1.8	0.525	0.138	0.0982	
360 minute summer	F9	16	29.258	0.008	0.7	0.0013	0.0000	OK	2.000	F10	0.1	0.136	0.006	0.0014	
360 minute summer	F10	16	29.244	0.013	0.6	0.0021	0.0000	OK	2.001	F11	0.2	0.221	0.015	0.0133	
360 minute summer	F11	16	29.141	0.017	0.6	0.0027	0.0000	OK	2.002	F12	0.4	0.278	0.027	0.0037	
360 minute summer	F12	16	29.124	0.021	0.7	0.0034	0.0000	OK	2.003	F13	0.6	0.331	0.042	0.0328	
360 minute summer	F13	16	28.986	0.025	0.6	0.0281	0.0000	OK	2.004	F14	0.8	0.415	0.057	0.0097	
360 minute summer	F14	16	28.446	0.048	2.6	0.0539	0.0000	OK	1.008	F19	2.9	0.521	0.217	0.1717	
360 minute summer	F15	16	29.759	0.009	0.9	0.0014	0.0000	OK	3.000	F16	0.1	0.128	0.006	0.0019	
360 minute summer	F16	16	29.745	0.016	1.4	0.0025	0.0000	OK	3.001	F17	0.3	0.249	0.022	0.0237	
360 minute summer	F17	16	29.603	0.020	0.3	0.0032	0.0000	OK	3.002	F18	0.5	0.323	0.039	0.0324	
360 minute summer	F18	16	29.460	0.024	0.5	0.0038	0.0000	OK	3.003	F19	0.7	0.399	0.054	0.0129	
360 minute summer	F19	16	28.227	0.058	3.6	0.0654	0.0000	OK	1.009	F20	4.1	0.636	0.313	0.2826	
360 minute summer	F20	16	27.911	0.061	4.1	0.0694	0.0000	OK	1.010	F21	4.5	0.676	0.342	0.2911	
360 minute summer	F21	16	27.591	0.060	4.5	0.0684	0.0000	OK	1.011	F22	4.1	0.712	0.312	0.2526	
360 minute summer	F22	16	27.261	0.049	4.1	0.0555	0.0000	OK	1.012	F23	2.5	0.717	0.185	0.1179	
360 minute summer	F23	24	27.002	0.038	2.5	0.0431	0.0000	OK	1.013	F24	1.9	0.563	0.141	0.1276	
360 minute summer	F24	24	26.758	0.042	1.9	0.0478	0.0000	OK	1.014	C1	2.1	0.532	0.159	0.0205	1.6
360 minute summer	C1	24	26.719	0.041	2.1	0.0000	0.0000	OK							

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Results for 30 year 360 minute winter. 600 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	F1	16	29.458	0.008	0.7	0.0013	0.0000	OK	1.000	F2	0.1	0.130	0.005	0.0012	
360 minute winter	F2	16	29.448	0.014	0.7	0.0022	0.0000	OK	1.001	F3	0.2	0.220	0.017	0.0203	
360 minute winter	F3	16	29.305	0.019	0.7	0.0030	0.0000	OK	1.002	F4	0.4	0.294	0.031	0.0029	
360 minute winter	F4	16	29.292	0.022	0.7	0.0035	0.0000	OK	1.003	F5	0.6	0.326	0.047	0.0384	
360 minute winter	F5	16	29.150	0.028	0.7	0.0044	0.0000	OK	1.004	F6	0.9	0.377	0.064	0.0047	
360 minute winter	F6	16	29.135	0.029	0.9	0.0047	0.0000	OK	1.005	F7	1.1	0.412	0.083	0.0682	
360 minute winter	F7	16	28.953	0.034	1.1	0.0380	0.0000	OK	1.006	F8	1.4	0.450	0.109	0.0905	
360 minute winter	F8	16	28.750	0.038	1.4	0.0430	0.0000	OK	1.007	F14	1.8	0.525	0.138	0.0982	
360 minute winter	F9	16	29.258	0.008	0.7	0.0013	0.0000	OK	2.000	F10	0.1	0.136	0.006	0.0014	
360 minute winter	F10	16	29.244	0.013	0.6	0.0021	0.0000	OK	2.001	F11	0.2	0.221	0.015	0.0133	
360 minute winter	F11	16	29.141	0.017	0.6	0.0027	0.0000	OK	2.002	F12	0.4	0.278	0.027	0.0037	
360 minute winter	F12	16	29.124	0.021	0.7	0.0034	0.0000	OK	2.003	F13	0.6	0.331	0.042	0.0328	
360 minute winter	F13	16	28.986	0.025	0.6	0.0281	0.0000	OK	2.004	F14	0.8	0.415	0.057	0.0097	
360 minute winter	F14	16	28.446	0.048	2.6	0.0539	0.0000	OK	1.008	F19	2.9	0.521	0.217	0.1717	
360 minute winter	F15	16	29.759	0.009	0.9	0.0014	0.0000	OK	3.000	F16	0.1	0.128	0.006	0.0019	
360 minute winter	F16	16	29.745	0.016	1.4	0.0025	0.0000	OK	3.001	F17	0.3	0.249	0.022	0.0237	
360 minute winter	F17	16	29.603	0.020	0.3	0.0032	0.0000	OK	3.002	F18	0.5	0.323	0.039	0.0324	
360 minute winter	F18	16	29.460	0.024	0.5	0.0038	0.0000	OK	3.003	F19	0.7	0.399	0.054	0.0129	
360 minute winter	F19	16	28.227	0.058	3.6	0.0654	0.0000	OK	1.009	F20	4.1	0.636	0.313	0.2826	
360 minute winter	F20	16	27.911	0.061	4.1	0.0694	0.0000	OK	1.010	F21	4.5	0.676	0.342	0.2911	
360 minute winter	F21	16	27.591	0.060	4.5	0.0684	0.0000	OK	1.011	F22	4.1	0.712	0.312	0.2526	
360 minute winter	F22	16	27.261	0.049	4.1	0.0555	0.0000	OK	1.012	F23	2.5	0.717	0.185	0.1179	
360 minute winter	F23	24	27.002	0.038	2.5	0.0431	0.0000	OK	1.013	F24	1.9	0.563	0.141	0.1276	
360 minute winter	F24	24	26.758	0.042	1.9	0.0478	0.0000	OK	1.014	C1	2.1	0.532	0.159	0.0205	1.6
360 minute winter	C1	24	26.719	0.041	2.1	0.0000	0.0000	OK							

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Results for 30 year 480 minute summer. 720 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	F1	16	29.458	0.008	0.7	0.0013	0.0000	OK	1.000	F2	0.1	0.130	0.005	0.0012	
480 minute summer	F2	16	29.448	0.014	0.7	0.0022	0.0000	OK	1.001	F3	0.2	0.220	0.017	0.0203	
480 minute summer	F3	16	29.305	0.019	0.7	0.0030	0.0000	OK	1.002	F4	0.4	0.294	0.031	0.0029	
480 minute summer	F4	16	29.292	0.022	0.7	0.0035	0.0000	OK	1.003	F5	0.6	0.326	0.047	0.0384	
480 minute summer	F5	16	29.150	0.028	0.7	0.0044	0.0000	OK	1.004	F6	0.9	0.377	0.064	0.0047	
480 minute summer	F6	16	29.135	0.029	0.9	0.0047	0.0000	OK	1.005	F7	1.1	0.412	0.083	0.0682	
480 minute summer	F7	16	28.953	0.034	1.1	0.0380	0.0000	OK	1.006	F8	1.4	0.450	0.109	0.0905	
480 minute summer	F8	16	28.750	0.038	1.4	0.0430	0.0000	OK	1.007	F14	1.8	0.525	0.138	0.0982	
480 minute summer	F9	16	29.258	0.008	0.7	0.0013	0.0000	OK	2.000	F10	0.1	0.136	0.006	0.0014	
480 minute summer	F10	16	29.244	0.013	0.6	0.0021	0.0000	OK	2.001	F11	0.2	0.221	0.015	0.0133	
480 minute summer	F11	16	29.141	0.017	0.6	0.0027	0.0000	OK	2.002	F12	0.4	0.278	0.027	0.0037	
480 minute summer	F12	16	29.124	0.021	0.7	0.0034	0.0000	OK	2.003	F13	0.6	0.331	0.042	0.0328	
480 minute summer	F13	16	28.986	0.025	0.6	0.0281	0.0000	OK	2.004	F14	0.8	0.415	0.057	0.0097	
480 minute summer	F14	16	28.446	0.048	2.6	0.0539	0.0000	OK	1.008	F19	2.9	0.521	0.217	0.1717	
480 minute summer	F15	16	29.759	0.009	0.9	0.0014	0.0000	OK	3.000	F16	0.1	0.128	0.006	0.0019	
480 minute summer	F16	16	29.745	0.016	1.4	0.0025	0.0000	OK	3.001	F17	0.3	0.249	0.022	0.0237	
480 minute summer	F17	16	29.603	0.020	0.3	0.0032	0.0000	OK	3.002	F18	0.5	0.323	0.039	0.0324	
480 minute summer	F18	16	29.460	0.024	0.5	0.0038	0.0000	OK	3.003	F19	0.7	0.399	0.054	0.0129	
480 minute summer	F19	16	28.227	0.058	3.6	0.0654	0.0000	OK	1.009	F20	4.1	0.636	0.313	0.2826	
480 minute summer	F20	16	27.911	0.061	4.1	0.0694	0.0000	OK	1.010	F21	4.5	0.676	0.342	0.2911	
480 minute summer	F21	16	27.591	0.060	4.5	0.0684	0.0000	OK	1.011	F22	4.1	0.712	0.312	0.2526	
480 minute summer	F22	16	27.261	0.049	4.1	0.0555	0.0000	OK	1.012	F23	2.5	0.717	0.185	0.1179	
480 minute summer	F23	24	27.002	0.038	2.5	0.0431	0.0000	OK	1.013	F24	1.9	0.563	0.141	0.1276	
480 minute summer	F24	24	26.758	0.042	1.9	0.0478	0.0000	OK	1.014	C1	2.1	0.532	0.159	0.0205	1.6
480 minute summer	C1	24	26.719	0.041	2.1	0.0000	0.0000	OK							

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Results for 30 year 480 minute winter. 720 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	F1	16	29.458	0.008	0.7	0.0013	0.0000	OK	1.000	F2	0.1	0.130	0.005	0.0012	
480 minute winter	F2	16	29.448	0.014	0.7	0.0022	0.0000	OK	1.001	F3	0.2	0.220	0.017	0.0203	
480 minute winter	F3	16	29.305	0.019	0.7	0.0030	0.0000	OK	1.002	F4	0.4	0.294	0.031	0.0029	
480 minute winter	F4	16	29.292	0.022	0.7	0.0035	0.0000	OK	1.003	F5	0.6	0.326	0.047	0.0384	
480 minute winter	F5	16	29.150	0.028	0.7	0.0044	0.0000	OK	1.004	F6	0.9	0.377	0.064	0.0047	
480 minute winter	F6	16	29.135	0.029	0.9	0.0047	0.0000	OK	1.005	F7	1.1	0.412	0.083	0.0682	
480 minute winter	F7	16	28.953	0.034	1.1	0.0380	0.0000	OK	1.006	F8	1.4	0.450	0.109	0.0905	
480 minute winter	F8	16	28.750	0.038	1.4	0.0430	0.0000	OK	1.007	F14	1.8	0.525	0.138	0.0982	
480 minute winter	F9	16	29.258	0.008	0.7	0.0013	0.0000	OK	2.000	F10	0.1	0.136	0.006	0.0014	
480 minute winter	F10	16	29.244	0.013	0.6	0.0021	0.0000	OK	2.001	F11	0.2	0.221	0.015	0.0133	
480 minute winter	F11	16	29.141	0.017	0.6	0.0027	0.0000	OK	2.002	F12	0.4	0.278	0.027	0.0037	
480 minute winter	F12	16	29.124	0.021	0.7	0.0034	0.0000	OK	2.003	F13	0.6	0.331	0.042	0.0328	
480 minute winter	F13	16	28.986	0.025	0.6	0.0281	0.0000	OK	2.004	F14	0.8	0.415	0.057	0.0097	
480 minute winter	F14	16	28.446	0.048	2.6	0.0539	0.0000	OK	1.008	F19	2.9	0.521	0.217	0.1717	
480 minute winter	F15	16	29.759	0.009	0.9	0.0014	0.0000	OK	3.000	F16	0.1	0.128	0.006	0.0019	
480 minute winter	F16	16	29.745	0.016	1.4	0.0025	0.0000	OK	3.001	F17	0.3	0.249	0.022	0.0237	
480 minute winter	F17	16	29.603	0.020	0.3	0.0032	0.0000	OK	3.002	F18	0.5	0.323	0.039	0.0324	
480 minute winter	F18	16	29.460	0.024	0.5	0.0038	0.0000	OK	3.003	F19	0.7	0.399	0.054	0.0129	
480 minute winter	F19	16	28.227	0.058	3.6	0.0654	0.0000	OK	1.009	F20	4.1	0.636	0.313	0.2826	
480 minute winter	F20	16	27.911	0.061	4.1	0.0694	0.0000	OK	1.010	F21	4.5	0.676	0.342	0.2911	
480 minute winter	F21	16	27.591	0.060	4.5	0.0684	0.0000	OK	1.011	F22	4.1	0.712	0.312	0.2526	
480 minute winter	F22	16	27.261	0.049	4.1	0.0555	0.0000	OK	1.012	F23	2.5	0.717	0.185	0.1179	
480 minute winter	F23	24	27.002	0.038	2.5	0.0431	0.0000	OK	1.013	F24	1.9	0.563	0.141	0.1276	
480 minute winter	F24	24	26.758	0.042	1.9	0.0478	0.0000	OK	1.014	C1	2.1	0.532	0.159	0.0205	1.6
480 minute winter	C1	24	26.719	0.041	2.1	0.0000	0.0000	OK							

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Results for 30 year 600 minute summer. 840 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
600 minute summer	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
600 minute summer	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
600 minute summer	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
600 minute summer	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
600 minute summer	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
600 minute summer	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
600 minute summer	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
600 minute summer	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
600 minute summer	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
600 minute summer	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
600 minute summer	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
600 minute summer	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
600 minute summer	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
600 minute summer	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
600 minute summer	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
600 minute summer	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
600 minute summer	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
600 minute summer	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
600 minute summer	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
600 minute summer	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
600 minute summer	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
600 minute summer	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
600 minute summer	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
600 minute summer	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 30 year 600 minute winter. 840 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
600 minute winter	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
600 minute winter	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
600 minute winter	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
600 minute winter	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
600 minute winter	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
600 minute winter	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
600 minute winter	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
600 minute winter	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
600 minute winter	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
600 minute winter	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
600 minute winter	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
600 minute winter	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
600 minute winter	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
600 minute winter	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
600 minute winter	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
600 minute winter	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
600 minute winter	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
600 minute winter	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
600 minute winter	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
600 minute winter	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
600 minute winter	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
600 minute winter	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
600 minute winter	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
600 minute winter	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 30 year 720 minute summer. 960 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
720 minute summer	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
720 minute summer	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
720 minute summer	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
720 minute summer	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
720 minute summer	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
720 minute summer	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
720 minute summer	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
720 minute summer	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
720 minute summer	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
720 minute summer	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
720 minute summer	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
720 minute summer	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
720 minute summer	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
720 minute summer	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
720 minute summer	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
720 minute summer	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
720 minute summer	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
720 minute summer	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
720 minute summer	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
720 minute summer	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
720 minute summer	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
720 minute summer	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
720 minute summer	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
720 minute summer	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 30 year 720 minute winter. 960 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
720 minute winter	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
720 minute winter	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
720 minute winter	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
720 minute winter	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
720 minute winter	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
720 minute winter	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
720 minute winter	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
720 minute winter	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
720 minute winter	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
720 minute winter	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
720 minute winter	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
720 minute winter	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
720 minute winter	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
720 minute winter	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
720 minute winter	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
720 minute winter	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
720 minute winter	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
720 minute winter	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
720 minute winter	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
720 minute winter	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
720 minute winter	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
720 minute winter	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
720 minute winter	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
720 minute winter	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 30 year 960 minute summer. 1200 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
960 minute summer	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
960 minute summer	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
960 minute summer	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
960 minute summer	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
960 minute summer	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
960 minute summer	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
960 minute summer	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
960 minute summer	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
960 minute summer	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
960 minute summer	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
960 minute summer	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
960 minute summer	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
960 minute summer	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
960 minute summer	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
960 minute summer	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
960 minute summer	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
960 minute summer	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
960 minute summer	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
960 minute summer	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
960 minute summer	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
960 minute summer	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
960 minute summer	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
960 minute summer	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
960 minute summer	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 30 year 960 minute winter. 1200 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
960 minute winter	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
960 minute winter	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
960 minute winter	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
960 minute winter	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
960 minute winter	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
960 minute winter	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
960 minute winter	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
960 minute winter	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
960 minute winter	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
960 minute winter	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
960 minute winter	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
960 minute winter	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
960 minute winter	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
960 minute winter	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
960 minute winter	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
960 minute winter	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
960 minute winter	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
960 minute winter	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
960 minute winter	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
960 minute winter	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
960 minute winter	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
960 minute winter	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
960 minute winter	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
960 minute winter	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 30 year 1440 minute summer. 1680 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	F1	60	29.454	0.004	0.2	0.0006	0.0000	OK	1.000	F2	0.0	0.077	0.001	0.0003	
1440 minute summer	F2	60	29.440	0.006	0.2	0.0009	0.0000	OK	1.001	F3	0.0	0.132	0.003	0.0051	
1440 minute summer	F3	60	29.293	0.007	0.2	0.0011	0.0000	OK	1.002	F4	0.1	0.162	0.004	0.0007	
1440 minute summer	F4	60	29.279	0.009	0.2	0.0014	0.0000	OK	1.003	F5	0.1	0.192	0.007	0.0092	
1440 minute summer	F5	60	29.132	0.010	0.2	0.0016	0.0000	OK	1.004	F6	0.1	0.217	0.009	0.0011	
1440 minute summer	F6	60	29.117	0.011	0.1	0.0018	0.0000	OK	1.005	F7	0.2	0.229	0.011	0.0169	
1440 minute summer	F7	60	28.932	0.013	0.2	0.0145	0.0000	OK	1.006	F8	0.2	0.245	0.015	0.0225	
1440 minute summer	F8	60	28.727	0.015	0.2	0.0165	0.0000	OK	1.007	F14	0.3	0.298	0.019	0.0238	
1440 minute summer	F9	60	29.254	0.004	0.2	0.0006	0.0000	OK	2.000	F10	0.0	0.079	0.001	0.0004	
1440 minute summer	F10	60	29.237	0.006	0.2	0.0009	0.0000	OK	2.001	F11	0.0	0.129	0.002	0.0037	
1440 minute summer	F11	60	29.131	0.007	0.2	0.0011	0.0000	OK	2.002	F12	0.1	0.157	0.004	0.0010	
1440 minute summer	F12	60	29.112	0.009	0.2	0.0014	0.0000	OK	2.003	F13	0.1	0.189	0.006	0.0088	
1440 minute summer	F13	60	28.971	0.010	0.1	0.0114	0.0000	OK	2.004	F14	0.1	0.247	0.008	0.0024	
1440 minute summer	F14	60	28.416	0.018	0.4	0.0205	0.0000	OK	1.008	F19	0.4	0.292	0.031	0.0436	
1440 minute summer	F15	60	29.754	0.004	0.3	0.0006	0.0000	OK	3.000	F16	0.0	0.082	0.001	0.0006	
1440 minute summer	F16	60	29.736	0.007	0.4	0.0011	0.0000	OK	3.001	F17	0.0	0.145	0.004	0.0066	
1440 minute summer	F17	60	29.592	0.009	0.0	0.0014	0.0000	OK	3.002	F18	0.1	0.185	0.006	0.0090	
1440 minute summer	F18	60	29.446	0.010	0.1	0.0016	0.0000	OK	3.003	F19	0.1	0.240	0.008	0.0033	
1440 minute summer	F19	60	28.191	0.022	0.5	0.0249	0.0000	OK	1.009	F20	0.6	0.361	0.046	0.0731	
1440 minute summer	F20	60	27.874	0.024	0.6	0.0268	0.0000	OK	1.010	F21	0.7	0.381	0.053	0.0807	
1440 minute summer	F21	60	27.556	0.025	0.7	0.0285	0.0000	OK	1.011	F22	0.8	0.400	0.061	0.0873	
1440 minute summer	F22	60	27.238	0.026	0.8	0.0299	0.0000	OK	1.012	F23	0.9	0.414	0.067	0.0721	
1440 minute summer	F23	60	26.991	0.027	0.9	0.0311	0.0000	OK	1.013	F24	1.0	0.418	0.072	0.0773	
1440 minute summer	F24	60	26.745	0.029	1.0	0.0329	0.0000	OK	1.014	C1	1.0	0.433	0.076	0.0121	2.1
1440 minute summer	C1	60	26.706	0.028	1.0	0.0000	0.0000	OK							

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Results for 30 year 1440 minute winter. 1680 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	F1	60	29.454	0.004	0.2	0.0006	0.0000	OK	1.000	F2	0.0	0.077	0.001	0.0003	
1440 minute winter	F2	60	29.440	0.006	0.2	0.0009	0.0000	OK	1.001	F3	0.0	0.132	0.003	0.0051	
1440 minute winter	F3	60	29.293	0.007	0.2	0.0011	0.0000	OK	1.002	F4	0.1	0.162	0.004	0.0007	
1440 minute winter	F4	60	29.279	0.009	0.2	0.0014	0.0000	OK	1.003	F5	0.1	0.192	0.007	0.0092	
1440 minute winter	F5	60	29.132	0.010	0.2	0.0016	0.0000	OK	1.004	F6	0.1	0.217	0.009	0.0011	
1440 minute winter	F6	60	29.117	0.011	0.1	0.0018	0.0000	OK	1.005	F7	0.2	0.229	0.011	0.0169	
1440 minute winter	F7	60	28.932	0.013	0.2	0.0145	0.0000	OK	1.006	F8	0.2	0.245	0.015	0.0225	
1440 minute winter	F8	60	28.727	0.015	0.2	0.0165	0.0000	OK	1.007	F14	0.3	0.298	0.019	0.0238	
1440 minute winter	F9	60	29.254	0.004	0.2	0.0006	0.0000	OK	2.000	F10	0.0	0.079	0.001	0.0004	
1440 minute winter	F10	60	29.237	0.006	0.2	0.0009	0.0000	OK	2.001	F11	0.0	0.129	0.002	0.0037	
1440 minute winter	F11	60	29.131	0.007	0.2	0.0011	0.0000	OK	2.002	F12	0.1	0.157	0.004	0.0010	
1440 minute winter	F12	60	29.112	0.009	0.2	0.0014	0.0000	OK	2.003	F13	0.1	0.189	0.006	0.0088	
1440 minute winter	F13	60	28.971	0.010	0.1	0.0114	0.0000	OK	2.004	F14	0.1	0.247	0.008	0.0024	
1440 minute winter	F14	60	28.416	0.018	0.4	0.0205	0.0000	OK	1.008	F19	0.4	0.292	0.031	0.0436	
1440 minute winter	F15	60	29.754	0.004	0.3	0.0006	0.0000	OK	3.000	F16	0.0	0.082	0.001	0.0006	
1440 minute winter	F16	60	29.736	0.007	0.4	0.0011	0.0000	OK	3.001	F17	0.0	0.145	0.004	0.0066	
1440 minute winter	F17	60	29.592	0.009	0.0	0.0014	0.0000	OK	3.002	F18	0.1	0.185	0.006	0.0090	
1440 minute winter	F18	60	29.446	0.010	0.1	0.0016	0.0000	OK	3.003	F19	0.1	0.240	0.008	0.0033	
1440 minute winter	F19	60	28.191	0.022	0.5	0.0249	0.0000	OK	1.009	F20	0.6	0.361	0.046	0.0731	
1440 minute winter	F20	60	27.874	0.024	0.6	0.0268	0.0000	OK	1.010	F21	0.7	0.381	0.053	0.0807	
1440 minute winter	F21	60	27.556	0.025	0.7	0.0285	0.0000	OK	1.011	F22	0.8	0.400	0.061	0.0873	
1440 minute winter	F22	60	27.238	0.026	0.8	0.0299	0.0000	OK	1.012	F23	0.9	0.414	0.067	0.0721	
1440 minute winter	F23	60	26.991	0.027	0.9	0.0311	0.0000	OK	1.013	F24	1.0	0.418	0.072	0.0773	
1440 minute winter	F24	60	26.745	0.029	1.0	0.0329	0.0000	OK	1.014	C1	1.0	0.433	0.076	0.0121	2.1
1440 minute winter	C1	60	26.706	0.028	1.0	0.0000	0.0000	OK							

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Results for 100 year 15 minute summer. 255 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 summer	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
15 minute summer	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
15 minute summer	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
15 minute summer	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
15 minute summer	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
15 minute summer	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
15 minute summer	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
15 minute summer	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
15 minute summer	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
15 minute summer	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
15 minute summer	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
15 minute summer	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
15 minute summer	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
15 minute summer	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
15 minute summer	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
15 minute summer	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
15 minute summer	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
15 minute summer	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
15 minute summer	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
15 minute summer	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
15 minute summer	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
15 minute summer	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
15 minute summer	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
15 minute summer	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
15 minute summer	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 100 year 15 minute winter. 255 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	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
15 minute winter	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
15 minute winter	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
15 minute winter	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
15 minute winter	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
15 minute winter	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
15 minute winter	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
15 minute winter	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
15 minute winter	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
15 minute winter	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
15 minute winter	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
15 minute winter	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
15 minute winter	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
15 minute winter	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
15 minute winter	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
15 minute winter	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
15 minute winter	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
15 minute winter	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
15 minute winter	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
15 minute winter	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
15 minute winter	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
15 minute winter	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
15 minute winter	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
15 minute winter	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
15 minute winter	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 100 year 30 minute summer. 270 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)
30 minute summer	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
30 minute summer	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
30 minute summer	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
30 minute summer	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
30 minute summer	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
30 minute summer	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
30 minute summer	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
30 minute summer	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
30 minute summer	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
30 minute summer	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
30 minute summer	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
30 minute summer	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
30 minute summer	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
30 minute summer	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
30 minute summer	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
30 minute summer	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
30 minute summer	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
30 minute summer	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
30 minute summer	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
30 minute summer	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
30 minute summer	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
30 minute summer	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
30 minute summer	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
30 minute summer	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
30 minute summer	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 100 year 30 minute winter. 270 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)
30 minute winter	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
30 minute winter	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
30 minute winter	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
30 minute winter	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
30 minute winter	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
30 minute winter	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
30 minute winter	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
30 minute winter	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
30 minute winter	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
30 minute winter	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
30 minute winter	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
30 minute winter	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
30 minute winter	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
30 minute winter	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
30 minute winter	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
30 minute winter	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
30 minute winter	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
30 minute winter	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
30 minute winter	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
30 minute winter	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
30 minute winter	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
30 minute winter	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
30 minute winter	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
30 minute winter	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
30 minute winter	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 100 year 60 minute summer. 300 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)
60 minute summer	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
60 minute summer	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
60 minute summer	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
60 minute summer	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
60 minute summer	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
60 minute summer	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
60 minute summer	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
60 minute summer	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
60 minute summer	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
60 minute summer	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
60 minute summer	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
60 minute summer	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
60 minute summer	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
60 minute summer	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
60 minute summer	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
60 minute summer	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
60 minute summer	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
60 minute summer	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
60 minute summer	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
60 minute summer	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
60 minute summer	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
60 minute summer	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
60 minute summer	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
60 minute summer	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
60 minute summer	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 100 year 60 minute winter. 300 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)
60 minute winter	F1	2	29.485	0.035	1.6	0.0056	0.0000	OK	1.000	F2	1.3	0.390	0.095	0.0068	
60 minute winter	F2	3	29.476	0.042	2.9	0.0066	0.0000	OK	1.001	F3	2.2	0.467	0.168	0.1022	
60 minute winter	F3	3	29.344	0.058	3.2	0.0092	0.0000	OK	1.002	F4	3.2	0.515	0.235	0.0128	
60 minute winter	F4	3	29.328	0.058	4.0	0.0092	0.0000	OK	1.003	F5	4.1	0.611	0.306	0.1333	
60 minute winter	F5	3	29.185	0.063	4.9	0.0101	0.0000	OK	1.004	F6	4.2	0.786	0.306	0.0134	
60 minute winter	F6	4	29.165	0.059	4.2	0.0094	0.0000	OK	1.005	F7	4.2	0.808	0.317	0.1574	
60 minute winter	F7	4	28.975	0.056	4.2	0.0631	0.0000	OK	1.006	F8	3.4	0.832	0.260	0.1376	
60 minute winter	F8	6	28.758	0.046	3.4	0.0516	0.0000	OK	1.007	F14	2.6	0.578	0.196	0.1265	
60 minute winter	F9	2	29.285	0.035	1.6	0.0056	0.0000	OK	2.000	F10	1.3	0.394	0.098	0.0085	
60 minute winter	F10	3	29.272	0.041	2.7	0.0065	0.0000	OK	2.001	F11	2.1	0.464	0.159	0.0713	
60 minute winter	F11	3	29.180	0.056	3.0	0.0089	0.0000	OK	2.002	F12	3.1	0.495	0.231	0.0176	
60 minute winter	F12	3	29.163	0.060	3.9	0.0095	0.0000	OK	2.003	F13	4.1	0.708	0.308	0.1114	
60 minute winter	F13	4	29.013	0.052	4.1	0.0589	0.0000	OK	2.004	F14	3.3	0.619	0.237	0.0272	
60 minute winter	F14	5	28.453	0.055	3.9	0.0627	0.0000	OK	1.008	F19	3.8	0.614	0.289	0.2204	
60 minute winter	F15	2	29.789	0.039	1.9	0.0062	0.0000	OK	3.000	F16	1.5	0.312	0.113	0.0138	
60 minute winter	F16	2	29.785	0.056	4.4	0.0090	0.0000	OK	3.001	F17	3.6	0.809	0.269	0.1144	
60 minute winter	F17	3	29.639	0.056	3.6	0.0089	0.0000	OK	3.002	F18	3.4	0.743	0.254	0.0932	
60 minute winter	F18	4	29.485	0.049	3.4	0.0079	0.0000	OK	3.003	F19	2.9	0.585	0.217	0.0354	
60 minute winter	F19	5	28.240	0.071	6.3	0.0808	0.0000	OK	1.009	F20	5.4	0.832	0.407	0.3253	
60 minute winter	F20	7	27.916	0.066	5.4	0.0743	0.0000	OK	1.010	F21	5.0	0.805	0.378	0.3003	
60 minute winter	F21	8	27.594	0.063	5.0	0.0714	0.0000	OK	1.011	F22	4.6	0.768	0.347	0.2806	
60 minute winter	F22	9	27.273	0.061	4.6	0.0687	0.0000	OK	1.012	F23	4.3	0.744	0.322	0.2090	
60 minute winter	F23	10	27.022	0.058	4.3	0.0660	0.0000	OK	1.013	F24	4.0	0.701	0.305	0.2064	
60 minute winter	F24	11	26.775	0.059	4.0	0.0669	0.0000	OK	1.014	C1	3.9	0.622	0.291	0.0320	2.0
60 minute winter	C1	11	26.734	0.056	3.9	0.0000	0.0000	OK							

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Results for 100 year 120 minute summer. 360 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 summer	F1	4	29.465	0.015	1.4	0.0025	0.0000	OK	1.000	F2	0.3	0.201	0.022	0.0032	
120 minute summer	F2	4	29.461	0.027	1.4	0.0043	0.0000	OK	1.001	F3	0.9	0.334	0.071	0.0567	
120 minute summer	F3	4	29.324	0.038	1.4	0.0061	0.0000	OK	1.002	F4	1.6	0.436	0.117	0.0075	
120 minute summer	F4	4	29.310	0.040	1.6	0.0064	0.0000	OK	1.003	F5	2.1	0.500	0.157	0.0838	
120 minute summer	F5	4	29.168	0.046	2.1	0.0073	0.0000	OK	1.004	F6	2.3	0.508	0.167	0.0092	
120 minute summer	F6	4	29.151	0.045	2.3	0.0071	0.0000	OK	1.005	F7	2.1	0.708	0.156	0.0767	
120 minute summer	F7	6	28.957	0.038	2.1	0.0425	0.0000	OK	1.006	F8	1.7	0.592	0.125	0.0791	
120 minute summer	F8	8	28.741	0.029	1.7	0.0331	0.0000	OK	1.007	F14	1.1	0.452	0.082	0.0680	
120 minute summer	F9	4	29.266	0.016	1.4	0.0025	0.0000	OK	2.000	F10	0.3	0.205	0.023	0.0038	
120 minute summer	F10	4	29.257	0.026	1.3	0.0041	0.0000	OK	2.001	F11	0.9	0.327	0.065	0.0384	
120 minute summer	F11	4	29.160	0.036	1.3	0.0058	0.0000	OK	2.002	F12	1.5	0.416	0.112	0.0101	
120 minute summer	F12	4	29.144	0.041	1.5	0.0066	0.0000	OK	2.003	F13	2.2	0.571	0.163	0.0731	
120 minute summer	F13	4	29.000	0.039	2.2	0.0443	0.0000	OK	2.004	F14	1.8	0.520	0.133	0.0181	
120 minute summer	F14	6	28.435	0.037	1.8	0.0413	0.0000	OK	1.008	F19	1.7	0.491	0.129	0.1239	
120 minute summer	F15	4	29.767	0.017	1.7	0.0027	0.0000	OK	3.000	F16	0.4	0.189	0.027	0.0054	
120 minute summer	F16	4	29.761	0.032	2.6	0.0051	0.0000	OK	3.001	F17	1.3	0.404	0.101	0.0660	
120 minute summer	F17	4	29.624	0.041	1.3	0.0065	0.0000	OK	3.002	F18	2.0	0.619	0.151	0.0649	
120 minute summer	F18	4	29.467	0.031	2.0	0.0049	0.0000	OK	3.003	F19	1.1	0.432	0.081	0.0179	
120 minute summer	F19	6	28.216	0.047	2.5	0.0527	0.0000	OK	1.009	F20	2.3	0.696	0.176	0.1788	
120 minute summer	F20	8	27.894	0.044	2.3	0.0494	0.0000	OK	1.010	F21	2.2	0.625	0.165	0.1618	
120 minute summer	F21	10	27.572	0.041	2.2	0.0465	0.0000	OK	1.011	F22	2.0	0.613	0.154	0.1546	
120 minute summer	F22	12	27.250	0.038	2.0	0.0435	0.0000	OK	1.012	F23	1.9	0.603	0.140	0.1178	
120 minute summer	F23	12	27.002	0.038	1.9	0.0425	0.0000	OK	1.013	F24	1.6	0.558	0.124	0.1117	
120 minute summer	F24	14	26.754	0.038	1.6	0.0426	0.0000	OK	1.014	C1	1.7	0.498	0.127	0.0174	1.2
120 minute summer	C1	14	26.714	0.036	1.7	0.0000	0.0000	OK							

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Results for 100 year 120 minute winter. 360 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	F1	4	29.465	0.015	1.4	0.0025	0.0000	OK	1.000	F2	0.3	0.201	0.022	0.0032	
120 minute winter	F2	4	29.461	0.027	1.4	0.0043	0.0000	OK	1.001	F3	0.9	0.334	0.071	0.0567	
120 minute winter	F3	4	29.324	0.038	1.4	0.0061	0.0000	OK	1.002	F4	1.6	0.436	0.117	0.0075	
120 minute winter	F4	4	29.310	0.040	1.6	0.0064	0.0000	OK	1.003	F5	2.1	0.500	0.157	0.0838	
120 minute winter	F5	4	29.168	0.046	2.1	0.0073	0.0000	OK	1.004	F6	2.3	0.508	0.167	0.0092	
120 minute winter	F6	4	29.151	0.045	2.3	0.0071	0.0000	OK	1.005	F7	2.1	0.708	0.156	0.0767	
120 minute winter	F7	6	28.957	0.038	2.1	0.0425	0.0000	OK	1.006	F8	1.7	0.592	0.125	0.0791	
120 minute winter	F8	8	28.741	0.029	1.7	0.0331	0.0000	OK	1.007	F14	1.1	0.452	0.082	0.0680	
120 minute winter	F9	4	29.266	0.016	1.4	0.0025	0.0000	OK	2.000	F10	0.3	0.205	0.023	0.0038	
120 minute winter	F10	4	29.257	0.026	1.3	0.0041	0.0000	OK	2.001	F11	0.9	0.327	0.065	0.0384	
120 minute winter	F11	4	29.160	0.036	1.3	0.0058	0.0000	OK	2.002	F12	1.5	0.416	0.112	0.0101	
120 minute winter	F12	4	29.144	0.041	1.5	0.0066	0.0000	OK	2.003	F13	2.2	0.571	0.163	0.0731	
120 minute winter	F13	4	29.000	0.039	2.2	0.0443	0.0000	OK	2.004	F14	1.8	0.520	0.133	0.0181	
120 minute winter	F14	6	28.435	0.037	1.8	0.0413	0.0000	OK	1.008	F19	1.7	0.491	0.129	0.1239	
120 minute winter	F15	4	29.767	0.017	1.7	0.0027	0.0000	OK	3.000	F16	0.4	0.189	0.027	0.0054	
120 minute winter	F16	4	29.761	0.032	2.6	0.0051	0.0000	OK	3.001	F17	1.3	0.404	0.101	0.0660	
120 minute winter	F17	4	29.624	0.041	1.3	0.0065	0.0000	OK	3.002	F18	2.0	0.619	0.151	0.0649	
120 minute winter	F18	4	29.467	0.031	2.0	0.0049	0.0000	OK	3.003	F19	1.1	0.432	0.081	0.0179	
120 minute winter	F19	6	28.216	0.047	2.5	0.0527	0.0000	OK	1.009	F20	2.3	0.696	0.176	0.1788	
120 minute winter	F20	8	27.894	0.044	2.3	0.0494	0.0000	OK	1.010	F21	2.2	0.625	0.165	0.1618	
120 minute winter	F21	10	27.572	0.041	2.2	0.0465	0.0000	OK	1.011	F22	2.0	0.613	0.154	0.1546	
120 minute winter	F22	12	27.250	0.038	2.0	0.0435	0.0000	OK	1.012	F23	1.9	0.603	0.140	0.1178	
120 minute winter	F23	12	27.002	0.038	1.9	0.0425	0.0000	OK	1.013	F24	1.6	0.558	0.124	0.1117	
120 minute winter	F24	14	26.754	0.038	1.6	0.0426	0.0000	OK	1.014	C1	1.7	0.498	0.127	0.0174	1.2
120 minute winter	C1	14	26.714	0.036	1.7	0.0000	0.0000	OK							

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Results for 100 year 180 minute summer. 420 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	F1	8	29.462	0.012	1.4	0.0019	0.0000	OK	1.000	F2	0.2	0.167	0.013	0.0023	
180 minute summer	F2	8	29.456	0.022	1.4	0.0035	0.0000	OK	1.001	F3	0.6	0.278	0.045	0.0440	
180 minute summer	F3	8	29.319	0.033	1.4	0.0052	0.0000	OK	1.002	F4	1.2	0.387	0.087	0.0063	
180 minute summer	F4	8	29.307	0.037	1.4	0.0058	0.0000	OK	1.003	F5	1.7	0.426	0.131	0.0823	
180 minute summer	F5	8	29.170	0.048	1.7	0.0077	0.0000	OK	1.004	F6	2.4	0.494	0.178	0.0101	
180 minute summer	F6	8	29.155	0.049	2.4	0.0078	0.0000	OK	1.005	F7	3.0	0.547	0.229	0.1410	
180 minute summer	F7	8	28.976	0.057	3.0	0.0642	0.0000	OK	1.006	F8	3.8	0.716	0.284	0.1482	
180 minute summer	F8	8	28.757	0.045	3.8	0.0509	0.0000	OK	1.007	F14	2.4	0.555	0.181	0.1218	
180 minute summer	F9	8	29.262	0.012	1.4	0.0020	0.0000	OK	2.000	F10	0.2	0.176	0.014	0.0028	
180 minute summer	F10	8	29.252	0.021	1.3	0.0033	0.0000	OK	2.001	F11	0.5	0.280	0.041	0.0282	
180 minute summer	F11	8	29.153	0.029	1.3	0.0047	0.0000	OK	2.002	F12	1.0	0.372	0.077	0.0078	
180 minute summer	F12	8	29.138	0.035	1.4	0.0056	0.0000	OK	2.003	F13	1.6	0.443	0.119	0.0688	
180 minute summer	F13	8	29.003	0.042	1.6	0.0474	0.0000	OK	2.004	F14	2.2	0.558	0.159	0.0203	
180 minute summer	F14	8	28.458	0.060	4.6	0.0674	0.0000	OK	1.008	F19	4.4	0.574	0.329	0.2369	
180 minute summer	F15	8	29.763	0.013	1.7	0.0021	0.0000	OK	3.000	F16	0.2	0.163	0.016	0.0038	
180 minute summer	F16	8	29.754	0.025	2.6	0.0039	0.0000	OK	3.001	F17	0.8	0.328	0.059	0.0477	
180 minute summer	F17	8	29.616	0.033	0.8	0.0053	0.0000	OK	3.002	F18	1.4	0.431	0.109	0.0668	
180 minute summer	F18	8	29.476	0.040	1.4	0.0064	0.0000	OK	3.003	F19	2.0	0.532	0.150	0.0269	
180 minute summer	F19	8	28.244	0.075	6.4	0.0843	0.0000	OK	1.009	F20	5.7	0.834	0.432	0.2988	
180 minute summer	F20	12	27.906	0.056	5.7	0.0630	0.0000	OK	1.010	F21	3.9	0.785	0.294	0.2806	
180 minute summer	F21	12	27.594	0.063	3.9	0.0710	0.0000	OK	1.011	F22	4.8	0.669	0.365	0.3142	
180 minute summer	F22	12	27.278	0.066	4.8	0.0749	0.0000	OK	1.012	F23	5.1	0.720	0.381	0.2362	
180 minute summer	F23	12	27.024	0.060	5.1	0.0675	0.0000	OK	1.013	F24	3.8	0.724	0.288	0.1783	
180 minute summer	F24	16	26.770	0.054	3.8	0.0605	0.0000	OK	1.014	C1	3.3	0.598	0.246	0.0282	2.2
180 minute summer	C1	16	26.729	0.051	3.3	0.0000	0.0000	OK							

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Results for 100 year 180 minute winter. 420 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	F1	8	29.462	0.012	1.4	0.0019	0.0000	OK	1.000	F2	0.2	0.167	0.013	0.0023	
180 minute winter	F2	8	29.456	0.022	1.4	0.0035	0.0000	OK	1.001	F3	0.6	0.278	0.045	0.0440	
180 minute winter	F3	8	29.319	0.033	1.4	0.0052	0.0000	OK	1.002	F4	1.2	0.387	0.087	0.0063	
180 minute winter	F4	8	29.307	0.037	1.4	0.0058	0.0000	OK	1.003	F5	1.7	0.426	0.131	0.0823	
180 minute winter	F5	8	29.170	0.048	1.7	0.0077	0.0000	OK	1.004	F6	2.4	0.494	0.178	0.0101	
180 minute winter	F6	8	29.155	0.049	2.4	0.0078	0.0000	OK	1.005	F7	3.0	0.547	0.229	0.1410	
180 minute winter	F7	8	28.976	0.057	3.0	0.0642	0.0000	OK	1.006	F8	3.8	0.716	0.284	0.1482	
180 minute winter	F8	8	28.757	0.045	3.8	0.0509	0.0000	OK	1.007	F14	2.4	0.555	0.181	0.1218	
180 minute winter	F9	8	29.262	0.012	1.4	0.0020	0.0000	OK	2.000	F10	0.2	0.176	0.014	0.0028	
180 minute winter	F10	8	29.252	0.021	1.3	0.0033	0.0000	OK	2.001	F11	0.5	0.280	0.041	0.0282	
180 minute winter	F11	8	29.153	0.029	1.3	0.0047	0.0000	OK	2.002	F12	1.0	0.372	0.077	0.0078	
180 minute winter	F12	8	29.138	0.035	1.4	0.0056	0.0000	OK	2.003	F13	1.6	0.443	0.119	0.0688	
180 minute winter	F13	8	29.003	0.042	1.6	0.0474	0.0000	OK	2.004	F14	2.2	0.558	0.159	0.0203	
180 minute winter	F14	8	28.458	0.060	4.6	0.0674	0.0000	OK	1.008	F19	4.4	0.574	0.329	0.2369	
180 minute winter	F15	8	29.763	0.013	1.7	0.0021	0.0000	OK	3.000	F16	0.2	0.163	0.016	0.0038	
180 minute winter	F16	8	29.754	0.025	2.6	0.0039	0.0000	OK	3.001	F17	0.8	0.328	0.059	0.0477	
180 minute winter	F17	8	29.616	0.033	0.8	0.0053	0.0000	OK	3.002	F18	1.4	0.431	0.109	0.0668	
180 minute winter	F18	8	29.476	0.040	1.4	0.0064	0.0000	OK	3.003	F19	2.0	0.532	0.150	0.0269	
180 minute winter	F19	8	28.244	0.075	6.4	0.0843	0.0000	OK	1.009	F20	5.7	0.834	0.432	0.2988	
180 minute winter	F20	12	27.906	0.056	5.7	0.0630	0.0000	OK	1.010	F21	3.9	0.785	0.294	0.2806	
180 minute winter	F21	12	27.594	0.063	3.9	0.0710	0.0000	OK	1.011	F22	4.8	0.669	0.365	0.3142	
180 minute winter	F22	12	27.278	0.066	4.8	0.0749	0.0000	OK	1.012	F23	5.1	0.720	0.381	0.2362	
180 minute winter	F23	12	27.024	0.060	5.1	0.0675	0.0000	OK	1.013	F24	3.8	0.724	0.288	0.1783	
180 minute winter	F24	16	26.770	0.054	3.8	0.0605	0.0000	OK	1.014	C1	3.3	0.598	0.246	0.0282	2.2
180 minute winter	C1	16	26.729	0.051	3.3	0.0000	0.0000	OK							

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Results for 100 year 240 minute summer. 480 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	F1	8	29.462	0.012	1.4	0.0019	0.0000	OK	1.000	F2	0.2	0.167	0.013	0.0023	
240 minute summer	F2	8	29.456	0.022	1.4	0.0035	0.0000	OK	1.001	F3	0.6	0.278	0.045	0.0440	
240 minute summer	F3	8	29.319	0.033	1.4	0.0052	0.0000	OK	1.002	F4	1.2	0.387	0.087	0.0063	
240 minute summer	F4	8	29.307	0.037	1.4	0.0058	0.0000	OK	1.003	F5	1.7	0.426	0.131	0.0823	
240 minute summer	F5	8	29.170	0.048	1.7	0.0077	0.0000	OK	1.004	F6	2.4	0.494	0.178	0.0101	
240 minute summer	F6	8	29.155	0.049	2.4	0.0078	0.0000	OK	1.005	F7	3.0	0.547	0.229	0.1410	
240 minute summer	F7	8	28.976	0.057	3.0	0.0642	0.0000	OK	1.006	F8	3.8	0.716	0.284	0.1482	
240 minute summer	F8	8	28.757	0.045	3.8	0.0509	0.0000	OK	1.007	F14	2.4	0.555	0.181	0.1218	
240 minute summer	F9	8	29.262	0.012	1.4	0.0020	0.0000	OK	2.000	F10	0.2	0.176	0.014	0.0028	
240 minute summer	F10	8	29.252	0.021	1.3	0.0033	0.0000	OK	2.001	F11	0.5	0.280	0.041	0.0282	
240 minute summer	F11	8	29.153	0.029	1.3	0.0047	0.0000	OK	2.002	F12	1.0	0.372	0.077	0.0078	
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240 minute summer	F15	8	29.763	0.013	1.7	0.0021	0.0000	OK	3.000	F16	0.2	0.163	0.016	0.0038	
240 minute summer	F16	8	29.754	0.025	2.6	0.0039	0.0000	OK	3.001	F17	0.8	0.328	0.059	0.0477	
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240 minute summer	F18	8	29.476	0.040	1.4	0.0064	0.0000	OK	3.003	F19	2.0	0.532	0.150	0.0269	
240 minute summer	F19	8	28.244	0.075	6.4	0.0843	0.0000	OK	1.009	F20	5.7	0.834	0.432	0.2988	
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240 minute summer	F24	16	26.770	0.054	3.8	0.0605	0.0000	OK	1.014	C1	3.3	0.598	0.246	0.0282	2.2
240 minute summer	C1	16	26.729	0.051	3.3	0.0000	0.0000	OK							

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Results for 100 year 240 minute winter. 480 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	F1	8	29.462	0.012	1.4	0.0019	0.0000	OK	1.000	F2	0.2	0.167	0.013	0.0023	
240 minute winter	F2	8	29.456	0.022	1.4	0.0035	0.0000	OK	1.001	F3	0.6	0.278	0.045	0.0440	
240 minute winter	F3	8	29.319	0.033	1.4	0.0052	0.0000	OK	1.002	F4	1.2	0.387	0.087	0.0063	
240 minute winter	F4	8	29.307	0.037	1.4	0.0058	0.0000	OK	1.003	F5	1.7	0.426	0.131	0.0823	
240 minute winter	F5	8	29.170	0.048	1.7	0.0077	0.0000	OK	1.004	F6	2.4	0.494	0.178	0.0101	
240 minute winter	F6	8	29.155	0.049	2.4	0.0078	0.0000	OK	1.005	F7	3.0	0.547	0.229	0.1410	
240 minute winter	F7	8	28.976	0.057	3.0	0.0642	0.0000	OK	1.006	F8	3.8	0.716	0.284	0.1482	
240 minute winter	F8	8	28.757	0.045	3.8	0.0509	0.0000	OK	1.007	F14	2.4	0.555	0.181	0.1218	
240 minute winter	F9	8	29.262	0.012	1.4	0.0020	0.0000	OK	2.000	F10	0.2	0.176	0.014	0.0028	
240 minute winter	F10	8	29.252	0.021	1.3	0.0033	0.0000	OK	2.001	F11	0.5	0.280	0.041	0.0282	
240 minute winter	F11	8	29.153	0.029	1.3	0.0047	0.0000	OK	2.002	F12	1.0	0.372	0.077	0.0078	
240 minute winter	F12	8	29.138	0.035	1.4	0.0056	0.0000	OK	2.003	F13	1.6	0.443	0.119	0.0688	
240 minute winter	F13	8	29.003	0.042	1.6	0.0474	0.0000	OK	2.004	F14	2.2	0.558	0.159	0.0203	
240 minute winter	F14	8	28.458	0.060	4.6	0.0674	0.0000	OK	1.008	F19	4.4	0.574	0.329	0.2369	
240 minute winter	F15	8	29.763	0.013	1.7	0.0021	0.0000	OK	3.000	F16	0.2	0.163	0.016	0.0038	
240 minute winter	F16	8	29.754	0.025	2.6	0.0039	0.0000	OK	3.001	F17	0.8	0.328	0.059	0.0477	
240 minute winter	F17	8	29.616	0.033	0.8	0.0053	0.0000	OK	3.002	F18	1.4	0.431	0.109	0.0668	
240 minute winter	F18	8	29.476	0.040	1.4	0.0064	0.0000	OK	3.003	F19	2.0	0.532	0.150	0.0269	
240 minute winter	F19	8	28.244	0.075	6.4	0.0843	0.0000	OK	1.009	F20	5.7	0.834	0.432	0.2988	
240 minute winter	F20	12	27.906	0.056	5.7	0.0630	0.0000	OK	1.010	F21	3.9	0.785	0.294	0.2806	
240 minute winter	F21	12	27.594	0.063	3.9	0.0710	0.0000	OK	1.011	F22	4.8	0.669	0.365	0.3142	
240 minute winter	F22	12	27.278	0.066	4.8	0.0749	0.0000	OK	1.012	F23	5.1	0.720	0.381	0.2362	
240 minute winter	F23	12	27.024	0.060	5.1	0.0675	0.0000	OK	1.013	F24	3.8	0.724	0.288	0.1783	
240 minute winter	F24	16	26.770	0.054	3.8	0.0605	0.0000	OK	1.014	C1	3.3	0.598	0.246	0.0282	2.2
240 minute winter	C1	16	26.729	0.051	3.3	0.0000	0.0000	OK							

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Results for 100 year 360 minute summer. 600 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	F1	16	29.458	0.008	0.7	0.0013	0.0000	OK	1.000	F2	0.1	0.130	0.005	0.0012	
360 minute summer	F2	16	29.448	0.014	0.7	0.0022	0.0000	OK	1.001	F3	0.2	0.220	0.017	0.0203	
360 minute summer	F3	16	29.305	0.019	0.7	0.0030	0.0000	OK	1.002	F4	0.4	0.294	0.031	0.0029	
360 minute summer	F4	16	29.292	0.022	0.7	0.0035	0.0000	OK	1.003	F5	0.6	0.326	0.047	0.0384	
360 minute summer	F5	16	29.150	0.028	0.7	0.0044	0.0000	OK	1.004	F6	0.9	0.377	0.064	0.0047	
360 minute summer	F6	16	29.135	0.029	0.9	0.0047	0.0000	OK	1.005	F7	1.1	0.412	0.083	0.0682	
360 minute summer	F7	16	28.953	0.034	1.1	0.0380	0.0000	OK	1.006	F8	1.4	0.450	0.109	0.0905	
360 minute summer	F8	16	28.750	0.038	1.4	0.0430	0.0000	OK	1.007	F14	1.8	0.525	0.138	0.0982	
360 minute summer	F9	16	29.258	0.008	0.7	0.0013	0.0000	OK	2.000	F10	0.1	0.136	0.006	0.0014	
360 minute summer	F10	16	29.244	0.013	0.6	0.0021	0.0000	OK	2.001	F11	0.2	0.221	0.015	0.0133	
360 minute summer	F11	16	29.141	0.017	0.6	0.0027	0.0000	OK	2.002	F12	0.4	0.278	0.027	0.0037	
360 minute summer	F12	16	29.124	0.021	0.7	0.0034	0.0000	OK	2.003	F13	0.6	0.331	0.042	0.0328	
360 minute summer	F13	16	28.986	0.025	0.6	0.0281	0.0000	OK	2.004	F14	0.8	0.415	0.057	0.0097	
360 minute summer	F14	16	28.446	0.048	2.6	0.0539	0.0000	OK	1.008	F19	2.9	0.521	0.217	0.1717	
360 minute summer	F15	16	29.759	0.009	0.9	0.0014	0.0000	OK	3.000	F16	0.1	0.128	0.006	0.0019	
360 minute summer	F16	16	29.745	0.016	1.4	0.0025	0.0000	OK	3.001	F17	0.3	0.249	0.022	0.0237	
360 minute summer	F17	16	29.603	0.020	0.3	0.0032	0.0000	OK	3.002	F18	0.5	0.323	0.039	0.0324	
360 minute summer	F18	16	29.460	0.024	0.5	0.0038	0.0000	OK	3.003	F19	0.7	0.399	0.054	0.0129	
360 minute summer	F19	16	28.227	0.058	3.6	0.0654	0.0000	OK	1.009	F20	4.1	0.636	0.313	0.2826	
360 minute summer	F20	16	27.911	0.061	4.1	0.0694	0.0000	OK	1.010	F21	4.5	0.676	0.342	0.2911	
360 minute summer	F21	16	27.591	0.060	4.5	0.0684	0.0000	OK	1.011	F22	4.1	0.712	0.312	0.2526	
360 minute summer	F22	16	27.261	0.049	4.1	0.0555	0.0000	OK	1.012	F23	2.5	0.717	0.185	0.1179	
360 minute summer	F23	24	27.002	0.038	2.5	0.0431	0.0000	OK	1.013	F24	1.9	0.563	0.141	0.1276	
360 minute summer	F24	24	26.758	0.042	1.9	0.0478	0.0000	OK	1.014	C1	2.1	0.532	0.159	0.0205	1.6
360 minute summer	C1	24	26.719	0.041	2.1	0.0000	0.0000	OK							

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Results for 100 year 360 minute winter. 600 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	F1	16	29.458	0.008	0.7	0.0013	0.0000	OK	1.000	F2	0.1	0.130	0.005	0.0012	
360 minute winter	F2	16	29.448	0.014	0.7	0.0022	0.0000	OK	1.001	F3	0.2	0.220	0.017	0.0203	
360 minute winter	F3	16	29.305	0.019	0.7	0.0030	0.0000	OK	1.002	F4	0.4	0.294	0.031	0.0029	
360 minute winter	F4	16	29.292	0.022	0.7	0.0035	0.0000	OK	1.003	F5	0.6	0.326	0.047	0.0384	
360 minute winter	F5	16	29.150	0.028	0.7	0.0044	0.0000	OK	1.004	F6	0.9	0.377	0.064	0.0047	
360 minute winter	F6	16	29.135	0.029	0.9	0.0047	0.0000	OK	1.005	F7	1.1	0.412	0.083	0.0682	
360 minute winter	F7	16	28.953	0.034	1.1	0.0380	0.0000	OK	1.006	F8	1.4	0.450	0.109	0.0905	
360 minute winter	F8	16	28.750	0.038	1.4	0.0430	0.0000	OK	1.007	F14	1.8	0.525	0.138	0.0982	
360 minute winter	F9	16	29.258	0.008	0.7	0.0013	0.0000	OK	2.000	F10	0.1	0.136	0.006	0.0014	
360 minute winter	F10	16	29.244	0.013	0.6	0.0021	0.0000	OK	2.001	F11	0.2	0.221	0.015	0.0133	
360 minute winter	F11	16	29.141	0.017	0.6	0.0027	0.0000	OK	2.002	F12	0.4	0.278	0.027	0.0037	
360 minute winter	F12	16	29.124	0.021	0.7	0.0034	0.0000	OK	2.003	F13	0.6	0.331	0.042	0.0328	
360 minute winter	F13	16	28.986	0.025	0.6	0.0281	0.0000	OK	2.004	F14	0.8	0.415	0.057	0.0097	
360 minute winter	F14	16	28.446	0.048	2.6	0.0539	0.0000	OK	1.008	F19	2.9	0.521	0.217	0.1717	
360 minute winter	F15	16	29.759	0.009	0.9	0.0014	0.0000	OK	3.000	F16	0.1	0.128	0.006	0.0019	
360 minute winter	F16	16	29.745	0.016	1.4	0.0025	0.0000	OK	3.001	F17	0.3	0.249	0.022	0.0237	
360 minute winter	F17	16	29.603	0.020	0.3	0.0032	0.0000	OK	3.002	F18	0.5	0.323	0.039	0.0324	
360 minute winter	F18	16	29.460	0.024	0.5	0.0038	0.0000	OK	3.003	F19	0.7	0.399	0.054	0.0129	
360 minute winter	F19	16	28.227	0.058	3.6	0.0654	0.0000	OK	1.009	F20	4.1	0.636	0.313	0.2826	
360 minute winter	F20	16	27.911	0.061	4.1	0.0694	0.0000	OK	1.010	F21	4.5	0.676	0.342	0.2911	
360 minute winter	F21	16	27.591	0.060	4.5	0.0684	0.0000	OK	1.011	F22	4.1	0.712	0.312	0.2526	
360 minute winter	F22	16	27.261	0.049	4.1	0.0555	0.0000	OK	1.012	F23	2.5	0.717	0.185	0.1179	
360 minute winter	F23	24	27.002	0.038	2.5	0.0431	0.0000	OK	1.013	F24	1.9	0.563	0.141	0.1276	
360 minute winter	F24	24	26.758	0.042	1.9	0.0478	0.0000	OK	1.014	C1	2.1	0.532	0.159	0.0205	1.6
360 minute winter	C1	24	26.719	0.041	2.1	0.0000	0.0000	OK							

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Results for 100 year 480 minute summer. 720 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	F1	16	29.458	0.008	0.7	0.0013	0.0000	OK	1.000	F2	0.1	0.130	0.005	0.0012	
480 minute summer	F2	16	29.448	0.014	0.7	0.0022	0.0000	OK	1.001	F3	0.2	0.220	0.017	0.0203	
480 minute summer	F3	16	29.305	0.019	0.7	0.0030	0.0000	OK	1.002	F4	0.4	0.294	0.031	0.0029	
480 minute summer	F4	16	29.292	0.022	0.7	0.0035	0.0000	OK	1.003	F5	0.6	0.326	0.047	0.0384	
480 minute summer	F5	16	29.150	0.028	0.7	0.0044	0.0000	OK	1.004	F6	0.9	0.377	0.064	0.0047	
480 minute summer	F6	16	29.135	0.029	0.9	0.0047	0.0000	OK	1.005	F7	1.1	0.412	0.083	0.0682	
480 minute summer	F7	16	28.953	0.034	1.1	0.0380	0.0000	OK	1.006	F8	1.4	0.450	0.109	0.0905	
480 minute summer	F8	16	28.750	0.038	1.4	0.0430	0.0000	OK	1.007	F14	1.8	0.525	0.138	0.0982	
480 minute summer	F9	16	29.258	0.008	0.7	0.0013	0.0000	OK	2.000	F10	0.1	0.136	0.006	0.0014	
480 minute summer	F10	16	29.244	0.013	0.6	0.0021	0.0000	OK	2.001	F11	0.2	0.221	0.015	0.0133	
480 minute summer	F11	16	29.141	0.017	0.6	0.0027	0.0000	OK	2.002	F12	0.4	0.278	0.027	0.0037	
480 minute summer	F12	16	29.124	0.021	0.7	0.0034	0.0000	OK	2.003	F13	0.6	0.331	0.042	0.0328	
480 minute summer	F13	16	28.986	0.025	0.6	0.0281	0.0000	OK	2.004	F14	0.8	0.415	0.057	0.0097	
480 minute summer	F14	16	28.446	0.048	2.6	0.0539	0.0000	OK	1.008	F19	2.9	0.521	0.217	0.1717	
480 minute summer	F15	16	29.759	0.009	0.9	0.0014	0.0000	OK	3.000	F16	0.1	0.128	0.006	0.0019	
480 minute summer	F16	16	29.745	0.016	1.4	0.0025	0.0000	OK	3.001	F17	0.3	0.249	0.022	0.0237	
480 minute summer	F17	16	29.603	0.020	0.3	0.0032	0.0000	OK	3.002	F18	0.5	0.323	0.039	0.0324	
480 minute summer	F18	16	29.460	0.024	0.5	0.0038	0.0000	OK	3.003	F19	0.7	0.399	0.054	0.0129	
480 minute summer	F19	16	28.227	0.058	3.6	0.0654	0.0000	OK	1.009	F20	4.1	0.636	0.313	0.2826	
480 minute summer	F20	16	27.911	0.061	4.1	0.0694	0.0000	OK	1.010	F21	4.5	0.676	0.342	0.2911	
480 minute summer	F21	16	27.591	0.060	4.5	0.0684	0.0000	OK	1.011	F22	4.1	0.712	0.312	0.2526	
480 minute summer	F22	16	27.261	0.049	4.1	0.0555	0.0000	OK	1.012	F23	2.5	0.717	0.185	0.1179	
480 minute summer	F23	24	27.002	0.038	2.5	0.0431	0.0000	OK	1.013	F24	1.9	0.563	0.141	0.1276	
480 minute summer	F24	24	26.758	0.042	1.9	0.0478	0.0000	OK	1.014	C1	2.1	0.532	0.159	0.0205	1.6
480 minute summer	C1	24	26.719	0.041	2.1	0.0000	0.0000	OK							

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Results for 100 year 480 minute winter. 720 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	F1	16	29.458	0.008	0.7	0.0013	0.0000	OK	1.000	F2	0.1	0.130	0.005	0.0012	
480 minute winter	F2	16	29.448	0.014	0.7	0.0022	0.0000	OK	1.001	F3	0.2	0.220	0.017	0.0203	
480 minute winter	F3	16	29.305	0.019	0.7	0.0030	0.0000	OK	1.002	F4	0.4	0.294	0.031	0.0029	
480 minute winter	F4	16	29.292	0.022	0.7	0.0035	0.0000	OK	1.003	F5	0.6	0.326	0.047	0.0384	
480 minute winter	F5	16	29.150	0.028	0.7	0.0044	0.0000	OK	1.004	F6	0.9	0.377	0.064	0.0047	
480 minute winter	F6	16	29.135	0.029	0.9	0.0047	0.0000	OK	1.005	F7	1.1	0.412	0.083	0.0682	
480 minute winter	F7	16	28.953	0.034	1.1	0.0380	0.0000	OK	1.006	F8	1.4	0.450	0.109	0.0905	
480 minute winter	F8	16	28.750	0.038	1.4	0.0430	0.0000	OK	1.007	F14	1.8	0.525	0.138	0.0982	
480 minute winter	F9	16	29.258	0.008	0.7	0.0013	0.0000	OK	2.000	F10	0.1	0.136	0.006	0.0014	
480 minute winter	F10	16	29.244	0.013	0.6	0.0021	0.0000	OK	2.001	F11	0.2	0.221	0.015	0.0133	
480 minute winter	F11	16	29.141	0.017	0.6	0.0027	0.0000	OK	2.002	F12	0.4	0.278	0.027	0.0037	
480 minute winter	F12	16	29.124	0.021	0.7	0.0034	0.0000	OK	2.003	F13	0.6	0.331	0.042	0.0328	
480 minute winter	F13	16	28.986	0.025	0.6	0.0281	0.0000	OK	2.004	F14	0.8	0.415	0.057	0.0097	
480 minute winter	F14	16	28.446	0.048	2.6	0.0539	0.0000	OK	1.008	F19	2.9	0.521	0.217	0.1717	
480 minute winter	F15	16	29.759	0.009	0.9	0.0014	0.0000	OK	3.000	F16	0.1	0.128	0.006	0.0019	
480 minute winter	F16	16	29.745	0.016	1.4	0.0025	0.0000	OK	3.001	F17	0.3	0.249	0.022	0.0237	
480 minute winter	F17	16	29.603	0.020	0.3	0.0032	0.0000	OK	3.002	F18	0.5	0.323	0.039	0.0324	
480 minute winter	F18	16	29.460	0.024	0.5	0.0038	0.0000	OK	3.003	F19	0.7	0.399	0.054	0.0129	
480 minute winter	F19	16	28.227	0.058	3.6	0.0654	0.0000	OK	1.009	F20	4.1	0.636	0.313	0.2826	
480 minute winter	F20	16	27.911	0.061	4.1	0.0694	0.0000	OK	1.010	F21	4.5	0.676	0.342	0.2911	
480 minute winter	F21	16	27.591	0.060	4.5	0.0684	0.0000	OK	1.011	F22	4.1	0.712	0.312	0.2526	
480 minute winter	F22	16	27.261	0.049	4.1	0.0555	0.0000	OK	1.012	F23	2.5	0.717	0.185	0.1179	
480 minute winter	F23	24	27.002	0.038	2.5	0.0431	0.0000	OK	1.013	F24	1.9	0.563	0.141	0.1276	
480 minute winter	F24	24	26.758	0.042	1.9	0.0478	0.0000	OK	1.014	C1	2.1	0.532	0.159	0.0205	1.6
480 minute winter	C1	24	26.719	0.041	2.1	0.0000	0.0000	OK							

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Results for 100 year 600 minute summer. 840 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
600 minute summer	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
600 minute summer	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
600 minute summer	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
600 minute summer	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
600 minute summer	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
600 minute summer	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
600 minute summer	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
600 minute summer	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
600 minute summer	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
600 minute summer	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
600 minute summer	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
600 minute summer	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
600 minute summer	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
600 minute summer	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
600 minute summer	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
600 minute summer	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
600 minute summer	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
600 minute summer	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
600 minute summer	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
600 minute summer	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
600 minute summer	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
600 minute summer	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
600 minute summer	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
600 minute summer	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 100 year 600 minute winter. 840 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
600 minute winter	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
600 minute winter	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
600 minute winter	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
600 minute winter	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
600 minute winter	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
600 minute winter	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
600 minute winter	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
600 minute winter	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
600 minute winter	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
600 minute winter	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
600 minute winter	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
600 minute winter	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
600 minute winter	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
600 minute winter	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
600 minute winter	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
600 minute winter	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
600 minute winter	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
600 minute winter	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
600 minute winter	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
600 minute winter	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
600 minute winter	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
600 minute winter	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
600 minute winter	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
600 minute winter	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 100 year 720 minute summer. 960 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
720 minute summer	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
720 minute summer	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
720 minute summer	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
720 minute summer	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
720 minute summer	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
720 minute summer	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
720 minute summer	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
720 minute summer	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
720 minute summer	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
720 minute summer	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
720 minute summer	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
720 minute summer	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
720 minute summer	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
720 minute summer	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
720 minute summer	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
720 minute summer	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
720 minute summer	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
720 minute summer	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
720 minute summer	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
720 minute summer	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
720 minute summer	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
720 minute summer	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
720 minute summer	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
720 minute summer	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 100 year 720 minute winter. 960 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
720 minute winter	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
720 minute winter	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
720 minute winter	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
720 minute winter	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
720 minute winter	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
720 minute winter	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
720 minute winter	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
720 minute winter	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
720 minute winter	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
720 minute winter	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
720 minute winter	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
720 minute winter	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
720 minute winter	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
720 minute winter	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
720 minute winter	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
720 minute winter	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
720 minute winter	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
720 minute winter	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
720 minute winter	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
720 minute winter	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
720 minute winter	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
720 minute winter	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
720 minute winter	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
720 minute winter	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 100 year 960 minute summer. 1200 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
960 minute summer	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
960 minute summer	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
960 minute summer	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
960 minute summer	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
960 minute summer	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
960 minute summer	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
960 minute summer	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
960 minute summer	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
960 minute summer	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
960 minute summer	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
960 minute summer	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
960 minute summer	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
960 minute summer	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
960 minute summer	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
960 minute summer	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
960 minute summer	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
960 minute summer	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
960 minute summer	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
960 minute summer	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
960 minute summer	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
960 minute summer	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
960 minute summer	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
960 minute summer	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
960 minute summer	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 100 year 960 minute winter. 1200 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	F1	30	29.455	0.005	0.4	0.0008	0.0000	OK	1.000	F2	0.0	0.101	0.002	0.0006	
960 minute winter	F2	30	29.443	0.009	0.4	0.0014	0.0000	OK	1.001	F3	0.1	0.175	0.007	0.0102	
960 minute winter	F3	30	29.297	0.011	0.4	0.0018	0.0000	OK	1.002	F4	0.2	0.221	0.011	0.0015	
960 minute winter	F4	30	29.284	0.014	0.4	0.0022	0.0000	OK	1.003	F5	0.2	0.252	0.018	0.0188	
960 minute winter	F5	30	29.139	0.017	0.4	0.0027	0.0000	OK	1.004	F6	0.3	0.290	0.024	0.0023	
960 minute winter	F6	30	29.124	0.018	0.3	0.0029	0.0000	OK	1.005	F7	0.4	0.311	0.031	0.0342	
960 minute winter	F7	30	28.940	0.021	0.4	0.0234	0.0000	OK	1.006	F8	0.5	0.334	0.041	0.0455	
960 minute winter	F8	30	28.736	0.024	0.5	0.0267	0.0000	OK	1.007	F14	0.7	0.399	0.053	0.0493	
960 minute winter	F9	30	29.255	0.005	0.4	0.0009	0.0000	OK	2.000	F10	0.0	0.103	0.002	0.0008	
960 minute winter	F10	30	29.240	0.009	0.4	0.0014	0.0000	OK	2.001	F11	0.1	0.173	0.006	0.0072	
960 minute winter	F11	30	29.135	0.011	0.4	0.0018	0.0000	OK	2.002	F12	0.1	0.212	0.011	0.0019	
960 minute winter	F12	30	29.117	0.014	0.4	0.0022	0.0000	OK	2.003	F13	0.2	0.252	0.017	0.0172	
960 minute winter	F13	30	28.977	0.016	0.2	0.0180	0.0000	OK	2.004	F14	0.3	0.321	0.022	0.0050	
960 minute winter	F14	30	28.428	0.030	1.0	0.0335	0.0000	OK	1.008	F19	1.1	0.395	0.085	0.0888	
960 minute winter	F15	30	29.756	0.006	0.4	0.0009	0.0000	OK	3.000	F16	0.0	0.098	0.003	0.0010	
960 minute winter	F16	30	29.739	0.010	0.7	0.0016	0.0000	OK	3.001	F17	0.1	0.189	0.009	0.0124	
960 minute winter	F17	30	29.596	0.013	0.1	0.0021	0.0000	OK	3.002	F18	0.2	0.245	0.016	0.0169	
960 minute winter	F18	30	29.451	0.015	0.2	0.0025	0.0000	OK	3.003	F19	0.3	0.307	0.021	0.0066	
960 minute winter	F19	30	28.205	0.036	1.4	0.0408	0.0000	OK	1.009	F20	1.7	0.485	0.126	0.1496	
960 minute winter	F20	30	27.889	0.039	1.7	0.0442	0.0000	OK	1.010	F21	2.0	0.512	0.147	0.1655	
960 minute winter	F21	30	27.573	0.042	2.0	0.0472	0.0000	OK	1.011	F22	2.2	0.537	0.168	0.1797	
960 minute winter	F22	30	27.256	0.044	2.2	0.0497	0.0000	OK	1.012	F23	2.5	0.558	0.185	0.1482	
960 minute winter	F23	30	27.010	0.046	2.5	0.0515	0.0000	OK	1.013	F24	2.6	0.556	0.199	0.1594	
960 minute winter	F24	30	26.765	0.049	2.6	0.0552	0.0000	OK	1.014	C1	2.7	0.569	0.206	0.0248	3.1
960 minute winter	C1	30	26.724	0.046	2.7	0.0000	0.0000	OK							

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Results for 100 year 1440 minute summer. 1680 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	F1	60	29.454	0.004	0.2	0.0006	0.0000	OK	1.000	F2	0.0	0.077	0.001	0.0003	
1440 minute summer	F2	60	29.440	0.006	0.2	0.0009	0.0000	OK	1.001	F3	0.0	0.132	0.003	0.0051	
1440 minute summer	F3	60	29.293	0.007	0.2	0.0011	0.0000	OK	1.002	F4	0.1	0.162	0.004	0.0007	
1440 minute summer	F4	60	29.279	0.009	0.2	0.0014	0.0000	OK	1.003	F5	0.1	0.192	0.007	0.0092	
1440 minute summer	F5	60	29.132	0.010	0.2	0.0016	0.0000	OK	1.004	F6	0.1	0.217	0.009	0.0011	
1440 minute summer	F6	60	29.117	0.011	0.1	0.0018	0.0000	OK	1.005	F7	0.2	0.229	0.011	0.0169	
1440 minute summer	F7	60	28.932	0.013	0.2	0.0145	0.0000	OK	1.006	F8	0.2	0.245	0.015	0.0225	
1440 minute summer	F8	60	28.727	0.015	0.2	0.0165	0.0000	OK	1.007	F14	0.3	0.298	0.019	0.0238	
1440 minute summer	F9	60	29.254	0.004	0.2	0.0006	0.0000	OK	2.000	F10	0.0	0.079	0.001	0.0004	
1440 minute summer	F10	60	29.237	0.006	0.2	0.0009	0.0000	OK	2.001	F11	0.0	0.129	0.002	0.0037	
1440 minute summer	F11	60	29.131	0.007	0.2	0.0011	0.0000	OK	2.002	F12	0.1	0.157	0.004	0.0010	
1440 minute summer	F12	60	29.112	0.009	0.2	0.0014	0.0000	OK	2.003	F13	0.1	0.189	0.006	0.0088	
1440 minute summer	F13	60	28.971	0.010	0.1	0.0114	0.0000	OK	2.004	F14	0.1	0.247	0.008	0.0024	
1440 minute summer	F14	60	28.416	0.018	0.4	0.0205	0.0000	OK	1.008	F19	0.4	0.292	0.031	0.0436	
1440 minute summer	F15	60	29.754	0.004	0.3	0.0006	0.0000	OK	3.000	F16	0.0	0.082	0.001	0.0006	
1440 minute summer	F16	60	29.736	0.007	0.4	0.0011	0.0000	OK	3.001	F17	0.0	0.145	0.004	0.0066	
1440 minute summer	F17	60	29.592	0.009	0.0	0.0014	0.0000	OK	3.002	F18	0.1	0.185	0.006	0.0090	
1440 minute summer	F18	60	29.446	0.010	0.1	0.0016	0.0000	OK	3.003	F19	0.1	0.240	0.008	0.0033	
1440 minute summer	F19	60	28.191	0.022	0.5	0.0249	0.0000	OK	1.009	F20	0.6	0.361	0.046	0.0731	
1440 minute summer	F20	60	27.874	0.024	0.6	0.0268	0.0000	OK	1.010	F21	0.7	0.381	0.053	0.0807	
1440 minute summer	F21	60	27.556	0.025	0.7	0.0285	0.0000	OK	1.011	F22	0.8	0.400	0.061	0.0873	
1440 minute summer	F22	60	27.238	0.026	0.8	0.0299	0.0000	OK	1.012	F23	0.9	0.414	0.067	0.0721	
1440 minute summer	F23	60	26.991	0.027	0.9	0.0311	0.0000	OK	1.013	F24	1.0	0.418	0.072	0.0773	
1440 minute summer	F24	60	26.745	0.029	1.0	0.0329	0.0000	OK	1.014	C1	1.0	0.433	0.076	0.0121	2.1
1440 minute summer	C1	60	26.706	0.028	1.0	0.0000	0.0000	OK							

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Results for 100 year 1440 minute winter. 1680 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	F1	60	29.454	0.004	0.2	0.0006	0.0000	OK	1.000	F2	0.0	0.077	0.001	0.0003	
1440 minute winter	F2	60	29.440	0.006	0.2	0.0009	0.0000	OK	1.001	F3	0.0	0.132	0.003	0.0051	
1440 minute winter	F3	60	29.293	0.007	0.2	0.0011	0.0000	OK	1.002	F4	0.1	0.162	0.004	0.0007	
1440 minute winter	F4	60	29.279	0.009	0.2	0.0014	0.0000	OK	1.003	F5	0.1	0.192	0.007	0.0092	
1440 minute winter	F5	60	29.132	0.010	0.2	0.0016	0.0000	OK	1.004	F6	0.1	0.217	0.009	0.0011	
1440 minute winter	F6	60	29.117	0.011	0.1	0.0018	0.0000	OK	1.005	F7	0.2	0.229	0.011	0.0169	
1440 minute winter	F7	60	28.932	0.013	0.2	0.0145	0.0000	OK	1.006	F8	0.2	0.245	0.015	0.0225	
1440 minute winter	F8	60	28.727	0.015	0.2	0.0165	0.0000	OK	1.007	F14	0.3	0.298	0.019	0.0238	
1440 minute winter	F9	60	29.254	0.004	0.2	0.0006	0.0000	OK	2.000	F10	0.0	0.079	0.001	0.0004	
1440 minute winter	F10	60	29.237	0.006	0.2	0.0009	0.0000	OK	2.001	F11	0.0	0.129	0.002	0.0037	
1440 minute winter	F11	60	29.131	0.007	0.2	0.0011	0.0000	OK	2.002	F12	0.1	0.157	0.004	0.0010	
1440 minute winter	F12	60	29.112	0.009	0.2	0.0014	0.0000	OK	2.003	F13	0.1	0.189	0.006	0.0088	
1440 minute winter	F13	60	28.971	0.010	0.1	0.0114	0.0000	OK	2.004	F14	0.1	0.247	0.008	0.0024	
1440 minute winter	F14	60	28.416	0.018	0.4	0.0205	0.0000	OK	1.008	F19	0.4	0.292	0.031	0.0436	
1440 minute winter	F15	60	29.754	0.004	0.3	0.0006	0.0000	OK	3.000	F16	0.0	0.082	0.001	0.0006	
1440 minute winter	F16	60	29.736	0.007	0.4	0.0011	0.0000	OK	3.001	F17	0.0	0.145	0.004	0.0066	
1440 minute winter	F17	60	29.592	0.009	0.0	0.0014	0.0000	OK	3.002	F18	0.1	0.185	0.006	0.0090	
1440 minute winter	F18	60	29.446	0.010	0.1	0.0016	0.0000	OK	3.003	F19	0.1	0.240	0.008	0.0033	
1440 minute winter	F19	60	28.191	0.022	0.5	0.0249	0.0000	OK	1.009	F20	0.6	0.361	0.046	0.0731	
1440 minute winter	F20	60	27.874	0.024	0.6	0.0268	0.0000	OK	1.010	F21	0.7	0.381	0.053	0.0807	
1440 minute winter	F21	60	27.556	0.025	0.7	0.0285	0.0000	OK	1.011	F22	0.8	0.400	0.061	0.0873	
1440 minute winter	F22	60	27.238	0.026	0.8	0.0299	0.0000	OK	1.012	F23	0.9	0.414	0.067	0.0721	
1440 minute winter	F23	60	26.991	0.027	0.9	0.0311	0.0000	OK	1.013	F24	1.0	0.418	0.072	0.0773	
1440 minute winter	F24	60	26.745	0.029	1.0	0.0329	0.0000	OK	1.014	C1	1.0	0.433	0.076	0.0121	2.1
1440 minute winter	C1	60	26.706	0.028	1.0	0.0000	0.0000	OK							

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Adoptable						
Max Width (mm)	**Diameter (mm)**	**Width (mm)**		**Max Depth (m)**	**Diameter (mm)**	**Width (mm)**
225	450			1.500	1050	
374	1200			99.999	1200	
499	1350					
749	1500					
900	1800					
>900	Link+900 mm					
Plastic						
Max Width (mm)	**Diameter (mm)**	**Width (mm)**		**Max Depth (m)**	**Diameter (mm)**	**Width (mm)**
225	450			1.500	450	
>225	Link+225 mm					

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Circular						
Shape	Circular		**Dia (mm)**			
Barrels	1		150			
Height (mm)			225			
Width (mm)						
Side Slope (1:X)						
Auto Increment (mm)	75					
Preferred Cover (m)						
Steep Slope (1:X)						
Follow Ground	x					
Velocity	Colebrook-White					
ks (mm) / n	1.500					

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Drainage Design Report

Flow

v8.1

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Network	Storm Network
Filename	P:\Projects\86 - Benell Investments\86-06 Everill Gate, Barnsley\Design\Flow\SW Drainage Design phase 1 pond 3 discharge rate - Current.pfd
Username	Kate Abbott (katie.abbott@beamconsulting.co.uk)
Last analysed	04/03/2020 10:12:06
Report produced on	20/03/2020 10:12:37

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Rainfall Methodology	FSR
Return Period (years)	100
Additional Flow (%)	100
FSR Region	England and Wales
M5-60 (mm)	19.000
Ratio-R	0.350
CV	0.750
Time of Entry (mins)	1.00
Maximum Time of Concentration (mins)	30.00
Maximum Rainfall (mm/hr)	123.0
Minimum Velocity (m/s)	1.00
Connection Type	Level Soffits
Minimum Backdrop Height (m)	0.200
Preferred Cover Depth (m)	0.600
Include Intermediate Ground	✓
Enforce best practice design rules	✓

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	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
✓	S1	0.009	1.00		30.500	Manhole	Plastic	450		440870.549	402585.272	0.750	
✓	S2	0.009	1.00		30.500	Manhole	Plastic	450		440872.891	402589.141	0.795	
✓	S3	0.036	1.00		30.500	Manhole	Adoptable	1200		440908.064	402597.788	1.229	
✓	S4	0.009	1.00		30.500	Manhole	Adoptable	1200		440943.237	402606.435	1.518	
✓	S5	0.009	1.00		30.500	Manhole	Adoptable	1200		440947.662	402603.756	1.540	
✓	S6	0.018	1.00		30.500	Manhole	Plastic	450		440875.926	402569.235	0.750	
✓	S7	0.036	1.00		30.500	Manhole	Plastic	1200		440913.751	402578.534	1.211	
✓	S8	0.018	1.00		30.500	Manhole	Adoptable	1500		440951.577	402587.832	1.607	
✓	S9	0.039	1.00		30.400	Manhole	Adoptable	1200		440953.129	402606.793	1.125	
✓	S10	0.094	1.00		30.200	Manhole	Adoptable	1200		440894.218	402563.423	1.200	
✓	S11	0.049	1.00		30.200	Manhole	Adoptable	1500		440920.538	402569.894	1.385	
✓	S12	0.051	1.00		30.200	Manhole	Adoptable	1500		440946.857	402576.364	1.545	
✓	S13	0.031	1.00		30.200	Manhole	Adoptable	2100		440959.825	402579.552	2.028	
✓	S14	0.010	1.00		29.800	Manhole	Adoptable	1200		440909.955	402561.371	1.050	
✓	S15	0.021	1.00		29.800	Manhole	Adoptable	1200		440932.658	402566.952	1.357	
✓	S16	0.010	1.00		29.900	Manhole	Adoptable	1200		440955.361	402572.533	1.595	
✓	S17	0.010	1.00		29.900	Manhole	Plastic	450		440924.439	402541.835	0.750	
✓	S18	0.021	1.00		29.900	Manhole	Plastic	1200		440942.577	402546.294	1.011	
✓	S19	0.010	1.00		29.900	Manhole	Adoptable	2400		440960.716	402550.753	2.703	
✓	S20	0.025	1.00		30.200	Manhole	Adoptable	2400		440966.258	402553.385	3.009	
✓	S21	0.018	1.00		30.850	Manhole	Plastic	450		441040.974	402628.109	0.750	
✓	S22	0.036	1.00		30.850	Manhole	Plastic	1200		441006.852	402619.720	1.174	
✓	S23	0.018	1.00		30.720	Manhole	Plastic	1500		440972.730	402611.332	1.776	
✓	S24	0.036	1.00		31.050	Manhole	Adoptable	1200		441049.578	402604.339	1.125	
✓	S25	0.072	1.00		31.000	Manhole	Adoptable	1500		441017.575	402596.472	1.873	
✓	S27	0.043	1.00		30.800	Manhole	Adoptable	1200		440970.583	402605.627	1.125	
✓	S26				30.850	Manhole	Plastic	1500		440978.730	402586.923	2.036	
✓	S28	0.038	1.00		30.700	Manhole	Adoptable	1200		440978.395	402573.849	1.293	
✓	S29				30.700	Manhole	Adoptable	1200		440980.197	402566.520	1.324	
✓	S30	0.011	1.00		30.850	Manhole	Plastic	450		441052.552	402581.011	0.750	

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✓	S31	0.036	1.00		30.850	Manhole	Plastic	1200		441018.430	402572.622	1.604
✓	S32	0.018	1.00		30.850	Manhole	Plastic	1200		440984.300	402564.265	2.306
✓	S33	0.060	1.00		30.900	Manhole	Adoptable	2400		440985.794	402558.187	3.729
✓	S34	0.050	1.00		30.900	Manhole	Adoptable	2400		441036.610	402570.679	3.781
✓	S35	0.031	1.00		30.500	Manhole	Adoptable	1200		441058.851	402619.476	1.125
✓	S36	0.031	1.00		30.500	Manhole	Adoptable	1200		441081.029	402609.195	1.344
✓	S37	0.088	1.00		30.600	Manhole	Adoptable	1500		441083.374	402599.657	1.560
✓	S38				30.700	Manhole	Adoptable	1500		441085.176	402592.327	1.684
✓	S39	0.033	1.00		30.900	Manhole	Adoptable	2400		441087.426	402583.172	3.833
✓	S40	0.003	1.00		30.900	Manhole	Adoptable	2400		441107.694	402588.154	3.854
✓	S41				30.880	Manhole	Adoptable	2400		441124.977	402592.403	3.852
✓	S42			10.2	30.800	Manhole	Adoptable	1200		441152.930	402579.445	3.954
✓	S43				30.400	Manhole	Adoptable	1200		441186.970	402563.970	3.775
✓	C1				30.400	Manhole	Adoptable	1200		441190.646	402564.311	3.797
✓	EXG				30.400	Manhole	Adoptable	1200		441198.108	402570.626	4.000

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	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)
✓	1.000	S1	S2	4.523	0.600	Colebrook-White	29.750	29.705	0.045	100.5	150	Circular	1.08	123.0					
✓	1.001	S2	S3	36.220	0.600	Colebrook-White	29.705	29.346	0.359	100.9	150	Circular	1.68	123.0					
?	1.002	S3	S4	36.220	0.600	Colebrook-White	29.271	29.057	0.214	169.3	225	Circular	2.28	123.0					
?	1.003	S4	S5	5.173	0.600	Colebrook-White	28.982	28.960	0.022	235.1	300	Circular	2.37	123.0					
?	1.004	S5	S8	16.398	0.600	Colebrook-White	28.960	28.893	0.067	244.7	300	Circular	2.64	123.0					
✓	2.000	S6	S7	38.951	0.600	Colebrook-White	29.750	29.364	0.386	100.9	150	Circular	1.65	123.0					
?	2.001	S7	S8	38.952	0.600	Colebrook-White	29.289	28.968	0.321	121.3	225	Circular	2.20	123.0					
?	1.005	S8	S13	11.687	0.600	Colebrook-White	28.893	28.772	0.121	96.6	300	Circular	2.76	123.0					
✓	4.000	S9	S13	28.052	0.600	Colebrook-White	29.275	29.075	0.200	140.3	225	Circular	1.42	123.0					
✓	3.000	S10	S11	27.104	0.600	Colebrook-White	29.000	28.815	0.185	146.5	300	Circular	1.35	123.0					
✓	3.001	S11	S12	27.103	0.600	Colebrook-White	28.815	28.730	0.085	318.9	375	Circular	1.80	123.0					
✓	3.002	S12	S13	13.354	0.600	Colebrook-White	28.655	28.622	0.033	404.7	450	Circular	2.02	123.0					
✓	1.006	S13	S20	26.946	0.600	Colebrook-White	28.172	28.144	0.028	962.4	900	Circular	3.21	123.0					
✓	5.000	S14	S15	23.379	0.600	Colebrook-White	28.750	28.518	0.232	100.8	150	Circular	1.39	123.0					
?	5.001	S15	S16	23.379	0.600	Colebrook-White	28.443	28.305	0.138	169.4	225	Circular	1.78	123.0					
?	5.002	S16	S19	22.429	0.600	Colebrook-White	28.305	28.172	0.133	168.6	225	Circular	2.15	123.0					
✓	6.000	S17	S18	18.678	0.600	Colebrook-White	29.150	28.964	0.186	100.4	150	Circular	1.31	123.0					
✓	6.001	S18	S19	18.679	0.600	Colebrook-White	28.889	28.779	0.110	169.8	225	Circular	1.62	123.0					
?	5.003	S19	S20	6.135	0.600	Colebrook-White	27.197	27.191	0.006	1022.5	1500	Circular	2.23	123.0					
?	1.007	S20	S33	20.118	0.600	Colebrook-White	27.191	27.171	0.020	1005.9	1500	Circular	3.46	123.0					
✓	7.000	S21	S22	35.138	0.600	Colebrook-White	30.100	29.751	0.349	100.7	150	Circular	1.58	123.0					
✓	7.001	S22	S23	35.138	0.600	Colebrook-White	29.676	29.469	0.207	169.7	225	Circular	2.17	123.0					
?	7.002	S23	S26	25.136	0.600	Colebrook-White	28.944	28.814	0.130	193.4	450	Circular	2.46	123.0					
?	7.003	S26	S32	23.333	0.600	Colebrook-White	28.814	28.694	0.120	194.4	450	Circular	2.73	123.0					
✓	8.000	S24	S25	32.956	0.600	Colebrook-White	29.925	29.731	0.194	169.9	225	Circular	1.55	123.0					
?	8.001	S25	S26	40.001	0.600	Colebrook-White	29.127	28.814	0.313	127.8	450	Circular	1.92	123.0					
✓	10.000	S27	S28	32.724	0.600	Colebrook-White	29.675	29.482	0.193	169.6	225	Circular	1.54	123.0					
✓	10.001	S28	S29	7.547	0.600	Colebrook-White	29.407	29.376	0.031	243.5	300	Circular	1.67	123.0					
✓	10.002	S29	S32	4.682	0.600	Colebrook-White	29.376	29.356	0.020	234.1	300	Circular	1.75	123.0					
✓	9.000	S30	S31	35.138	0.600	Colebrook-White	30.100	29.751	0.349	100.7	150	Circular	1.58	123.0					
?	9.001	S31	S32	35.138	0.600	Colebrook-White	29.246	28.919	0.327	107.5	225	Circular	2.05	123.0					
?	7.004	S32	S33	6.259	0.600	Colebrook-White	28.544	28.533	0.011	569.0	600	Circular	2.83	123.0					
?	1.008	S33	S34	52.329	0.600	Colebrook-White	27.171	27.119	0.052	1006.3	1500	Circular	4.11	123.0					
?	1.009	S34	S39	52.329	0.600	Colebrook-White	27.119	27.067	0.052	1006.3	1500	Circular	4.76	123.0					
✓	11.000	S35	S36	24.445	0.600	Colebrook-White	29.375	29.231	0.144	169.8	225	Circular	1.41	123.0					
✓	11.001	S36	S37	9.822	0.600	Colebrook-White	29.156	29.115	0.041	239.6	300	Circular	1.57	123.0					
?	11.002	S37	S38	7.548	0.600	Colebrook-White	29.040	29.016	0.024	314.5	375	Circular	1.69	123.0					
?	11.003	S38	S39	9.427	0.600	Colebrook-White	29.016	28.986	0.030	314.2	375	Circular	1.85	123.0					
?	1.010	S39	S40	20.871	0.600	Colebrook-White	27.067	27.046	0.021	993.9	1500	Circular	5.01	123.0					
?	1.011	S40	S41	17.798	0.600	Colebrook-White	27.046	27.028	0.018	988.8	1500	Circular	5.23	123.0					
?	1.012	S41	S42	30.810	0.600	Colebrook-White	27.028	26.846	0.182	169.3	225	Circular	5.75	1.0					
?	1.013	S42	S43	37.392	0.600	Colebrook-White	26.846	26.625	0.221	169.2	225	Circular	6.37	1.0					
?	1.014	S43	C1	3.692	0.600	Colebrook-White	26.625	26.603	0.022	167.8	225	Circular	6.43	1.0					
?	1.015	C1	EXG	9.776	0.600	Colebrook-White	26.603	26.400	0.203	48.2	225	Circular	6.52	1.0					

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	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
✓	1.000	S1	S2	1.002	17.7	6.0	0.600	0.645	0.600	0.645	0.009	0.0	60	0.906	
✓	1.001	S2	S3	1.000	17.7	12.0	0.645	1.004	0.645	1.004	0.018	0.0	91	1.073	
?	1.002	S3	S4	1.002	39.8	36.0	1.004	1.218	1.004	1.218	0.054	0.0	168	1.130	Downstream Depth is more than twice the specified minimum
?	1.003	S4	S5	1.021	72.2	42.0	1.218	1.240	1.218	1.240	0.063	0.0	164	1.058	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	1.004	S5	S8	1.000	70.7	48.0	1.240	1.307	1.240	1.307	0.072	0.0	181	1.072	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
✓	2.000	S6	S7	1.000	17.7	12.0	0.600	0.986	0.600	0.986	0.018	0.0	91	1.073	
?	2.001	S7	S8	1.185	47.1	36.0	0.986	1.307	0.986	1.307	0.054	0.0	147	1.301	Fall increased to remove backdrop | Downstream Depth is more than twice the specified minimum
?	1.005	S8	S13	1.600	113.1	96.0	1.307	1.128	1.128	1.307	0.144	0.0	213	1.787	Fall increased to remove backdrop | Upstream Depth is more than twice the specified minimum
✓	4.000	S9	S13	1.102	43.8	26.0	0.900	0.900	0.900	0.900	0.039	0.0	125	1.149	
✓	3.000	S10	S11	1.297	91.6	62.7	0.900	1.085	0.900	1.085	0.094	0.0	183	1.392	
✓	3.001	S11	S12	1.009	111.4	95.3	1.010	1.095	1.010	1.095	0.143	0.0	268	1.129	
✓	3.002	S12	S13	1.004	159.7	129.4	1.095	1.128	1.095	1.128	0.194	0.0	309	1.113	
✓	1.006	S13	S20	1.001	637.1	272.0	1.128	1.156	1.128	1.156	0.408	0.0	410	0.964	
✓	5.000	S14	S15	1.001	17.7	6.7	0.900	1.132	0.900	1.132	0.010	0.0	64	0.930	
?	5.001	S15	S16	1.001	39.8	20.7	1.132	1.370	1.132	1.370	0.031	0.0	115	1.009	Downstream Depth is more than twice the specified minimum
?	5.002	S16	S19	1.004	39.9	27.3	1.370	1.503	1.370	1.503	0.041	0.0	137	1.078	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
✓	6.000	S17	S18	1.002	17.7	6.7	0.600	0.786	0.600	0.786	0.010	0.0	64	0.931	
✓	6.001	S18	S19	1.000	39.8	20.7	0.786	0.896	0.786	0.896	0.031	0.0	115	1.008	
?	5.003	S19	S20	1.333	2354.8	54.7	1.203	1.509	1.203	1.509	0.082	0.0	154	0.574	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	1.007	S20	S33	1.344	2374.5	343.4	1.509	2.229	1.509	2.229	0.515	0.0	380	0.973	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
✓	7.000	S21	S22	1.001	17.7	12.0	0.600	0.949	0.600	0.949	0.018	0.0	91	1.074	
✓	7.001	S22	S23	1.000	39.8	36.0	0.949	1.026	0.949	1.026	0.054	0.0	168	1.129	
?	7.002	S23	S26	1.458	231.9	48.0	1.326	1.586	1.326	1.586	0.072	0.0	138	1.161	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	7.003	S26	S32	1.454	231.3	120.0	1.586	1.706	1.586	1.706	0.180	0.0	230	1.467	Fall increased to remove backdrop | Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
✓	8.000	S24	S25	1.000	39.8	24.0	0.900	1.044	0.900	1.044	0.036	0.0	126	1.045	
?	8.001	S25	S26	1.797	285.7	72.0	1.423	1.586	1.423	1.586	0.108	0.0	153	1.507	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
✓	10.000	S27	S28	1.001	39.8	28.7	0.900	0.993	0.900	0.993	0.043	0.0	142	1.088	
✓	10.001	S28	S29	1.003	70.9	54.0	0.993	1.024	0.993	1.024	0.081	0.0	197	1.101	
✓	10.002	S29	S32	1.023	72.3	54.0	1.024	1.194	1.024	1.194	0.081	0.0	194	1.118	
✓	9.000	S30	S31	1.001	17.7	7.3	0.600	0.949	0.600	0.949	0.011	0.0	67	0.954	
?	9.001	S31	S32	1.261	50.1	31.3	1.379	1.706	1.379	1.706	0.047	0.0	129	1.327	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	7.004	S32	S33	1.013	286.6	217.4	1.706	1.767	1.706	1.767	0.326	0.0	392	1.110	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	1.008	S33	S34	1.343	2373.9	600.8	2.229	2.281	2.229	2.281	0.901	0.0	511	1.132	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	1.009	S34	S39	1.343	2373.9	634.1	2.281	2.333	2.281	2.333	0.951	0.0	526	1.147	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
✓	11.000	S35	S36	1.000	39.8	20.7	0.900	1.044	0.900	1.044	0.031	0.0	115	1.008	
✓	11.001	S36	S37	1.011	71.5	41.3	1.044	1.185	1.044	1.185	0.062	0.0	164	1.046	
?	11.002	S37	S38	1.016	112.2	100.0	1.185	1.309	1.185	1.309	0.150	0.0	277	1.143	Downstream Depth is more than twice the specified minimum
?	11.003	S38	S39	1.016	112.3	100.0	1.309	1.539	1.309	1.539	0.150	0.0	277	1.143	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	1.010	S39	S40	1.352	2388.9	756.1	2.333	2.354	2.333	2.354	1.134	0.0	577	1.207	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	1.011	S40	S41	1.355	2395.1	758.1	2.354	2.352	2.352	2.354	1.137	0.0	577	1.210	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	1.012	S41	S42	1.002	39.8	6.2	3.627	3.729	3.627	3.729	1.137	0.0	59	0.729	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	1.013	S42	S43	1.002	39.8	26.6	3.729	3.550	3.550	3.729	1.137	10.2	135	1.072	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	1.014	S43	C1	1.006	40.0	26.6	3.550	3.572	3.550	3.572	1.137	10.2	134	1.074	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum
?	1.015	C1	EXG	1.889	75.1	26.6	3.572	3.775	3.572	3.775	1.137	10.2	92	1.727	Upstream Depth is more than twice the specified minimum | Downstream Depth is more than twice the specified minimum

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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
1.000	4.523	100.5	150	Circular	30.500	29.750	0.600	30.500	29.705	0.645	S1	450		Manhole	Plastic	S2	450		Manhole	Plastic
1.001	36.220	100.9	150	Circular	30.500	29.705	0.645	30.500	29.346	1.004	S2	450		Manhole	Plastic	S3	1200		Manhole	Adoptable
1.002	36.220	169.3	225	Circular	30.500	29.271	1.004	30.500	29.057	1.218	S3	1200		Manhole	Adoptable	S4	1200		Manhole	Adoptable
1.003	5.173	235.1	300	Circular	30.500	28.982	1.218	30.500	28.960	1.240	S4	1200		Manhole	Adoptable	S5	1200		Manhole	Adoptable
1.004	16.398	244.7	300	Circular	30.500	28.960	1.240	30.500	28.893	1.307	S5	1200		Manhole	Adoptable	S8	1500		Manhole	Adoptable
2.000	38.951	100.9	150	Circular	30.500	29.750	0.600	30.500	29.364	0.986	S6	450		Manhole	Plastic	S7	1200		Manhole	Plastic
2.001	38.952	121.3	225	Circular	30.500	29.289	0.986	30.500	28.968	1.307	S7	1200		Manhole	Plastic	S8	1500		Manhole	Adoptable
1.005	11.687	96.6	300	Circular	30.500	28.893	1.307	30.200	28.772	1.128	S8	1500		Manhole	Adoptable	S13	2100		Manhole	Adoptable
4.000	28.052	140.3	225	Circular	30.400	29.275	0.900	30.200	29.075	0.900	S9	1200		Manhole	Adoptable	S13	2100		Manhole	Adoptable
3.000	27.104	146.5	300	Circular	30.200	29.000	0.900	30.200	28.815	1.085	S10	1200		Manhole	Adoptable	S11	1500		Manhole	Adoptable
3.001	27.103	318.9	375	Circular	30.200	28.815	1.010	30.200	28.730	1.095	S11	1500		Manhole	Adoptable	S12	1500		Manhole	Adoptable
3.002	13.354	404.7	450	Circular	30.200	28.655	1.095	30.200	28.622	1.128	S12	1500		Manhole	Adoptable	S13	2100		Manhole	Adoptable
1.006	26.946	962.4	900	Circular	30.200	28.172	1.128	30.200	28.144	1.156	S13	2100		Manhole	Adoptable	S20	2400		Manhole	Adoptable
5.000	23.379	100.8	150	Circular	29.800	28.750	0.900	29.800	28.518	1.132	S14	1200		Manhole	Adoptable	S15	1200		Manhole	Adoptable
5.001	23.379	169.4	225	Circular	29.800	28.443	1.132	29.900	28.305	1.370	S15	1200		Manhole	Adoptable	S16	1200		Manhole	Adoptable
5.002	22.429	168.6	225	Circular	29.900	28.305	1.370	29.900	28.172	1.503	S16	1200		Manhole	Adoptable	S19	2400		Manhole	Adoptable
6.000	18.678	100.4	150	Circular	29.900	29.150	0.600	29.900	28.964	0.786	S17	450		Manhole	Plastic	S18	1200		Manhole	Plastic
6.001	18.679	169.8	225	Circular	29.900	28.889	0.786	29.900	28.779	0.896	S18	1200		Manhole	Plastic	S19	2400		Manhole	Adoptable
5.003	6.135	1022.5	1500	Circular	29.900	27.197	1.203	30.200	27.191	1.509	S19	2400		Manhole	Adoptable	S20	2400		Manhole	Adoptable
1.007	20.118	1005.9	1500	Circular	30.200	27.191	1.509	30.900	27.171	2.229	S20	2400		Manhole	Adoptable	S33	2400		Manhole	Adoptable
7.000	35.138	100.7	150	Circular	30.850	30.100	0.600	30.850	29.751	0.949	S21	450		Manhole	Plastic	S22	1200		Manhole	Plastic
7.001	35.138	169.7	225	Circular	30.850	29.676	0.949	30.720	29.469	1.026	S22	1200		Manhole	Plastic	S23	1500		Manhole	Plastic
7.002	25.136	193.4	450	Circular	30.720	28.944	1.326	30.850	28.814	1.586	S23	1500		Manhole	Plastic	S26	1500		Manhole	Plastic
7.003	23.333	194.4	450	Circular	30.850	28.814	1.586	30.850	28.694	1.706	S26	1500		Manhole	Plastic	S32	1200		Manhole	Plastic
8.000	32.956	169.9	225	Circular	31.050	29.925	0.900	31.000	29.731	1.044	S24	1200		Manhole	Adoptable	S25	1500		Manhole	Adoptable
8.001	40.001	127.8	450	Circular	31.000	29.127	1.423	30.850	28.814	1.586	S25	1500		Manhole	Adoptable	S26	1500		Manhole	Plastic
10.000	32.724	169.6	225	Circular	30.800	29.675	0.900	30.700	29.482	0.993	S27	1200		Manhole	Adoptable	S28	1200		Manhole	Adoptable
10.001	7.547	243.5	300	Circular	30.700	29.407	0.993	30.700	29.376	1.024	S28	1200		Manhole	Adoptable	S29	1200		Manhole	Adoptable
10.002	4.682	234.1	300	Circular	30.700	29.376	1.024	30.850	29.356	1.194	S29	1200		Manhole	Adoptable	S32	1200		Manhole	Plastic
9.000	35.138	100.7	150	Circular	30.850	30.100	0.600	30.850	29.751	0.949	S30	450		Manhole	Plastic	S31	1200		Manhole	Plastic
9.001	35.138	107.5	225	Circular	30.850	29.246	1.379	30.850	28.919	1.706	S31	1200		Manhole	Plastic	S32	1200		Manhole	Plastic
7.004	6.259	569.0	600	Circular	30.850	28.544	1.706	30.900	28.533	1.767	S32	1200		Manhole	Plastic	S33	2400		Manhole	Adoptable
1.008	52.329	1006.3	1500	Circular	30.900	27.171	2.229	30.900	27.119	2.281	S33	2400		Manhole	Adoptable	S34	2400		Manhole	Adoptable
1.009	52.329	1006.3	1500	Circular	30.900	27.119	2.281	30.900	27.067	2.333	S34	2400		Manhole	Adoptable	S39	2400		Manhole	Adoptable
11.000	24.445	169.8	225	Circular	30.500	29.375	0.900	30.500	29.231	1.044	S35	1200		Manhole	Adoptable	S36	1200		Manhole	Adoptable
11.001	9.822	239.6	300	Circular	30.500	29.156	1.044	30.600	29.115	1.185	S36	1200		Manhole	Adoptable	S37	1500		Manhole	Adoptable
11.002	7.548	314.5	375	Circular	30.600	29.040	1.185	30.700	29.016	1.309	S37	1500		Manhole	Adoptable	S38	1500		Manhole	Adoptable
11.003	9.427	314.2	375	Circular	30.700	29.016	1.309	30.900	28.986	1.539	S38	1500		Manhole	Adoptable	S39	2400		Manhole	Adoptable
1.010	20.871	993.9	1500	Circular	30.900	27.067	2.333	30.900	27.046	2.354	S39	2400		Manhole	Adoptable	S40	2400		Manhole	Adoptable
1.011	17.798	988.8	1500	Circular	30.900	27.046	2.354	30.880	27.028	2.352	S40	2400		Manhole	Adoptable	S41	2400		Manhole	Adoptable
1.012	30.810	169.3	225	Circular	30.880	27.028	3.627	30.800	26.846	3.729	S41	2400		Manhole	Adoptable	S42	1200		Manhole	Adoptable
1.013	37.392	169.2	225	Circular	30.800	26.846	3.729	30.400	26.625	3.550	S42	1200		Manhole	Adoptable	S43	1200		Manhole	Adoptable
1.014	3.692	167.8	225	Circular	30.400	26.625	3.550	30.400	26.603	3.572	S43	1200		Manhole	Adoptable	C1	1200		Manhole	Adoptable
1.015	9.776	48.2	225	Circular	30.400	26.603	3.572	30.400	26.400	3.775	C1	1200		Manhole	Adoptable	EXG	1200		Manhole	Adoptable

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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
S1	440870.549	402585.272	30.500	0.750	450		Manhole	Plastic					
									0	1.000	29.750	150	Circular
S2	440872.891	402589.141	30.500	0.795	450		Manhole	Plastic	1	1.000	29.705	150	Circular
									0	1.001	29.705	150	Circular
S3	440908.064	402597.788	30.500	1.229	1200		Manhole	Adoptable	1	1.001	29.346	150	Circular
									0	1.002	29.271	225	Circular
S4	440943.237	402606.435	30.500	1.518	1200		Manhole	Adoptable	1	1.002	29.057	225	Circular
									0	1.003	28.982	300	Circular
S5	440947.662	402603.756	30.500	1.540	1200		Manhole	Adoptable	1	1.003	28.960	300	Circular
									0	1.004	28.960	300	Circular
S6	440875.926	402569.235	30.500	0.750	450		Manhole	Plastic					
									0	2.000	29.750	150	Circular
S7	440913.751	402578.534	30.500	1.211	1200		Manhole	Plastic	1	2.000	29.364	150	Circular
									0	2.001	29.289	225	Circular
S8	440951.577	402587.832	30.500	1.607	1500		Manhole	Adoptable	1	2.001	28.968	225	Circular
									2	1.004	28.893	300	Circular

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									0	1.005	28.893	300	Circular
S9	440953.129	402606.793	30.400	1.125	1200		Manhole	Adoptable					
									0	4.000	29.275	225	Circular
S10	440894.218	402563.423	30.200	1.200	1200		Manhole	Adoptable					
									0	3.000	29.000	300	Circular
S11	440920.538	402569.894	30.200	1.385	1500		Manhole	Adoptable	1	3.000	28.815	300	Circular
									0	3.001	28.815	375	Circular
S12	440946.857	402576.364	30.200	1.545	1500		Manhole	Adoptable	1	3.001	28.730	375	Circular
									0	3.002	28.655	450	Circular
S13	440959.825	402579.552	30.200	2.028	2100		Manhole	Adoptable	1	4.000	29.075	225	Circular
									2	3.002	28.622	450	Circular
									3	1.005	28.772	300	Circular
									0	1.006	28.172	900	Circular
S14	440909.955	402561.371	29.800	1.050	1200		Manhole	Adoptable					
									0	5.000	28.750	150	Circular
S15	440932.658	402566.952	29.800	1.357	1200		Manhole	Adoptable	1	5.000	28.518	150	Circular
									0	5.001	28.443	225	Circular
S16	440955.361	402572.533	29.900	1.595	1200		Manhole	Adoptable	1	5.001	28.305	225	Circular

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									0	5.002	28.305	225	Circular
S17	440924.439	402541.835	29.900	0.750	450		Manhole	Plastic					
									0	6.000	29.150	150	Circular
S18	440942.577	402546.294	29.900	1.011	1200		Manhole	Plastic	1	6.000	28.964	150	Circular
									0	6.001	28.889	225	Circular
S19	440960.716	402550.753	29.900	2.703	2400		Manhole	Adoptable	1	6.001	28.779	225	Circular
									2	5.002	28.172	225	Circular
									0	5.003	27.197	1500	Circular
S20	440966.258	402553.385	30.200	3.009	2400		Manhole	Adoptable	1	5.003	27.191	1500	Circular
									2	1.006	28.144	900	Circular
									0	1.007	27.191	1500	Circular
S21	441040.974	402628.109	30.850	0.750	450		Manhole	Plastic					
									0	7.000	30.100	150	Circular
S22	441006.852	402619.720	30.850	1.174	1200		Manhole	Plastic	1	7.000	29.751	150	Circular
									0	7.001	29.676	225	Circular
S23	440972.730	402611.332	30.720	1.776	1500		Manhole	Plastic	1	7.001	29.469	225	Circular
									0	7.002	28.944	450	Circular
S24	441049.578	402604.339	31.050	1.125	1200		Manhole	Adoptable					
									0	8.000	29.925	225	Circular

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S25	441017.575	402596.472	31.000	1.873	1500		Manhole	Adoptable	1	8.000	29.731	225	Circular
									0	8.001	29.127	450	Circular
S27	440970.583	402605.627	30.800	1.125	1200		Manhole	Adoptable					
									0	10.000	29.675	225	Circular
S26	440978.730	402586.923	30.850	2.036	1500		Manhole	Plastic	1	8.001	28.814	450	Circular
									2	7.002	28.814	450	Circular
									0	7.003	28.814	450	Circular
S28	440978.395	402573.849	30.700	1.293	1200		Manhole	Adoptable	1	10.000	29.482	225	Circular
									0	10.001	29.407	300	Circular
S29	440980.197	402566.520	30.700	1.324	1200		Manhole	Adoptable	1	10.001	29.376	300	Circular
									0	10.002	29.376	300	Circular
S30	441052.552	402581.011	30.850	0.750	450		Manhole	Plastic					
									0	9.000	30.100	150	Circular
S31	441018.430	402572.622	30.850	1.604	1200		Manhole	Plastic	1	9.000	29.751	150	Circular
									0	9.001	29.246	225	Circular
S32	440984.300	402564.265	30.850	2.306	1200		Manhole	Plastic	1	10.002	29.356	300	Circular
									2	9.001	28.919	225	Circular
									3	7.003	28.694	450	Circular
									0	7.004	28.544	600	Circular
S33	440985.794	402558.187	30.900	3.729	2400		Manhole	Adoptable	1	7.004	28.533	600	Circular

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									2	1.007	27.171	1500	Circular
									0	1.008	27.171	1500	Circular
S34	441036.610	402570.679	30.900	3.781	2400		Manhole	Adoptable	1	1.008	27.119	1500	Circular
									0	1.009	27.119	1500	Circular
S35	441058.851	402619.476	30.500	1.125	1200		Manhole	Adoptable					
									0	11.000	29.375	225	Circular
S36	441081.029	402609.195	30.500	1.344	1200		Manhole	Adoptable	1	11.000	29.231	225	Circular
									0	11.001	29.156	300	Circular
S37	441083.374	402599.657	30.600	1.560	1500		Manhole	Adoptable	1	11.001	29.115	300	Circular
									0	11.002	29.040	375	Circular
S38	441085.176	402592.327	30.700	1.684	1500		Manhole	Adoptable	1	11.002	29.016	375	Circular
									0	11.003	29.016	375	Circular
S39	441087.426	402583.172	30.900	3.833	2400		Manhole	Adoptable	1	11.003	28.986	375	Circular
									2	1.009	27.067	1500	Circular
									0	1.010	27.067	1500	Circular
S40	441107.694	402588.154	30.900	3.854	2400		Manhole	Adoptable	1	1.010	27.046	1500	Circular
									0	1.011	27.046	1500	Circular
S41	441124.977	402592.403	30.880	3.852	2400		Manhole	Adoptable	1	1.011	27.028	1500	Circular

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									0	1.012	27.028	225	Circular
S42	441152.930	402579.445	30.800	3.954	1200		Manhole	Adoptable	1	1.012	26.846	225	Circular
									0	1.013	26.846	225	Circular
S43	441186.970	402563.970	30.400	3.775	1200		Manhole	Adoptable	1	1.013	26.625	225	Circular
									0	1.014	26.625	225	Circular
C1	441190.646	402564.311	30.400	3.797	1200		Manhole	Adoptable	1	1.014	26.603	225	Circular
									0	1.015	26.603	225	Circular
EXG	441198.108	402570.626	30.400	4.000	1200		Manhole	Adoptable	1	1.015	26.400	225	Circular

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Rainfall Methodology	FSR		Return Period (years)	Climate Change (%)
FSR Region	England and Wales		2	0
M5-60 (mm)	19.000		30	30
Ratio-R	0.350		100	30
Summer CV	0.750			
Winter CV	0.840			
Analysis Speed	Normal			
Skip Steady State	x			
Drain Down Time (mins)	240			
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)				

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Hydro-Brake®												
Node	**Flap Valve**	**Online / Offline**	**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)**
S41	x	Online	✓		27.028	2.872	3.0	(CL) Minimise blockage risk	✓	CTL-SCL-0062-3000-2872-3000	0.075	1200

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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 (m²)	Inf. Area (m²)
S40	0.00000	0.00000	2.0	1.00	27.046	0	0.000	250.0	0.0
							3.700	375.0	0.0

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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							

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Node Size	✓
Node Losses	x
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)	0.600
Maximum Cover Depth (m)	4.000
Backdrops	✓
Minimum Backdrop Height (m)	0.200
Maximum Backdrop Height (m)	1.500
Full Bore Velocity	✓
Minimum Full Bore Velocity (m/s)	1.000
Maximum Full Bore Velocity (m/s)	3.000
Proportional Velocity	x
Return Period (years)	100
Minimum Proportional Velocity (m/s)	0.750
Maximum Proportional Velocity (m/s)	3.000
Surcharged Depth	✓
Return Period (years)	100
Maximum Surcharged Depth (m)	0.500
Flooding	✓
Return Period (years)	30
Discharge Rates	x
1 year (l/s)	
30 year (l/s)	
100 year (l/s)	
Discharge Volume	x

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100 year 360 minute (m³)	

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Summary
The network has been designed for a 1 in 100 year storm using FSR rainfall
It contains 45 nodes (1 outfall) and 44 links
The total impermeable area is 1.137 ha
Additional inflow of 10.2 also enters the network
1 online control has been defined
1 structure has been defined, providing 1102m³ of storage below the flood risk level
Infiltration has not been utilised
Simulations have been completed using FSR summer and winter storms from 15 to 1440 minute duration
Test Results
No manholes are smaller than that required by the library
The node losses test has not been completed
No circular links have diameters < 150mm
No links have lengths > 100.000m
No links have lengths that differ from their coordinated length by more than 1.000m
No links cross one or more other links
No links have cover depth outside the range 0.600-4.000m
No nodes have backdrops outside the range 0.200-1.500m
No links have full bore velocity outside the range 1.000-3.000m/s
The proportional velocity test has not been completed
No links have a surcharged depth greater than 0.500m during the 100 year return period
No nodes flood during the 30 year return period
The 1 year discharge rate test has not been completed
The 30 year discharge rate test has not been completed
The 100 year discharge rate test has not been completed
The discharge volume test has not been completed

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Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year +30% 15 minute summer	316.248	89.487
30 year +30% 15 minute winter	221.929	89.487
30 year +30% 30 minute summer	210.545	59.577
30 year +30% 30 minute winter	147.751	59.577
30 year +30% 60 minute summer	143.825	38.009
30 year +30% 60 minute winter	95.554	38.009
30 year +30% 120 minute summer	89.097	23.546
30 year +30% 120 minute winter	59.194	23.546
30 year +30% 180 minute summer	68.372	17.594
30 year +30% 180 minute winter	44.444	17.594
30 year +30% 240 minute summer	53.874	14.237
30 year +30% 240 minute winter	35.793	14.237
30 year +30% 360 minute summer	40.948	10.537
30 year +30% 360 minute winter	26.617	10.537
30 year +30% 480 minute summer	32.190	8.507
30 year +30% 480 minute winter	21.386	8.507
30 year +30% 600 minute summer	26.326	7.201
30 year +30% 600 minute winter	17.988	7.201
30 year +30% 720 minute summer	23.437	6.281
30 year +30% 720 minute winter	15.751	6.281
30 year +30% 960 minute summer	19.216	5.060
30 year +30% 960 minute winter	12.729	5.060
30 year +30% 1440 minute summer	13.903	3.726
30 year +30% 1440 minute winter	9.344	3.726
100 year +30% 15 minute summer	408.992	115.731
100 year +30% 15 minute winter	287.012	115.731
100 year +30% 30 minute summer	274.961	77.804
100 year +30% 30 minute winter	192.955	77.804
100 year +30% 60 minute summer	188.962	49.937

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100 year +30% 60 minute winter	125.542	49.937
100 year +30% 120 minute summer	117.136	30.956
100 year +30% 120 minute winter	77.823	30.956
100 year +30% 180 minute summer	89.604	23.058
100 year +30% 180 minute winter	58.245	23.058
100 year +30% 240 minute summer	70.295	18.577
100 year +30% 240 minute winter	46.702	18.577
100 year +30% 360 minute summer	53.067	13.656
100 year +30% 360 minute winter	34.495	13.656
100 year +30% 480 minute summer	41.525	10.974
100 year +30% 480 minute winter	27.588	10.974
100 year +30% 600 minute summer	33.832	9.254
100 year +30% 600 minute winter	23.116	9.254
100 year +30% 720 minute summer	30.023	8.046
100 year +30% 720 minute winter	20.177	8.046
100 year +30% 960 minute summer	24.484	6.447
100 year +30% 960 minute winter	16.219	6.447
100 year +30% 1440 minute summer	17.571	4.709
100 year +30% 1440 minute winter	11.809	4.709

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Results for 30 year +30% Critical Storm Duration. Lowest mass balance: 99.86%

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	S1	8	29.817	0.067	5.9	0.0107	0.0000	OK	1.000	S2	5.5	0.651	0.313	0.0385	
15 minute summer	S2	9	29.785	0.080	11.4	0.0127	0.0000	OK	1.001	S3	9.7	1.025	0.548	0.3422	
15 minute summer	S3	9	29.416	0.145	32.5	0.1639	0.0000	OK	1.002	S4	29.1	1.094	0.731	0.9639	
15 minute summer	S4	9	29.167	0.184	32.9	0.2087	0.0000	OK	1.003	S5	33.6	0.751	0.465	0.2341	
15 minute summer	S5	9	29.143	0.183	37.4	0.2072	0.0000	OK	1.004	S8	38.7	0.799	0.547	0.7926	
15 minute summer	S6	8	29.831	0.081	11.9	0.0129	0.0000	OK	2.000	S7	9.5	1.024	0.538	0.3673	
15 minute summer	S7	8	29.419	0.130	32.9	0.1473	0.0000	OK	2.001	S8	28.1	1.208	0.596	0.9050	
15 minute summer	S8	9	29.099	0.206	74.3	0.3642	0.0000	OK	1.005	S13	77.3	1.615	0.684	0.5590	
15 minute summer	S9	8	29.396	0.121	25.6	0.1367	0.0000	OK	4.000	S13	21.9	1.088	0.500	0.5794	
15 minute summer	S10	8	29.190	0.190	61.6	0.2147	0.0000	OK	3.000	S11	57.9	1.071	0.631	1.4556	
15 minute summer	S11	8	29.055	0.240	90.0	0.4240	0.0000	OK	3.001	S12	80.5	1.184	0.723	1.8432	
15 minute summer	S12	9	28.925	0.270	105.8	0.4778	0.0000	OK	3.002	S13	108.4	1.199	0.679	1.2069	
15 minute summer	S13	9	28.512	0.340	219.2	1.1767	0.0000	OK	1.006	S20	228.7	1.197	0.359	5.1593	
15 minute summer	S14	8	28.810	0.060	6.6	0.0678	0.0000	OK	5.000	S15	5.5	0.871	0.309	0.1487	
15 minute summer	S15	8	28.555	0.112	19.2	0.1269	0.0000	OK	5.001	S16	17.6	0.861	0.441	0.4770	
15 minute summer	S16	9	28.431	0.126	24.1	0.1430	0.0000	OK	5.002	S19	23.0	1.027	0.576	0.5017	
15 minute summer	S17	8	29.211	0.061	6.6	0.0098	0.0000	OK	6.000	S18	5.7	0.867	0.321	0.1223	
15 minute summer	S18	8	29.000	0.111	19.4	0.1254	0.0000	OK	6.001	S19	17.0	0.949	0.427	0.3443	
1440 minute winter	S19	1410	28.413	1.216	1.8	5.5010	0.0000	OK	5.003	S20	1.4	0.055	0.001	9.4050	
1440 minute winter	S20	1410	28.413	1.222	10.9	5.5282	0.0000	OK	1.007	S33	9.9	0.187	0.004	31.1412	
15 minute summer	S21	8	30.183	0.083	11.9	0.0131	0.0000	OK	7.000	S22	9.5	1.023	0.538	0.3371	
15 minute summer	S22	8	29.822	0.146	33.1	0.1650	0.0000	OK	7.001	S23	29.4	1.096	0.738	0.9415	
15 minute summer	S23	9	29.066	0.122	38.4	0.2151	0.0000	OK	7.002	S26	38.5	0.738	0.166	1.4026	
15 minute summer	S24	8	30.043	0.118	23.6	0.1338	0.0000	OK	8.000	S25	19.3	1.002	0.485	0.6636	
15 minute summer	S25	8	29.277	0.150	66.5	0.2645	0.0000	OK	8.001	S26	60.7	1.120	0.213	2.3050	
15 minute summer	S27	8	29.815	0.140	28.2	0.1584	0.0000	OK	10.000	S28	24.7	1.012	0.620	0.8121	
15 minute summer	S26	9	29.034	0.220	95.7	0.3890	0.0000	OK	7.003	S32	99.1	1.359	0.429	1.7016	
15 minute summer	S28	8	29.612	0.205	49.6	0.2317	0.0000	OK	10.001	S29	44.8	0.925	0.632	0.3654	
15 minute summer	S29	9	29.564	0.188	44.8	0.2126	0.0000	OK	10.002	S32	44.7	1.042	0.619	0.2008	
15 minute summer	S30	8	30.161	0.061	7.2	0.0096	0.0000	OK	9.000	S31	5.8	0.901	0.327	0.2277	
15 minute summer	S31	8	29.365	0.119	29.3	0.1342	0.0000	OK	9.001	S32	24.9	1.263	0.496	0.7119	
15 minute summer	S32	9	28.868	0.324	176.3	0.3665	0.0000	OK	7.004	S33	178.3	1.275	0.622	0.8752	
1440 minute winter	S33	1410	28.413	1.242	18.3	5.6186	0.0000	OK	1.008	S34	15.9	0.246	0.007	83.0660	
1440 minute winter	S34	1410	28.413	1.294	17.0	5.8538	0.0000	OK	1.009	S39	13.6	0.235	0.006	85.8576	
15 minute summer	S35	8	29.491	0.116	20.3	0.1311	0.0000	OK	11.000	S36	18.1	0.917	0.456	0.4944	
15 minute summer	S36	8	29.343	0.187	38.5	0.2119	0.0000	OK	11.001	S37	33.5	0.794	0.469	0.4821	
15 minute summer	S37	8	29.322	0.282	91.3	0.4982	0.0000	OK	11.002	S38	86.2	1.032	0.768	0.6297	
15 minute summer	S38	8	29.266	0.250	86.2	0.4414	0.0000	OK	11.003	S39	81.5	1.171	0.726	0.6601	

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1440 minute winter	S39	1410	28.413	1.346	17.6	6.0891	0.0000	OK	1.010	S40	15.1	0.447	0.006	34.9623	
1440 minute winter	S40	1410	28.413	1.367	15.2	379.4876	0.0000	OK	1.011	S41	2.5	0.105	0.001	30.1122	
1440 minute winter	S41	1410	28.413	1.385	2.5	6.2656	0.0000	SURCHARGED	Hydro-Brake®	S42	2.2				
1440 minute winter	S42	1410	26.933	0.087	12.4	0.0986	0.0000	OK	1.013	S43	12.4	0.858	0.310	0.5387	
1440 minute winter	S43	1410	26.714	0.089	12.4	0.1007	0.0000	OK	1.014	C1	12.4	1.023	0.309	0.0447	
1440 minute winter	C1	1410	26.669	0.066	12.4	0.0743	0.0000	OK	1.015	EXG	12.4	1.344	0.164	0.0899	1198.1
1440 minute winter	EXG	1410	26.461	0.061	12.4	0.0000	0.0000	OK							

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Results for 100 year +30% Critical Storm Duration. Lowest mass balance: 99.86%

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	S1	8	29.830	0.080	7.7	0.0127	0.0000	OK	1.000	S2	7.2	0.656	0.407	0.0496	
15 minute summer	S2	8	29.804	0.099	14.9	0.0158	0.0000	OK	1.001	S3	12.4	1.020	0.701	0.4443	
15 minute summer	S3	9	29.453	0.182	43.0	0.2059	0.0000	OK	1.002	S4	37.9	1.159	0.951	1.1824	
15 minute summer	S4	9	29.212	0.230	42.8	0.2601	0.0000	OK	1.003	S5	43.3	0.770	0.600	0.2993	
15 minute summer	S5	9	29.189	0.229	48.2	0.2592	0.0000	OK	1.004	S8	49.1	0.819	0.694	0.9911	
15 minute summer	S6	8	29.847	0.097	15.2	0.0154	0.0000	OK	2.000	S7	12.4	1.087	0.701	0.4512	
15 minute summer	S7	8	29.451	0.162	42.7	0.1831	0.0000	OK	2.001	S8	36.6	1.237	0.776	1.1879	
15 minute summer	S8	9	29.145	0.252	95.5	0.4449	0.0000	OK	1.005	S13	99.1	1.688	0.876	0.6835	
15 minute summer	S9	8	29.418	0.143	33.1	0.1620	0.0000	OK	4.000	S13	28.5	1.157	0.650	0.7093	
15 minute summer	S10	8	29.235	0.235	79.8	0.2660	0.0000	OK	3.000	S11	73.9	1.114	0.807	1.7568	
15 minute summer	S11	8	29.115	0.300	115.6	0.5303	0.0000	OK	3.001	S12	99.2	1.232	0.891	2.2527	
15 minute summer	S12	9	28.968	0.313	142.4	0.5529	0.0000	OK	3.002	S13	138.9	1.301	0.870	1.4234	
1440 minute winter	S13	1410	28.916	0.744	11.2	2.5756	0.0000	OK	1.006	S20	11.2	0.498	0.018	15.3434	
1440 minute winter	S14	1410	28.916	0.166	0.3	0.1872	0.0000	SURCHARGED	5.000	S15	0.3	0.378	0.017	0.4116	
1440 minute winter	S15	1410	28.916	0.473	0.9	0.5344	0.0000	SURCHARGED	5.001	S16	0.9	0.373	0.023	0.9298	
1440 minute winter	S16	1410	28.916	0.611	1.2	0.6905	0.0000	SURCHARGED	5.002	S19	1.2	0.451	0.030	0.8920	
15 minute summer	S17	8	29.222	0.072	8.5	0.0114	0.0000	OK	6.000	S18	7.4	0.928	0.419	0.1493	
15 minute summer	S18	8	29.020	0.131	25.3	0.1482	0.0000	OK	6.001	S19	22.2	1.010	0.559	0.4228	
1440 minute winter	S19	1410	28.916	1.719	2.4	7.7746	0.0000	SURCHARGED	5.003	S20	1.9	0.052	0.001	10.8006	
1440 minute winter	S20	1410	28.916	1.725	13.8	7.8018	0.0000	SURCHARGED	1.007	S33	12.5	0.183	0.005	35.4174	
15 minute summer	S21	8	30.203	0.103	15.2	0.0164	0.0000	OK	7.000	S22	13.1	1.031	0.741	0.4468	
15 minute summer	S22	9	29.859	0.183	43.7	0.2064	0.0000	OK	7.001	S23	38.0	1.160	0.956	1.1496	
15 minute summer	S23	9	29.089	0.145	49.2	0.2555	0.0000	OK	7.002	S26	49.0	0.765	0.211	1.7330	
15 minute summer	S24	8	30.065	0.140	30.6	0.1588	0.0000	OK	8.000	S25	25.2	1.065	0.634	0.8154	
15 minute summer	S25	8	29.302	0.175	86.3	0.3091	0.0000	OK	8.001	S26	79.6	1.183	0.279	2.7942	
15 minute summer	S27	8	29.845	0.170	36.5	0.1927	0.0000	OK	10.000	S28	33.2	1.027	0.834	1.0575	
15 minute summer	S26	9	29.072	0.258	124.8	0.4558	0.0000	OK	7.003	S32	129.2	1.453	0.559	2.0746	
15 minute summer	S28	8	29.653	0.246	65.5	0.2782	0.0000	OK	10.001	S29	58.6	1.001	0.826	0.4408	
15 minute summer	S29	9	29.595	0.219	58.6	0.2475	0.0000	OK	10.002	S32	57.3	1.131	0.792	0.2366	
15 minute summer	S30	8	30.171	0.071	9.4	0.0113	0.0000	OK	9.000	S31	7.5	0.965	0.423	0.2795	
15 minute summer	S31	8	29.387	0.141	38.0	0.1597	0.0000	OK	9.001	S32	32.3	1.342	0.644	0.8759	
15 minute summer	S32	9	28.919	0.374	228.7	0.4236	0.0000	OK	7.004	S33	231.5	1.388	0.808	1.0431	
1440 minute winter	S33	1410	28.916	1.745	23.2	7.8922	0.0000	SURCHARGED	1.008	S34	20.2	0.270	0.009	92.1243	
1440 minute winter	S34	1410	28.916	1.797	21.6	8.1275	0.0000	SURCHARGED	1.009	S39	17.3	0.247	0.007	92.1243	
15 minute summer	S35	8	29.511	0.136	26.3	0.1541	0.0000	OK	11.000	S36	24.9	0.875	0.626	0.6934	
15 minute summer	S36	8	29.398	0.242	51.2	0.2737	0.0000	OK	11.001	S37	43.1	0.771	0.603	0.6180	
15 minute summer	S37	8	29.375	0.335	116.7	0.5927	0.0000	OK	11.002	S38	110.2	1.120	0.982	0.7393	
15 minute summer	S38	8	29.307	0.291	110.2	0.5146	0.0000	OK	11.003	S39	104.3	1.273	0.929	0.7746	

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1440 minute winter	S39	1410	28.916	1.849	22.4	8.3628	0.0000	SURCHARGED	1.010	S40	19.4	0.449	0.008	36.7430	
1440 minute winter	S40	1410	28.916	1.870	19.5	534.8810	0.0000	SURCHARGED	1.011	S41	2.8	0.107	0.001	31.3331	
1440 minute winter	S41	1410	28.916	1.888	2.8	8.5392	0.0000	SURCHARGED	Hydro-Brake®	S42	2.5				
1440 minute winter	S42	1410	26.935	0.088	12.7	0.1001	0.0000	OK	1.013	S43	12.7	0.863	0.318	0.5491	
1440 minute winter	S43	1410	26.715	0.090	12.7	0.1022	0.0000	OK	1.014	C1	12.7	1.030	0.317	0.0456	
1440 minute winter	C1	1410	26.670	0.067	12.7	0.0754	0.0000	OK	1.015	EXG	12.7	1.353	0.169	0.0916	1215.8
1440 minute winter	EXG	1410	26.462	0.062	12.7	0.0000	0.0000	OK							

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Results for 30 year +30% 15 minute summer. 255 minute analysis at 1 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)
15 minute summer	S1	8	29.817	0.067	5.9	0.0107	0.0000	OK	1.000	S2	5.5	0.651	0.313	0.0385	
15 minute summer	S2	9	29.785	0.080	11.4	0.0127	0.0000	OK	1.001	S3	9.7	1.025	0.548	0.3422	
15 minute summer	S3	9	29.416	0.145	32.5	0.1639	0.0000	OK	1.002	S4	29.1	1.094	0.731	0.9639	
15 minute summer	S4	9	29.167	0.184	32.9	0.2087	0.0000	OK	1.003	S5	33.6	0.751	0.465	0.2341	
15 minute summer	S5	9	29.143	0.183	37.4	0.2072	0.0000	OK	1.004	S8	38.7	0.799	0.547	0.7926	
15 minute summer	S6	8	29.831	0.081	11.9	0.0129	0.0000	OK	2.000	S7	9.5	1.024	0.538	0.3673	
15 minute summer	S7	8	29.419	0.130	32.9	0.1473	0.0000	OK	2.001	S8	28.1	1.208	0.596	0.9050	
15 minute summer	S8	9	29.099	0.206	74.3	0.3642	0.0000	OK	1.005	S13	77.3	1.615	0.684	0.5590	
15 minute summer	S9	8	29.396	0.121	25.6	0.1367	0.0000	OK	4.000	S13	21.9	1.088	0.500	0.5794	
15 minute summer	S10	8	29.190	0.190	61.6	0.2147	0.0000	OK	3.000	S11	57.9	1.071	0.631	1.4556	
15 minute summer	S11	8	29.055	0.240	90.0	0.4240	0.0000	OK	3.001	S12	80.5	1.184	0.723	1.8432	
15 minute summer	S12	9	28.925	0.270	105.8	0.4778	0.0000	OK	3.002	S13	108.4	1.199	0.679	1.2069	
15 minute summer	S13	9	28.512	0.340	219.2	1.1767	0.0000	OK	1.006	S20	228.7	1.197	0.359	5.1593	
15 minute summer	S14	8	28.810	0.060	6.6	0.0678	0.0000	OK	5.000	S15	5.5	0.871	0.309	0.1487	
15 minute summer	S15	8	28.555	0.112	19.2	0.1269	0.0000	OK	5.001	S16	17.6	0.861	0.441	0.4770	
15 minute summer	S16	9	28.431	0.126	24.1	0.1430	0.0000	OK	5.002	S19	23.0	1.027	0.576	0.5017	
15 minute summer	S17	8	29.211	0.061	6.6	0.0098	0.0000	OK	6.000	S18	5.7	0.867	0.321	0.1223	
15 minute summer	S18	8	29.000	0.111	19.4	0.1254	0.0000	OK	6.001	S19	17.0	0.949	0.427	0.3443	
15 minute summer	S19	9	27.628	0.431	43.4	1.9486	0.0000	OK	5.003	S20	36.6	0.112	0.016	2.5870	
15 minute summer	S20	9	27.628	0.437	276.0	1.9768	0.0000	OK	1.007	S33	259.4	0.604	0.109	8.6420	
15 minute summer	S21	8	30.183	0.083	11.9	0.0131	0.0000	OK	7.000	S22	9.5	1.023	0.538	0.3371	
15 minute summer	S22	8	29.822	0.146	33.1	0.1650	0.0000	OK	7.001	S23	29.4	1.096	0.738	0.9415	
15 minute summer	S23	9	29.066	0.122	38.4	0.2151	0.0000	OK	7.002	S26	38.5	0.738	0.166	1.4026	
15 minute summer	S24	8	30.043	0.118	23.6	0.1338	0.0000	OK	8.000	S25	19.3	1.002	0.485	0.6636	
15 minute summer	S25	8	29.277	0.150	66.5	0.2645	0.0000	OK	8.001	S26	60.7	1.120	0.213	2.3050	
15 minute summer	S27	8	29.815	0.140	28.2	0.1584	0.0000	OK	10.000	S28	24.7	1.012	0.620	0.8121	
15 minute summer	S26	9	29.034	0.220	95.7	0.3890	0.0000	OK	7.003	S32	99.1	1.359	0.429	1.7016	
15 minute summer	S28	8	29.612	0.205	49.6	0.2317	0.0000	OK	10.001	S29	44.8	0.925	0.632	0.3654	
15 minute summer	S29	9	29.564	0.188	44.8	0.2126	0.0000	OK	10.002	S32	44.7	1.042	0.619	0.2008	
15 minute summer	S30	8	30.161	0.061	7.2	0.0096	0.0000	OK	9.000	S31	5.8	0.901	0.327	0.2277	
15 minute summer	S31	8	29.365	0.119	29.3	0.1342	0.0000	OK	9.001	S32	24.9	1.263	0.496	0.7119	
15 minute summer	S32	9	28.868	0.324	176.3	0.3665	0.0000	OK	7.004	S33	178.3	1.275	0.622	0.8752	
15 minute summer	S33	9	27.613	0.442	463.2	2.0008	0.0000	OK	1.008	S34	420.9	1.028	0.177	22.2918	
15 minute summer	S34	10	27.555	0.436	438.5	1.9702	0.0000	OK	1.009	S39	466.3	1.246	0.196	20.2671	
15 minute summer	S35	8	29.491	0.116	20.3	0.1311	0.0000	OK	11.000	S36	18.1	0.917	0.456	0.4944	
15 minute summer	S36	8	29.343	0.187	38.5	0.2119	0.0000	OK	11.001	S37	33.5	0.794	0.469	0.4821	
15 minute summer	S37	8	29.322	0.282	91.3	0.4982	0.0000	OK	11.002	S38	86.2	1.032	0.768	0.6297	
15 minute summer	S38	8	29.266	0.250	86.2	0.4414	0.0000	OK	11.003	S39	81.5	1.171	0.726	0.6601	

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15 minute summer	S39	19	27.496	0.429	523.5	1.9400	0.0000	OK	1.010	S40	512.0	2.420	0.214	8.9949	
15 minute summer	S40	25	27.500	0.454	514.4	118.9174	0.0000	OK	1.011	S41	42.2	0.533	0.018	8.2443	
15 minute summer	S41	18	27.512	0.484	42.2	2.1914	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
15 minute summer	S42	10	26.932	0.086	12.0	0.0974	0.0000	OK	1.013	S43	12.0	0.976	0.302	0.5283	
15 minute summer	S43	11	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
15 minute summer	C1	11	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	180.3
15 minute summer	EXG	11	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 30 year +30% 15 minute winter. 255 minute analysis at 1 minute timestep. Mass balance: 99.86%

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	S1	8	29.809	0.059	4.7	0.0094	0.0000	OK	1.000	S2	4.6	0.604	0.259	0.0343	
15 minute winter	S2	9	29.780	0.075	9.3	0.0120	0.0000	OK	1.001	S3	8.7	0.992	0.492	0.3171	
15 minute winter	S3	9	29.407	0.136	26.9	0.1534	0.0000	OK	1.002	S4	25.9	1.060	0.650	0.8857	
15 minute winter	S4	9	29.152	0.170	29.9	0.1924	0.0000	OK	1.003	S5	30.1	0.737	0.417	0.2117	
15 minute winter	S5	9	29.128	0.168	34.1	0.1902	0.0000	OK	1.004	S8	34.5	0.783	0.487	0.7208	
15 minute winter	S6	8	29.825	0.075	9.3	0.0119	0.0000	OK	2.000	S7	8.6	0.990	0.485	0.3370	
15 minute winter	S7	9	29.410	0.121	27.0	0.1374	0.0000	OK	2.001	S8	25.8	1.206	0.548	0.8349	
15 minute winter	S8	9	29.084	0.191	68.3	0.3372	0.0000	OK	1.005	S13	68.9	1.572	0.609	0.5117	
15 minute winter	S9	8	29.383	0.108	20.2	0.1227	0.0000	OK	4.000	S13	19.0	1.050	0.434	0.5128	
15 minute winter	S10	8	29.160	0.160	48.6	0.1809	0.0000	OK	3.000	S11	47.5	1.003	0.518	1.2758	
15 minute winter	S11	8	29.037	0.222	72.8	0.3926	0.0000	OK	3.001	S12	70.1	1.122	0.629	1.6934	
15 minute winter	S12	9	28.908	0.253	93.4	0.4464	0.0000	OK	3.002	S13	94.7	1.142	0.593	1.1074	
15 minute winter	S13	9	28.488	0.316	195.9	1.0945	0.0000	OK	1.006	S20	198.7	1.150	0.312	4.6641	
15 minute winter	S14	8	28.805	0.055	5.2	0.0625	0.0000	OK	5.000	S15	4.8	0.846	0.274	0.1346	
15 minute winter	S15	8	28.543	0.100	15.7	0.1135	0.0000	OK	5.001	S16	15.2	0.818	0.383	0.4353	
15 minute winter	S16	9	28.422	0.117	20.4	0.1327	0.0000	OK	5.002	S19	20.1	0.989	0.503	0.4553	
15 minute winter	S17	8	29.206	0.056	5.2	0.0089	0.0000	OK	6.000	S18	4.9	0.843	0.278	0.1090	
15 minute winter	S18	8	28.990	0.101	15.8	0.1144	0.0000	OK	6.001	S19	15.0	0.915	0.378	0.3101	
15 minute winter	S19	10	27.615	0.418	39.4	1.8895	0.0000	OK	5.003	S20	35.3	0.111	0.015	2.4777	
15 minute winter	S20	9	27.615	0.424	245.1	1.9164	0.0000	OK	1.007	S33	235.5	0.571	0.099	8.3276	
15 minute winter	S21	8	30.176	0.076	9.3	0.0120	0.0000	OK	7.000	S22	8.6	0.990	0.484	0.3057	
15 minute winter	S22	9	29.812	0.136	27.1	0.1535	0.0000	OK	7.001	S23	25.9	1.059	0.652	0.8606	
15 minute winter	S23	9	29.059	0.115	34.0	0.2034	0.0000	OK	7.002	S26	34.4	0.702	0.148	1.2747	
15 minute winter	S24	8	30.033	0.108	18.6	0.1217	0.0000	OK	8.000	S25	17.2	0.962	0.433	0.5979	
15 minute winter	S25	8	29.260	0.133	54.4	0.2346	0.0000	OK	8.001	S26	53.2	1.043	0.186	2.1166	
15 minute winter	S27	8	29.795	0.120	22.3	0.1361	0.0000	OK	10.000	S28	20.7	1.007	0.519	0.6830	
15 minute winter	S26	9	29.017	0.203	86.0	0.3591	0.0000	OK	7.003	S32	86.5	1.314	0.374	1.5367	
15 minute winter	S28	8	29.595	0.188	40.3	0.2127	0.0000	OK	10.001	S29	39.7	0.889	0.559	0.3365	
15 minute winter	S29	8	29.551	0.175	39.7	0.1981	0.0000	OK	10.002	S32	38.9	0.993	0.537	0.1833	
15 minute winter	S30	8	30.157	0.057	5.7	0.0090	0.0000	OK	9.000	S31	5.2	0.872	0.296	0.2112	
15 minute winter	S31	8	29.355	0.109	23.7	0.1232	0.0000	OK	9.001	S32	22.4	1.218	0.447	0.6478	
15 minute winter	S32	9	28.846	0.302	155.7	0.3419	0.0000	OK	7.004	S33	156.3	1.223	0.545	0.8006	
15 minute winter	S33	10	27.604	0.433	418.5	1.9574	0.0000	OK	1.008	S34	405.4	0.986	0.171	21.5184	
15 minute winter	S34	17	27.549	0.430	421.1	1.9466	0.0000	OK	1.009	S39	431.4	1.190	0.182	23.1998	
15 minute winter	S35	8	29.476	0.101	16.1	0.1138	0.0000	OK	11.000	S36	15.1	0.921	0.380	0.4052	
15 minute winter	S36	8	29.323	0.167	31.2	0.1887	0.0000	OK	11.001	S37	30.3	0.793	0.424	0.4154	
15 minute winter	S37	8	29.296	0.256	75.8	0.4518	0.0000	OK	11.002	S38	73.9	0.977	0.659	0.5708	

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15 minute winter	S38	8	29.247	0.231	73.9	0.4081	0.0000	OK	11.003	S39	72.1	1.120	0.642	0.6083	
15 minute winter	S39	24	27.541	0.474	499.6	2.1444	0.0000	OK	1.010	S40	482.0	2.351	0.202	10.3283	
15 minute winter	S40	24	27.546	0.500	482.9	131.3735	0.0000	OK	1.011	S41	69.6	0.623	0.029	9.4344	
15 minute winter	S41	18	27.559	0.531	69.6	2.4043	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
15 minute winter	S42	10	26.932	0.086	12.0	0.0973	0.0000	OK	1.013	S43	12.1	0.976	0.303	0.5284	
15 minute winter	S43	11	26.713	0.088	12.1	0.0993	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
15 minute winter	C1	11	26.668	0.065	12.0	0.0732	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0881	179.1
15 minute winter	EXG	11	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 30 year +30% 30 minute summer. 270 minute analysis at 1 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)
30 minute summer	S1	16	29.803	0.053	3.9	0.0084	0.0000	OK	1.000	S2	3.9	0.588	0.221	0.0309	
30 minute summer	S2	16	29.775	0.070	7.8	0.0112	0.0000	OK	1.001	S3	7.6	0.954	0.430	0.2883	
30 minute summer	S3	16	29.397	0.126	23.4	0.1428	0.0000	OK	1.002	S4	22.7	1.021	0.571	0.8067	
30 minute summer	S4	16	29.137	0.155	26.6	0.1750	0.0000	OK	1.003	S5	26.4	0.728	0.365	0.1873	
30 minute summer	S5	16	29.112	0.152	30.3	0.1719	0.0000	OK	1.004	S8	29.6	0.766	0.418	0.6400	
30 minute summer	S6	16	29.821	0.071	7.9	0.0113	0.0000	OK	2.000	S7	7.7	0.960	0.437	0.3137	
30 minute summer	S7	16	29.403	0.114	23.5	0.1295	0.0000	OK	2.001	S8	23.0	1.164	0.488	0.7702	
30 minute summer	S8	16	29.067	0.174	60.5	0.3069	0.0000	OK	1.005	S13	59.1	1.522	0.522	0.4564	
30 minute summer	S9	16	29.376	0.101	17.1	0.1139	0.0000	OK	4.000	S13	17.1	1.020	0.390	0.4696	
30 minute summer	S10	15	29.144	0.144	41.2	0.1624	0.0000	OK	3.000	S11	41.4	0.968	0.451	1.1598	
30 minute summer	S11	16	29.024	0.209	62.8	0.3700	0.0000	OK	3.001	S12	62.3	1.073	0.559	1.5739	
30 minute summer	S12	16	28.893	0.238	84.7	0.4204	0.0000	OK	3.002	S13	83.8	1.094	0.525	1.0238	
30 minute summer	S13	16	28.465	0.293	173.6	1.0148	0.0000	OK	1.006	S20	170.1	1.105	0.267	4.1626	
30 minute summer	S14	16	28.802	0.052	4.4	0.0586	0.0000	OK	5.000	S15	4.4	0.821	0.247	0.1241	
30 minute summer	S15	16	28.536	0.093	13.5	0.1047	0.0000	OK	5.001	S16	13.6	0.791	0.341	0.4016	
30 minute summer	S16	16	28.414	0.109	18.0	0.1229	0.0000	OK	5.002	S19	17.4	0.951	0.435	0.4108	
30 minute summer	S17	16	29.202	0.052	4.4	0.0083	0.0000	OK	6.000	S18	4.4	0.821	0.248	0.0998	
30 minute summer	S18	16	28.983	0.094	13.6	0.1067	0.0000	OK	6.001	S19	13.5	0.888	0.340	0.2849	
30 minute summer	S19	38	27.626	0.429	35.3	1.9395	0.0000	OK	5.003	S20	31.7	0.119	0.013	2.5686	
30 minute summer	S20	38	27.626	0.435	210.0	1.9662	0.0000	OK	1.007	S33	210.0	0.556	0.088	8.7672	
30 minute summer	S21	16	30.171	0.071	7.9	0.0113	0.0000	OK	7.000	S22	7.8	0.961	0.439	0.2843	
30 minute summer	S22	16	29.803	0.127	23.5	0.1441	0.0000	OK	7.001	S23	23.0	1.023	0.579	0.7919	
30 minute summer	S23	16	29.052	0.108	30.9	0.1917	0.0000	OK	7.002	S26	30.5	0.678	0.131	1.1448	
30 minute summer	S24	16	30.026	0.101	15.8	0.1140	0.0000	OK	8.000	S25	15.7	0.932	0.394	0.5540	
30 minute summer	S25	16	29.249	0.122	47.2	0.2160	0.0000	OK	8.001	S26	47.6	0.996	0.167	1.9297	
30 minute summer	S27	16	29.787	0.112	18.9	0.1268	0.0000	OK	10.000	S28	18.8	0.976	0.472	0.6300	
30 minute summer	S26	16	29.000	0.186	78.1	0.3283	0.0000	OK	7.003	S32	74.5	1.274	0.322	1.3640	
30 minute summer	S28	16	29.582	0.175	35.5	0.1975	0.0000	OK	10.001	S29	35.4	0.860	0.499	0.3107	
30 minute summer	S29	16	29.541	0.165	35.4	0.1870	0.0000	OK	10.002	S32	35.2	0.960	0.487	0.1717	
30 minute summer	S30	16	30.154	0.054	4.8	0.0085	0.0000	OK	9.000	S31	4.7	0.841	0.265	0.1955	
30 minute summer	S31	16	29.348	0.102	20.5	0.1158	0.0000	OK	9.001	S32	20.2	1.179	0.403	0.6025	
30 minute summer	S32	16	28.824	0.280	135.6	0.3166	0.0000	OK	7.004	S33	134.2	1.163	0.468	0.7233	
30 minute summer	S33	38	27.625	0.454	361.1	2.0527	0.0000	OK	1.008	S34	357.9	0.960	0.151	25.2109	
30 minute summer	S34	38	27.620	0.501	374.2	2.2662	0.0000	OK	1.009	S39	355.7	1.042	0.150	28.5083	
30 minute summer	S35	16	29.469	0.094	13.6	0.1058	0.0000	OK	11.000	S36	13.6	0.894	0.341	0.3712	
30 minute summer	S36	16	29.308	0.152	27.2	0.1714	0.0000	OK	11.001	S37	27.1	0.782	0.379	0.3659	
30 minute summer	S37	16	29.277	0.237	65.6	0.4190	0.0000	OK	11.002	S38	65.5	0.938	0.584	0.5270	
30 minute summer	S38	16	29.233	0.217	65.5	0.3840	0.0000	OK	11.003	S39	65.2	1.080	0.581	0.5688	

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30 minute summer	S39	36	27.615	0.548	415.8	2.4771	0.0000	OK	1.010	S40	381.0	1.595	0.160	12.4805	
30 minute summer	S40	40	27.617	0.571	382.0	150.8424	0.0000	OK	1.011	S41	30.0	0.392	0.013	11.2437	
30 minute summer	S41	36	27.623	0.595	30.0	2.6922	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
30 minute summer	S42	17	26.932	0.086	12.0	0.0972	0.0000	OK	1.013	S43	12.0	0.976	0.302	0.5286	
30 minute summer	S43	17	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
30 minute summer	C1	17	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	186.9
30 minute summer	EXG	17	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 30 year +30% 30 minute winter. 270 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)
30 minute winter	S1	16	29.796	0.046	3.1	0.0073	0.0000	OK	1.000	S2	3.1	0.547	0.175	0.0259	
30 minute winter	S2	16	29.767	0.062	6.2	0.0099	0.0000	OK	1.001	S3	6.1	0.905	0.348	0.2460	
30 minute winter	S3	16	29.381	0.110	18.5	0.1247	0.0000	OK	1.002	S4	18.4	0.973	0.461	0.6838	
30 minute winter	S4	16	29.117	0.135	21.5	0.1526	0.0000	OK	1.003	S5	21.4	0.704	0.297	0.1572	
30 minute winter	S5	16	29.093	0.133	24.5	0.1501	0.0000	OK	1.004	S8	24.3	0.740	0.344	0.5416	
30 minute winter	S6	16	29.812	0.062	6.2	0.0099	0.0000	OK	2.000	S7	6.1	0.906	0.348	0.2644	
30 minute winter	S7	16	29.389	0.100	18.5	0.1130	0.0000	OK	2.001	S8	18.4	1.104	0.390	0.6493	
30 minute winter	S8	16	29.046	0.153	48.9	0.2697	0.0000	OK	1.005	S13	48.5	1.453	0.429	0.3913	
30 minute winter	S9	16	29.363	0.088	13.4	0.0991	0.0000	OK	4.000	S13	13.4	0.959	0.306	0.3918	
30 minute winter	S10	15	29.123	0.123	32.4	0.1390	0.0000	OK	3.000	S11	32.5	0.908	0.354	0.9699	
30 minute winter	S11	16	28.996	0.181	49.4	0.3203	0.0000	OK	3.001	S12	49.2	1.007	0.441	1.3240	
30 minute winter	S12	16	28.863	0.208	66.8	0.3683	0.0000	OK	3.002	S13	66.5	1.023	0.416	0.8684	
30 minute winter	S13	16	28.436	0.264	139.1	0.9128	0.0000	OK	1.006	S20	138.6	1.039	0.218	3.6048	
30 minute winter	S14	16	28.795	0.045	3.4	0.0512	0.0000	OK	5.000	S15	3.4	0.767	0.192	0.1033	
30 minute winter	S15	16	28.523	0.080	10.6	0.0908	0.0000	OK	5.001	S16	10.6	0.742	0.266	0.3340	
30 minute winter	S16	16	28.400	0.095	14.0	0.1072	0.0000	OK	5.002	S19	13.8	0.900	0.347	0.3457	
30 minute winter	S17	16	29.196	0.045	3.4	0.0072	0.0000	OK	6.000	S18	3.4	0.766	0.192	0.0828	
30 minute winter	S18	16	28.971	0.082	10.6	0.0928	0.0000	OK	6.001	S19	10.6	0.833	0.266	0.2373	
30 minute winter	S19	37	27.676	0.479	27.8	2.1653	0.0000	OK	5.003	S20	26.7	0.128	0.011	2.9912	
30 minute winter	S20	37	27.676	0.485	173.2	2.1924	0.0000	OK	1.007	S33	171.9	0.518	0.072	10.1722	
30 minute winter	S21	16	30.162	0.062	6.2	0.0099	0.0000	OK	7.000	S22	6.2	0.906	0.348	0.2389	
30 minute winter	S22	16	29.787	0.111	18.6	0.1250	0.0000	OK	7.001	S23	18.4	0.972	0.463	0.6654	
30 minute winter	S23	16	29.041	0.097	24.6	0.1716	0.0000	OK	7.002	S26	24.5	0.637	0.106	0.9789	
30 minute winter	S24	16	30.013	0.088	12.4	0.0995	0.0000	OK	8.000	S25	12.4	0.878	0.311	0.4641	
30 minute winter	S25	16	29.235	0.108	37.2	0.1905	0.0000	OK	8.001	S26	37.1	0.925	0.130	1.6380	
30 minute winter	S27	16	29.772	0.097	14.8	0.1100	0.0000	OK	10.000	S28	14.8	0.920	0.371	0.5254	
30 minute winter	S26	17	28.980	0.166	61.6	0.2927	0.0000	OK	7.003	S32	60.8	1.203	0.263	1.1791	
30 minute winter	S28	16	29.557	0.150	27.9	0.1699	0.0000	OK	10.001	S29	27.8	0.811	0.393	0.2592	
30 minute winter	S29	16	29.520	0.144	27.8	0.1628	0.0000	OK	10.002	S32	27.8	0.898	0.384	0.1448	
30 minute winter	S30	16	30.148	0.048	3.8	0.0076	0.0000	OK	9.000	S31	3.8	0.793	0.213	0.1667	
30 minute winter	S31	16	29.336	0.090	16.2	0.1014	0.0000	OK	9.001	S32	16.1	1.113	0.321	0.5074	
30 minute winter	S32	16	28.795	0.251	109.9	0.2834	0.0000	OK	7.004	S33	109.5	1.097	0.382	0.6265	
30 minute winter	S33	37	27.675	0.504	300.3	2.2815	0.0000	OK	1.008	S34	296.5	0.891	0.125	29.0447	
30 minute winter	S34	37	27.673	0.554	312.3	2.5063	0.0000	OK	1.009	S39	292.6	0.939	0.123	32.7072	
30 minute winter	S35	16	29.457	0.082	10.7	0.0925	0.0000	OK	11.000	S36	10.7	0.840	0.269	0.3110	
30 minute winter	S36	16	29.283	0.127	21.4	0.1433	0.0000	OK	11.001	S37	21.4	0.789	0.299	0.2822	
30 minute winter	S37	16	29.245	0.205	51.7	0.3619	0.0000	OK	11.002	S38	51.6	0.880	0.460	0.4429	

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30 minute winter	S38	16	29.205	0.189	51.6	0.3348	0.0000	OK	11.003	S39	51.5	1.008	0.459	0.4821	
30 minute winter	S39	39	27.670	0.603	350.7	2.7296	0.0000	OK	1.010	S40	324.3	1.599	0.136	14.1719	
30 minute winter	S40	39	27.672	0.626	325.3	165.9325	0.0000	OK	1.011	S41	33.6	0.449	0.014	12.6683	
30 minute winter	S41	44	27.677	0.649	33.6	2.9376	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
30 minute winter	S42	16	26.932	0.086	12.0	0.0972	0.0000	OK	1.013	S43	12.0	0.976	0.302	0.5286	
30 minute winter	S43	16	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
30 minute winter	C1	16	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	187.8
30 minute winter	EXG	16	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 30 year +30% 60 minute summer. 300 minute analysis at 1 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)
60 minute summer	S1	31	29.793	0.043	2.7	0.0068	0.0000	OK	1.000	S2	2.7	0.534	0.153	0.0232	
60 minute summer	S2	31	29.762	0.057	5.4	0.0091	0.0000	OK	1.001	S3	5.3	0.870	0.300	0.2206	
60 minute summer	S3	31	29.372	0.101	16.1	0.1143	0.0000	OK	1.002	S4	15.8	0.937	0.396	0.6111	
60 minute summer	S4	31	29.105	0.123	18.5	0.1386	0.0000	OK	1.003	S5	18.4	0.688	0.255	0.1383	
60 minute summer	S5	31	29.080	0.120	21.1	0.1362	0.0000	OK	1.004	S8	20.8	0.717	0.294	0.4786	
60 minute summer	S6	31	29.807	0.057	5.4	0.0091	0.0000	OK	2.000	S7	5.3	0.872	0.301	0.2378	
60 minute summer	S7	31	29.381	0.092	16.1	0.1041	0.0000	OK	2.001	S8	15.9	1.062	0.337	0.5830	
60 minute summer	S8	31	29.032	0.139	42.1	0.2457	0.0000	OK	1.005	S13	41.5	1.401	0.367	0.3481	
60 minute summer	S9	31	29.356	0.081	11.7	0.0919	0.0000	OK	4.000	S13	11.7	0.924	0.266	0.3543	
60 minute summer	S10	30	29.113	0.113	28.2	0.1281	0.0000	OK	3.000	S11	28.2	0.879	0.308	0.8755	
60 minute summer	S11	31	28.982	0.167	42.9	0.2955	0.0000	OK	3.001	S12	42.6	0.966	0.382	1.1959	
60 minute summer	S12	31	28.848	0.193	57.9	0.3402	0.0000	OK	3.002	S13	57.5	0.981	0.360	0.7828	
60 minute summer	S13	32	28.416	0.244	120.0	0.8464	0.0000	OK	1.006	S20	119.3	0.992	0.187	3.2518	
60 minute summer	S14	31	28.792	0.042	3.0	0.0479	0.0000	OK	5.000	S15	3.0	0.740	0.168	0.0941	
60 minute summer	S15	31	28.518	0.075	9.3	0.0845	0.0000	OK	5.001	S16	9.3	0.720	0.233	0.3016	
60 minute summer	S16	31	28.393	0.088	12.3	0.0991	0.0000	OK	5.002	S19	12.0	0.868	0.301	0.3113	
60 minute summer	S17	31	29.193	0.043	3.0	0.0068	0.0000	OK	6.000	S18	3.0	0.740	0.169	0.0755	
60 minute summer	S18	31	28.965	0.076	9.3	0.0863	0.0000	OK	6.001	S19	9.3	0.804	0.233	0.2153	
60 minute summer	S19	72	27.739	0.542	24.3	2.4541	0.0000	OK	5.003	S20	22.3	0.107	0.009	3.5476	
60 minute summer	S20	72	27.739	0.548	148.1	2.4811	0.0000	OK	1.007	S33	146.0	0.487	0.061	12.0064	
60 minute summer	S21	31	30.157	0.057	5.4	0.0091	0.0000	OK	7.000	S22	5.3	0.872	0.302	0.2151	
60 minute summer	S22	31	29.778	0.102	16.1	0.1149	0.0000	OK	7.001	S23	15.9	0.937	0.400	0.5971	
60 minute summer	S23	31	29.034	0.090	21.3	0.1596	0.0000	OK	7.002	S26	21.1	0.616	0.091	0.8743	
60 minute summer	S24	31	30.006	0.081	10.8	0.0921	0.0000	OK	8.000	S25	10.7	0.845	0.270	0.4185	
60 minute summer	S25	31	29.227	0.100	32.3	0.1775	0.0000	OK	8.001	S26	32.2	0.899	0.113	1.4655	
60 minute summer	S27	31	29.765	0.090	12.9	0.1016	0.0000	OK	10.000	S28	12.8	0.887	0.322	0.4737	
60 minute summer	S26	32	28.966	0.152	53.3	0.2689	0.0000	OK	7.003	S32	52.3	1.157	0.226	1.0539	
60 minute summer	S28	31	29.545	0.138	24.2	0.1559	0.0000	OK	10.001	S29	24.2	0.786	0.341	0.2324	
60 minute summer	S29	31	29.509	0.133	24.2	0.1500	0.0000	OK	10.002	S32	24.1	0.867	0.333	0.1303	
60 minute summer	S30	31	30.144	0.044	3.3	0.0070	0.0000	OK	9.000	S31	3.2	0.761	0.184	0.1499	
60 minute summer	S31	31	29.329	0.083	14.0	0.0937	0.0000	OK	9.001	S32	13.9	1.072	0.278	0.4567	
60 minute summer	S32	31	28.775	0.231	94.4	0.2612	0.0000	OK	7.004	S33	93.9	1.051	0.328	0.5611	
60 minute summer	S33	72	27.739	0.568	255.3	2.5704	0.0000	OK	1.008	S34	248.8	0.804	0.105	33.9046	
60 minute summer	S34	71	27.738	0.619	261.8	2.7997	0.0000	OK	1.009	S39	235.1	0.719	0.099	37.8050	
60 minute summer	S35	31	29.451	0.076	9.3	0.0857	0.0000	OK	11.000	S36	9.3	0.809	0.233	0.2805	
60 minute summer	S36	31	29.271	0.115	18.6	0.1299	0.0000	OK	11.001	S37	18.6	0.780	0.260	0.2413	
60 minute summer	S37	31	29.228	0.188	44.9	0.3327	0.0000	OK	11.002	S38	44.9	0.849	0.400	0.3991	
60 minute summer	S38	31	29.191	0.175	44.9	0.3092	0.0000	OK	11.003	S39	44.7	0.967	0.398	0.4360	

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60 minute summer	S39	69	27.737	0.670	286.1	3.0311	0.0000	OK	1.010	S40	254.1	1.190	0.106	16.2149	
60 minute summer	S40	70	27.738	0.692	254.9	184.1196	0.0000	OK	1.011	S41	14.0	0.277	0.006	14.3751	
60 minute summer	S41	69	27.739	0.711	14.0	3.2183	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
60 minute summer	S42	28	26.932	0.086	12.0	0.0972	0.0000	OK	1.013	S43	12.0	0.976	0.302	0.5286	
60 minute summer	S43	29	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
60 minute summer	C1	29	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	209.7
60 minute summer	EXG	29	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 30 year +30% 60 minute winter. 300 minute analysis at 1 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)
60 minute winter	S1	30	29.786	0.036	2.0	0.0057	0.0000	OK	1.000	S2	2.0	0.493	0.113	0.0186	
60 minute winter	S2	32	29.754	0.049	4.0	0.0078	0.0000	OK	1.001	S3	4.0	0.807	0.226	0.1796	
60 minute winter	S3	31	29.357	0.086	12.0	0.0974	0.0000	OK	1.002	S4	12.0	0.873	0.300	0.4965	
60 minute winter	S4	31	29.086	0.104	14.0	0.1171	0.0000	OK	1.003	S5	14.0	0.654	0.193	0.1104	
60 minute winter	S5	32	29.062	0.102	16.0	0.1155	0.0000	OK	1.004	S8	15.9	0.680	0.226	0.3851	
60 minute winter	S6	31	29.799	0.049	4.0	0.0078	0.0000	OK	2.000	S7	4.0	0.806	0.225	0.1925	
60 minute winter	S7	31	29.367	0.078	12.0	0.0888	0.0000	OK	2.001	S8	11.9	0.986	0.253	0.4718	
60 minute winter	S8	31	29.011	0.118	31.9	0.2093	0.0000	OK	1.005	S13	31.8	1.310	0.281	0.2838	
60 minute winter	S9	31	29.344	0.069	8.7	0.0784	0.0000	OK	4.000	S13	8.7	0.854	0.198	0.2856	
60 minute winter	S10	31	29.097	0.097	21.0	0.1093	0.0000	OK	3.000	S11	21.0	0.809	0.229	0.7088	
60 minute winter	S11	31	28.957	0.142	31.9	0.2503	0.0000	OK	3.001	S12	31.8	0.894	0.285	0.9652	
60 minute winter	S12	31	28.820	0.165	43.2	0.2908	0.0000	OK	3.002	S13	43.1	0.906	0.270	0.6364	
60 minute winter	S13	32	28.386	0.214	90.5	0.7414	0.0000	OK	1.006	S20	90.5	0.915	0.142	2.6739	
60 minute winter	S14	32	28.786	0.036	2.2	0.0410	0.0000	OK	5.000	S15	2.2	0.680	0.124	0.0757	
60 minute winter	S15	31	28.507	0.064	6.9	0.0719	0.0000	OK	5.001	S16	6.9	0.667	0.173	0.2425	
60 minute winter	S16	31	28.380	0.075	9.1	0.0847	0.0000	OK	5.002	S19	9.1	0.805	0.227	0.2530	
60 minute winter	S17	32	29.186	0.036	2.2	0.0058	0.0000	OK	6.000	S18	2.2	0.679	0.124	0.0605	
60 minute winter	S18	31	28.954	0.065	6.9	0.0737	0.0000	OK	6.001	S19	6.9	0.743	0.173	0.1735	
60 minute winter	S19	68	27.808	0.611	18.2	2.7620	0.0000	OK	5.003	S20	16.4	0.120	0.007	4.1557	
60 minute winter	S20	68	27.808	0.617	111.9	2.7892	0.0000	OK	1.007	S33	107.3	0.442	0.045	14.0130	
60 minute winter	S21	31	30.149	0.049	4.0	0.0078	0.0000	OK	7.000	S22	4.0	0.806	0.225	0.1738	
60 minute winter	S22	31	29.762	0.086	12.0	0.0975	0.0000	OK	7.001	S23	11.9	0.871	0.300	0.4818	
60 minute winter	S23	31	29.023	0.079	15.9	0.1390	0.0000	OK	7.002	S26	15.9	0.567	0.069	0.7166	
60 minute winter	S24	31	29.994	0.069	8.0	0.0785	0.0000	OK	8.000	S25	8.0	0.780	0.201	0.3372	
60 minute winter	S25	31	29.214	0.087	24.1	0.1537	0.0000	OK	8.001	S26	24.1	0.816	0.084	1.1974	
60 minute winter	S27	31	29.752	0.077	9.6	0.0865	0.0000	OK	10.000	S28	9.6	0.820	0.241	0.3823	
60 minute winter	S26	32	28.946	0.132	40.0	0.2326	0.0000	OK	7.003	S32	39.8	1.075	0.172	0.8642	
60 minute winter	S28	31	29.523	0.116	18.1	0.1311	0.0000	OK	10.001	S29	18.1	0.734	0.255	0.1858	
60 minute winter	S29	31	29.489	0.113	18.1	0.1274	0.0000	OK	10.002	S32	18.1	0.804	0.250	0.1052	
60 minute winter	S30	31	30.138	0.038	2.5	0.0061	0.0000	OK	9.000	S31	2.5	0.706	0.140	0.1236	
60 minute winter	S31	31	29.317	0.071	10.5	0.0802	0.0000	OK	9.001	S32	10.5	0.992	0.209	0.3701	
60 minute winter	S32	31	28.744	0.200	72.0	0.2267	0.0000	OK	7.004	S33	72.0	0.975	0.251	0.4631	
60 minute winter	S33	68	27.808	0.637	192.6	2.8796	0.0000	OK	1.008	S34	180.1	0.722	0.076	39.2412	
60 minute winter	S34	68	27.808	0.689	191.2	3.1149	0.0000	OK	1.009	S39	163.1	0.665	0.069	43.2919	
60 minute winter	S35	31	29.440	0.065	6.9	0.0731	0.0000	OK	11.000	S36	6.9	0.746	0.173	0.2258	
60 minute winter	S36	31	29.251	0.095	13.8	0.1073	0.0000	OK	11.001	S37	13.8	0.758	0.193	0.1786	
60 minute winter	S37	31	29.198	0.158	33.4	0.2799	0.0000	OK	11.002	S38	33.4	0.787	0.297	0.3202	

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60 minute winter	S38	31	29.165	0.149	33.4	0.2626	0.0000	OK	11.003	S39	33.3	0.891	0.297	0.3532	
60 minute winter	S39	69	27.808	0.741	203.3	3.3501	0.0000	OK	1.010	S40	177.2	1.282	0.074	18.4052	
60 minute winter	S40	70	27.808	0.762	177.9	203.6534	0.0000	OK	1.011	S41	16.9	0.299	0.007	16.2425	
60 minute winter	S41	66	27.810	0.782	16.9	3.5368	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
60 minute winter	S42	26	26.932	0.086	12.0	0.0973	0.0000	OK	1.013	S43	12.0	0.976	0.302	0.5286	
60 minute winter	S43	26	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
60 minute winter	C1	27	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	210.8
60 minute winter	EXG	27	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 30 year +30% 120 minute summer. 360 minute analysis at 2 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)
120 minute summer	S1	62	29.783	0.033	1.7	0.0052	0.0000	OK	1.000	S2	1.7	0.476	0.096	0.0164	
120 minute summer	S2	62	29.750	0.045	3.4	0.0072	0.0000	OK	1.001	S3	3.4	0.771	0.192	0.1594	
120 minute summer	S3	62	29.349	0.078	10.1	0.0886	0.0000	OK	1.002	S4	10.1	0.833	0.252	0.4373	
120 minute summer	S4	62	29.076	0.094	11.8	0.1059	0.0000	OK	1.003	S5	11.7	0.632	0.163	0.0961	
120 minute summer	S5	62	29.052	0.092	13.4	0.1046	0.0000	OK	1.004	S8	13.4	0.655	0.190	0.3360	
120 minute summer	S6	62	29.794	0.044	3.3	0.0070	0.0000	OK	2.000	S7	3.3	0.765	0.186	0.1677	
120 minute summer	S7	62	29.360	0.071	10.0	0.0806	0.0000	OK	2.001	S8	10.0	0.939	0.212	0.4138	
120 minute summer	S8	62	29.000	0.107	26.7	0.1892	0.0000	OK	1.005	S13	26.6	1.252	0.235	0.2487	
120 minute summer	S9	62	29.338	0.063	7.2	0.0710	0.0000	OK	4.000	S13	7.2	0.811	0.164	0.2491	
120 minute summer	S10	62	29.088	0.088	17.4	0.0992	0.0000	OK	3.000	S11	17.4	0.770	0.190	0.6210	
120 minute summer	S11	62	28.943	0.128	26.5	0.2265	0.0000	OK	3.001	S12	26.5	0.850	0.238	0.8455	
120 minute summer	S12	62	28.804	0.149	36.0	0.2639	0.0000	OK	3.002	S13	36.0	0.863	0.225	0.5576	
120 minute summer	S13	62	28.369	0.197	75.6	0.6811	0.0000	OK	1.006	S20	75.3	0.862	0.118	2.3607	
120 minute summer	S14	62	28.784	0.034	1.9	0.0380	0.0000	OK	5.000	S15	1.9	0.652	0.107	0.0680	
120 minute summer	S15	62	28.501	0.058	5.8	0.0655	0.0000	OK	5.001	S16	5.8	0.636	0.146	0.2136	
120 minute summer	S16	62	28.373	0.068	7.7	0.0775	0.0000	OK	5.002	S19	7.7	0.769	0.192	0.2238	
120 minute summer	S17	62	29.184	0.034	1.9	0.0054	0.0000	OK	6.000	S18	1.9	0.652	0.107	0.0544	
120 minute summer	S18	62	28.948	0.059	5.8	0.0672	0.0000	OK	6.001	S19	5.8	0.708	0.146	0.1530	
120 minute summer	S19	132	27.866	0.669	15.4	3.0246	0.0000	OK	5.003	S20	12.8	0.074	0.005	4.6826	
120 minute summer	S20	132	27.866	0.675	92.7	3.0517	0.0000	OK	1.007	S33	86.2	0.366	0.036	15.7441	
120 minute summer	S21	62	30.144	0.044	3.3	0.0071	0.0000	OK	7.000	S22	3.3	0.765	0.186	0.1514	
120 minute summer	S22	62	29.754	0.078	10.0	0.0883	0.0000	OK	7.001	S23	10.0	0.830	0.251	0.4224	
120 minute summer	S23	62	29.016	0.072	13.3	0.1271	0.0000	OK	7.002	S26	13.3	0.540	0.057	0.6278	
120 minute summer	S24	62	29.988	0.063	6.7	0.0716	0.0000	OK	8.000	S25	6.7	0.743	0.168	0.2968	
120 minute summer	S25	62	29.207	0.080	20.1	0.1408	0.0000	OK	8.001	S26	20.1	0.781	0.070	1.0506	
120 minute summer	S27	62	29.744	0.069	8.0	0.0786	0.0000	OK	10.000	S28	8.0	0.781	0.201	0.3349	
120 minute summer	S26	62	28.933	0.119	33.3	0.2111	0.0000	OK	7.003	S32	33.1	1.021	0.143	0.7560	
120 minute summer	S28	62	29.511	0.104	15.1	0.1181	0.0000	OK	10.001	S29	15.1	0.704	0.213	0.1619	
120 minute summer	S29	62	29.478	0.102	15.1	0.1154	0.0000	OK	10.002	S32	15.1	0.767	0.209	0.0922	
120 minute summer	S30	62	30.134	0.034	2.0	0.0055	0.0000	OK	9.000	S31	2.0	0.664	0.113	0.1056	
120 minute summer	S31	62	29.310	0.064	8.7	0.0727	0.0000	OK	9.001	S32	8.7	0.943	0.173	0.3235	
120 minute summer	S32	62	28.727	0.183	60.1	0.2068	0.0000	OK	7.004	S33	60.1	0.924	0.210	0.4076	
120 minute summer	S33	132	27.866	0.695	157.4	3.1422	0.0000	OK	1.008	S34	141.0	0.545	0.059	43.7656	
120 minute summer	S34	128	27.866	0.747	150.3	3.3778	0.0000	OK	1.009	S39	122.7	0.425	0.052	47.8394	
120 minute summer	S35	62	29.434	0.059	5.8	0.0668	0.0000	OK	11.000	S36	5.8	0.711	0.146	0.1993	
120 minute summer	S36	62	29.242	0.086	11.6	0.0978	0.0000	OK	11.001	S37	11.6	0.724	0.162	0.1574	
120 minute summer	S37	62	29.183	0.143	27.9	0.2525	0.0000	OK	11.002	S38	27.9	0.753	0.249	0.2797	
120 minute summer	S38	62	29.151	0.135	27.9	0.2381	0.0000	OK	11.003	S39	27.9	0.849	0.248	0.3101	

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120 minute summer	S39	128	27.866	0.799	156.7	3.6131	0.0000	OK	1.010	S40	134.8	1.002	0.056	20.2185	
120 minute summer	S40	128	27.866	0.820	135.4	219.9686	0.0000	OK	1.011	S41	8.6	0.227	0.004	17.7582	
120 minute summer	S41	128	27.866	0.838	8.6	3.7896	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
120 minute summer	S42	50	26.932	0.086	12.0	0.0973	0.0000	OK	1.013	S43	12.0	0.852	0.302	0.5286	
120 minute summer	S43	52	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
120 minute summer	C1	52	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	254.0
120 minute summer	EXG	52	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 30 year +30% 120 minute winter. 360 minute analysis at 2 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)
120 minute winter	S1	58	29.777	0.027	1.2	0.0043	0.0000	OK	1.000	S2	1.2	0.435	0.068	0.0126	
120 minute winter	S2	64	29.743	0.038	2.4	0.0060	0.0000	OK	1.001	S3	2.4	0.699	0.136	0.1244	
120 minute winter	S3	62	29.338	0.067	7.4	0.0752	0.0000	OK	1.002	S4	7.4	0.766	0.186	0.3497	
120 minute winter	S4	62	29.060	0.078	8.6	0.0884	0.0000	OK	1.003	S5	8.6	0.594	0.119	0.0748	
120 minute winter	S5	62	29.037	0.077	9.8	0.0875	0.0000	OK	1.004	S8	9.8	0.607	0.139	0.2649	
120 minute winter	S6	62	29.788	0.038	2.5	0.0061	0.0000	OK	2.000	S7	2.5	0.707	0.141	0.1375	
120 minute winter	S7	62	29.350	0.061	7.5	0.0694	0.0000	OK	2.001	S8	7.5	0.867	0.159	0.3364	
120 minute winter	S8	62	28.984	0.091	19.8	0.1604	0.0000	OK	1.005	S13	19.8	1.160	0.175	0.1993	
120 minute winter	S9	62	29.329	0.054	5.4	0.0612	0.0000	OK	4.000	S13	5.4	0.748	0.123	0.2025	
120 minute winter	S10	62	29.076	0.076	13.0	0.0855	0.0000	OK	3.000	S11	13.0	0.705	0.142	0.5046	
120 minute winter	S11	62	28.925	0.110	19.8	0.1940	0.0000	OK	3.001	S12	19.8	0.785	0.178	0.6838	
120 minute winter	S12	62	28.783	0.128	26.8	0.2262	0.0000	OK	3.002	S13	26.8	0.796	0.168	0.4500	
120 minute winter	S13	62	28.343	0.171	56.3	0.5915	0.0000	OK	1.006	S20	56.2	0.796	0.088	1.9108	
120 minute winter	S14	62	28.779	0.029	1.4	0.0326	0.0000	OK	5.000	S15	1.4	0.597	0.079	0.0548	
120 minute winter	S15	62	28.493	0.050	4.3	0.0561	0.0000	OK	5.001	S16	4.3	0.588	0.108	0.1713	
120 minute winter	S16	62	28.364	0.059	5.7	0.0662	0.0000	OK	5.002	S19	5.7	0.708	0.143	0.1802	
120 minute winter	S17	62	29.179	0.029	1.4	0.0046	0.0000	OK	6.000	S18	1.4	0.597	0.079	0.0438	
120 minute winter	S18	62	28.940	0.051	4.3	0.0576	0.0000	OK	6.001	S19	4.3	0.652	0.108	0.1232	
120 minute winter	S19	126	27.950	0.753	11.4	3.4070	0.0000	OK	5.003	S20	9.0	0.075	0.004	5.4570	
120 minute winter	S20	126	27.950	0.759	68.8	3.4341	0.0000	OK	1.007	S33	62.8	0.357	0.026	18.2860	
120 minute winter	S21	62	30.138	0.038	2.5	0.0061	0.0000	OK	7.000	S22	2.5	0.708	0.141	0.1241	
120 minute winter	S22	62	29.743	0.067	7.5	0.0758	0.0000	OK	7.001	S23	7.5	0.768	0.188	0.3429	
120 minute winter	S23	62	29.007	0.063	10.0	0.1109	0.0000	OK	7.002	S26	10.0	0.501	0.043	0.5092	
120 minute winter	S24	62	29.979	0.054	5.0	0.0616	0.0000	OK	8.000	S25	5.0	0.685	0.126	0.2405	
120 minute winter	S25	62	29.196	0.069	14.9	0.1217	0.0000	OK	8.001	S26	14.9	0.711	0.052	0.8488	
120 minute winter	S27	62	29.734	0.059	5.9	0.0670	0.0000	OK	10.000	S28	5.9	0.718	0.148	0.2689	
120 minute winter	S26	62	28.917	0.103	24.9	0.1814	0.0000	OK	7.003	S32	24.8	0.945	0.107	0.6129	
120 minute winter	S28	62	29.495	0.088	11.1	0.0993	0.0000	OK	10.001	S29	11.1	0.654	0.157	0.1280	
120 minute winter	S29	62	29.462	0.086	11.1	0.0978	0.0000	OK	10.002	S32	11.1	0.706	0.153	0.0736	
120 minute winter	S30	64	30.130	0.030	1.5	0.0047	0.0000	OK	9.000	S31	1.5	0.611	0.085	0.0862	
120 minute winter	S31	62	29.301	0.055	6.5	0.0626	0.0000	OK	9.001	S32	6.5	0.870	0.130	0.2626	
120 minute winter	S32	62	28.702	0.158	44.9	0.1781	0.0000	OK	7.004	S33	44.9	0.852	0.157	0.3304	
120 minute winter	S33	126	27.950	0.779	116.0	3.5246	0.0000	OK	1.008	S34	101.3	0.547	0.043	50.3752	
120 minute winter	S34	126	27.950	0.831	108.2	3.7600	0.0000	OK	1.009	S39	86.3	0.458	0.036	54.4178	
120 minute winter	S35	62	29.426	0.051	4.3	0.0573	0.0000	OK	11.000	S36	4.3	0.654	0.108	0.1607	
120 minute winter	S36	62	29.230	0.074	8.6	0.0835	0.0000	OK	11.001	S37	8.6	0.668	0.120	0.1266	
120 minute winter	S37	62	29.161	0.121	20.8	0.2142	0.0000	OK	11.002	S38	20.8	0.700	0.185	0.2243	

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120 minute winter	S38	62	29.131	0.115	20.8	0.2034	0.0000	OK	11.003	S39	20.8	0.784	0.185	0.2503	
120 minute winter	S39	126	27.950	0.883	111.7	3.9952	0.0000	OK	1.010	S40	95.2	1.078	0.040	22.8288	
120 minute winter	S40	128	27.950	0.904	95.6	243.9264	0.0000	OK	1.011	S41	7.8	0.249	0.003	19.9804	
120 minute winter	S41	126	27.950	0.922	7.8	4.1731	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
120 minute winter	S42	46	26.932	0.086	12.0	0.0973	0.0000	OK	1.013	S43	12.0	0.852	0.302	0.5286	
120 minute winter	S43	46	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
120 minute winter	C1	46	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	255.3
120 minute winter	EXG	46	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 30 year +30% 180 minute summer. 420 minute analysis at 4 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)
180 minute summer	S1	92	29.778	0.028	1.3	0.0045	0.0000	OK	1.000	S2	1.3	0.443	0.073	0.0132	
180 minute summer	S2	92	29.744	0.039	2.6	0.0061	0.0000	OK	1.001	S3	2.5	0.707	0.142	0.1285	
180 minute summer	S3	92	29.338	0.067	7.6	0.0755	0.0000	OK	1.002	S4	7.4	0.766	0.186	0.3511	
180 minute summer	S4	92	29.061	0.079	8.7	0.0890	0.0000	OK	1.003	S5	8.7	0.594	0.120	0.0755	
180 minute summer	S5	92	29.038	0.078	10.0	0.0881	0.0000	OK	1.004	S8	9.9	0.609	0.139	0.2658	
180 minute summer	S6	92	29.789	0.039	2.6	0.0061	0.0000	OK	2.000	S7	2.5	0.708	0.143	0.1386	
180 minute summer	S7	92	29.350	0.061	7.6	0.0693	0.0000	OK	2.001	S8	7.4	0.865	0.158	0.3354	
180 minute summer	S8	92	28.984	0.091	19.9	0.1602	0.0000	OK	1.005	S13	19.7	1.157	0.174	0.1989	
180 minute summer	S9	92	29.330	0.055	5.6	0.0618	0.0000	OK	4.000	S13	5.5	0.751	0.125	0.2051	
180 minute summer	S10	92	29.076	0.076	13.4	0.0865	0.0000	OK	3.000	S11	13.3	0.713	0.145	0.5091	
180 minute summer	S11	92	28.925	0.110	20.3	0.1946	0.0000	OK	3.001	S12	19.8	0.783	0.178	0.6853	
180 minute summer	S12	92	28.783	0.128	27.1	0.2268	0.0000	OK	3.002	S13	26.8	0.795	0.168	0.4510	
180 minute summer	S13	92	28.342	0.170	56.4	0.5889	0.0000	OK	1.006	S20	55.3	0.790	0.087	1.8947	
180 minute summer	S14	92	28.779	0.029	1.4	0.0323	0.0000	OK	5.000	S15	1.4	0.592	0.077	0.0539	
180 minute summer	S15	92	28.493	0.050	4.4	0.0565	0.0000	OK	5.001	S16	4.3	0.592	0.108	0.1709	
180 minute summer	S16	92	28.363	0.058	5.7	0.0656	0.0000	OK	5.002	S19	5.6	0.703	0.140	0.1779	
180 minute summer	S17	92	29.179	0.029	1.4	0.0046	0.0000	OK	6.000	S18	1.4	0.593	0.077	0.0433	
180 minute summer	S18	92	28.940	0.051	4.4	0.0577	0.0000	OK	6.001	S19	4.3	0.651	0.108	0.1235	
180 minute summer	S19	188	27.938	0.741	11.3	3.3515	0.0000	OK	5.003	S20	8.9	0.079	0.004	5.3443	
180 minute summer	S20	188	27.938	0.747	67.8	3.3787	0.0000	OK	1.007	S33	61.9	0.303	0.026	17.9171	
180 minute summer	S21	92	30.139	0.039	2.6	0.0062	0.0000	OK	7.000	S22	2.5	0.709	0.143	0.1252	
180 minute summer	S22	92	29.743	0.067	7.6	0.0758	0.0000	OK	7.001	S23	7.4	0.765	0.187	0.3419	
180 minute summer	S23	92	29.007	0.063	10.0	0.1106	0.0000	OK	7.002	S26	9.9	0.503	0.043	0.5048	
180 minute summer	S24	92	29.979	0.054	5.1	0.0616	0.0000	OK	8.000	S25	5.0	0.683	0.125	0.2402	
180 minute summer	S25	92	29.196	0.069	15.3	0.1226	0.0000	OK	8.001	S26	15.1	0.721	0.053	0.8457	
180 minute summer	S27	92	29.735	0.060	6.1	0.0676	0.0000	OK	10.000	S28	6.0	0.719	0.150	0.2715	
180 minute summer	S26	92	28.916	0.102	25.0	0.1799	0.0000	OK	7.003	S32	24.3	0.938	0.105	0.6051	
180 minute summer	S28	92	29.496	0.089	11.4	0.1004	0.0000	OK	10.001	S29	11.3	0.658	0.160	0.1297	
180 minute summer	S29	92	29.463	0.087	11.3	0.0985	0.0000	OK	10.002	S32	11.2	0.707	0.155	0.0743	
180 minute summer	S30	92	30.130	0.030	1.6	0.0048	0.0000	OK	9.000	S31	1.6	0.618	0.088	0.0886	
180 minute summer	S31	92	29.302	0.056	6.7	0.0629	0.0000	OK	9.001	S32	6.5	0.870	0.130	0.2638	
180 minute summer	S32	92	28.701	0.157	44.6	0.1775	0.0000	OK	7.004	S33	44.5	0.849	0.155	0.3285	
180 minute summer	S33	188	27.938	0.767	114.8	3.4693	0.0000	OK	1.008	S34	100.2	0.423	0.042	49.4246	
180 minute summer	S34	188	27.938	0.819	107.3	3.7051	0.0000	OK	1.009	S39	85.4	0.376	0.036	53.4838	
180 minute summer	S35	92	29.426	0.051	4.4	0.0575	0.0000	OK	11.000	S36	4.3	0.654	0.108	0.1613	
180 minute summer	S36	92	29.230	0.074	8.7	0.0838	0.0000	OK	11.001	S37	8.6	0.668	0.121	0.1271	
180 minute summer	S37	92	29.162	0.122	21.1	0.2154	0.0000	OK	11.002	S38	21.0	0.704	0.187	0.2254	
180 minute summer	S38	92	29.131	0.115	21.0	0.2038	0.0000	OK	11.003	S39	20.8	0.783	0.185	0.2506	

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180 minute summer	S39	188	27.938	0.871	110.9	3.9411	0.0000	OK	1.010	S40	94.7	0.898	0.040	22.4632	
180 minute summer	S40	188	27.938	0.892	95.1	240.5368	0.0000	OK	1.011	S41	6.7	0.205	0.003	19.6666	
180 minute summer	S41	188	27.938	0.910	6.7	4.1178	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
180 minute summer	S42	72	26.932	0.086	12.0	0.0973	0.0000	OK	1.013	S43	12.0	0.852	0.302	0.5286	
180 minute summer	S43	72	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
180 minute summer	C1	72	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	296.7
180 minute summer	EXG	72	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 30 year +30% 180 minute winter. 420 minute analysis at 4 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)
180 minute winter	S1	88	29.773	0.023	0.9	0.0037	0.0000	OK	1.000	S2	0.9	0.403	0.051	0.0102	
180 minute winter	S2	96	29.738	0.033	1.8	0.0052	0.0000	OK	1.001	S3	1.8	0.644	0.102	0.1012	
180 minute winter	S3	92	29.328	0.057	5.5	0.0644	0.0000	OK	1.002	S4	5.5	0.704	0.138	0.2819	
180 minute winter	S4	92	29.048	0.066	6.4	0.0750	0.0000	OK	1.003	S5	6.4	0.556	0.088	0.0593	
180 minute winter	S5	92	29.026	0.066	7.3	0.0744	0.0000	OK	1.004	S8	7.3	0.567	0.103	0.2110	
180 minute winter	S6	92	29.783	0.033	1.9	0.0053	0.0000	OK	2.000	S7	1.9	0.652	0.106	0.1122	
180 minute winter	S7	92	29.342	0.053	5.6	0.0595	0.0000	OK	2.001	S8	5.5	0.797	0.118	0.2711	
180 minute winter	S8	92	28.970	0.077	14.7	0.1365	0.0000	OK	1.005	S13	14.7	1.072	0.130	0.1601	
180 minute winter	S9	92	29.321	0.046	4.0	0.0524	0.0000	OK	4.000	S13	4.0	0.686	0.091	0.1629	
180 minute winter	S10	92	29.065	0.065	9.7	0.0738	0.0000	OK	3.000	S11	9.7	0.647	0.106	0.4089	
180 minute winter	S11	92	28.909	0.094	14.8	0.1664	0.0000	OK	3.001	S12	14.7	0.725	0.132	0.5506	
180 minute winter	S12	92	28.765	0.110	20.0	0.1946	0.0000	OK	3.002	S13	20.0	0.733	0.125	0.3641	
180 minute winter	S13	92	28.321	0.149	41.8	0.5158	0.0000	OK	1.006	S20	41.6	0.724	0.065	1.5573	
180 minute winter	S14	92	28.774	0.024	1.0	0.0276	0.0000	OK	5.000	S15	1.0	0.541	0.057	0.0432	
180 minute winter	S15	92	28.486	0.043	3.2	0.0484	0.0000	OK	5.001	S16	3.2	0.543	0.080	0.1376	
180 minute winter	S16	92	28.355	0.050	4.2	0.0564	0.0000	OK	5.002	S19	4.2	0.649	0.105	0.1441	
180 minute winter	S17	92	29.174	0.024	1.0	0.0039	0.0000	OK	6.000	S18	1.0	0.541	0.056	0.0345	
180 minute winter	S18	92	28.933	0.044	3.2	0.0495	0.0000	OK	6.001	S19	3.2	0.598	0.080	0.0996	
180 minute winter	S19	188	28.037	0.840	8.4	3.8016	0.0000	OK	5.003	S20	6.5	0.054	0.003	6.2549	
180 minute winter	S20	188	28.037	0.846	50.8	3.8288	0.0000	OK	1.007	S33	46.2	0.308	0.019	20.8986	
180 minute winter	S21	92	30.133	0.033	1.9	0.0053	0.0000	OK	7.000	S22	1.9	0.653	0.106	0.1012	
180 minute winter	S22	92	29.733	0.057	5.6	0.0649	0.0000	OK	7.001	S23	5.5	0.706	0.139	0.2762	
180 minute winter	S23	92	28.998	0.054	7.4	0.0962	0.0000	OK	7.002	S26	7.4	0.461	0.032	0.4110	
180 minute winter	S24	92	29.972	0.047	3.7	0.0527	0.0000	OK	8.000	S25	3.7	0.628	0.093	0.1933	
180 minute winter	S25	92	29.187	0.060	11.2	0.1059	0.0000	OK	8.001	S26	11.2	0.657	0.039	0.6864	
180 minute winter	S27	92	29.726	0.051	4.5	0.0581	0.0000	OK	10.000	S28	4.5	0.664	0.112	0.2202	
180 minute winter	S26	92	28.902	0.088	18.6	0.1557	0.0000	OK	7.003	S32	18.4	0.869	0.080	0.4951	
180 minute winter	S28	92	29.482	0.075	8.4	0.0849	0.0000	OK	10.001	S29	8.4	0.611	0.118	0.1031	
180 minute winter	S29	92	29.450	0.074	8.4	0.0840	0.0000	OK	10.002	S32	8.3	0.653	0.115	0.0598	
180 minute winter	S30	96	30.126	0.026	1.1	0.0041	0.0000	OK	9.000	S31	1.1	0.558	0.062	0.0693	
180 minute winter	S31	92	29.293	0.047	4.8	0.0536	0.0000	OK	9.001	S32	4.8	0.797	0.095	0.2109	
180 minute winter	S32	92	28.679	0.135	33.5	0.1532	0.0000	OK	7.004	S33	33.4	0.787	0.117	0.2661	
180 minute winter	S33	188	28.037	0.866	85.8	3.9193	0.0000	OK	1.008	S34	74.4	0.453	0.031	57.1337	
180 minute winter	S34	188	28.037	0.918	79.6	4.1545	0.0000	OK	1.009	S39	63.2	0.417	0.027	61.0961	
180 minute winter	S35	92	29.419	0.044	3.2	0.0493	0.0000	OK	11.000	S36	3.2	0.600	0.080	0.1297	
180 minute winter	S36	92	29.219	0.063	6.4	0.0714	0.0000	OK	11.001	S37	6.4	0.618	0.089	0.1013	
180 minute winter	S37	92	29.143	0.103	15.5	0.1818	0.0000	OK	11.002	S38	15.5	0.651	0.138	0.1792	

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180 minute winter	S38	92	29.114	0.098	15.5	0.1737	0.0000	OK	11.003	S39	15.4	0.724	0.137	0.2009	
180 minute winter	S39	188	28.037	0.970	82.0	4.3897	0.0000	OK	1.010	S40	69.8	0.980	0.029	25.4635	
180 minute winter	S40	188	28.037	0.991	70.1	268.9142	0.0000	OK	1.011	S41	5.4	0.217	0.002	22.2063	
180 minute winter	S41	188	28.037	1.009	5.4	4.5659	0.0000	SURCHARGED	Hydro-Brake®	S42	1.9				
180 minute winter	S42	188	26.932	0.086	12.1	0.0974	0.0000	OK	1.013	S43	12.1	0.852	0.303	0.5295	
180 minute winter	S43	188	26.713	0.088	12.1	0.0995	0.0000	OK	1.014	C1	12.1	1.017	0.302	0.0440	
180 minute winter	C1	188	26.668	0.065	12.1	0.0734	0.0000	OK	1.015	EXG	12.1	1.336	0.161	0.0884	298.3
180 minute winter	EXG	188	26.461	0.061	12.1	0.0000	0.0000	OK							

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Results for 30 year +30% 240 minute summer. 480 minute analysis at 4 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)
240 minute summer	S1	120	29.774	0.024	1.0	0.0039	0.0000	OK	1.000	S2	1.0	0.414	0.056	0.0110	
240 minute summer	S2	124	29.739	0.034	2.0	0.0055	0.0000	OK	1.001	S3	2.0	0.664	0.113	0.1091	
240 minute summer	S3	124	29.331	0.060	6.0	0.0675	0.0000	OK	1.002	S4	6.0	0.723	0.151	0.3006	
240 minute summer	S4	124	29.052	0.070	7.0	0.0789	0.0000	OK	1.003	S5	7.0	0.567	0.097	0.0639	
240 minute summer	S5	124	29.029	0.069	8.0	0.0784	0.0000	OK	1.004	S8	8.0	0.581	0.113	0.2261	
240 minute summer	S6	124	29.784	0.034	2.0	0.0055	0.0000	OK	2.000	S7	2.0	0.664	0.113	0.1173	
240 minute summer	S7	124	29.344	0.055	6.0	0.0619	0.0000	OK	2.001	S8	6.0	0.815	0.127	0.2868	
240 minute summer	S8	124	28.974	0.081	16.0	0.1429	0.0000	OK	1.005	S13	16.0	1.097	0.141	0.1705	
240 minute summer	S9	124	29.324	0.049	4.4	0.0551	0.0000	OK	4.000	S13	4.4	0.706	0.100	0.1748	
240 minute summer	S10	124	29.068	0.068	10.6	0.0772	0.0000	OK	3.000	S11	10.6	0.667	0.116	0.4357	
240 minute summer	S11	124	28.914	0.099	16.1	0.1742	0.0000	OK	3.001	S12	16.1	0.744	0.144	0.5870	
240 minute summer	S12	124	28.770	0.115	21.8	0.2036	0.0000	OK	3.002	S13	21.8	0.750	0.136	0.3885	
240 minute summer	S13	124	28.327	0.155	45.7	0.5384	0.0000	OK	1.006	S20	45.7	0.744	0.072	1.6627	
240 minute summer	S14	124	28.776	0.026	1.1	0.0290	0.0000	OK	5.000	S15	1.1	0.556	0.062	0.0462	
240 minute summer	S15	124	28.488	0.045	3.5	0.0506	0.0000	OK	5.001	S16	3.5	0.557	0.088	0.1473	
240 minute summer	S16	124	28.357	0.052	4.6	0.0593	0.0000	OK	5.002	S19	4.6	0.667	0.115	0.1546	
240 minute summer	S17	124	29.176	0.026	1.1	0.0041	0.0000	OK	6.000	S18	1.1	0.556	0.062	0.0369	
240 minute summer	S18	124	28.935	0.046	3.5	0.0519	0.0000	OK	6.001	S19	3.5	0.615	0.088	0.1064	
240 minute summer	S19	248	27.990	0.793	9.2	3.5884	0.0000	OK	5.003	S20	7.2	0.094	0.003	5.8247	
240 minute summer	S20	248	27.990	0.799	55.7	3.6155	0.0000	OK	1.007	S33	50.6	0.270	0.021	19.4903	
240 minute summer	S21	124	30.134	0.034	2.0	0.0055	0.0000	OK	7.000	S22	2.0	0.664	0.113	0.1058	
240 minute summer	S22	124	29.736	0.060	6.0	0.0675	0.0000	OK	7.001	S23	6.0	0.722	0.151	0.2921	
240 minute summer	S23	124	29.000	0.056	8.0	0.0997	0.0000	OK	7.002	S26	8.0	0.469	0.034	0.4359	
240 minute summer	S24	124	29.974	0.049	4.0	0.0550	0.0000	OK	8.000	S25	4.0	0.643	0.101	0.2050	
240 minute summer	S25	124	29.189	0.062	12.1	0.1101	0.0000	OK	8.001	S26	12.1	0.675	0.042	0.7291	
240 minute summer	S27	124	29.728	0.053	4.8	0.0603	0.0000	OK	10.000	S28	4.8	0.677	0.121	0.2319	
240 minute summer	S26	124	28.906	0.092	20.1	0.1626	0.0000	OK	7.003	S32	20.1	0.891	0.087	0.5262	
240 minute summer	S28	124	29.486	0.079	9.1	0.0890	0.0000	OK	10.001	S29	9.1	0.624	0.128	0.1101	
240 minute summer	S29	124	29.454	0.078	9.1	0.0880	0.0000	OK	10.002	S32	9.1	0.669	0.126	0.0637	
240 minute summer	S30	124	30.127	0.027	1.2	0.0042	0.0000	OK	9.000	S31	1.2	0.572	0.068	0.0737	
240 minute summer	S31	124	29.295	0.049	5.2	0.0559	0.0000	OK	9.001	S32	5.2	0.817	0.104	0.2237	
240 minute summer	S32	124	28.685	0.141	36.4	0.1598	0.0000	OK	7.004	S33	36.4	0.807	0.127	0.2827	
240 minute summer	S33	248	27.990	0.819	93.7	3.7060	0.0000	OK	1.008	S34	81.2	0.381	0.034	53.4957	
240 minute summer	S34	248	27.990	0.871	86.8	3.9415	0.0000	OK	1.009	S39	68.5	0.354	0.029	57.5140	
240 minute summer	S35	124	29.421	0.046	3.5	0.0516	0.0000	OK	11.000	S36	3.5	0.617	0.088	0.1387	
240 minute summer	S36	124	29.222	0.066	7.0	0.0749	0.0000	OK	11.001	S37	7.0	0.633	0.098	0.1087	
240 minute summer	S37	124	29.148	0.108	16.9	0.1909	0.0000	OK	11.002	S38	16.9	0.666	0.151	0.1917	
240 minute summer	S38	124	29.119	0.103	16.9	0.1822	0.0000	OK	11.003	S39	16.9	0.742	0.151	0.2147	

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240 minute summer	S39	248	27.990	0.923	89.1	4.1770	0.0000	OK	1.010	S40	75.8	0.864	0.032	24.0534	
240 minute summer	S40	248	27.990	0.944	76.1	255.4109	0.0000	OK	1.011	S41	5.6	0.171	0.002	21.0130	
240 minute summer	S41	248	27.990	0.962	5.6	4.3535	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
240 minute summer	S42	92	26.932	0.086	12.0	0.0973	0.0000	OK	1.013	S43	12.0	0.852	0.302	0.5286	
240 minute summer	S43	92	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
240 minute summer	C1	92	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	340.2
240 minute summer	EXG	92	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 30 year +30% 240 minute winter. 480 minute analysis at 4 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)
240 minute winter	S1	124	29.772	0.022	0.8	0.0035	0.0000	OK	1.000	S2	0.8	0.391	0.045	0.0094	
240 minute winter	S2	124	29.736	0.031	1.6	0.0049	0.0000	OK	1.001	S3	1.6	0.622	0.091	0.0931	
240 minute winter	S3	124	29.323	0.052	4.6	0.0589	0.0000	OK	1.002	S4	4.6	0.670	0.115	0.2484	
240 minute winter	S4	124	29.043	0.061	5.4	0.0685	0.0000	OK	1.003	S5	5.4	0.532	0.075	0.0525	
240 minute winter	S5	124	29.021	0.061	6.2	0.0685	0.0000	OK	1.004	S8	6.2	0.549	0.088	0.1853	
240 minute winter	S6	124	29.780	0.030	1.5	0.0047	0.0000	OK	2.000	S7	1.5	0.611	0.085	0.0956	
240 minute winter	S7	124	29.336	0.047	4.5	0.0535	0.0000	OK	2.001	S8	4.5	0.751	0.095	0.2335	
240 minute winter	S8	124	28.963	0.070	12.2	0.1237	0.0000	OK	1.005	S13	12.2	1.020	0.108	0.1397	
240 minute winter	S9	124	29.317	0.042	3.3	0.0477	0.0000	OK	4.000	S13	3.3	0.650	0.075	0.1425	
240 minute winter	S10	124	29.059	0.059	7.9	0.0667	0.0000	OK	3.000	S11	7.9	0.611	0.086	0.3537	
240 minute winter	S11	124	28.900	0.085	12.0	0.1498	0.0000	OK	3.001	S12	12.0	0.687	0.108	0.4741	
240 minute winter	S12	124	28.754	0.099	16.3	0.1754	0.0000	OK	3.002	S13	16.3	0.695	0.102	0.3136	
240 minute winter	S13	124	28.308	0.136	34.4	0.4707	0.0000	OK	1.006	S20	34.4	0.691	0.054	1.3488	
240 minute winter	S14	124	28.772	0.022	0.8	0.0248	0.0000	OK	5.000	S15	0.8	0.507	0.045	0.0369	
240 minute winter	S15	124	28.482	0.039	2.6	0.0438	0.0000	OK	5.001	S16	2.6	0.512	0.065	0.1189	
240 minute winter	S16	124	28.350	0.045	3.4	0.0509	0.0000	OK	5.002	S19	3.4	0.613	0.085	0.1245	
240 minute winter	S17	120	29.172	0.022	0.8	0.0035	0.0000	OK	6.000	S18	0.8	0.507	0.045	0.0295	
240 minute winter	S18	124	28.929	0.040	2.6	0.0447	0.0000	OK	6.001	S19	2.6	0.564	0.065	0.0861	
240 minute winter	S19	244	28.097	0.900	6.8	4.0705	0.0000	OK	5.003	S20	5.3	0.052	0.002	6.7929	
240 minute winter	S20	244	28.097	0.906	41.8	4.0976	0.0000	OK	1.007	S33	37.9	0.286	0.016	22.6579	
240 minute winter	S21	124	30.130	0.030	1.5	0.0047	0.0000	OK	7.000	S22	1.5	0.611	0.085	0.0862	
240 minute winter	S22	124	29.728	0.052	4.5	0.0583	0.0000	OK	7.001	S23	4.5	0.666	0.113	0.2376	
240 minute winter	S23	124	28.993	0.049	6.0	0.0872	0.0000	OK	7.002	S26	6.0	0.433	0.026	0.3535	
240 minute winter	S24	124	29.967	0.042	3.0	0.0476	0.0000	OK	8.000	S25	3.0	0.591	0.075	0.1672	
240 minute winter	S25	124	29.181	0.054	9.0	0.0956	0.0000	OK	8.001	S26	9.0	0.616	0.031	0.5905	
240 minute winter	S27	124	29.721	0.046	3.6	0.0521	0.0000	OK	10.000	S28	3.6	0.624	0.090	0.1887	
240 minute winter	S26	124	28.893	0.079	15.0	0.1402	0.0000	OK	7.003	S32	15.0	0.820	0.065	0.4268	
240 minute winter	S28	124	29.474	0.067	6.8	0.0760	0.0000	OK	10.001	S29	6.8	0.581	0.096	0.0883	
240 minute winter	S29	124	29.443	0.067	6.8	0.0755	0.0000	OK	10.002	S32	6.8	0.618	0.094	0.0515	
240 minute winter	S30	124	30.123	0.023	0.9	0.0037	0.0000	OK	9.000	S31	0.9	0.527	0.051	0.0601	
240 minute winter	S31	124	29.289	0.043	3.9	0.0484	0.0000	OK	9.001	S32	3.9	0.751	0.078	0.1824	
240 minute winter	S32	124	28.666	0.122	27.2	0.1385	0.0000	OK	7.004	S33	27.2	0.740	0.095	0.2303	
240 minute winter	S33	244	28.097	0.926	70.1	4.1881	0.0000	OK	1.008	S34	60.6	0.404	0.026	61.6590	
240 minute winter	S34	244	28.097	0.978	64.8	4.4235	0.0000	OK	1.009	S39	51.2	0.383	0.022	65.5374	
240 minute winter	S35	124	29.414	0.039	2.6	0.0445	0.0000	OK	11.000	S36	2.6	0.566	0.065	0.1123	
240 minute winter	S36	124	29.213	0.057	5.2	0.0643	0.0000	OK	11.001	S37	5.2	0.583	0.073	0.0876	
240 minute winter	S37	124	29.132	0.092	12.5	0.1621	0.0000	OK	11.002	S38	12.5	0.617	0.111	0.1529	

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240 minute winter	S38	124	29.104	0.088	12.5	0.1557	0.0000	OK	11.003	S39	12.5	0.685	0.111	0.1723	
240 minute winter	S39	244	28.097	1.030	66.5	4.6588	0.0000	OK	1.010	S40	56.6	0.894	0.024	27.2076	
240 minute winter	S40	244	28.097	1.051	56.9	286.1080	0.0000	OK	1.011	S41	4.6	0.206	0.002	23.6774	
240 minute winter	S41	244	28.097	1.069	4.6	4.8353	0.0000	SURCHARGED	Hydro-Brake®	S42	1.9				
240 minute winter	S42	244	26.932	0.086	12.1	0.0976	0.0000	OK	1.013	S43	12.1	0.853	0.304	0.5311	
240 minute winter	S43	248	26.713	0.088	12.1	0.0997	0.0000	OK	1.014	C1	12.1	1.018	0.303	0.0441	
240 minute winter	C1	248	26.668	0.065	12.1	0.0735	0.0000	OK	1.015	EXG	12.1	1.337	0.161	0.0886	341.8
240 minute winter	EXG	248	26.461	0.061	12.1	0.0000	0.0000	OK							

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Results for 30 year +30% 360 minute summer. 600 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 summer	S1	184	29.772	0.022	0.8	0.0034	0.0000	OK	1.000	S2	0.8	0.390	0.045	0.0093	
360 minute summer	S2	184	29.735	0.030	1.6	0.0048	0.0000	OK	1.001	S3	1.6	0.619	0.089	0.0921	
360 minute summer	S3	184	29.323	0.052	4.7	0.0590	0.0000	OK	1.002	S4	4.6	0.671	0.116	0.2493	
360 minute summer	S4	184	29.043	0.061	5.4	0.0686	0.0000	OK	1.003	S5	5.4	0.533	0.075	0.0524	
360 minute summer	S5	184	29.020	0.060	6.2	0.0684	0.0000	OK	1.004	S8	6.2	0.548	0.087	0.1847	
360 minute summer	S6	184	29.780	0.030	1.5	0.0047	0.0000	OK	2.000	S7	1.5	0.608	0.084	0.0946	
360 minute summer	S7	184	29.336	0.047	4.6	0.0537	0.0000	OK	2.001	S8	4.5	0.752	0.096	0.2344	
360 minute summer	S8	184	28.963	0.070	12.2	0.1234	0.0000	OK	1.005	S13	12.1	1.018	0.107	0.1392	
360 minute summer	S9	184	29.317	0.042	3.3	0.0475	0.0000	OK	4.000	S13	3.3	0.648	0.075	0.1416	
360 minute summer	S10	184	29.059	0.059	8.0	0.0670	0.0000	OK	3.000	S11	8.0	0.613	0.087	0.3547	
360 minute summer	S11	184	28.900	0.085	12.2	0.1500	0.0000	OK	3.001	S12	12.0	0.686	0.108	0.4743	
360 minute summer	S12	184	28.754	0.099	16.4	0.1756	0.0000	OK	3.002	S13	16.3	0.694	0.102	0.3138	
360 minute summer	S13	184	28.307	0.135	34.3	0.4685	0.0000	OK	1.006	S20	33.9	0.688	0.053	1.3374	
360 minute summer	S14	184	28.773	0.023	0.9	0.0260	0.0000	OK	5.000	S15	0.9	0.522	0.050	0.0395	
360 minute summer	S15	184	28.482	0.039	2.7	0.0443	0.0000	OK	5.001	S16	2.7	0.514	0.067	0.1210	
360 minute summer	S16	184	28.351	0.046	3.6	0.0516	0.0000	OK	5.002	S19	3.5	0.617	0.087	0.1268	
360 minute summer	S17	184	29.173	0.023	0.9	0.0037	0.0000	OK	6.000	S18	0.9	0.522	0.050	0.0316	
360 minute summer	S18	184	28.929	0.040	2.7	0.0452	0.0000	OK	6.001	S19	2.6	0.567	0.067	0.0874	
360 minute summer	S19	368	28.067	0.870	7.0	3.9355	0.0000	OK	5.003	S20	5.6	0.052	0.002	6.5236	
360 minute summer	S20	368	28.067	0.876	41.6	3.9626	0.0000	OK	1.007	S33	37.8	0.239	0.016	21.7782	
360 minute summer	S21	184	30.130	0.030	1.5	0.0047	0.0000	OK	7.000	S22	1.5	0.609	0.084	0.0854	
360 minute summer	S22	184	29.728	0.052	4.6	0.0585	0.0000	OK	7.001	S23	4.5	0.666	0.114	0.2386	
360 minute summer	S23	184	28.993	0.049	6.0	0.0871	0.0000	OK	7.002	S26	6.0	0.433	0.026	0.3521	
360 minute summer	S24	184	29.968	0.043	3.1	0.0481	0.0000	OK	8.000	S25	3.1	0.595	0.077	0.1697	
360 minute summer	S25	184	29.181	0.054	9.2	0.0961	0.0000	OK	8.001	S26	9.1	0.623	0.032	0.5903	
360 minute summer	S27	184	29.721	0.046	3.7	0.0525	0.0000	OK	10.000	S28	3.7	0.626	0.092	0.1909	
360 minute summer	S26	184	28.893	0.079	15.1	0.1397	0.0000	OK	7.003	S32	14.9	0.817	0.064	0.4242	
360 minute summer	S28	184	29.474	0.067	6.9	0.0762	0.0000	OK	10.001	S29	6.8	0.582	0.096	0.0886	
360 minute summer	S29	184	29.443	0.067	6.8	0.0756	0.0000	OK	10.002	S32	6.8	0.618	0.094	0.0516	
360 minute summer	S30	184	30.123	0.023	0.9	0.0037	0.0000	OK	9.000	S31	0.9	0.524	0.050	0.0595	
360 minute summer	S31	184	29.289	0.043	4.0	0.0487	0.0000	OK	9.001	S32	3.9	0.753	0.079	0.1840	
360 minute summer	S32	184	28.666	0.122	27.1	0.1381	0.0000	OK	7.004	S33	27.0	0.739	0.094	0.2293	
360 minute summer	S33	368	28.067	0.896	69.9	4.0532	0.0000	OK	1.008	S34	60.6	0.342	0.026	59.4004	
360 minute summer	S34	368	28.067	0.948	64.9	4.2887	0.0000	OK	1.009	S39	51.3	0.321	0.022	63.3270	
360 minute summer	S35	184	29.414	0.039	2.6	0.0444	0.0000	OK	11.000	S36	2.6	0.564	0.065	0.1116	
360 minute summer	S36	184	29.213	0.057	5.2	0.0641	0.0000	OK	11.001	S37	5.2	0.581	0.072	0.0871	
360 minute summer	S37	184	29.132	0.092	12.6	0.1629	0.0000	OK	11.002	S38	12.6	0.619	0.112	0.1538	
360 minute summer	S38	184	29.104	0.088	12.6	0.1561	0.0000	OK	11.003	S39	12.5	0.685	0.112	0.1728	

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360 minute summer	S39	368	28.067	1.000	66.7	4.5242	0.0000	OK	1.010	S40	56.7	0.800	0.024	26.3426	
360 minute summer	S40	368	28.067	1.021	57.0	277.4970	0.0000	OK	1.011	S41	4.5	0.171	0.002	22.9495	
360 minute summer	S41	368	28.067	1.039	4.5	4.7007	0.0000	SURCHARGED	Hydro-Brake®	S42	1.9				
360 minute summer	S42	368	26.932	0.086	12.1	0.0975	0.0000	OK	1.013	S43	12.1	0.853	0.303	0.5303	
360 minute summer	S43	368	26.713	0.088	12.1	0.0996	0.0000	OK	1.014	C1	12.1	1.017	0.302	0.0440	
360 minute summer	C1	368	26.668	0.065	12.1	0.0735	0.0000	OK	1.015	EXG	12.1	1.336	0.161	0.0885	425.3
360 minute summer	EXG	368	26.461	0.061	12.1	0.0000	0.0000	OK							

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Results for 30 year +30% 360 minute winter. 600 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)
360 minute winter	S1	184	29.769	0.019	0.6	0.0030	0.0000	OK	1.000	S2	0.6	0.359	0.034	0.0076	
360 minute winter	S2	184	29.731	0.026	1.2	0.0042	0.0000	OK	1.001	S3	1.2	0.568	0.066	0.0747	
360 minute winter	S3	184	29.315	0.044	3.4	0.0502	0.0000	OK	1.002	S4	3.3	0.612	0.084	0.1982	
360 minute winter	S4	184	29.033	0.051	3.9	0.0580	0.0000	OK	1.003	S5	3.9	0.493	0.055	0.0413	
360 minute winter	S5	184	29.011	0.051	4.5	0.0582	0.0000	OK	1.004	S8	4.5	0.507	0.064	0.1465	
360 minute winter	S6	192	29.776	0.026	1.1	0.0041	0.0000	OK	2.000	S7	1.1	0.558	0.062	0.0768	
360 minute winter	S7	192	29.330	0.041	3.3	0.0459	0.0000	OK	2.001	S8	3.3	0.686	0.070	0.1874	
360 minute winter	S8	184	28.952	0.059	8.9	0.1049	0.0000	OK	1.005	S13	8.9	0.936	0.079	0.1112	
360 minute winter	S9	184	29.311	0.036	2.4	0.0408	0.0000	OK	4.000	S13	2.4	0.593	0.055	0.1136	
360 minute winter	S10	184	29.051	0.051	5.8	0.0574	0.0000	OK	3.000	S11	5.8	0.558	0.063	0.2840	
360 minute winter	S11	184	28.888	0.073	8.8	0.1282	0.0000	OK	3.001	S12	8.8	0.627	0.079	0.3796	
360 minute winter	S12	184	28.740	0.085	12.0	0.1504	0.0000	OK	3.002	S13	12.0	0.639	0.075	0.2509	
360 minute winter	S13	184	28.290	0.118	25.2	0.4090	0.0000	OK	1.006	S20	25.1	0.627	0.039	1.0873	
360 minute winter	S14	184	28.769	0.019	0.6	0.0216	0.0000	OK	5.000	S15	0.6	0.465	0.034	0.0302	
360 minute winter	S15	184	28.476	0.033	1.9	0.0376	0.0000	OK	5.001	S16	1.9	0.467	0.048	0.0953	
360 minute winter	S16	192	28.344	0.039	2.5	0.0437	0.0000	OK	5.002	S19	2.5	0.560	0.063	0.1001	
360 minute winter	S17	184	29.169	0.019	0.6	0.0030	0.0000	OK	6.000	S18	0.6	0.465	0.034	0.0241	
360 minute winter	S18	184	28.923	0.034	1.9	0.0383	0.0000	OK	6.001	S19	1.9	0.515	0.048	0.0689	
360 minute winter	S19	368	28.181	0.984	5.0	4.4524	0.0000	OK	5.003	S20	3.9	0.049	0.002	7.5406	
360 minute winter	S20	368	28.181	0.990	30.6	4.4795	0.0000	OK	1.007	S33	27.8	0.254	0.012	25.0973	
360 minute winter	S21	192	30.126	0.026	1.1	0.0041	0.0000	OK	7.000	S22	1.1	0.558	0.062	0.0693	
360 minute winter	S22	192	29.720	0.044	3.3	0.0499	0.0000	OK	7.001	S23	3.3	0.609	0.083	0.1905	
360 minute winter	S23	192	28.987	0.043	4.4	0.0752	0.0000	OK	7.002	S26	4.4	0.398	0.019	0.2837	
360 minute winter	S24	184	29.961	0.036	2.2	0.0409	0.0000	OK	8.000	S25	2.2	0.541	0.055	0.1341	
360 minute winter	S25	184	29.174	0.047	6.7	0.0831	0.0000	OK	8.001	S26	6.7	0.568	0.023	0.4756	
360 minute winter	S27	184	29.715	0.040	2.7	0.0451	0.0000	OK	10.000	S28	2.7	0.573	0.068	0.1536	
360 minute winter	S26	184	28.882	0.068	11.1	0.1203	0.0000	OK	7.003	S32	11.1	0.753	0.048	0.3431	
360 minute winter	S28	184	29.465	0.058	5.1	0.0651	0.0000	OK	10.001	S29	5.1	0.540	0.072	0.0711	
360 minute winter	S29	184	29.433	0.057	5.1	0.0650	0.0000	OK	10.002	S32	5.1	0.569	0.070	0.0418	
360 minute winter	S30	192	30.120	0.020	0.7	0.0033	0.0000	OK	9.000	S31	0.7	0.488	0.040	0.0504	
360 minute winter	S31	192	29.283	0.037	2.9	0.0418	0.0000	OK	9.001	S32	2.9	0.689	0.058	0.1479	
360 minute winter	S32	184	28.649	0.105	20.1	0.1189	0.0000	OK	7.004	S33	20.1	0.687	0.070	0.1839	
360 minute winter	S33	368	28.181	1.010	51.6	4.5700	0.0000	OK	1.008	S34	44.6	0.349	0.019	67.9018	
360 minute winter	S34	368	28.181	1.062	47.7	4.8052	0.0000	OK	1.009	S39	37.7	0.348	0.016	71.5996	
360 minute winter	S35	184	29.409	0.034	1.9	0.0381	0.0000	OK	11.000	S36	1.9	0.517	0.048	0.0899	
360 minute winter	S36	184	29.204	0.048	3.8	0.0548	0.0000	OK	11.001	S37	3.8	0.540	0.053	0.0692	
360 minute winter	S37	184	29.118	0.078	9.3	0.1384	0.0000	OK	11.002	S38	9.3	0.572	0.083	0.1226	

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360 minute winter	S38	184	29.092	0.076	9.3	0.1337	0.0000	OK	11.003	S39	9.3	0.631	0.083	0.1388	
360 minute winter	S39	368	28.181	1.114	49.0	5.0404	0.0000	OK	1.010	S40	41.7	0.782	0.017	29.5642	
360 minute winter	S40	368	28.181	1.135	41.9	310.6851	0.0000	OK	1.011	S41	3.8	0.130	0.002	25.6581	
360 minute winter	S41	368	28.181	1.153	3.8	5.2168	0.0000	SURCHARGED	Hydro-Brake®	S42	2.0				
360 minute winter	S42	368	26.933	0.087	12.2	0.0979	0.0000	OK	1.013	S43	12.2	0.854	0.306	0.5332	
360 minute winter	S43	368	26.713	0.088	12.2	0.1000	0.0000	OK	1.014	C1	12.2	1.019	0.304	0.0443	
360 minute winter	C1	368	26.668	0.065	12.2	0.0738	0.0000	OK	1.015	EXG	12.2	1.339	0.162	0.0890	427.1
360 minute winter	EXG	368	26.461	0.061	12.2	0.0000	0.0000	OK							

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Results for 30 year +30% 480 minute summer. 720 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	S1	248	29.769	0.019	0.6	0.0030	0.0000	OK	1.000	S2	0.6	0.359	0.034	0.0077	
480 minute summer	S2	248	29.732	0.027	1.2	0.0042	0.0000	OK	1.001	S3	1.2	0.572	0.068	0.0760	
480 minute summer	S3	248	29.317	0.046	3.6	0.0520	0.0000	OK	1.002	S4	3.6	0.625	0.090	0.2086	
480 minute summer	S4	248	29.035	0.053	4.2	0.0599	0.0000	OK	1.003	S5	4.2	0.503	0.058	0.0432	
480 minute summer	S5	248	29.013	0.053	4.8	0.0598	0.0000	OK	1.004	S8	4.8	0.512	0.068	0.1538	
480 minute summer	S6	248	29.777	0.027	1.2	0.0042	0.0000	OK	2.000	S7	1.2	0.572	0.068	0.0817	
480 minute summer	S7	248	29.331	0.042	3.6	0.0479	0.0000	OK	2.001	S8	3.6	0.704	0.076	0.1993	
480 minute summer	S8	248	28.955	0.062	9.6	0.1091	0.0000	OK	1.005	S13	9.6	0.956	0.085	0.1174	
480 minute summer	S9	248	29.312	0.037	2.6	0.0424	0.0000	OK	4.000	S13	2.6	0.606	0.059	0.1203	
480 minute summer	S10	248	29.053	0.053	6.3	0.0598	0.0000	OK	3.000	S11	6.3	0.572	0.069	0.3020	
480 minute summer	S11	248	28.891	0.076	9.6	0.1339	0.0000	OK	3.001	S12	9.6	0.645	0.086	0.4037	
480 minute summer	S12	248	28.744	0.089	13.0	0.1568	0.0000	OK	3.002	S13	13.0	0.651	0.081	0.2669	
480 minute summer	S13	248	28.294	0.122	27.3	0.4241	0.0000	OK	1.006	S20	27.3	0.644	0.043	1.1491	
480 minute summer	S14	248	28.771	0.021	0.7	0.0232	0.0000	OK	5.000	S15	0.7	0.487	0.040	0.0336	
480 minute summer	S15	248	28.478	0.035	2.1	0.0395	0.0000	OK	5.001	S16	2.1	0.478	0.053	0.1029	
480 minute summer	S16	248	28.346	0.041	2.8	0.0462	0.0000	OK	5.002	S19	2.8	0.579	0.070	0.1085	
480 minute summer	S17	248	29.171	0.021	0.7	0.0033	0.0000	OK	6.000	S18	0.7	0.487	0.040	0.0268	
480 minute summer	S18	248	28.925	0.036	2.1	0.0402	0.0000	OK	6.001	S19	2.1	0.531	0.053	0.0739	
480 minute summer	S19	488	28.119	0.922	5.6	4.1721	0.0000	OK	5.003	S20	4.4	0.052	0.002	6.9943	
480 minute summer	S20	488	28.119	0.928	33.4	4.1993	0.0000	OK	1.007	S33	30.3	0.226	0.013	23.3145	
480 minute summer	S21	248	30.127	0.027	1.2	0.0042	0.0000	OK	7.000	S22	1.2	0.572	0.068	0.0737	
480 minute summer	S22	248	29.722	0.046	3.6	0.0521	0.0000	OK	7.001	S23	3.6	0.624	0.091	0.2026	
480 minute summer	S23	248	28.988	0.044	4.8	0.0783	0.0000	OK	7.002	S26	4.8	0.407	0.021	0.3012	
480 minute summer	S24	248	29.963	0.038	2.4	0.0426	0.0000	OK	8.000	S25	2.4	0.554	0.060	0.1427	
480 minute summer	S25	248	29.176	0.049	7.2	0.0861	0.0000	OK	8.001	S26	7.2	0.582	0.025	0.5031	
480 minute summer	S27	248	29.716	0.041	2.9	0.0468	0.0000	OK	10.000	S28	2.9	0.586	0.073	0.1620	
480 minute summer	S26	248	28.885	0.071	12.0	0.1253	0.0000	OK	7.003	S32	12.0	0.771	0.052	0.3635	
480 minute summer	S28	248	29.466	0.059	5.4	0.0672	0.0000	OK	10.001	S29	5.4	0.549	0.076	0.0743	
480 minute summer	S29	248	29.435	0.059	5.4	0.0670	0.0000	OK	10.002	S32	5.4	0.580	0.075	0.0436	
480 minute summer	S30	248	30.120	0.020	0.7	0.0033	0.0000	OK	9.000	S31	0.7	0.488	0.040	0.0504	
480 minute summer	S31	248	29.284	0.038	3.1	0.0432	0.0000	OK	9.001	S32	3.1	0.703	0.062	0.1551	
480 minute summer	S32	248	28.653	0.109	21.7	0.1234	0.0000	OK	7.004	S33	21.7	0.701	0.076	0.1940	
480 minute summer	S33	488	28.119	0.948	56.0	4.2898	0.0000	OK	1.008	S34	48.3	0.316	0.020	63.3443	
480 minute summer	S34	488	28.119	1.000	51.7	4.5252	0.0000	OK	1.009	S39	40.8	0.299	0.017	67.1858	
480 minute summer	S35	248	29.410	0.035	2.1	0.0401	0.0000	OK	11.000	S36	2.1	0.532	0.053	0.0965	
480 minute summer	S36	248	29.207	0.051	4.2	0.0577	0.0000	OK	11.001	S37	4.2	0.553	0.059	0.0746	
480 minute summer	S37	248	29.122	0.082	10.1	0.1446	0.0000	OK	11.002	S38	10.1	0.585	0.090	0.1304	
480 minute summer	S38	248	29.095	0.079	10.1	0.1395	0.0000	OK	11.003	S39	10.1	0.647	0.090	0.1473	

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480 minute summer	S39	488	28.119	1.052	53.1	4.7606	0.0000	OK	1.010	S40	45.2	0.714	0.019	27.8503	
480 minute summer	S40	488	28.119	1.073	45.4	292.6424	0.0000	OK	1.011	S41	3.9	0.133	0.002	24.2185	
480 minute summer	S41	488	28.119	1.091	3.9	4.9371	0.0000	SURCHARGED	Hydro-Brake®	S42	1.9				
480 minute summer	S42	488	26.932	0.086	12.1	0.0977	0.0000	OK	1.013	S43	12.1	0.854	0.305	0.5316	
480 minute summer	S43	488	26.713	0.088	12.1	0.0998	0.0000	OK	1.014	C1	12.1	1.018	0.303	0.0442	
480 minute summer	C1	488	26.668	0.065	12.1	0.0736	0.0000	OK	1.015	EXG	12.1	1.337	0.162	0.0887	511.9
480 minute summer	EXG	488	26.461	0.061	12.1	0.0000	0.0000	OK							

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Results for 30 year +30% 480 minute winter. 720 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	S1	216	29.766	0.016	0.4	0.0025	0.0000	OK	1.000	S2	0.4	0.319	0.023	0.0058	
480 minute winter	S2	224	29.727	0.022	0.8	0.0035	0.0000	OK	1.001	S3	0.8	0.508	0.045	0.0571	
480 minute winter	S3	248	29.310	0.039	2.6	0.0443	0.0000	OK	1.002	S4	2.6	0.568	0.065	0.1657	
480 minute winter	S4	248	29.026	0.044	3.0	0.0501	0.0000	OK	1.003	S5	3.0	0.464	0.042	0.0334	
480 minute winter	S5	248	29.004	0.044	3.4	0.0502	0.0000	OK	1.004	S8	3.4	0.464	0.048	0.1207	
480 minute winter	S6	248	29.773	0.023	0.9	0.0037	0.0000	OK	2.000	S7	0.9	0.526	0.051	0.0666	
480 minute winter	S7	248	29.326	0.037	2.7	0.0415	0.0000	OK	2.001	S8	2.7	0.647	0.057	0.1626	
480 minute winter	S8	248	28.946	0.053	7.0	0.0928	0.0000	OK	1.005	S13	7.0	0.875	0.062	0.0935	
480 minute winter	S9	248	29.307	0.032	1.9	0.0363	0.0000	OK	4.000	S13	1.9	0.553	0.043	0.0964	
480 minute winter	S10	248	29.046	0.046	4.7	0.0518	0.0000	OK	3.000	S11	4.7	0.525	0.051	0.2448	
480 minute winter	S11	248	28.880	0.065	7.1	0.1154	0.0000	OK	3.001	S12	7.1	0.595	0.064	0.3237	
480 minute winter	S12	248	28.731	0.076	9.6	0.1349	0.0000	OK	3.002	S13	9.6	0.602	0.060	0.2136	
480 minute winter	S13	248	28.279	0.107	20.0	0.3709	0.0000	OK	1.006	S20	20.0	0.577	0.031	0.9402	
480 minute winter	S14	240	28.767	0.017	0.5	0.0198	0.0000	OK	5.000	S15	0.5	0.440	0.028	0.0266	
480 minute winter	S15	240	28.473	0.030	1.5	0.0336	0.0000	OK	5.001	S16	1.5	0.433	0.038	0.0810	
480 minute winter	S16	240	28.340	0.035	2.0	0.0391	0.0000	OK	5.002	S19	2.0	0.526	0.050	0.1244	
480 minute winter	S17	240	29.167	0.017	0.5	0.0028	0.0000	OK	6.000	S18	0.5	0.440	0.028	0.0212	
480 minute winter	S18	240	28.919	0.030	1.5	0.0341	0.0000	OK	6.001	S19	1.5	0.481	0.038	0.0583	
480 minute winter	S19	480	28.243	1.046	4.0	4.7319	0.0000	OK	5.003	S20	3.2	0.050	0.001	8.0710	
480 minute winter	S20	480	28.243	1.052	24.3	4.7591	0.0000	OK	1.007	S33	22.0	0.237	0.009	26.8226	
480 minute winter	S21	248	30.123	0.023	0.9	0.0037	0.0000	OK	7.000	S22	0.9	0.527	0.051	0.0601	
480 minute winter	S22	248	29.716	0.040	2.7	0.0452	0.0000	OK	7.001	S23	2.7	0.574	0.068	0.1653	
480 minute winter	S23	248	28.983	0.039	3.6	0.0685	0.0000	OK	7.002	S26	3.6	0.376	0.016	0.2451	
480 minute winter	S24	248	29.958	0.033	1.8	0.0370	0.0000	OK	8.000	S25	1.8	0.510	0.045	0.1164	
480 minute winter	S25	248	29.169	0.042	5.4	0.0751	0.0000	OK	8.001	S26	5.4	0.533	0.019	0.4097	
480 minute winter	S27	240	29.710	0.035	2.1	0.0399	0.0000	OK	10.000	S28	2.1	0.534	0.053	0.1287	
480 minute winter	S26	248	28.875	0.061	9.0	0.1086	0.0000	OK	7.003	S32	9.0	0.709	0.039	0.2962	
480 minute winter	S28	248	29.458	0.051	4.0	0.0574	0.0000	OK	10.001	S29	4.0	0.509	0.056	0.0593	
480 minute winter	S29	248	29.427	0.051	4.0	0.0573	0.0000	OK	10.002	S32	4.0	0.539	0.055	0.0347	
480 minute winter	S30	232	30.117	0.017	0.5	0.0028	0.0000	OK	9.000	S31	0.5	0.441	0.028	0.0398	
480 minute winter	S31	248	29.279	0.033	2.3	0.0373	0.0000	OK	9.001	S32	2.3	0.644	0.046	0.1255	
480 minute winter	S32	248	28.639	0.095	16.2	0.1074	0.0000	OK	7.004	S33	16.2	0.641	0.057	0.1585	
480 minute winter	S33	480	28.243	1.072	41.2	4.8496	0.0000	OK	1.008	S34	35.6	0.329	0.015	72.2832	
480 minute winter	S34	480	28.243	1.124	38.1	5.0849	0.0000	OK	1.009	S39	30.2	0.325	0.013	75.8052	
480 minute winter	S35	240	29.405	0.030	1.5	0.0340	0.0000	OK	11.000	S36	1.5	0.482	0.038	0.0761	
480 minute winter	S36	240	29.199	0.043	3.0	0.0487	0.0000	OK	11.001	S37	3.0	0.504	0.042	0.0585	
480 minute winter	S37	248	29.109	0.069	7.4	0.1228	0.0000	OK	11.002	S38	7.4	0.540	0.066	0.1035	

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480 minute winter	S38	248	29.083	0.067	7.4	0.1191	0.0000	OK	11.003	S39	7.4	0.596	0.066	0.1171	
480 minute winter	S39	480	28.243	1.176	39.2	5.3202	0.0000	OK	1.010	S40	33.4	0.734	0.014	31.1851	
480 minute winter	S40	480	28.243	1.197	33.5	328.8651	0.0000	OK	1.011	S41	3.3	0.162	0.001	27.0107	
480 minute winter	S41	480	28.243	1.215	3.3	5.4966	0.0000	SURCHARGED	Hydro-Brake®	S42	2.0				
480 minute winter	S42	480	26.933	0.087	12.2	0.0981	0.0000	OK	1.013	S43	12.2	0.855	0.307	0.5347	
480 minute winter	S43	480	26.714	0.089	12.2	0.1002	0.0000	OK	1.014	C1	12.2	1.020	0.306	0.0444	
480 minute winter	C1	480	26.668	0.065	12.2	0.0739	0.0000	OK	1.015	EXG	12.2	1.340	0.163	0.0892	513.9
480 minute winter	EXG	480	26.461	0.061	12.2	0.0000	0.0000	OK							

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Results for 30 year +30% 600 minute summer. 840 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	S1	315	29.767	0.017	0.5	0.0028	0.0000	OK	1.000	S2	0.5	0.339	0.028	0.0067	
600 minute summer	S2	315	29.729	0.024	1.0	0.0039	0.0000	OK	1.001	S3	1.0	0.542	0.057	0.0668	
600 minute summer	S3	315	29.313	0.042	3.0	0.0475	0.0000	OK	1.002	S4	3.0	0.593	0.075	0.1834	
600 minute summer	S4	315	29.030	0.048	3.5	0.0544	0.0000	OK	1.003	S5	3.5	0.481	0.049	0.0376	
600 minute summer	S5	315	29.008	0.048	4.0	0.0545	0.0000	OK	1.004	S8	4.0	0.489	0.057	0.1344	
600 minute summer	S6	315	29.774	0.024	1.0	0.0039	0.0000	OK	2.000	S7	1.0	0.542	0.057	0.0718	
600 minute summer	S7	315	29.328	0.039	3.0	0.0438	0.0000	OK	2.001	S8	3.0	0.667	0.064	0.1752	
600 minute summer	S8	315	28.949	0.056	8.0	0.0993	0.0000	OK	1.005	S13	8.0	0.908	0.071	0.1030	
600 minute summer	S9	315	29.309	0.034	2.1	0.0382	0.0000	OK	4.000	S13	2.1	0.570	0.048	0.1034	
600 minute summer	S10	315	29.048	0.048	5.2	0.0544	0.0000	OK	3.000	S11	5.2	0.541	0.057	0.2635	
600 minute summer	S11	315	28.884	0.069	7.9	0.1216	0.0000	OK	3.001	S12	7.9	0.612	0.071	0.3506	
600 minute summer	S12	315	28.736	0.080	10.7	0.1422	0.0000	OK	3.002	S13	10.7	0.620	0.067	0.2307	
600 minute summer	S13	315	28.285	0.113	22.5	0.3898	0.0000	OK	1.006	S20	22.5	0.604	0.035	1.0127	
600 minute summer	S14	315	28.767	0.017	0.5	0.0198	0.0000	OK	5.000	S15	0.5	0.440	0.028	0.0266	
600 minute summer	S15	315	28.475	0.032	1.7	0.0357	0.0000	OK	5.001	S16	1.7	0.455	0.043	0.0875	
600 minute summer	S16	315	28.341	0.036	2.2	0.0410	0.0000	OK	5.002	S19	2.2	0.540	0.055	0.0914	
600 minute summer	S17	315	29.167	0.017	0.5	0.0028	0.0000	OK	6.000	S18	0.5	0.440	0.028	0.0212	
600 minute summer	S18	315	28.921	0.032	1.7	0.0362	0.0000	OK	6.001	S19	1.7	0.499	0.043	0.0637	
600 minute summer	S19	615	28.162	0.965	4.4	4.3663	0.0000	OK	5.003	S20	3.4	0.056	0.001	7.3740	
600 minute summer	S20	615	28.162	0.971	27.3	4.3935	0.0000	OK	1.007	S33	24.8	0.218	0.010	24.5545	
600 minute summer	S21	315	30.124	0.024	1.0	0.0039	0.0000	OK	7.000	S22	1.0	0.543	0.057	0.0648	
600 minute summer	S22	315	29.718	0.042	3.0	0.0476	0.0000	OK	7.001	S23	3.0	0.592	0.075	0.1781	
600 minute summer	S23	315	28.985	0.041	4.0	0.0719	0.0000	OK	7.002	S26	4.0	0.388	0.017	0.2630	
600 minute summer	S24	315	29.959	0.034	2.0	0.0390	0.0000	OK	8.000	S25	2.0	0.526	0.050	0.1253	
600 minute summer	S25	315	29.171	0.044	5.9	0.0783	0.0000	OK	8.001	S26	5.9	0.547	0.021	0.4378	
600 minute summer	S27	315	29.713	0.038	2.4	0.0426	0.0000	OK	10.000	S28	2.4	0.555	0.060	0.1416	
600 minute summer	S26	315	28.878	0.064	9.9	0.1138	0.0000	OK	7.003	S32	9.9	0.729	0.043	0.3171	
600 minute summer	S28	315	29.461	0.054	4.5	0.0611	0.0000	OK	10.001	S29	4.5	0.524	0.063	0.0648	
600 minute summer	S29	315	29.430	0.054	4.5	0.0610	0.0000	OK	10.002	S32	4.5	0.554	0.062	0.0380	
600 minute summer	S30	315	30.119	0.019	0.6	0.0030	0.0000	OK	9.000	S31	0.6	0.466	0.034	0.0452	
600 minute summer	S31	315	29.281	0.035	2.6	0.0396	0.0000	OK	9.001	S32	2.6	0.668	0.052	0.1368	
600 minute summer	S32	315	28.644	0.100	18.0	0.1127	0.0000	OK	7.004	S33	18.0	0.664	0.063	0.1702	
600 minute summer	S33	615	28.162	0.991	46.1	4.4840	0.0000	OK	1.008	S34	39.9	0.300	0.017	66.5197	
600 minute summer	S34	615	28.162	1.043	42.6	4.7193	0.0000	OK	1.009	S39	33.6	0.282	0.014	70.2652	
600 minute summer	S35	315	29.407	0.032	1.7	0.0361	0.0000	OK	11.000	S36	1.7	0.500	0.043	0.0831	
600 minute summer	S36	315	29.202	0.046	3.4	0.0519	0.0000	OK	11.001	S37	3.4	0.523	0.048	0.0638	
600 minute summer	S37	315	29.113	0.073	8.2	0.1295	0.0000	OK	11.002	S38	8.2	0.554	0.073	0.1118	
600 minute summer	S38	315	29.087	0.071	8.2	0.1255	0.0000	OK	11.003	S39	8.2	0.611	0.073	0.1267	

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600 minute summer	S39	615	28.162	1.095	43.6	4.9546	0.0000	OK	1.010	S40	37.2	0.621	0.016	29.0481	
600 minute summer	S40	615	28.162	1.116	37.4	305.1422	0.0000	OK	1.011	S41	3.5	0.149	0.001	25.2245	
600 minute summer	S41	615	28.162	1.134	3.5	5.1311	0.0000	SURCHARGED	Hydro-Brake®	S42	2.0				
600 minute summer	S42	615	26.932	0.086	12.2	0.0978	0.0000	OK	1.013	S43	12.2	0.854	0.305	0.5327	
600 minute summer	S43	615	26.713	0.088	12.2	0.0999	0.0000	OK	1.014	C1	12.2	1.019	0.304	0.0442	
600 minute summer	C1	615	26.668	0.065	12.2	0.0737	0.0000	OK	1.015	EXG	12.2	1.338	0.162	0.0889	595.7
600 minute summer	EXG	615	26.461	0.061	12.2	0.0000	0.0000	OK							

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Results for 30 year +30% 600 minute winter. 840 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	S1	300	29.766	0.016	0.4	0.0025	0.0000	OK	1.000	S2	0.4	0.318	0.023	0.0058	
600 minute winter	S2	300	29.727	0.022	0.8	0.0035	0.0000	OK	1.001	S3	0.8	0.508	0.045	0.0571	
600 minute winter	S3	315	29.308	0.037	2.3	0.0417	0.0000	OK	1.002	S4	2.3	0.549	0.058	0.1519	
600 minute winter	S4	315	29.024	0.042	2.7	0.0475	0.0000	OK	1.003	S5	2.7	0.449	0.037	0.0311	
600 minute winter	S5	315	29.002	0.042	3.1	0.0480	0.0000	OK	1.004	S8	3.1	0.458	0.044	0.1116	
600 minute winter	S6	315	29.772	0.022	0.8	0.0035	0.0000	OK	2.000	S7	0.8	0.508	0.045	0.0614	
600 minute winter	S7	315	29.323	0.034	2.3	0.0384	0.0000	OK	2.001	S8	2.3	0.618	0.049	0.1451	
600 minute winter	S8	315	28.942	0.049	6.2	0.0872	0.0000	OK	1.005	S13	6.2	0.846	0.055	0.0857	
600 minute winter	S9	300	29.305	0.030	1.6	0.0335	0.0000	OK	4.000	S13	1.6	0.526	0.037	0.0853	
600 minute winter	S10	315	29.042	0.042	3.9	0.0474	0.0000	OK	3.000	S11	3.9	0.493	0.043	0.2166	
600 minute winter	S11	315	28.875	0.060	6.0	0.1063	0.0000	OK	3.001	S12	6.0	0.568	0.054	0.2868	
600 minute winter	S12	315	28.725	0.070	8.1	0.1243	0.0000	OK	3.002	S13	8.1	0.571	0.051	0.1898	
600 minute winter	S13	600	28.289	0.117	17.2	0.4052	0.0000	OK	1.006	S20	17.2	0.557	0.027	1.5373	
600 minute winter	S14	285	28.766	0.016	0.4	0.0178	0.0000	OK	5.000	S15	0.4	0.412	0.023	0.0227	
600 minute winter	S15	315	28.471	0.028	1.3	0.0314	0.0000	OK	5.001	S16	1.3	0.419	0.033	0.0727	
600 minute winter	S16	315	28.337	0.032	1.7	0.0361	0.0000	OK	5.002	S19	1.7	0.501	0.043	0.2364	
600 minute winter	S17	285	29.166	0.016	0.4	0.0025	0.0000	OK	6.000	S18	0.4	0.412	0.023	0.0181	
600 minute winter	S18	315	28.917	0.028	1.3	0.0318	0.0000	OK	6.001	S19	1.3	0.460	0.033	0.0527	
600 minute winter	S19	600	28.289	1.092	3.4	4.9402	0.0000	OK	5.003	S20	2.7	0.053	0.001	8.4523	
600 minute winter	S20	600	28.289	1.098	20.9	4.9674	0.0000	OK	1.007	S33	18.9	0.221	0.008	28.0617	
600 minute winter	S21	315	30.122	0.022	0.8	0.0035	0.0000	OK	7.000	S22	0.8	0.508	0.045	0.0553	
600 minute winter	S22	315	29.713	0.037	2.3	0.0417	0.0000	OK	7.001	S23	2.3	0.548	0.058	0.1475	
600 minute winter	S23	315	28.980	0.036	3.1	0.0638	0.0000	OK	7.002	S26	3.1	0.362	0.013	0.2186	
600 minute winter	S24	315	29.955	0.030	1.5	0.0339	0.0000	OK	8.000	S25	1.5	0.483	0.038	0.1024	
600 minute winter	S25	315	29.166	0.039	4.5	0.0690	0.0000	OK	8.001	S26	4.5	0.504	0.016	0.3619	
600 minute winter	S27	315	29.708	0.033	1.8	0.0370	0.0000	OK	10.000	S28	1.8	0.510	0.045	0.1155	
600 minute winter	S26	315	28.871	0.057	7.6	0.0999	0.0000	OK	7.003	S32	7.6	0.674	0.033	0.2630	
600 minute winter	S28	315	29.454	0.047	3.4	0.0528	0.0000	OK	10.001	S29	3.4	0.489	0.048	0.0525	
600 minute winter	S29	315	29.423	0.047	3.4	0.0528	0.0000	OK	10.002	S32	3.4	0.517	0.047	0.0308	
600 minute winter	S30	315	30.117	0.017	0.5	0.0028	0.0000	OK	9.000	S31	0.5	0.441	0.028	0.0398	
600 minute winter	S31	315	29.277	0.031	2.0	0.0349	0.0000	OK	9.001	S32	2.0	0.618	0.040	0.1137	
600 minute winter	S32	315	28.631	0.087	13.8	0.0988	0.0000	OK	7.004	S33	13.8	0.620	0.048	0.1399	
600 minute winter	S33	600	28.289	1.118	35.2	5.0579	0.0000	OK	1.008	S34	30.4	0.314	0.013	75.4088	
600 minute winter	S34	600	28.289	1.170	32.5	5.2932	0.0000	OK	1.009	S39	25.7	0.309	0.011	78.7732	
600 minute winter	S35	315	29.403	0.028	1.3	0.0317	0.0000	OK	11.000	S36	1.3	0.462	0.033	0.0689	
600 minute winter	S36	315	29.196	0.040	2.6	0.0454	0.0000	OK	11.001	S37	2.6	0.486	0.036	0.0526	
600 minute winter	S37	315	29.104	0.064	6.3	0.1129	0.0000	OK	11.002	S38	6.3	0.517	0.056	0.0919	

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600 minute winter	S38	315	29.078	0.062	6.3	0.1099	0.0000	OK	11.003	S39	6.3	0.572	0.056	0.1040	
600 minute winter	S39	600	28.289	1.222	33.4	5.5285	0.0000	OK	1.010	S40	28.5	0.661	0.012	32.3202	
600 minute winter	S40	600	28.289	1.243	28.6	342.4811	0.0000	OK	1.011	S41	3.1	0.111	0.001	27.9523	
600 minute winter	S41	600	28.289	1.261	3.1	5.7049	0.0000	SURCHARGED	Hydro-Brake®	S42	2.1				
600 minute winter	S42	600	26.933	0.087	12.3	0.0982	0.0000	OK	1.013	S43	12.3	0.856	0.308	0.5358	
600 minute winter	S43	600	26.714	0.089	12.3	0.1004	0.0000	OK	1.014	C1	12.3	1.021	0.307	0.0445	
600 minute winter	C1	600	26.668	0.065	12.3	0.0740	0.0000	OK	1.015	EXG	12.3	1.341	0.163	0.0894	598.0
600 minute winter	EXG	600	26.461	0.061	12.3	0.0000	0.0000	OK							

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Results for 30 year +30% 720 minute summer. 960 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	S1	360	29.766	0.016	0.4	0.0025	0.0000	OK	1.000	S2	0.4	0.318	0.023	0.0058	
720 minute summer	S2	360	29.727	0.022	0.8	0.0035	0.0000	OK	1.001	S3	0.8	0.508	0.045	0.0571	
720 minute summer	S3	375	29.310	0.039	2.6	0.0443	0.0000	OK	1.002	S4	2.6	0.568	0.065	0.1657	
720 minute summer	S4	375	29.026	0.044	3.0	0.0501	0.0000	OK	1.003	S5	3.0	0.464	0.042	0.0334	
720 minute summer	S5	375	29.004	0.044	3.4	0.0502	0.0000	OK	1.004	S8	3.4	0.463	0.048	0.1207	
720 minute summer	S6	375	29.773	0.023	0.9	0.0037	0.0000	OK	2.000	S7	0.9	0.526	0.051	0.0666	
720 minute summer	S7	375	29.326	0.037	2.7	0.0415	0.0000	OK	2.001	S8	2.7	0.647	0.057	0.1626	
720 minute summer	S8	375	28.946	0.053	7.0	0.0928	0.0000	OK	1.005	S13	7.0	0.875	0.062	0.0935	
720 minute summer	S9	375	29.307	0.032	1.9	0.0363	0.0000	OK	4.000	S13	1.9	0.553	0.043	0.0964	
720 minute summer	S10	375	29.045	0.045	4.6	0.0513	0.0000	OK	3.000	S11	4.6	0.521	0.050	0.2420	
720 minute summer	S11	375	28.880	0.065	7.0	0.1146	0.0000	OK	3.001	S12	7.0	0.592	0.063	0.3203	
720 minute summer	S12	375	28.731	0.076	9.5	0.1342	0.0000	OK	3.002	S13	9.5	0.600	0.059	0.2120	
720 minute summer	S13	375	28.279	0.107	19.9	0.3701	0.0000	OK	1.006	S20	19.9	0.576	0.031	0.9372	
720 minute summer	S14	375	28.767	0.017	0.5	0.0198	0.0000	OK	5.000	S15	0.5	0.440	0.028	0.0266	
720 minute summer	S15	375	28.473	0.030	1.5	0.0336	0.0000	OK	5.001	S16	1.5	0.433	0.038	0.0810	
720 minute summer	S16	375	28.340	0.035	2.0	0.0391	0.0000	OK	5.002	S19	2.0	0.526	0.050	0.0853	
720 minute summer	S17	375	29.167	0.017	0.5	0.0028	0.0000	OK	6.000	S18	0.5	0.440	0.028	0.0212	
720 minute summer	S18	375	28.919	0.030	1.5	0.0341	0.0000	OK	6.001	S19	1.5	0.481	0.038	0.0583	
720 minute summer	S19	735	28.183	0.986	4.0	4.4599	0.0000	OK	5.003	S20	3.1	0.056	0.001	7.5551	
720 minute summer	S20	735	28.183	0.992	24.2	4.4870	0.0000	OK	1.007	S33	22.0	0.215	0.009	25.1445	
720 minute summer	S21	375	30.123	0.023	0.9	0.0037	0.0000	OK	7.000	S22	0.9	0.527	0.051	0.0601	
720 minute summer	S22	375	29.716	0.040	2.7	0.0452	0.0000	OK	7.001	S23	2.7	0.574	0.068	0.1653	
720 minute summer	S23	375	28.983	0.039	3.6	0.0685	0.0000	OK	7.002	S26	3.6	0.378	0.016	0.2438	
720 minute summer	S24	375	29.958	0.033	1.8	0.0370	0.0000	OK	8.000	S25	1.8	0.510	0.045	0.1164	
720 minute summer	S25	375	29.169	0.042	5.3	0.0744	0.0000	OK	8.001	S26	5.3	0.531	0.019	0.4056	
720 minute summer	S27	375	29.710	0.035	2.1	0.0399	0.0000	OK	10.000	S28	2.1	0.534	0.053	0.1287	
720 minute summer	S26	375	28.875	0.061	8.9	0.1080	0.0000	OK	7.003	S32	8.9	0.707	0.038	0.2939	
720 minute summer	S28	375	29.458	0.051	4.0	0.0574	0.0000	OK	10.001	S29	4.0	0.509	0.056	0.0593	
720 minute summer	S29	375	29.427	0.051	4.0	0.0573	0.0000	OK	10.002	S32	4.0	0.539	0.055	0.0347	
720 minute summer	S30	375	30.117	0.017	0.5	0.0028	0.0000	OK	9.000	S31	0.5	0.441	0.028	0.0398	
720 minute summer	S31	375	29.279	0.033	2.3	0.0373	0.0000	OK	9.001	S32	2.3	0.644	0.046	0.1255	
720 minute summer	S32	375	28.639	0.095	16.1	0.1071	0.0000	OK	7.004	S33	16.1	0.639	0.056	0.1579	
720 minute summer	S33	735	28.183	1.012	41.0	4.5775	0.0000	OK	1.008	S34	35.5	0.291	0.015	68.0227	
720 minute summer	S34	735	28.183	1.064	37.9	4.8128	0.0000	OK	1.009	S39	30.0	0.263	0.013	71.7175	
720 minute summer	S35	375	29.405	0.030	1.5	0.0340	0.0000	OK	11.000	S36	1.5	0.482	0.038	0.0761	
720 minute summer	S36	375	29.199	0.043	3.0	0.0487	0.0000	OK	11.001	S37	3.0	0.504	0.042	0.0585	
720 minute summer	S37	375	29.109	0.069	7.3	0.1219	0.0000	OK	11.002	S38	7.3	0.538	0.065	0.1025	
720 minute summer	S38	375	29.083	0.067	7.3	0.1183	0.0000	OK	11.003	S39	7.3	0.594	0.065	0.1159	

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720 minute summer	S39	735	28.183	1.116	38.9	5.0481	0.0000	OK	1.010	S40	33.1	0.569	0.014	29.6103	
720 minute summer	S40	735	28.183	1.137	33.2	311.1848	0.0000	OK	1.011	S41	3.3	0.134	0.001	25.6969	
720 minute summer	S41	735	28.183	1.155	3.3	5.2245	0.0000	SURCHARGED	Hydro-Brake®	S42	2.0				
720 minute summer	S42	735	26.933	0.087	12.2	0.0979	0.0000	OK	1.013	S43	12.2	0.854	0.306	0.5332	
720 minute summer	S43	735	26.713	0.088	12.2	0.1000	0.0000	OK	1.014	C1	12.2	1.019	0.305	0.0443	
720 minute summer	C1	735	26.668	0.065	12.2	0.0738	0.0000	OK	1.015	EXG	12.2	1.339	0.162	0.0890	681.8
720 minute summer	EXG	735	26.461	0.061	12.2	0.0000	0.0000	OK							

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Results for 30 year +30% 720 minute winter. 960 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	S1	330	29.764	0.014	0.3	0.0022	0.0000	OK	1.000	S2	0.3	0.293	0.017	0.0047	
720 minute winter	S2	345	29.724	0.019	0.6	0.0030	0.0000	OK	1.001	S3	0.6	0.466	0.034	0.0467	
720 minute winter	S3	360	29.305	0.034	1.9	0.0379	0.0000	OK	1.002	S4	1.9	0.519	0.048	0.1326	
720 minute winter	S4	360	29.020	0.038	2.2	0.0428	0.0000	OK	1.003	S5	2.2	0.426	0.030	0.0267	
720 minute winter	S5	360	28.998	0.038	2.5	0.0433	0.0000	OK	1.004	S8	2.5	0.429	0.035	0.0971	
720 minute winter	S6	375	29.770	0.020	0.7	0.0033	0.0000	OK	2.000	S7	0.7	0.488	0.040	0.0559	
720 minute winter	S7	375	29.321	0.032	2.0	0.0359	0.0000	OK	2.001	S8	2.0	0.592	0.042	0.1315	
720 minute winter	S8	375	28.938	0.045	5.2	0.0798	0.0000	OK	1.005	S13	5.2	0.805	0.046	0.0755	
720 minute winter	S9	360	29.303	0.028	1.4	0.0314	0.0000	OK	4.000	S13	1.4	0.505	0.032	0.0778	
720 minute winter	S10	375	29.040	0.040	3.5	0.0450	0.0000	OK	3.000	S11	3.5	0.480	0.038	0.1994	
720 minute winter	S11	375	28.872	0.057	5.3	0.1000	0.0000	OK	3.001	S12	5.3	0.546	0.048	0.2629	
720 minute winter	S12	375	28.721	0.066	7.2	0.1173	0.0000	OK	3.002	S13	7.2	0.554	0.045	0.1739	
720 minute winter	S13	720	28.325	0.153	14.9	0.5316	0.0000	OK	1.006	S20	14.9	0.541	0.023	2.1913	
720 minute winter	S14	360	28.766	0.016	0.4	0.0178	0.0000	OK	5.000	S15	0.4	0.412	0.023	0.0227	
720 minute winter	S15	375	28.470	0.027	1.2	0.0302	0.0000	OK	5.001	S16	1.2	0.406	0.030	0.0693	
720 minute winter	S16	375	28.336	0.031	1.6	0.0350	0.0000	OK	5.002	S19	1.6	0.492	0.040	0.3435	
720 minute winter	S17	360	29.166	0.016	0.4	0.0025	0.0000	OK	6.000	S18	0.4	0.412	0.023	0.0181	
720 minute winter	S18	375	28.916	0.027	1.2	0.0306	0.0000	OK	6.001	S19	1.2	0.450	0.030	0.0499	
720 minute winter	S19	720	28.325	1.128	3.2	5.1053	0.0000	OK	5.003	S20	2.6	-0.071	0.001	8.7451	
720 minute winter	S20	720	28.325	1.134	18.4	5.1324	0.0000	OK	1.007	S33	16.7	0.218	0.007	29.0118	
720 minute winter	S21	375	30.120	0.020	0.7	0.0033	0.0000	OK	7.000	S22	0.7	0.488	0.040	0.0504	
720 minute winter	S22	375	29.710	0.034	2.0	0.0390	0.0000	OK	7.001	S23	2.0	0.526	0.050	0.1335	
720 minute winter	S23	375	28.978	0.034	2.7	0.0599	0.0000	OK	7.002	S26	2.7	0.348	0.012	0.1981	
720 minute winter	S24	360	29.953	0.028	1.3	0.0316	0.0000	OK	8.000	S25	1.3	0.462	0.033	0.0927	
720 minute winter	S25	375	29.163	0.036	3.9	0.0645	0.0000	OK	8.001	S26	3.9	0.482	0.014	0.3277	
720 minute winter	S27	375	29.706	0.031	1.6	0.0350	0.0000	OK	10.000	S28	1.6	0.492	0.040	0.1063	
720 minute winter	S26	375	28.867	0.053	6.6	0.0933	0.0000	OK	7.003	S32	6.6	0.647	0.029	0.2381	
720 minute winter	S28	375	29.451	0.044	3.0	0.0495	0.0000	OK	10.001	S29	3.0	0.473	0.042	0.0479	
720 minute winter	S29	375	29.420	0.044	3.0	0.0496	0.0000	OK	10.002	S32	3.0	0.498	0.041	0.0282	
720 minute winter	S30	360	30.116	0.016	0.4	0.0025	0.0000	OK	9.000	S31	0.4	0.412	0.023	0.0341	
720 minute winter	S31	360	29.275	0.029	1.7	0.0322	0.0000	OK	9.001	S32	1.7	0.588	0.034	0.1015	
720 minute winter	S32	375	28.626	0.082	12.0	0.0922	0.0000	OK	7.004	S33	12.0	0.599	0.042	0.1256	
720 minute winter	S33	720	28.325	1.154	30.9	5.2229	0.0000	OK	1.008	S34	26.7	0.298	0.011	77.7901	
720 minute winter	S34	720	28.326	1.207	28.5	5.4582	0.0000	OK	1.009	S39	22.6	0.288	0.010	81.0074	
720 minute winter	S35	360	29.401	0.026	1.1	0.0293	0.0000	OK	11.000	S36	1.1	0.439	0.028	0.0613	
720 minute winter	S36	360	29.193	0.037	2.2	0.0419	0.0000	OK	11.001	S37	2.2	0.467	0.031	0.0462	
720 minute winter	S37	375	29.099	0.059	5.4	0.1043	0.0000	OK	11.002	S38	5.4	0.497	0.048	0.0821	

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720 minute winter	S38	375	29.074	0.058	5.4	0.1018	0.0000	OK	11.003	S39	5.4	0.546	0.048	0.0932	
720 minute winter	S39	720	28.326	1.259	29.2	5.6935	0.0000	OK	1.010	S40	25.0	0.652	0.010	33.1667	
720 minute winter	S40	720	28.326	1.280	25.1	353.3240	0.0000	OK	1.011	S41	2.9	0.112	0.001	28.6500	
720 minute winter	S41	720	28.326	1.298	2.9	5.8700	0.0000	SURCHARGED	Hydro-Brake®	S42	2.1				
720 minute winter	S42	720	26.933	0.087	12.3	0.0984	0.0000	OK	1.013	S43	12.3	0.856	0.308	0.5367	
720 minute winter	S43	720	26.714	0.089	12.3	0.1005	0.0000	OK	1.014	C1	12.3	1.022	0.307	0.0446	
720 minute winter	C1	720	26.669	0.066	12.3	0.0741	0.0000	OK	1.015	EXG	12.3	1.342	0.164	0.0896	684.8
720 minute winter	EXG	720	26.461	0.061	12.3	0.0000	0.0000	OK							

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Results for 30 year +30% 960 minute summer. 1200 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	S1	495	29.766	0.016	0.4	0.0025	0.0000	OK	1.000	S2	0.4	0.318	0.023	0.0058	
960 minute summer	S2	495	29.727	0.022	0.8	0.0035	0.0000	OK	1.001	S3	0.8	0.508	0.045	0.0571	
960 minute summer	S3	495	29.307	0.036	2.2	0.0408	0.0000	OK	1.002	S4	2.2	0.542	0.055	0.1471	
960 minute summer	S4	495	29.023	0.041	2.6	0.0466	0.0000	OK	1.003	S5	2.6	0.443	0.036	0.0303	
960 minute summer	S5	495	29.002	0.042	3.0	0.0473	0.0000	OK	1.004	S8	3.0	0.458	0.042	0.1075	
960 minute summer	S6	495	29.770	0.020	0.7	0.0033	0.0000	OK	2.000	S7	0.7	0.488	0.040	0.0559	
960 minute summer	S7	495	29.321	0.032	2.1	0.0367	0.0000	OK	2.001	S8	2.1	0.601	0.045	0.1361	
960 minute summer	S8	495	28.941	0.048	5.8	0.0843	0.0000	OK	1.005	S13	5.8	0.831	0.051	0.0816	
960 minute summer	S9	495	29.305	0.030	1.6	0.0335	0.0000	OK	4.000	S13	1.6	0.526	0.037	0.0853	
960 minute summer	S10	495	29.041	0.041	3.8	0.0468	0.0000	OK	3.000	S11	3.8	0.491	0.041	0.2119	
960 minute summer	S11	495	28.874	0.059	5.8	0.1045	0.0000	OK	3.001	S12	5.8	0.562	0.052	0.2800	
960 minute summer	S12	495	28.724	0.069	7.8	0.1221	0.0000	OK	3.002	S13	7.8	0.563	0.049	0.1849	
960 minute summer	S13	495	28.270	0.098	16.4	0.3387	0.0000	OK	1.006	S20	16.4	0.551	0.026	0.8079	
960 minute summer	S14	480	28.766	0.016	0.4	0.0178	0.0000	OK	5.000	S15	0.4	0.412	0.023	0.0227	
960 minute summer	S15	495	28.470	0.027	1.2	0.0302	0.0000	OK	5.001	S16	1.2	0.406	0.030	0.0693	
960 minute summer	S16	495	28.336	0.031	1.6	0.0350	0.0000	OK	5.002	S19	1.6	0.492	0.040	0.0729	
960 minute summer	S17	480	29.166	0.016	0.4	0.0025	0.0000	OK	6.000	S18	0.4	0.412	0.023	0.0181	
960 minute summer	S18	495	28.916	0.027	1.2	0.0306	0.0000	OK	6.001	S19	1.2	0.450	0.030	0.0499	
960 minute summer	S19	975	28.215	1.018	3.2	4.6059	0.0000	OK	5.003	S20	2.5	0.056	0.001	7.8345	
960 minute summer	S20	975	28.215	1.024	19.9	4.6330	0.0000	OK	1.007	S33	18.1	0.206	0.008	26.0536	
960 minute summer	S21	495	30.120	0.020	0.7	0.0033	0.0000	OK	7.000	S22	0.7	0.488	0.040	0.0504	
960 minute summer	S22	495	29.711	0.035	2.1	0.0399	0.0000	OK	7.001	S23	2.1	0.534	0.053	0.1382	
960 minute summer	S23	495	28.978	0.034	2.8	0.0609	0.0000	OK	7.002	S26	2.8	0.346	0.012	0.2068	
960 minute summer	S24	495	29.954	0.029	1.4	0.0328	0.0000	OK	8.000	S25	1.4	0.473	0.035	0.0976	
960 minute summer	S25	495	29.165	0.038	4.3	0.0675	0.0000	OK	8.001	S26	4.3	0.502	0.015	0.3471	
960 minute summer	S27	495	29.707	0.032	1.7	0.0360	0.0000	OK	10.000	S28	1.7	0.501	0.043	0.1110	
960 minute summer	S26	495	28.869	0.055	7.1	0.0967	0.0000	OK	7.003	S32	7.1	0.661	0.031	0.2507	
960 minute summer	S28	495	29.452	0.045	3.2	0.0512	0.0000	OK	10.001	S29	3.2	0.481	0.045	0.0502	
960 minute summer	S29	495	29.421	0.045	3.2	0.0512	0.0000	OK	10.002	S32	3.2	0.507	0.044	0.0295	
960 minute summer	S30	495	30.116	0.016	0.4	0.0025	0.0000	OK	9.000	S31	0.4	0.412	0.023	0.0341	
960 minute summer	S31	495	29.275	0.029	1.8	0.0331	0.0000	OK	9.001	S32	1.8	0.599	0.036	0.1056	
960 minute summer	S32	495	28.628	0.084	12.8	0.0951	0.0000	OK	7.004	S33	12.8	0.609	0.045	0.1320	
960 minute summer	S33	975	28.215	1.044	33.3	4.7235	0.0000	OK	1.008	S34	28.8	0.264	0.012	70.3307	
960 minute summer	S34	975	28.215	1.096	30.8	4.9588	0.0000	OK	1.009	S39	24.4	0.238	0.010	73.9381	
960 minute summer	S35	495	29.402	0.027	1.2	0.0305	0.0000	OK	11.000	S36	1.2	0.451	0.030	0.0651	
960 minute summer	S36	495	29.195	0.039	2.4	0.0437	0.0000	OK	11.001	S37	2.4	0.477	0.034	0.0494	
960 minute summer	S37	495	29.102	0.062	5.9	0.1091	0.0000	OK	11.002	S38	5.9	0.508	0.053	0.0876	
960 minute summer	S38	495	29.076	0.060	5.9	0.1063	0.0000	OK	11.003	S39	5.9	0.561	0.053	0.0993	

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960 minute summer	S39	975	28.215	1.148	31.6	5.1941	0.0000	OK	1.010	S40	27.0	0.555	0.011	30.4682	
960 minute summer	S40	975	28.215	1.169	27.1	320.6562	0.0000	OK	1.011	S41	3.0	0.099	0.001	26.4133	
960 minute summer	S41	975	28.215	1.187	3.0	5.3705	0.0000	SURCHARGED	Hydro-Brake®	S42	2.0				
960 minute summer	S42	975	26.933	0.087	12.2	0.0980	0.0000	OK	1.013	S43	12.2	0.855	0.306	0.5340	
960 minute summer	S43	975	26.714	0.089	12.2	0.1001	0.0000	OK	1.014	C1	12.2	1.020	0.305	0.0444	
960 minute summer	C1	975	26.668	0.065	12.2	0.0738	0.0000	OK	1.015	EXG	12.2	1.340	0.163	0.0891	854.2
960 minute summer	EXG	975	26.461	0.061	12.2	0.0000	0.0000	OK							

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Results for 30 year +30% 960 minute winter. 1200 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	S1	465	29.764	0.014	0.3	0.0022	0.0000	OK	1.000	S2	0.3	0.293	0.017	0.0047	
960 minute winter	S2	480	29.724	0.019	0.6	0.0030	0.0000	OK	1.001	S3	0.6	0.466	0.034	0.0467	
960 minute winter	S3	495	29.303	0.032	1.7	0.0359	0.0000	OK	1.002	S4	1.7	0.502	0.043	0.1227	
960 minute winter	S4	495	29.018	0.036	2.0	0.0407	0.0000	OK	1.003	S5	2.0	0.413	0.028	0.0251	
960 minute winter	S5	495	28.997	0.037	2.3	0.0416	0.0000	OK	1.004	S8	2.3	0.427	0.033	0.0885	
960 minute winter	S6	465	29.767	0.017	0.5	0.0028	0.0000	OK	2.000	S7	0.5	0.441	0.028	0.0442	
960 minute winter	S7	495	29.317	0.028	1.6	0.0322	0.0000	OK	2.001	S8	1.6	0.554	0.034	0.1125	
960 minute winter	S8	495	28.935	0.042	4.4	0.0734	0.0000	OK	1.005	S13	4.4	0.768	0.039	0.0670	
960 minute winter	S9	495	29.301	0.026	1.2	0.0292	0.0000	OK	4.000	S13	1.2	0.482	0.027	0.0698	
960 minute winter	S10	495	29.036	0.036	2.8	0.0405	0.0000	OK	3.000	S11	2.8	0.446	0.031	0.1719	
960 minute winter	S11	495	28.866	0.051	4.3	0.0905	0.0000	OK	3.001	S12	4.3	0.518	0.039	0.2254	
960 minute winter	S12	495	28.715	0.060	5.8	0.1056	0.0000	OK	3.002	S13	5.8	0.525	0.036	0.1475	
960 minute winter	S13	945	28.383	0.211	12.3	0.7311	0.0000	OK	1.006	S20	12.3	0.512	0.019	3.3378	
960 minute winter	S14	450	28.764	0.014	0.3	0.0155	0.0000	OK	5.000	S15	0.3	0.378	0.017	0.0185	
960 minute winter	S15	450	28.466	0.023	0.9	0.0264	0.0000	OK	5.001	S16	0.9	0.373	0.023	0.1446	
960 minute winter	S16	945	28.383	0.078	1.2	0.0883	0.0000	OK	5.002	S19	1.2	0.451	0.030	0.5713	
960 minute winter	S17	450	29.164	0.014	0.3	0.0022	0.0000	OK	6.000	S18	0.3	0.378	0.017	0.0148	
960 minute winter	S18	450	28.913	0.024	0.9	0.0267	0.0000	OK	6.001	S19	0.9	0.413	0.023	0.0407	
960 minute winter	S19	945	28.383	1.186	2.4	5.3659	0.0000	OK	5.003	S20	1.9	0.056	0.001	9.1872	
960 minute winter	S20	945	28.383	1.192	14.9	5.3930	0.0000	OK	1.007	S33	13.5	0.205	0.006	30.4384	
960 minute winter	S21	465	30.117	0.017	0.5	0.0028	0.0000	OK	7.000	S22	0.5	0.441	0.028	0.0398	
960 minute winter	S22	495	29.707	0.031	1.6	0.0349	0.0000	OK	7.001	S23	1.6	0.492	0.040	0.1142	
960 minute winter	S23	495	28.974	0.030	2.1	0.0535	0.0000	OK	7.002	S26	2.1	0.319	0.009	0.1683	
960 minute winter	S24	495	29.951	0.026	1.1	0.0292	0.0000	OK	8.000	S25	1.1	0.440	0.028	0.0825	
960 minute winter	S25	495	29.160	0.033	3.2	0.0589	0.0000	OK	8.001	S26	3.2	0.460	0.011	0.2823	
960 minute winter	S27	495	29.703	0.028	1.3	0.0316	0.0000	OK	10.000	S28	1.3	0.463	0.033	0.0920	
960 minute winter	S26	495	28.862	0.048	5.3	0.0839	0.0000	OK	7.003	S32	5.3	0.607	0.023	0.2039	
960 minute winter	S28	495	29.446	0.039	2.4	0.0443	0.0000	OK	10.001	S29	2.4	0.446	0.034	0.0406	
960 minute winter	S29	495	29.415	0.039	2.4	0.0442	0.0000	OK	10.002	S32	2.4	0.473	0.033	0.0238	
960 minute winter	S30	435	30.114	0.014	0.3	0.0022	0.0000	OK	9.000	S31	0.3	0.379	0.017	0.0278	
960 minute winter	S31	495	29.272	0.026	1.4	0.0294	0.0000	OK	9.001	S32	1.4	0.555	0.028	0.0887	
960 minute winter	S32	495	28.617	0.073	9.6	0.0829	0.0000	OK	7.004	S33	9.6	0.564	0.034	0.1072	
960 minute winter	S33	945	28.383	1.212	24.9	5.4835	0.0000	OK	1.008	S34	21.6	0.280	0.009	81.3374	
960 minute winter	S34	945	28.383	1.264	23.1	5.7187	0.0000	OK	1.009	S39	18.3	0.266	0.008	84.2919	
960 minute winter	S35	465	29.399	0.024	0.9	0.0266	0.0000	OK	11.000	S36	0.9	0.413	0.023	0.0532	
960 minute winter	S36	465	29.190	0.034	1.8	0.0380	0.0000	OK	11.001	S37	1.8	0.444	0.025	0.0399	
960 minute winter	S37	480	29.093	0.053	4.4	0.0939	0.0000	OK	11.002	S38	4.4	0.470	0.039	0.0707	

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960 minute winter	S38	480	29.068	0.052	4.4	0.0920	0.0000	OK	11.003	S39	4.4	0.519	0.039	0.0801	
960 minute winter	S39	945	28.383	1.316	23.7	5.9540	0.0000	OK	1.010	S40	20.3	0.537	0.009	34.3904	
960 minute winter	S40	945	28.383	1.337	20.4	370.5238	0.0000	OK	1.011	S41	2.7	0.119	0.001	29.6521	
960 minute winter	S41	945	28.383	1.355	2.7	6.1305	0.0000	SURCHARGED	Hydro-Brake®	S42	2.1				
960 minute winter	S42	945	26.933	0.087	12.3	0.0986	0.0000	OK	1.013	S43	12.3	0.857	0.310	0.5380	
960 minute winter	S43	945	26.714	0.089	12.3	0.1007	0.0000	OK	1.014	C1	12.3	1.023	0.308	0.0447	
960 minute winter	C1	945	26.669	0.066	12.3	0.0743	0.0000	OK	1.015	EXG	12.3	1.343	0.164	0.0898	858.2
960 minute winter	EXG	945	26.461	0.061	12.3	0.0000	0.0000	OK							

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Results for 30 year +30% 1440 minute summer. 1680 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	S1	750	29.764	0.014	0.3	0.0022	0.0000	OK	1.000	S2	0.3	0.292	0.017	0.0047	
1440 minute summer	S2	750	29.724	0.019	0.6	0.0030	0.0000	OK	1.001	S3	0.6	0.466	0.034	0.0467	
1440 minute summer	S3	750	29.302	0.031	1.6	0.0349	0.0000	OK	1.002	S4	1.6	0.493	0.040	0.1176	
1440 minute summer	S4	750	29.017	0.035	1.9	0.0397	0.0000	OK	1.003	S5	1.9	0.406	0.026	0.0242	
1440 minute summer	S5	750	28.996	0.036	2.2	0.0407	0.0000	OK	1.004	S8	2.2	0.422	0.031	0.0857	
1440 minute summer	S6	750	29.767	0.017	0.5	0.0028	0.0000	OK	2.000	S7	0.5	0.441	0.028	0.0442	
1440 minute summer	S7	750	29.317	0.028	1.5	0.0312	0.0000	OK	2.001	S8	1.5	0.543	0.032	0.1076	
1440 minute summer	S8	750	28.934	0.041	4.2	0.0717	0.0000	OK	1.005	S13	4.2	0.758	0.037	0.0648	
1440 minute summer	S9	750	29.300	0.025	1.1	0.0280	0.0000	OK	4.000	S13	1.1	0.470	0.025	0.0657	
1440 minute summer	S10	750	29.035	0.035	2.7	0.0398	0.0000	OK	3.000	S11	2.7	0.443	0.029	0.1669	
1440 minute summer	S11	750	28.865	0.050	4.1	0.0885	0.0000	OK	3.001	S12	4.1	0.511	0.037	0.2174	
1440 minute summer	S12	750	28.714	0.059	5.6	0.1039	0.0000	OK	3.002	S13	5.6	0.520	0.035	0.1437	
1440 minute summer	S13	750	28.257	0.085	11.8	0.2930	0.0000	OK	1.006	S20	11.8	0.506	0.019	0.8400	
1440 minute summer	S14	750	28.764	0.014	0.3	0.0155	0.0000	OK	5.000	S15	0.3	0.378	0.017	0.0185	
1440 minute summer	S15	750	28.466	0.023	0.9	0.0264	0.0000	OK	5.001	S16	0.9	0.373	0.023	0.0566	
1440 minute summer	S16	750	28.332	0.027	1.2	0.0305	0.0000	OK	5.002	S19	1.2	0.451	0.030	0.1290	
1440 minute summer	S17	750	29.164	0.014	0.3	0.0022	0.0000	OK	6.000	S18	0.3	0.378	0.017	0.0148	
1440 minute summer	S18	750	28.913	0.024	0.9	0.0267	0.0000	OK	6.001	S19	0.9	0.413	0.023	0.0407	
1440 minute summer	S19	1440	28.245	1.048	2.4	4.7389	0.0000	OK	5.003	S20	1.9	0.047	0.001	8.0841	
1440 minute summer	S20	1440	28.245	1.054	14.4	4.7661	0.0000	OK	1.007	S33	13.1	0.168	0.006	26.8650	
1440 minute summer	S21	750	30.117	0.017	0.5	0.0028	0.0000	OK	7.000	S22	0.5	0.441	0.028	0.0398	
1440 minute summer	S22	750	29.706	0.030	1.5	0.0339	0.0000	OK	7.001	S23	1.5	0.483	0.038	0.1091	
1440 minute summer	S23	750	28.974	0.030	2.0	0.0524	0.0000	OK	7.002	S26	2.0	0.313	0.009	0.1634	
1440 minute summer	S24	750	29.950	0.025	1.0	0.0280	0.0000	OK	8.000	S25	1.0	0.427	0.025	0.0771	
1440 minute summer	S25	750	29.160	0.033	3.1	0.0580	0.0000	OK	8.001	S26	3.1	0.458	0.011	0.2753	
1440 minute summer	S27	750	29.702	0.027	1.2	0.0304	0.0000	OK	10.000	S28	1.2	0.451	0.030	0.0870	
1440 minute summer	S26	750	28.861	0.047	5.1	0.0824	0.0000	OK	7.003	S32	5.1	0.600	0.022	0.1984	
1440 minute summer	S28	750	29.445	0.038	2.3	0.0433	0.0000	OK	10.001	S29	2.3	0.441	0.032	0.0393	
1440 minute summer	S29	750	29.414	0.038	2.3	0.0433	0.0000	OK	10.002	S32	2.3	0.468	0.032	0.0230	
1440 minute summer	S30	720	30.114	0.014	0.3	0.0022	0.0000	OK	9.000	S31	0.3	0.379	0.017	0.0278	
1440 minute summer	S31	750	29.271	0.025	1.3	0.0284	0.0000	OK	9.001	S32	1.3	0.543	0.026	0.0841	
1440 minute summer	S32	750	28.616	0.072	9.2	0.0813	0.0000	OK	7.004	S33	9.2	0.557	0.032	0.1041	
1440 minute summer	S33	1440	28.245	1.074	24.0	4.8565	0.0000	OK	1.008	S34	20.8	0.240	0.009	72.3887	
1440 minute summer	S34	1440	28.245	1.126	22.2	5.0918	0.0000	OK	1.009	S39	17.6	0.217	0.007	75.9054	
1440 minute summer	S35	750	29.399	0.024	0.9	0.0266	0.0000	OK	11.000	S36	0.9	0.413	0.023	0.0532	
1440 minute summer	S36	750	29.190	0.034	1.8	0.0380	0.0000	OK	11.001	S37	1.8	0.444	0.025	0.0399	
1440 minute summer	S37	750	29.093	0.053	4.3	0.0928	0.0000	OK	11.002	S38	4.3	0.467	0.038	0.0695	
1440 minute summer	S38	750	29.067	0.051	4.3	0.0910	0.0000	OK	11.003	S39	4.3	0.516	0.038	0.0787	

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1440 minute summer	S39	1440	28.245	1.178	22.9	5.3270	0.0000	OK	1.010	S40	19.6	0.513	0.008	31.2234	
1440 minute summer	S40	1440	28.245	1.199	19.7	329.3120	0.0000	OK	1.011	S41	2.6	0.082	0.001	27.0427	
1440 minute summer	S41	1440	28.245	1.217	2.6	5.5035	0.0000	SURCHARGED	Hydro-Brake®	S42	2.0				
1440 minute summer	S42	1440	26.933	0.087	12.2	0.0981	0.0000	OK	1.013	S43	12.2	0.855	0.307	0.5347	
1440 minute summer	S43	1440	26.714	0.089	12.2	0.1002	0.0000	OK	1.014	C1	12.2	1.020	0.306	0.0444	
1440 minute summer	C1	1440	26.668	0.065	12.2	0.0739	0.0000	OK	1.015	EXG	12.2	1.340	0.163	0.0892	1192.8
1440 minute summer	EXG	1440	26.461	0.061	12.2	0.0000	0.0000	OK							

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Results for 30 year +30% 1440 minute winter. 1680 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 winter	S1	660	29.761	0.011	0.2	0.0018	0.0000	OK	1.000	S2	0.2	0.259	0.011	0.0036	
1440 minute winter	S2	660	29.721	0.016	0.4	0.0025	0.0000	OK	1.001	S3	0.4	0.412	0.023	0.0352	
1440 minute winter	S3	720	29.298	0.027	1.2	0.0304	0.0000	OK	1.002	S4	1.2	0.452	0.030	0.0962	
1440 minute winter	S4	720	29.012	0.030	1.4	0.0340	0.0000	OK	1.003	S5	1.4	0.374	0.019	0.0194	
1440 minute winter	S5	720	28.991	0.031	1.6	0.0351	0.0000	OK	1.004	S8	1.6	0.380	0.023	0.0696	
1440 minute winter	S6	690	29.766	0.016	0.4	0.0025	0.0000	OK	2.000	S7	0.4	0.412	0.023	0.0378	
1440 minute winter	S7	720	29.314	0.025	1.2	0.0281	0.0000	OK	2.001	S8	1.2	0.508	0.025	0.0920	
1440 minute winter	S8	720	28.929	0.036	3.2	0.0627	0.0000	OK	1.005	S13	3.2	0.699	0.028	0.0535	
1440 minute winter	S9	750	29.297	0.022	0.9	0.0254	0.0000	OK	4.000	S13	0.9	0.442	0.021	0.0571	
1440 minute winter	S10	720	29.031	0.031	2.0	0.0345	0.0000	OK	3.000	S11	2.0	0.405	0.022	0.1370	
1440 minute winter	S11	750	28.859	0.044	3.1	0.0776	0.0000	OK	3.001	S12	3.1	0.475	0.028	0.1777	
1440 minute winter	S12	750	28.706	0.051	4.2	0.0908	0.0000	OK	3.002	S13	4.2	0.478	0.026	0.1177	
1440 minute winter	S13	1410	28.413	0.241	9.0	0.8347	0.0000	OK	1.006	S20	9.0	0.466	0.014	3.9764	
1440 minute winter	S14	630	28.761	0.011	0.2	0.0128	0.0000	OK	5.000	S15	0.2	0.333	0.011	0.0140	
1440 minute winter	S15	750	28.464	0.021	0.7	0.0234	0.0000	OK	5.001	S16	0.7	0.350	0.018	0.2213	
1440 minute winter	S16	1410	28.413	0.108	0.9	0.1221	0.0000	OK	5.002	S19	0.9	0.414	0.023	0.6570	
1440 minute winter	S17	630	29.161	0.011	0.2	0.0018	0.0000	OK	6.000	S18	0.2	0.334	0.011	0.0112	
1440 minute winter	S18	750	28.910	0.021	0.7	0.0237	0.0000	OK	6.001	S19	0.7	0.383	0.018	0.0341	
1440 minute winter	S19	1410	28.413	1.216	1.8	5.5010	0.0000	OK	5.003	S20	1.4	0.055	0.001	9.4050	
1440 minute winter	S20	1410	28.413	1.222	10.9	5.5282	0.0000	OK	1.007	S33	9.9	0.187	0.004	31.1412	
1440 minute winter	S21	690	30.116	0.016	0.4	0.0025	0.0000	OK	7.000	S22	0.4	0.412	0.023	0.0341	
1440 minute winter	S22	720	29.703	0.027	1.2	0.0304	0.0000	OK	7.001	S23	1.2	0.451	0.030	0.0934	
1440 minute winter	S23	720	28.971	0.027	1.6	0.0470	0.0000	OK	7.002	S26	1.6	0.299	0.007	0.1382	
1440 minute winter	S24	720	29.947	0.022	0.8	0.0251	0.0000	OK	8.000	S25	0.8	0.400	0.020	0.0660	
1440 minute winter	S25	750	29.156	0.029	2.4	0.0517	0.0000	OK	8.001	S26	2.4	0.418	0.008	0.2309	
1440 minute winter	S27	720	29.698	0.023	0.9	0.0266	0.0000	OK	10.000	S28	0.9	0.414	0.023	0.0711	
1440 minute winter	S26	750	28.855	0.041	4.0	0.0733	0.0000	OK	7.003	S32	4.0	0.559	0.017	0.1670	
1440 minute winter	S28	720	29.440	0.033	1.7	0.0374	0.0000	OK	10.001	S29	1.7	0.407	0.024	0.0315	
1440 minute winter	S29	720	29.409	0.033	1.7	0.0373	0.0000	OK	10.002	S32	1.7	0.433	0.024	0.0184	
1440 minute winter	S30	600	30.111	0.011	0.2	0.0018	0.0000	OK	9.000	S31	0.2	0.334	0.011	0.0211	
1440 minute winter	S31	720	29.268	0.022	1.0	0.0250	0.0000	OK	9.001	S32	1.0	0.502	0.020	0.0700	
1440 minute winter	S32	750	28.608	0.064	7.1	0.0725	0.0000	OK	7.004	S33	7.1	0.506	0.025	0.0879	
1440 minute winter	S33	1410	28.413	1.242	18.3	5.6186	0.0000	OK	1.008	S34	15.9	0.246	0.007	83.0660	
1440 minute winter	S34	1410	28.413	1.294	17.0	5.8538	0.0000	OK	1.009	S39	13.6	0.235	0.006	85.8576	
1440 minute winter	S35	750	29.396	0.021	0.7	0.0236	0.0000	OK	11.000	S36	0.7	0.384	0.018	0.0446	
1440 minute winter	S36	750	29.186	0.030	1.4	0.0337	0.0000	OK	11.001	S37	1.4	0.410	0.020	0.0335	
1440 minute winter	S37	750	29.086	0.046	3.3	0.0812	0.0000	OK	11.002	S38	3.3	0.434	0.029	0.0574	
1440 minute winter	S38	750	29.061	0.045	3.3	0.0800	0.0000	OK	11.003	S39	3.3	0.483	0.029	0.0646	

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1440 minute winter	S39	1410	28.413	1.346	17.6	6.0891	0.0000	OK	1.010	S40	15.1	0.447	0.006	34.9623	
1440 minute winter	S40	1410	28.413	1.367	15.2	379.4876	0.0000	OK	1.011	S41	2.5	0.105	0.001	30.1122	
1440 minute winter	S41	1410	28.413	1.385	2.5	6.2656	0.0000	SURCHARGED	Hydro-Brake®	S42	2.2				
1440 minute winter	S42	1410	26.933	0.087	12.4	0.0986	0.0000	OK	1.013	S43	12.4	0.858	0.310	0.5387	
1440 minute winter	S43	1410	26.714	0.089	12.4	0.1007	0.0000	OK	1.014	C1	12.4	1.023	0.309	0.0447	
1440 minute winter	C1	1410	26.669	0.066	12.4	0.0743	0.0000	OK	1.015	EXG	12.4	1.344	0.164	0.0899	1198.1
1440 minute winter	EXG	1410	26.461	0.061	12.4	0.0000	0.0000	OK							

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Results for 100 year +30% 15 minute summer. 255 minute analysis at 1 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)
15 minute summer	S1	8	29.830	0.080	7.7	0.0127	0.0000	OK	1.000	S2	7.2	0.656	0.407	0.0496	
15 minute summer	S2	8	29.804	0.099	14.9	0.0158	0.0000	OK	1.001	S3	12.4	1.020	0.701	0.4443	
15 minute summer	S3	9	29.453	0.182	43.0	0.2059	0.0000	OK	1.002	S4	37.9	1.159	0.951	1.1824	
15 minute summer	S4	9	29.212	0.230	42.8	0.2601	0.0000	OK	1.003	S5	43.3	0.770	0.600	0.2993	
15 minute summer	S5	9	29.189	0.229	48.2	0.2592	0.0000	OK	1.004	S8	49.1	0.819	0.694	0.9911	
15 minute summer	S6	8	29.847	0.097	15.2	0.0154	0.0000	OK	2.000	S7	12.4	1.087	0.701	0.4512	
15 minute summer	S7	8	29.451	0.162	42.7	0.1831	0.0000	OK	2.001	S8	36.6	1.237	0.776	1.1879	
15 minute summer	S8	9	29.145	0.252	95.5	0.4449	0.0000	OK	1.005	S13	99.1	1.688	0.876	0.6835	
15 minute summer	S9	8	29.418	0.143	33.1	0.1620	0.0000	OK	4.000	S13	28.5	1.157	0.650	0.7093	
15 minute summer	S10	8	29.235	0.235	79.8	0.2660	0.0000	OK	3.000	S11	73.9	1.114	0.807	1.7568	
15 minute summer	S11	8	29.115	0.300	115.6	0.5303	0.0000	OK	3.001	S12	99.2	1.232	0.891	2.2527	
15 minute summer	S12	9	28.968	0.313	142.4	0.5529	0.0000	OK	3.002	S13	138.9	1.301	0.870	1.4234	
15 minute summer	S13	9	28.559	0.387	281.1	1.3398	0.0000	OK	1.006	S20	296.4	1.297	0.465	6.1648	
15 minute summer	S14	8	28.820	0.070	8.5	0.0792	0.0000	OK	5.000	S15	7.2	0.932	0.406	0.1819	
15 minute summer	S15	8	28.576	0.133	25.0	0.1502	0.0000	OK	5.001	S16	23.0	0.909	0.577	0.5908	
15 minute summer	S16	9	28.456	0.151	31.4	0.1709	0.0000	OK	5.002	S19	29.8	1.083	0.746	0.6167	
15 minute summer	S17	8	29.222	0.072	8.5	0.0114	0.0000	OK	6.000	S18	7.4	0.928	0.419	0.1493	
15 minute summer	S18	8	29.020	0.131	25.3	0.1482	0.0000	OK	6.001	S19	22.2	1.010	0.559	0.4228	
15 minute summer	S19	9	27.703	0.506	56.3	2.2894	0.0000	OK	5.003	S20	50.8	0.097	0.022	3.2257	
15 minute summer	S20	9	27.702	0.511	360.9	2.3135	0.0000	OK	1.007	S33	344.2	0.647	0.145	10.7126	
15 minute summer	S21	8	30.203	0.103	15.2	0.0164	0.0000	OK	7.000	S22	13.1	1.031	0.741	0.4468	
15 minute summer	S22	9	29.859	0.183	43.7	0.2064	0.0000	OK	7.001	S23	38.0	1.160	0.956	1.1496	
15 minute summer	S23	9	29.089	0.145	49.2	0.2555	0.0000	OK	7.002	S26	49.0	0.765	0.211	1.7330	
15 minute summer	S24	8	30.065	0.140	30.6	0.1588	0.0000	OK	8.000	S25	25.2	1.065	0.634	0.8154	
15 minute summer	S25	8	29.302	0.175	86.3	0.3091	0.0000	OK	8.001	S26	79.6	1.183	0.279	2.7942	
15 minute summer	S27	8	29.845	0.170	36.5	0.1927	0.0000	OK	10.000	S28	33.2	1.027	0.834	1.0575	
15 minute summer	S26	9	29.072	0.258	124.8	0.4558	0.0000	OK	7.003	S32	129.2	1.453	0.559	2.0746	
15 minute summer	S28	8	29.653	0.246	65.5	0.2782	0.0000	OK	10.001	S29	58.6	1.001	0.826	0.4408	
15 minute summer	S29	9	29.595	0.219	58.6	0.2475	0.0000	OK	10.002	S32	57.3	1.131	0.792	0.2366	
15 minute summer	S30	8	30.171	0.071	9.4	0.0113	0.0000	OK	9.000	S31	7.5	0.965	0.423	0.2795	
15 minute summer	S31	8	29.387	0.141	38.0	0.1597	0.0000	OK	9.001	S32	32.3	1.342	0.644	0.8759	
15 minute summer	S32	9	28.919	0.374	228.7	0.4236	0.0000	OK	7.004	S33	231.5	1.388	0.808	1.0431	
15 minute summer	S33	9	27.686	0.515	608.7	2.3321	0.0000	OK	1.008	S34	563.9	1.118	0.238	26.7285	
15 minute summer	S34	20	27.619	0.500	591.3	2.2601	0.0000	OK	1.009	S39	613.1	1.346	0.258	27.8570	
15 minute summer	S35	8	29.511	0.136	26.3	0.1541	0.0000	OK	11.000	S36	24.9	0.875	0.626	0.6934	
15 minute summer	S36	8	29.398	0.242	51.2	0.2737	0.0000	OK	11.001	S37	43.1	0.771	0.603	0.6180	
15 minute summer	S37	8	29.375	0.335	116.7	0.5927	0.0000	OK	11.002	S38	110.2	1.120	0.982	0.7393	
15 minute summer	S38	8	29.307	0.291	110.2	0.5146	0.0000	OK	11.003	S39	104.3	1.273	0.929	0.7746	

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15 minute summer	S39	18	27.602	0.535	688.0	2.4203	0.0000	OK	1.010	S40	671.7	2.475	0.281	12.1665	
15 minute summer	S40	23	27.609	0.563	672.5	148.7628	0.0000	OK	1.011	S41	81.6	0.616	0.034	11.0770	
15 minute summer	S41	27	27.622	0.594	81.6	2.6853	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
15 minute summer	S42	10	26.932	0.086	12.0	0.0973	0.0000	OK	1.013	S43	12.1	0.976	0.303	0.5286	
15 minute summer	S43	10	26.713	0.088	12.1	0.0993	0.0000	OK	1.014	C1	12.0	1.016	0.300	0.0438	
15 minute summer	C1	10	26.668	0.065	12.0	0.0732	0.0000	OK	1.015	EXG	12.0	1.334	0.160	0.0880	176.7
15 minute summer	EXG	11	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 100 year +30% 15 minute winter. 255 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 winter	S1	8	29.819	0.069	6.0	0.0110	0.0000	OK	1.000	S2	5.9	0.629	0.331	0.0424	
15 minute winter	S2	8	29.794	0.089	11.9	0.0141	0.0000	OK	1.001	S3	11.1	1.032	0.628	0.3898	
15 minute winter	S3	9	29.435	0.164	34.9	0.1858	0.0000	OK	1.002	S4	33.5	1.119	0.842	1.0849	
15 minute winter	S4	9	29.190	0.208	38.7	0.2352	0.0000	OK	1.003	S5	38.8	0.759	0.538	0.2686	
15 minute winter	S5	9	29.166	0.206	44.0	0.2335	0.0000	OK	1.004	S8	44.2	0.807	0.625	0.8990	
15 minute winter	S6	8	29.839	0.089	12.1	0.0141	0.0000	OK	2.000	S7	11.1	1.053	0.631	0.4127	
15 minute winter	S7	8	29.437	0.148	35.1	0.1672	0.0000	OK	2.001	S8	33.2	1.242	0.705	1.0804	
15 minute winter	S8	9	29.123	0.230	87.8	0.4062	0.0000	OK	1.005	S13	88.9	1.656	0.786	0.6260	
15 minute winter	S9	8	29.402	0.127	26.1	0.1439	0.0000	OK	4.000	S13	24.7	1.116	0.563	0.6250	
15 minute winter	S10	8	29.194	0.194	62.9	0.2193	0.0000	OK	3.000	S11	61.2	1.062	0.668	1.5403	
15 minute winter	S11	8	29.078	0.263	93.9	0.4651	0.0000	OK	3.001	S12	90.4	1.209	0.812	2.0244	
15 minute winter	S12	9	28.948	0.293	121.6	0.5182	0.0000	OK	3.002	S13	122.5	1.239	0.767	1.3182	
15 minute winter	S13	9	28.532	0.360	253.2	1.2480	0.0000	OK	1.006	S20	257.5	1.243	0.404	5.5912	
15 minute winter	S14	8	28.814	0.064	6.7	0.0722	0.0000	OK	5.000	S15	6.3	0.905	0.355	0.1630	
15 minute winter	S15	8	28.560	0.117	20.4	0.1327	0.0000	OK	5.001	S16	19.7	0.864	0.496	0.5336	
15 minute winter	S16	9	28.443	0.138	26.4	0.1563	0.0000	OK	5.002	S19	25.9	1.049	0.650	0.5548	
15 minute winter	S17	8	29.215	0.065	6.7	0.0103	0.0000	OK	6.000	S18	6.4	0.901	0.359	0.1319	
15 minute winter	S18	8	29.007	0.118	20.4	0.1336	0.0000	OK	6.001	S19	19.5	0.975	0.490	0.3772	
15 minute winter	S19	20	27.687	0.490	50.9	2.2177	0.0000	OK	5.003	S20	48.5	0.097	0.021	3.0901	
15 minute winter	S20	20	27.687	0.496	320.4	2.2442	0.0000	OK	1.007	S33	309.8	0.611	0.130	10.4853	
15 minute winter	S21	8	30.191	0.091	12.1	0.0144	0.0000	OK	7.000	S22	11.2	1.033	0.635	0.3824	
15 minute winter	S22	9	29.841	0.165	35.3	0.1866	0.0000	OK	7.001	S23	33.7	1.120	0.847	1.0563	
15 minute winter	S23	9	29.077	0.133	44.1	0.2347	0.0000	OK	7.002	S26	44.6	0.739	0.192	1.5564	
15 minute winter	S24	8	30.051	0.126	24.1	0.1431	0.0000	OK	8.000	S25	22.4	1.025	0.563	0.7312	
15 minute winter	S25	8	29.280	0.153	70.5	0.2695	0.0000	OK	8.001	S26	69.2	1.104	0.242	2.5700	
15 minute winter	S27	8	29.821	0.146	28.8	0.1648	0.0000	OK	10.000	S28	27.8	1.015	0.698	0.8960	
15 minute winter	S26	9	29.051	0.237	111.7	0.4195	0.0000	OK	7.003	S32	112.4	1.402	0.486	1.8703	
15 minute winter	S28	8	29.629	0.222	53.1	0.2516	0.0000	OK	10.001	S29	50.9	0.952	0.718	0.4036	
15 minute winter	S29	9	29.580	0.204	50.9	0.2311	0.0000	OK	10.002	S32	50.7	1.081	0.701	0.2193	
15 minute winter	S30	8	30.166	0.066	7.4	0.0105	0.0000	OK	9.000	S31	6.8	0.933	0.383	0.2558	
15 minute winter	S31	8	29.374	0.128	30.8	0.1452	0.0000	OK	9.001	S32	29.1	1.296	0.580	0.7935	
15 minute winter	S32	9	28.893	0.349	202.6	0.3952	0.0000	OK	7.004	S33	203.3	1.327	0.710	0.9588	
15 minute winter	S33	20	27.686	0.515	547.7	2.3295	0.0000	OK	1.008	S34	525.3	1.071	0.221	29.5559	
15 minute winter	S34	20	27.676	0.557	552.1	2.5204	0.0000	OK	1.009	S39	558.6	1.248	0.235	32.0279	
15 minute winter	S35	8	29.494	0.119	20.8	0.1348	0.0000	OK	11.000	S36	20.3	0.915	0.509	0.5608	
15 minute winter	S36	8	29.365	0.209	41.0	0.2359	0.0000	OK	11.001	S37	38.7	0.778	0.541	0.5379	
15 minute winter	S37	8	29.342	0.302	97.1	0.5339	0.0000	OK	11.002	S38	94.9	1.053	0.845	0.6790	

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15 minute winter	S38	8	29.285	0.269	94.9	0.4760	0.0000	OK	11.003	S39	93.5	1.218	0.832	0.7219	
15 minute winter	S39	22	27.659	0.592	647.4	2.6783	0.0000	OK	1.010	S40	616.6	2.463	0.258	13.9073	
15 minute winter	S40	22	27.666	0.620	618.5	164.3065	0.0000	OK	1.011	S41	74.1	0.553	0.031	12.6380	
15 minute winter	S41	18	27.683	0.655	74.1	2.9618	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
15 minute winter	S42	9	26.932	0.086	12.0	0.0975	0.0000	OK	1.013	S43	12.1	0.976	0.303	0.5279	
15 minute winter	S43	10	26.713	0.088	12.1	0.0993	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
15 minute winter	C1	10	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	177.3
15 minute winter	EXG	10	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 100 year +30% 30 minute summer. 270 minute analysis at 1 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)
30 minute summer	S1	16	29.814	0.064	5.2	0.0101	0.0000	OK	1.000	S2	5.2	0.623	0.294	0.0389	
30 minute summer	S2	16	29.789	0.084	10.4	0.0133	0.0000	OK	1.001	S3	10.2	1.024	0.575	0.3594	
30 minute summer	S3	16	29.423	0.152	30.7	0.1720	0.0000	OK	1.002	S4	29.9	1.086	0.750	1.0012	
30 minute summer	S4	16	29.171	0.189	35.1	0.2133	0.0000	OK	1.003	S5	34.7	0.751	0.481	0.2391	
30 minute summer	S5	16	29.146	0.186	39.9	0.2101	0.0000	OK	1.004	S8	39.0	0.801	0.552	0.8025	
30 minute summer	S6	16	29.833	0.083	10.3	0.0132	0.0000	OK	2.000	S7	10.1	1.024	0.572	0.3846	
30 minute summer	S7	16	29.426	0.137	30.7	0.1547	0.0000	OK	2.001	S8	30.5	1.228	0.647	0.9666	
30 minute summer	S8	16	29.101	0.208	79.8	0.3671	0.0000	OK	1.005	S13	76.9	1.614	0.680	0.5605	
30 minute summer	S9	16	29.393	0.118	22.3	0.1335	0.0000	OK	4.000	S13	22.3	1.089	0.509	0.5743	
30 minute summer	S10	16	29.172	0.172	53.8	0.1948	0.0000	OK	3.000	S11	53.8	1.029	0.587	1.4104	
30 minute summer	S11	16	29.063	0.248	81.9	0.4379	0.0000	OK	3.001	S12	81.6	1.161	0.732	1.9026	
30 minute summer	S12	16	28.933	0.278	110.8	0.4912	0.0000	OK	3.002	S13	110.0	1.190	0.689	1.2338	
30 minute summer	S13	16	28.509	0.337	227.1	1.1660	0.0000	OK	1.006	S20	221.4	1.198	0.348	5.0583	
30 minute summer	S14	16	28.810	0.060	5.7	0.0677	0.0000	OK	5.000	S15	5.7	0.881	0.320	0.1503	
30 minute summer	S15	16	28.551	0.108	17.7	0.1223	0.0000	OK	5.001	S16	17.7	0.838	0.445	0.4935	
30 minute summer	S16	16	28.433	0.128	23.4	0.1450	0.0000	OK	5.002	S19	22.7	1.014	0.570	0.5042	
30 minute summer	S17	16	29.210	0.060	5.7	0.0096	0.0000	OK	6.000	S18	5.7	0.880	0.321	0.1208	
30 minute summer	S18	16	28.999	0.110	17.7	0.1245	0.0000	OK	6.001	S19	17.7	0.949	0.444	0.3475	
30 minute summer	S19	43	27.771	0.574	46.1	2.5966	0.0000	OK	5.003	S20	41.6	0.134	0.018	3.8266	
30 minute summer	S20	43	27.771	0.580	273.6	2.6230	0.0000	OK	1.007	S33	274.8	0.590	0.116	12.9015	
30 minute summer	S21	16	30.184	0.084	10.3	0.0133	0.0000	OK	7.000	S22	10.2	1.025	0.575	0.3485	
30 minute summer	S22	16	29.829	0.153	30.8	0.1731	0.0000	OK	7.001	S23	30.1	1.083	0.757	0.9782	
30 minute summer	S23	16	29.068	0.124	40.4	0.2195	0.0000	OK	7.002	S26	39.9	0.720	0.172	1.4064	
30 minute summer	S24	16	30.043	0.118	20.6	0.1337	0.0000	OK	8.000	S25	20.5	0.996	0.515	0.6779	
30 minute summer	S25	16	29.267	0.140	61.7	0.2478	0.0000	OK	8.001	S26	62.2	1.061	0.218	2.3688	
30 minute summer	S27	16	29.808	0.133	24.6	0.1500	0.0000	OK	10.000	S28	24.7	1.011	0.620	0.7988	
30 minute summer	S26	16	29.033	0.219	102.1	0.3862	0.0000	OK	7.003	S32	97.1	1.363	0.420	1.6731	
30 minute summer	S28	16	29.615	0.208	46.5	0.2356	0.0000	OK	10.001	S29	46.3	0.923	0.653	0.3787	
30 minute summer	S29	16	29.570	0.194	46.3	0.2193	0.0000	OK	10.002	S32	46.2	1.046	0.639	0.2066	
30 minute summer	S30	16	30.162	0.062	6.3	0.0099	0.0000	OK	9.000	S31	6.2	0.906	0.349	0.2396	
30 minute summer	S31	16	29.366	0.120	26.8	0.1363	0.0000	OK	9.001	S32	26.5	1.260	0.529	0.7394	
30 minute summer	S32	16	28.869	0.325	178.8	0.3680	0.0000	OK	7.004	S33	177.5	1.268	0.619	0.8761	
30 minute summer	S33	35	27.769	0.598	471.8	2.7071	0.0000	OK	1.008	S34	471.6	1.019	0.199	36.0612	
30 minute summer	S34	35	27.764	0.645	492.9	2.9158	0.0000	OK	1.009	S39	461.5	1.057	0.194	39.3591	
30 minute summer	S35	16	29.485	0.110	17.8	0.1239	0.0000	OK	11.000	S36	17.8	0.921	0.448	0.4851	
30 minute summer	S36	16	29.346	0.190	35.6	0.2154	0.0000	OK	11.001	S37	35.4	0.795	0.495	0.4863	
30 minute summer	S37	16	29.322	0.282	85.8	0.4983	0.0000	OK	11.002	S38	85.5	1.012	0.762	0.6369	
30 minute summer	S38	16	29.271	0.255	85.5	0.4507	0.0000	OK	11.003	S39	85.2	1.175	0.759	0.6825	

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30 minute summer	S39	37	27.756	0.689	551.5	3.1165	0.0000	OK	1.010	S40	490.3	1.565	0.205	16.8475	
30 minute summer	S40	37	27.759	0.713	491.6	190.1424	0.0000	OK	1.011	S41	46.4	0.420	0.019	14.9865	
30 minute summer	S41	33	27.765	0.737	46.4	3.3362	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
30 minute summer	S42	16	26.932	0.086	12.0	0.0972	0.0000	OK	1.013	S43	12.0	0.976	0.302	0.5286	
30 minute summer	S43	16	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
30 minute summer	C1	16	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	189.1
30 minute summer	EXG	16	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 100 year +30% 30 minute winter. 270 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	S1	16	29.805	0.055	4.1	0.0087	0.0000	OK	1.000	S2	4.1	0.581	0.232	0.0323	
30 minute winter	S2	16	29.778	0.073	8.2	0.0116	0.0000	OK	1.001	S3	8.1	0.972	0.460	0.3028	
30 minute winter	S3	16	29.401	0.130	24.3	0.1474	0.0000	OK	1.002	S4	24.1	1.038	0.604	0.8408	
30 minute winter	S4	16	29.144	0.162	28.2	0.1830	0.0000	OK	1.003	S5	28.1	0.731	0.389	0.1986	
30 minute winter	S5	16	29.119	0.159	32.2	0.1803	0.0000	OK	1.004	S8	31.9	0.775	0.451	0.6771	
30 minute winter	S6	16	29.822	0.072	8.1	0.0115	0.0000	OK	2.000	S7	8.0	0.970	0.455	0.3228	
30 minute winter	S7	16	29.406	0.117	24.2	0.1326	0.0000	OK	2.001	S8	24.1	1.179	0.511	0.7951	
30 minute winter	S8	16	29.074	0.181	64.1	0.3205	0.0000	OK	1.005	S13	63.6	1.545	0.562	0.4817	
30 minute winter	S9	16	29.377	0.102	17.6	0.1158	0.0000	OK	4.000	S13	17.6	1.028	0.402	0.4800	
30 minute winter	S10	15	29.145	0.145	42.3	0.1645	0.0000	OK	3.000	S11	42.3	0.968	0.462	1.1817	
30 minute winter	S11	16	29.028	0.213	64.4	0.3757	0.0000	OK	3.001	S12	64.3	1.086	0.577	1.6052	
30 minute winter	S12	16	28.897	0.242	87.3	0.4279	0.0000	OK	3.002	S13	87.1	1.109	0.545	1.0481	
30 minute winter	S13	16	28.474	0.302	182.2	1.0459	0.0000	OK	1.006	S20	181.0	1.122	0.284	4.3698	
30 minute winter	S14	16	28.803	0.053	4.5	0.0595	0.0000	OK	5.000	S15	4.5	0.828	0.254	0.1267	
30 minute winter	S15	16	28.537	0.094	14.0	0.1063	0.0000	OK	5.001	S16	14.0	0.793	0.352	0.4130	
30 minute winter	S16	16	28.417	0.112	18.5	0.1262	0.0000	OK	5.002	S19	18.3	0.964	0.458	0.4259	
30 minute winter	S17	16	29.203	0.053	4.5	0.0084	0.0000	OK	6.000	S18	4.5	0.827	0.254	0.1016	
30 minute winter	S18	16	28.985	0.096	14.0	0.1085	0.0000	OK	6.001	S19	14.0	0.896	0.352	0.2916	
30 minute winter	S19	41	27.833	0.636	36.8	2.8770	0.0000	OK	5.003	S20	34.5	0.145	0.015	4.3856	
30 minute winter	S20	41	27.833	0.642	225.8	2.9039	0.0000	OK	1.007	S33	223.4	0.551	0.094	14.7583	
30 minute winter	S21	16	30.173	0.073	8.1	0.0115	0.0000	OK	7.000	S22	8.1	0.970	0.455	0.2918	
30 minute winter	S22	16	29.807	0.131	24.3	0.1477	0.0000	OK	7.001	S23	24.1	1.036	0.605	0.8170	
30 minute winter	S23	16	29.055	0.111	32.2	0.1964	0.0000	OK	7.002	S26	32.0	0.681	0.138	1.1977	
30 minute winter	S24	16	30.027	0.102	16.2	0.1159	0.0000	OK	8.000	S25	16.2	0.941	0.406	0.5664	
30 minute winter	S25	16	29.250	0.123	48.5	0.2180	0.0000	OK	8.001	S26	48.5	0.989	0.170	2.0026	
30 minute winter	S27	16	29.789	0.114	19.4	0.1290	0.0000	OK	10.000	S28	19.4	0.984	0.487	0.6441	
30 minute winter	S26	16	29.007	0.193	80.5	0.3409	0.0000	OK	7.003	S32	79.4	1.289	0.344	1.4381	
30 minute winter	S28	16	29.585	0.178	36.5	0.2012	0.0000	OK	10.001	S29	36.4	0.865	0.514	0.3178	
30 minute winter	S29	16	29.544	0.168	36.4	0.1904	0.0000	OK	10.002	S32	36.4	0.971	0.503	0.1755	
30 minute winter	S30	16	30.155	0.055	5.0	0.0088	0.0000	OK	9.000	S31	5.0	0.855	0.280	0.2036	
30 minute winter	S31	16	29.351	0.105	21.1	0.1184	0.0000	OK	9.001	S32	21.1	1.193	0.420	0.6204	
30 minute winter	S32	16	28.834	0.290	144.2	0.3275	0.0000	OK	7.004	S33	143.8	1.190	0.502	0.7570	
30 minute winter	S33	41	27.832	0.661	391.0	2.9915	0.0000	OK	1.008	S34	383.7	0.944	0.162	41.0199	
30 minute winter	S34	41	27.829	0.710	404.4	3.2100	0.0000	OK	1.009	S39	376.9	0.966	0.159	44.7677	
30 minute winter	S35	16	29.470	0.095	14.0	0.1076	0.0000	OK	11.000	S36	14.0	0.902	0.352	0.3795	
30 minute winter	S36	16	29.311	0.155	28.0	0.1756	0.0000	OK	11.001	S37	28.0	0.780	0.391	0.3781	
30 minute winter	S37	16	29.282	0.242	67.6	0.4271	0.0000	OK	11.002	S38	67.5	0.946	0.602	0.5387	

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30 minute winter	S38	16	29.237	0.221	67.5	0.3910	0.0000	OK	11.003	S39	67.4	1.093	0.600	0.5815	
30 minute winter	S39	39	27.826	0.759	455.4	3.4349	0.0000	OK	1.010	S40	410.4	1.706	0.172	19.0217	
30 minute winter	S40	39	27.828	0.782	411.6	209.4279	0.0000	OK	1.011	S41	43.6	0.441	0.018	16.8346	
30 minute winter	S41	43	27.834	0.806	43.6	3.6473	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
30 minute winter	S42	15	26.932	0.086	12.0	0.0972	0.0000	OK	1.013	S43	12.0	0.976	0.302	0.5285	
30 minute winter	S43	15	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
30 minute winter	C1	15	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	190.2
30 minute winter	EXG	15	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 100 year +30% 60 minute summer. 300 minute analysis at 1 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)
60 minute summer	S1	31	29.800	0.050	3.5	0.0079	0.0000	OK	1.000	S2	3.5	0.563	0.198	0.0285	
60 minute summer	S2	31	29.771	0.066	7.0	0.0106	0.0000	OK	1.001	S3	6.9	0.933	0.391	0.2685	
60 minute summer	S3	31	29.390	0.119	21.1	0.1347	0.0000	OK	1.002	S4	20.8	1.002	0.523	0.7526	
60 minute summer	S4	31	29.128	0.146	24.3	0.1654	0.0000	OK	1.003	S5	24.2	0.718	0.336	0.1744	
60 minute summer	S5	31	29.104	0.144	27.7	0.1626	0.0000	OK	1.004	S8	27.4	0.755	0.388	0.5988	
60 minute summer	S6	31	29.817	0.067	7.1	0.0106	0.0000	OK	2.000	S7	7.0	0.937	0.397	0.2915	
60 minute summer	S7	31	29.397	0.108	21.2	0.1221	0.0000	OK	2.001	S8	21.0	1.140	0.445	0.7163	
60 minute summer	S8	31	29.058	0.165	55.5	0.2914	0.0000	OK	1.005	S13	54.8	1.494	0.485	0.4299	
60 minute summer	S9	31	29.370	0.095	15.4	0.1072	0.0000	OK	4.000	S13	15.4	0.994	0.351	0.4343	
60 minute summer	S10	30	29.134	0.134	37.0	0.1511	0.0000	OK	3.000	S11	37.1	0.939	0.405	1.0702	
60 minute summer	S11	31	29.011	0.196	56.4	0.3465	0.0000	OK	3.001	S12	56.1	1.044	0.503	1.4567	
60 minute summer	S12	31	28.879	0.224	76.2	0.3961	0.0000	OK	3.002	S13	75.8	1.064	0.474	0.9517	
60 minute summer	S13	31	28.452	0.280	158.1	0.9713	0.0000	OK	1.006	S20	156.7	1.078	0.246	3.9276	
60 minute summer	S14	31	28.799	0.049	3.9	0.0551	0.0000	OK	5.000	S15	3.9	0.796	0.219	0.1140	
60 minute summer	S15	31	28.530	0.087	12.2	0.0983	0.0000	OK	5.001	S16	12.2	0.769	0.306	0.3708	
60 minute summer	S16	31	28.407	0.102	16.1	0.1159	0.0000	OK	5.002	S19	15.8	0.930	0.396	0.3818	
60 minute summer	S17	31	29.199	0.049	3.9	0.0078	0.0000	OK	6.000	S18	3.9	0.795	0.220	0.0914	
60 minute summer	S18	31	28.978	0.089	12.2	0.1003	0.0000	OK	6.001	S19	12.2	0.864	0.306	0.2631	
60 minute summer	S19	73	27.919	0.722	31.9	3.2670	0.0000	OK	5.003	S20	28.1	0.102	0.012	5.1725	
60 minute summer	S20	73	27.919	0.728	193.3	3.2941	0.0000	OK	1.007	S33	187.9	0.499	0.079	17.3502	
60 minute summer	S21	31	30.167	0.067	7.1	0.0107	0.0000	OK	7.000	S22	7.0	0.938	0.398	0.2637	
60 minute summer	S22	31	29.796	0.120	21.2	0.1355	0.0000	OK	7.001	S23	21.0	1.002	0.527	0.7352	
60 minute summer	S23	31	29.048	0.104	28.1	0.1831	0.0000	OK	7.002	S26	27.9	0.660	0.120	1.0745	
60 minute summer	S24	31	30.020	0.095	14.2	0.1074	0.0000	OK	8.000	S25	14.1	0.908	0.355	0.5127	
60 minute summer	S25	31	29.242	0.115	42.4	0.2036	0.0000	OK	8.001	S26	42.3	0.960	0.148	1.7991	
60 minute summer	S27	31	29.780	0.105	16.9	0.1187	0.0000	OK	10.000	S28	16.8	0.951	0.423	0.5799	
60 minute summer	S26	31	28.991	0.177	70.2	0.3132	0.0000	OK	7.003	S32	68.7	1.244	0.297	1.2890	
60 minute summer	S28	31	29.570	0.163	31.8	0.1846	0.0000	OK	10.001	S29	31.8	0.837	0.449	0.2868	
60 minute summer	S29	31	29.531	0.155	31.8	0.1758	0.0000	OK	10.002	S32	31.7	0.932	0.439	0.1594	
60 minute summer	S30	31	30.151	0.051	4.3	0.0081	0.0000	OK	9.000	S31	4.2	0.820	0.240	0.1821	
60 minute summer	S31	31	29.343	0.097	18.4	0.1093	0.0000	OK	9.001	S32	18.3	1.151	0.366	0.5595	
60 minute summer	S32	31	28.812	0.268	124.7	0.3027	0.0000	OK	7.004	S33	124.1	1.138	0.433	0.6829	
60 minute summer	S33	73	27.919	0.748	331.3	3.3836	0.0000	OK	1.008	S34	315.5	0.806	0.133	47.8900	
60 minute summer	S34	66	27.918	0.799	332.6	3.6131	0.0000	OK	1.009	S39	287.0	0.690	0.121	51.8417	
60 minute summer	S35	31	29.463	0.088	12.2	0.0995	0.0000	OK	11.000	S36	12.2	0.870	0.306	0.3425	
60 minute summer	S36	31	29.295	0.139	24.4	0.1577	0.0000	OK	11.001	S37	24.4	0.777	0.341	0.3257	
60 minute summer	S37	31	29.262	0.222	59.0	0.3920	0.0000	OK	11.002	S38	58.9	0.911	0.525	0.4875	
60 minute summer	S38	31	29.220	0.204	58.9	0.3608	0.0000	OK	11.003	S39	58.7	1.048	0.523	0.5283	

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60 minute summer	S39	68	27.917	0.850	353.7	3.8450	0.0000	OK	1.010	S40	307.2	1.286	0.129	21.8161	
60 minute summer	S40	71	27.918	0.872	308.2	234.6644	0.0000	OK	1.011	S41	25.5	0.301	0.011	19.1326	
60 minute summer	S41	64	27.919	0.891	25.5	4.0320	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
60 minute summer	S42	26	26.932	0.086	12.0	0.0973	0.0000	OK	1.013	S43	12.0	0.976	0.302	0.5286	
60 minute summer	S43	27	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
60 minute summer	C1	27	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	212.5
60 minute summer	EXG	27	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 100 year +30% 60 minute winter. 300 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)
60 minute winter	S1	30	29.792	0.042	2.6	0.0066	0.0000	OK	1.000	S2	2.6	0.524	0.147	0.0227	
60 minute winter	S2	32	29.762	0.057	5.2	0.0090	0.0000	OK	1.001	S3	5.2	0.867	0.294	0.2174	
60 minute winter	S3	31	29.371	0.100	15.7	0.1134	0.0000	OK	1.002	S4	15.7	0.936	0.393	0.6063	
60 minute winter	S4	31	29.104	0.122	18.3	0.1380	0.0000	OK	1.003	S5	18.3	0.686	0.253	0.1376	
60 minute winter	S5	32	29.080	0.120	20.9	0.1358	0.0000	OK	1.004	S8	20.9	0.717	0.295	0.4778	
60 minute winter	S6	31	29.807	0.057	5.3	0.0091	0.0000	OK	2.000	S7	5.3	0.870	0.299	0.2362	
60 minute winter	S7	31	29.380	0.091	15.8	0.1033	0.0000	OK	2.001	S8	15.7	1.061	0.334	0.5774	
60 minute winter	S8	31	29.032	0.139	41.8	0.2458	0.0000	OK	1.005	S13	41.7	1.401	0.369	0.3487	
60 minute winter	S9	31	29.355	0.080	11.4	0.0907	0.0000	OK	4.000	S13	11.4	0.919	0.260	0.3480	
60 minute winter	S10	31	29.111	0.111	27.5	0.1260	0.0000	OK	3.000	S11	27.5	0.870	0.300	0.8603	
60 minute winter	S11	31	28.980	0.165	41.9	0.2915	0.0000	OK	3.001	S12	41.8	0.963	0.375	1.1776	
60 minute winter	S12	31	28.846	0.191	56.7	0.3367	0.0000	OK	3.002	S13	56.7	0.979	0.355	0.7735	
60 minute winter	S13	31	28.416	0.244	118.9	0.8468	0.0000	OK	1.006	S20	118.7	0.988	0.186	3.2458	
60 minute winter	S14	32	28.792	0.042	2.9	0.0472	0.0000	OK	5.000	S15	2.9	0.735	0.164	0.0923	
60 minute winter	S15	31	28.517	0.074	9.1	0.0835	0.0000	OK	5.001	S16	9.1	0.714	0.229	0.2982	
60 minute winter	S16	31	28.392	0.087	12.0	0.0986	0.0000	OK	5.002	S19	12.0	0.867	0.300	0.3099	
60 minute winter	S17	32	29.192	0.042	2.9	0.0067	0.0000	OK	6.000	S18	2.9	0.734	0.164	0.0738	
60 minute winter	S18	31	28.965	0.076	9.1	0.0854	0.0000	OK	6.001	S19	9.1	0.800	0.229	0.2124	
60 minute winter	S19	69	28.009	0.812	24.0	3.6716	0.0000	OK	5.003	S20	19.9	0.093	0.008	5.9929	
60 minute winter	S20	69	28.009	0.818	145.2	3.6987	0.0000	OK	1.007	S33	134.3	0.456	0.057	20.0410	
60 minute winter	S21	31	30.157	0.057	5.3	0.0091	0.0000	OK	7.000	S22	5.3	0.870	0.299	0.2133	
60 minute winter	S22	31	29.777	0.101	15.8	0.1138	0.0000	OK	7.001	S23	15.7	0.936	0.395	0.5909	
60 minute winter	S23	31	29.034	0.090	21.0	0.1590	0.0000	OK	7.002	S26	21.0	0.610	0.090	0.8774	
60 minute winter	S24	31	30.005	0.080	10.5	0.0909	0.0000	OK	8.000	S25	10.5	0.840	0.264	0.4113	
60 minute winter	S25	31	29.226	0.099	31.6	0.1757	0.0000	OK	8.001	S26	31.6	0.874	0.110	1.4651	
60 minute winter	S27	31	29.764	0.089	12.6	0.1005	0.0000	OK	10.000	S28	12.6	0.883	0.316	0.4667	
60 minute winter	S26	32	28.967	0.153	52.6	0.2698	0.0000	OK	7.003	S32	52.3	1.156	0.226	1.0569	
60 minute winter	S28	31	29.543	0.136	23.7	0.1539	0.0000	OK	10.001	S29	23.7	0.781	0.334	0.2288	
60 minute winter	S29	31	29.507	0.131	23.7	0.1483	0.0000	OK	10.002	S32	23.7	0.863	0.327	0.1285	
60 minute winter	S30	31	30.144	0.044	3.2	0.0069	0.0000	OK	9.000	S31	3.2	0.758	0.180	0.1478	
60 minute winter	S31	31	29.328	0.082	13.7	0.0926	0.0000	OK	9.001	S32	13.7	1.067	0.273	0.4499	
60 minute winter	S32	31	28.775	0.231	94.7	0.2617	0.0000	OK	7.004	S33	94.6	1.053	0.330	0.5632	
60 minute winter	S33	69	28.009	0.838	246.4	3.7893	0.0000	OK	1.008	S34	218.5	0.740	0.092	54.9215	
60 minute winter	S34	69	28.009	0.890	233.1	4.0247	0.0000	OK	1.009	S39	190.2	0.666	0.080	58.9196	
60 minute winter	S35	31	29.450	0.075	9.1	0.0848	0.0000	OK	11.000	S36	9.1	0.805	0.229	0.2763	
60 minute winter	S36	31	29.269	0.113	18.2	0.1281	0.0000	OK	11.001	S37	18.2	0.783	0.254	0.2359	
60 minute winter	S37	31	29.226	0.186	44.0	0.3288	0.0000	OK	11.002	S38	44.0	0.844	0.392	0.3933	

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60 minute winter	S38	31	29.189	0.173	44.0	0.3059	0.0000	OK	11.003	S39	43.9	0.963	0.391	0.4304	
60 minute winter	S39	68	28.009	0.942	242.5	4.2602	0.0000	OK	1.010	S40	208.5	1.396	0.087	24.6028	
60 minute winter	S40	70	28.008	0.962	209.4	260.6147	0.0000	OK	1.011	S41	25.8	0.365	0.011	21.5292	
60 minute winter	S41	67	28.013	0.985	25.8	4.4546	0.0000	SURCHARGED	Hydro-Brake®	S42	1.8				
60 minute winter	S42	65	26.932	0.086	12.0	0.0973	0.0000	OK	1.013	S43	12.0	0.976	0.302	0.5287	
60 minute winter	S43	71	26.713	0.088	12.0	0.0994	0.0000	OK	1.014	C1	12.0	1.016	0.301	0.0439	
60 minute winter	C1	68	26.668	0.065	12.0	0.0733	0.0000	OK	1.015	EXG	12.0	1.335	0.160	0.0882	213.8
60 minute winter	EXG	68	26.461	0.061	12.0	0.0000	0.0000	OK							

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Results for 100 year +30% 120 minute summer. 360 minute analysis at 2 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)
120 minute summer	S1	62	29.788	0.038	2.2	0.0060	0.0000	OK	1.000	S2	2.2	0.505	0.124	0.0199	
120 minute summer	S2	62	29.757	0.052	4.4	0.0082	0.0000	OK	1.001	S3	4.4	0.828	0.249	0.1923	
120 minute summer	S3	62	29.362	0.091	13.2	0.1027	0.0000	OK	1.002	S4	13.2	0.895	0.331	0.5329	
120 minute summer	S4	62	29.092	0.110	15.4	0.1240	0.0000	OK	1.003	S5	15.4	0.666	0.213	0.1194	
120 minute summer	S5	62	29.068	0.108	17.6	0.1223	0.0000	OK	1.004	S8	17.5	0.692	0.248	0.4159	
120 minute summer	S6	62	29.802	0.052	4.4	0.0082	0.0000	OK	2.000	S7	4.4	0.828	0.249	0.2067	
120 minute summer	S7	62	29.372	0.083	13.2	0.0936	0.0000	OK	2.001	S8	13.2	1.013	0.279	0.5068	
120 minute summer	S8	62	29.018	0.125	35.1	0.2215	0.0000	OK	1.005	S13	35.0	1.342	0.310	0.3055	
120 minute summer	S9	62	29.348	0.073	9.5	0.0822	0.0000	OK	4.000	S13	9.5	0.875	0.217	0.3047	
120 minute summer	S10	62	29.101	0.101	22.9	0.1144	0.0000	OK	3.000	S11	22.9	0.831	0.250	0.7557	
120 minute summer	S11	62	28.964	0.149	34.9	0.2633	0.0000	OK	3.001	S12	34.9	0.917	0.313	1.0323	
120 minute summer	S12	62	28.828	0.173	47.3	0.3052	0.0000	OK	3.002	S13	47.3	0.931	0.296	0.6792	
120 minute summer	S13	62	28.396	0.224	99.4	0.7761	0.0000	OK	1.006	S20	99.2	0.940	0.156	2.8543	
120 minute summer	S14	62	28.788	0.038	2.4	0.0428	0.0000	OK	5.000	S15	2.4	0.697	0.136	0.0805	
120 minute summer	S15	62	28.509	0.066	7.5	0.0752	0.0000	OK	5.001	S16	7.5	0.680	0.188	0.2582	
120 minute summer	S16	62	28.383	0.078	9.9	0.0887	0.0000	OK	5.002	S19	9.9	0.823	0.248	0.2693	
120 minute summer	S17	62	29.188	0.038	2.4	0.0060	0.0000	OK	6.000	S18	2.4	0.696	0.135	0.0644	
120 minute summer	S18	62	28.957	0.068	7.5	0.0770	0.0000	OK	6.001	S19	7.5	0.760	0.189	0.1843	
120 minute summer	S19	130	28.086	0.889	19.8	4.0240	0.0000	OK	5.003	S20	16.0	0.075	0.007	6.7006	
120 minute summer	S20	130	28.086	0.895	121.4	4.0511	0.0000	OK	1.007	S33	111.6	0.341	0.047	22.3554	
120 minute summer	S21	62	30.152	0.052	4.4	0.0082	0.0000	OK	7.000	S22	4.4	0.828	0.248	0.1865	
120 minute summer	S22	62	29.767	0.091	13.2	0.1029	0.0000	OK	7.001	S23	13.2	0.894	0.331	0.5180	
120 minute summer	S23	62	29.027	0.083	17.6	0.1458	0.0000	OK	7.002	S26	17.6	0.582	0.076	0.7702	
120 minute summer	S24	62	29.998	0.073	8.8	0.0827	0.0000	OK	8.000	S25	8.8	0.801	0.221	0.3618	
120 minute summer	S25	62	29.218	0.091	26.4	0.1608	0.0000	OK	8.001	S26	26.4	0.840	0.092	1.2855	
120 minute summer	S27	62	29.755	0.080	10.5	0.0909	0.0000	OK	10.000	S28	10.5	0.841	0.264	0.4084	
120 minute summer	S26	62	28.953	0.139	44.0	0.2449	0.0000	OK	7.003	S32	43.7	1.100	0.189	0.9260	
120 minute summer	S28	62	29.529	0.122	19.8	0.1383	0.0000	OK	10.001	S29	19.8	0.750	0.279	0.1993	
120 minute summer	S29	62	29.495	0.119	19.8	0.1340	0.0000	OK	10.002	S32	19.8	0.824	0.274	0.1126	
120 minute summer	S30	62	30.140	0.040	2.7	0.0064	0.0000	OK	9.000	S31	2.7	0.723	0.152	0.1310	
120 minute summer	S31	62	29.321	0.075	11.5	0.0843	0.0000	OK	9.001	S32	11.5	1.018	0.229	0.3964	
120 minute summer	S32	62	28.755	0.211	79.3	0.2386	0.0000	OK	7.004	S33	79.3	1.000	0.277	0.4969	
120 minute summer	S33	130	28.086	0.915	205.5	4.1416	0.0000	OK	1.008	S34	181.2	0.493	0.076	60.8727	
120 minute summer	S34	130	28.086	0.967	193.4	4.3759	0.0000	OK	1.009	S39	155.2	0.460	0.065	64.7560	
120 minute summer	S35	62	29.443	0.068	7.6	0.0770	0.0000	OK	11.000	S36	7.6	0.767	0.191	0.2423	
120 minute summer	S36	62	29.256	0.100	15.2	0.1132	0.0000	OK	11.001	S37	15.2	0.778	0.213	0.1919	
120 minute summer	S37	62	29.207	0.167	36.7	0.2956	0.0000	OK	11.002	S38	36.7	0.806	0.327	0.3436	
120 minute summer	S38	62	29.173	0.157	36.7	0.2766	0.0000	OK	11.003	S39	36.7	0.916	0.327	0.3780	

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120 minute summer	S39	128	28.086	1.019	200.0	4.6113	0.0000	OK	1.010	S40	170.6	1.081	0.071	26.9042	
120 minute summer	S40	128	28.086	1.040	171.3	283.0761	0.0000	OK	1.011	S41	11.9	0.245	0.005	23.4201	
120 minute summer	S41	128	28.086	1.058	11.9	4.7868	0.0000	SURCHARGED	Hydro-Brake®	S42	1.9				
120 minute summer	S42	128	26.932	0.086	12.1	0.0975	0.0000	OK	1.013	S43	12.1	0.853	0.304	0.5308	
120 minute summer	S43	132	26.713	0.088	12.1	0.0997	0.0000	OK	1.014	C1	12.1	1.018	0.303	0.0441	
120 minute summer	C1	130	26.668	0.065	12.1	0.0735	0.0000	OK	1.015	EXG	12.1	1.337	0.161	0.0886	257.5
120 minute summer	EXG	130	26.461	0.061	12.1	0.0000	0.0000	OK							

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Results for 100 year +30% 120 minute winter. 360 minute analysis at 2 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)
120 minute winter	S1	60	29.781	0.031	1.6	0.0050	0.0000	OK	1.000	S2	1.6	0.466	0.090	0.0157	
120 minute winter	S2	64	29.749	0.044	3.2	0.0069	0.0000	OK	1.001	S3	3.2	0.759	0.181	0.1528	
120 minute winter	S3	62	29.348	0.077	9.7	0.0868	0.0000	OK	1.002	S4	9.7	0.825	0.243	0.4258	
120 minute winter	S4	62	29.073	0.091	11.3	0.1034	0.0000	OK	1.003	S5	11.3	0.628	0.157	0.0931	
120 minute winter	S5	62	29.050	0.090	12.9	0.1021	0.0000	OK	1.004	S8	12.9	0.647	0.182	0.3276	
120 minute winter	S6	62	29.794	0.044	3.3	0.0070	0.0000	OK	2.000	S7	3.3	0.765	0.187	0.1679	
120 minute winter	S7	62	29.360	0.071	9.8	0.0798	0.0000	OK	2.001	S8	9.8	0.934	0.208	0.4083	
120 minute winter	S8	62	28.999	0.106	26.0	0.1865	0.0000	OK	1.005	S13	26.0	1.244	0.230	0.2441	
120 minute winter	S9	62	29.337	0.062	7.1	0.0705	0.0000	OK	4.000	S13	7.1	0.808	0.162	0.2466	
120 minute winter	S10	62	29.087	0.087	17.1	0.0983	0.0000	OK	3.000	S11	17.1	0.761	0.187	0.6130	
120 minute winter	S11	62	28.942	0.127	26.0	0.2242	0.0000	OK	3.001	S12	26.0	0.845	0.233	0.8342	
120 minute winter	S12	62	28.803	0.148	35.3	0.2612	0.0000	OK	3.002	S13	35.3	0.858	0.221	0.5499	
120 minute winter	S13	62	28.367	0.195	74.0	0.6744	0.0000	OK	1.006	S20	73.9	0.859	0.116	2.3276	
120 minute winter	S14	64	28.783	0.033	1.8	0.0370	0.0000	OK	5.000	S15	1.8	0.642	0.102	0.0655	
120 minute winter	S15	62	28.500	0.057	5.6	0.0644	0.0000	OK	5.001	S16	5.6	0.630	0.141	0.2080	
120 minute winter	S16	62	28.372	0.067	7.4	0.0759	0.0000	OK	5.002	S19	7.4	0.762	0.185	0.2179	
120 minute winter	S17	62	29.183	0.033	1.8	0.0052	0.0000	OK	6.000	S18	1.8	0.642	0.102	0.0524	
120 minute winter	S18	62	28.947	0.058	5.6	0.0660	0.0000	OK	6.001	S19	5.6	0.701	0.141	0.1492	
120 minute winter	S19	126	28.203	1.006	14.8	4.5525	0.0000	OK	5.003	S20	11.6	0.077	0.005	7.7325	
120 minute winter	S20	126	28.203	1.012	90.0	4.5797	0.0000	OK	1.007	S33	81.7	0.352	0.034	25.7230	
120 minute winter	S21	62	30.144	0.044	3.3	0.0071	0.0000	OK	7.000	S22	3.3	0.765	0.186	0.1515	
120 minute winter	S22	62	29.753	0.077	9.8	0.0874	0.0000	OK	7.001	S23	9.8	0.826	0.246	0.4167	
120 minute winter	S23	62	29.016	0.071	13.1	0.1263	0.0000	OK	7.002	S26	13.1	0.538	0.056	0.6212	
120 minute winter	S24	62	29.987	0.062	6.5	0.0705	0.0000	OK	8.000	S25	6.5	0.737	0.163	0.2905	
120 minute winter	S25	62	29.206	0.079	19.6	0.1391	0.0000	OK	8.001	S26	19.6	0.766	0.069	1.0367	
120 minute winter	S27	62	29.744	0.069	7.8	0.0775	0.0000	OK	10.000	S28	7.8	0.776	0.196	0.3289	
120 minute winter	S26	62	28.933	0.119	32.7	0.2094	0.0000	OK	7.003	S32	32.6	1.018	0.141	0.7483	
120 minute winter	S28	62	29.510	0.103	14.7	0.1163	0.0000	OK	10.001	S29	14.7	0.699	0.207	0.1586	
120 minute winter	S29	62	29.477	0.101	14.7	0.1137	0.0000	OK	10.002	S32	14.7	0.761	0.203	0.0904	
120 minute winter	S30	62	30.134	0.034	2.0	0.0055	0.0000	OK	9.000	S31	2.0	0.664	0.113	0.1057	
120 minute winter	S31	62	29.310	0.064	8.5	0.0719	0.0000	OK	9.001	S32	8.5	0.938	0.169	0.3184	
120 minute winter	S32	62	28.725	0.181	59.1	0.2050	0.0000	OK	7.004	S33	59.1	0.920	0.206	0.4026	
120 minute winter	S33	126	28.203	1.032	151.7	4.6702	0.0000	OK	1.008	S34	131.2	0.535	0.055	69.4942	
120 minute winter	S34	126	28.203	1.084	140.3	4.9054	0.0000	OK	1.009	S39	110.7	0.501	0.047	73.1303	
120 minute winter	S35	62	29.433	0.058	5.6	0.0656	0.0000	OK	11.000	S36	5.6	0.704	0.141	0.1944	
120 minute winter	S36	62	29.241	0.085	11.2	0.0960	0.0000	OK	11.001	S37	11.2	0.717	0.157	0.1534	
120 minute winter	S37	62	29.181	0.141	27.2	0.2489	0.0000	OK	11.002	S38	27.2	0.748	0.242	0.2745	

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120 minute winter	S38	62	29.149	0.133	27.2	0.2349	0.0000	OK	11.003	S39	27.2	0.842	0.242	0.3046	
120 minute winter	S39	126	28.203	1.136	143.9	5.1405	0.0000	OK	1.010	S40	121.9	1.156	0.051	30.1565	
120 minute winter	S40	128	28.203	1.157	122.4	317.1568	0.0000	OK	1.011	S41	11.8	0.273	0.005	26.1613	
120 minute winter	S41	126	28.204	1.176	11.8	5.3207	0.0000	SURCHARGED	Hydro-Brake®	S42	2.0				
120 minute winter	S42	126	26.933	0.087	12.2	0.0980	0.0000	OK	1.013	S43	12.2	0.855	0.306	0.5337	
120 minute winter	S43	126	26.713	0.088	12.2	0.1001	0.0000	OK	1.014	C1	12.2	1.020	0.305	0.0443	
120 minute winter	C1	126	26.668	0.065	12.2	0.0738	0.0000	OK	1.015	EXG	12.2	1.339	0.162	0.0891	259.1
120 minute winter	EXG	126	26.461	0.061	12.2	0.0000	0.0000	OK							

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Results for 100 year +30% 180 minute summer. 420 minute analysis at 4 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)
180 minute summer	S1	92	29.783	0.033	1.7	0.0052	0.0000	OK	1.000	S2	1.7	0.473	0.095	0.0162	
180 minute summer	S2	92	29.750	0.045	3.4	0.0071	0.0000	OK	1.001	S3	3.3	0.765	0.188	0.1569	
180 minute summer	S3	92	29.348	0.077	10.0	0.0876	0.0000	OK	1.002	S4	9.8	0.826	0.246	0.4301	
180 minute summer	S4	92	29.074	0.092	11.5	0.1044	0.0000	OK	1.003	S5	11.5	0.629	0.159	0.0942	
180 minute summer	S5	92	29.051	0.091	13.2	0.1030	0.0000	OK	1.004	S8	13.0	0.649	0.184	0.3298	
180 minute summer	S6	92	29.794	0.044	3.4	0.0071	0.0000	OK	2.000	S7	3.3	0.765	0.187	0.1684	
180 minute summer	S7	92	29.360	0.071	10.0	0.0800	0.0000	OK	2.001	S8	9.8	0.933	0.208	0.4091	
180 minute summer	S8	92	28.999	0.106	26.2	0.1869	0.0000	OK	1.005	S13	26.0	1.243	0.230	0.2444	
180 minute summer	S9	92	29.338	0.063	7.3	0.0710	0.0000	OK	4.000	S13	7.2	0.809	0.164	0.2487	
180 minute summer	S10	92	29.088	0.088	17.5	0.0991	0.0000	OK	3.000	S11	17.4	0.768	0.190	0.6162	
180 minute summer	S11	92	28.942	0.127	26.5	0.2244	0.0000	OK	3.001	S12	25.9	0.842	0.232	0.8335	
180 minute summer	S12	92	28.803	0.148	35.4	0.2610	0.0000	OK	3.002	S13	35.1	0.855	0.220	0.5482	
180 minute summer	S13	92	28.366	0.194	74.0	0.6709	0.0000	OK	1.006	S20	72.7	0.854	0.114	2.3049	
180 minute summer	S14	92	28.783	0.033	1.9	0.0376	0.0000	OK	5.000	S15	1.9	0.647	0.105	0.0670	
180 minute summer	S15	92	28.501	0.058	5.8	0.0651	0.0000	OK	5.001	S16	5.7	0.634	0.143	0.2101	
180 minute summer	S16	92	28.372	0.067	7.6	0.0762	0.0000	OK	5.002	S19	7.4	0.761	0.186	0.2186	
180 minute summer	S17	92	29.183	0.033	1.9	0.0053	0.0000	OK	6.000	S18	1.9	0.647	0.105	0.0537	
180 minute summer	S18	92	28.948	0.059	5.8	0.0666	0.0000	OK	6.001	S19	5.7	0.703	0.143	0.1508	
180 minute summer	S19	188	28.187	0.990	15.0	4.4810	0.0000	OK	5.003	S20	11.7	0.053	0.005	7.5957	
180 minute summer	S20	188	28.187	0.996	89.2	4.5081	0.0000	OK	1.007	S33	80.8	0.292	0.034	25.2769	
180 minute summer	S21	92	30.145	0.045	3.4	0.0071	0.0000	OK	7.000	S22	3.3	0.765	0.187	0.1522	
180 minute summer	S22	92	29.754	0.078	10.0	0.0877	0.0000	OK	7.001	S23	9.8	0.825	0.246	0.4176	
180 minute summer	S23	92	29.015	0.071	13.2	0.1263	0.0000	OK	7.002	S26	13.1	0.542	0.056	0.6161	
180 minute summer	S24	92	29.988	0.063	6.7	0.0709	0.0000	OK	8.000	S25	6.6	0.738	0.165	0.2928	
180 minute summer	S25	92	29.206	0.079	19.9	0.1397	0.0000	OK	8.001	S26	19.8	0.774	0.069	1.0310	
180 minute summer	S27	92	29.744	0.069	8.0	0.0779	0.0000	OK	10.000	S28	7.8	0.776	0.197	0.3304	
180 minute summer	S26	92	28.932	0.118	32.8	0.2077	0.0000	OK	7.003	S32	32.0	1.010	0.138	0.7383	
180 minute summer	S28	92	29.511	0.104	14.9	0.1171	0.0000	OK	10.001	S29	14.9	0.702	0.210	0.1597	
180 minute summer	S29	92	29.477	0.101	14.9	0.1141	0.0000	OK	10.002	S32	14.7	0.761	0.204	0.0907	
180 minute summer	S30	92	30.135	0.035	2.1	0.0055	0.0000	OK	9.000	S31	2.0	0.667	0.115	0.1075	
180 minute summer	S31	92	29.310	0.064	8.7	0.0724	0.0000	OK	9.001	S32	8.6	0.939	0.171	0.3211	
180 minute summer	S32	92	28.724	0.180	58.7	0.2040	0.0000	OK	7.004	S33	58.4	0.917	0.204	0.3994	
180 minute summer	S33	188	28.187	1.016	150.4	4.5986	0.0000	OK	1.008	S34	129.8	0.429	0.055	68.3566	
180 minute summer	S34	188	28.187	1.068	139.1	4.8335	0.0000	OK	1.009	S39	109.3	0.411	0.046	72.0338	
180 minute summer	S35	92	29.434	0.059	5.8	0.0663	0.0000	OK	11.000	S36	5.7	0.707	0.143	0.1970	
180 minute summer	S36	92	29.242	0.086	11.5	0.0970	0.0000	OK	11.001	S37	11.4	0.720	0.159	0.1555	
180 minute summer	S37	92	29.182	0.142	27.8	0.2512	0.0000	OK	11.002	S38	27.7	0.753	0.246	0.2773	
180 minute summer	S38	92	29.150	0.134	27.7	0.2362	0.0000	OK	11.003	S39	27.4	0.843	0.244	0.3064	

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180 minute summer	S39	188	28.187	1.120	142.9	5.0683	0.0000	OK	1.010	S40	121.3	0.992	0.051	29.7312	
180 minute summer	S40	188	28.187	1.141	121.9	312.4856	0.0000	OK	1.011	S41	7.8	0.200	0.003	25.7960	
180 minute summer	S41	188	28.187	1.159	7.8	5.2445	0.0000	SURCHARGED	Hydro-Brake®	S42	2.0				
180 minute summer	S42	188	26.933	0.087	12.2	0.0979	0.0000	OK	1.013	S43	12.2	0.855	0.306	0.5334	
180 minute summer	S43	188	26.713	0.088	12.2	0.1000	0.0000	OK	1.014	C1	12.2	1.019	0.305	0.0443	
180 minute summer	C1	188	26.668	0.065	12.2	0.0738	0.0000	OK	1.015	EXG	12.2	1.339	0.162	0.0890	301.0
180 minute summer	EXG	188	26.461	0.061	12.2	0.0000	0.0000	OK							

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Results for 100 year +30% 180 minute winter. 420 minute analysis at 4 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)
180 minute winter	S1	92	29.777	0.027	1.2	0.0043	0.0000	OK	1.000	S2	1.2	0.434	0.068	0.0126	
180 minute winter	S2	96	29.743	0.038	2.4	0.0060	0.0000	OK	1.001	S3	2.4	0.699	0.136	0.1244	
180 minute winter	S3	92	29.337	0.066	7.3	0.0746	0.0000	OK	1.002	S4	7.3	0.763	0.183	0.3458	
180 minute winter	S4	92	29.060	0.078	8.5	0.0878	0.0000	OK	1.003	S5	8.5	0.592	0.118	0.0741	
180 minute winter	S5	92	29.037	0.077	9.7	0.0869	0.0000	OK	1.004	S8	9.7	0.607	0.137	0.2614	
180 minute winter	S6	96	29.788	0.038	2.4	0.0060	0.0000	OK	2.000	S7	2.4	0.699	0.136	0.1337	
180 minute winter	S7	92	29.349	0.060	7.3	0.0684	0.0000	OK	2.001	S8	7.3	0.861	0.155	0.3297	
180 minute winter	S8	92	28.983	0.090	19.4	0.1584	0.0000	OK	1.005	S13	19.3	1.153	0.171	0.1961	
180 minute winter	S9	92	29.329	0.054	5.3	0.0605	0.0000	OK	4.000	S13	5.3	0.744	0.121	0.1995	
180 minute winter	S10	92	29.075	0.075	12.8	0.0848	0.0000	OK	3.000	S11	12.8	0.701	0.139	0.4977	
180 minute winter	S11	92	28.924	0.109	19.5	0.1919	0.0000	OK	3.001	S12	19.4	0.779	0.174	0.6736	
180 minute winter	S12	92	28.782	0.127	26.3	0.2237	0.0000	OK	3.002	S13	26.2	0.791	0.164	0.4430	
180 minute winter	S13	92	28.341	0.169	55.0	0.5851	0.0000	OK	1.006	S20	54.9	0.790	0.086	1.9548	
180 minute winter	S14	92	28.779	0.029	1.4	0.0324	0.0000	OK	5.000	S15	1.4	0.595	0.078	0.0544	
180 minute winter	S15	92	28.492	0.049	4.3	0.0559	0.0000	OK	5.001	S16	4.3	0.587	0.107	0.1702	
180 minute winter	S16	92	28.363	0.058	5.7	0.0658	0.0000	OK	5.002	S19	5.6	0.705	0.141	0.3015	
180 minute winter	S17	92	29.179	0.029	1.4	0.0046	0.0000	OK	6.000	S18	1.4	0.595	0.078	0.0435	
180 minute winter	S18	92	28.940	0.051	4.3	0.0574	0.0000	OK	6.001	S19	4.3	0.650	0.107	0.1226	
180 minute winter	S19	188	28.313	1.116	11.3	5.0474	0.0000	OK	5.003	S20	8.8	0.096	0.004	8.6438	
180 minute winter	S20	188	28.313	1.122	67.1	5.0746	0.0000	OK	1.007	S33	60.7	0.303	0.026	28.6829	
180 minute winter	S21	96	30.138	0.038	2.4	0.0060	0.0000	OK	7.000	S22	2.4	0.699	0.136	0.1206	
180 minute winter	S22	92	29.742	0.066	7.3	0.0747	0.0000	OK	7.001	S23	7.3	0.762	0.183	0.3359	
180 minute winter	S23	92	29.006	0.062	9.7	0.1092	0.0000	OK	7.002	S26	9.7	0.495	0.042	0.4996	
180 minute winter	S24	92	29.979	0.054	4.9	0.0609	0.0000	OK	8.000	S25	4.9	0.680	0.123	0.2366	
180 minute winter	S25	92	29.195	0.068	14.7	0.1207	0.0000	OK	8.001	S26	14.7	0.708	0.051	0.8358	
180 minute winter	S27	92	29.734	0.059	5.8	0.0663	0.0000	OK	10.000	S28	5.8	0.714	0.145	0.2651	
180 minute winter	S26	92	28.915	0.101	24.3	0.1792	0.0000	OK	7.003	S32	24.2	0.939	0.105	0.6025	
180 minute winter	S28	92	29.494	0.087	11.0	0.0987	0.0000	OK	10.001	S29	11.0	0.653	0.155	0.1268	
180 minute winter	S29	92	29.462	0.086	11.0	0.0971	0.0000	OK	10.002	S32	11.0	0.703	0.151	0.0729	
180 minute winter	S30	96	30.130	0.030	1.5	0.0047	0.0000	OK	9.000	S31	1.5	0.611	0.085	0.0862	
180 minute winter	S31	92	29.301	0.055	6.4	0.0621	0.0000	OK	9.001	S32	6.4	0.865	0.127	0.2594	
180 minute winter	S32	92	28.700	0.156	44.0	0.1763	0.0000	OK	7.004	S33	43.9	0.846	0.153	0.3256	
180 minute winter	S33	188	28.313	1.142	112.8	5.1653	0.0000	OK	1.008	S34	97.2	0.446	0.041	76.9666	
180 minute winter	S34	188	28.313	1.194	104.0	5.4005	0.0000	OK	1.009	S39	81.7	0.450	0.034	80.2380	
180 minute winter	S35	92	29.425	0.050	4.2	0.0565	0.0000	OK	11.000	S36	4.2	0.649	0.105	0.1576	
180 minute winter	S36	92	29.229	0.073	8.4	0.0823	0.0000	OK	11.001	S37	8.4	0.662	0.117	0.1241	
180 minute winter	S37	92	29.160	0.120	20.4	0.2116	0.0000	OK	11.002	S38	20.3	0.697	0.181	0.2205	

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180 minute winter	S38	92	29.130	0.114	20.3	0.2009	0.0000	OK	11.003	S39	20.3	0.778	0.181	0.2461	
180 minute winter	S39	188	28.313	1.246	106.5	5.6358	0.0000	OK	1.010	S40	90.4	1.032	0.038	32.8749	
180 minute winter	S40	188	28.313	1.267	90.8	349.5223	0.0000	OK	1.011	S41	6.5	0.203	0.003	28.4117	
180 minute winter	S41	188	28.313	1.285	6.5	5.8121	0.0000	SURCHARGED	Hydro-Brake®	S42	2.1				
180 minute winter	S42	188	26.933	0.087	12.3	0.0983	0.0000	OK	1.013	S43	12.3	0.856	0.308	0.5364	
180 minute winter	S43	188	26.714	0.089	12.3	0.1004	0.0000	OK	1.014	C1	12.3	1.021	0.307	0.0446	
180 minute winter	C1	188	26.669	0.066	12.3	0.0741	0.0000	OK	1.015	EXG	12.3	1.342	0.163	0.0895	302.6
180 minute winter	EXG	188	26.461	0.061	12.3	0.0000	0.0000	OK							

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Results for 100 year +30% 240 minute summer. 480 minute analysis at 4 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)
240 minute summer	S1	120	29.778	0.028	1.3	0.0045	0.0000	OK	1.000	S2	1.3	0.443	0.073	0.0134	
240 minute summer	S2	124	29.744	0.039	2.6	0.0062	0.0000	OK	1.001	S3	2.6	0.715	0.147	0.1317	
240 minute summer	S3	124	29.340	0.069	7.9	0.0779	0.0000	OK	1.002	S4	7.9	0.780	0.198	0.3667	
240 minute summer	S4	124	29.063	0.081	9.2	0.0919	0.0000	OK	1.003	S5	9.2	0.602	0.127	0.0790	
240 minute summer	S5	124	29.040	0.080	10.5	0.0910	0.0000	OK	1.004	S8	10.5	0.619	0.148	0.2784	
240 minute summer	S6	124	29.789	0.039	2.6	0.0062	0.0000	OK	2.000	S7	2.6	0.716	0.147	0.1415	
240 minute summer	S7	124	29.352	0.063	7.9	0.0713	0.0000	OK	2.001	S8	7.9	0.881	0.168	0.3495	
240 minute summer	S8	124	28.987	0.094	21.0	0.1657	0.0000	OK	1.005	S13	21.0	1.178	0.186	0.2083	
240 minute summer	S9	124	29.331	0.056	5.7	0.0629	0.0000	OK	4.000	S13	5.7	0.760	0.130	0.2105	
240 minute summer	S10	124	29.078	0.078	13.8	0.0881	0.0000	OK	3.000	S11	13.8	0.719	0.151	0.5263	
240 minute summer	S11	124	28.928	0.113	21.0	0.2001	0.0000	OK	3.001	S12	21.0	0.799	0.188	0.7132	
240 minute summer	S12	124	28.787	0.132	28.5	0.2336	0.0000	OK	3.002	S13	28.5	0.808	0.178	0.4713	
240 minute summer	S13	124	28.348	0.176	59.7	0.6080	0.0000	OK	1.006	S20	59.7	0.812	0.094	1.9906	
240 minute summer	S14	124	28.780	0.030	1.5	0.0338	0.0000	OK	5.000	S15	1.5	0.610	0.085	0.0575	
240 minute summer	S15	124	28.494	0.051	4.6	0.0581	0.0000	OK	5.001	S16	4.6	0.598	0.116	0.1801	
240 minute summer	S16	124	28.366	0.061	6.1	0.0686	0.0000	OK	5.002	S19	6.1	0.722	0.153	0.1895	
240 minute summer	S17	124	29.180	0.030	1.5	0.0048	0.0000	OK	6.000	S18	1.5	0.609	0.085	0.0460	
240 minute summer	S18	124	28.942	0.053	4.6	0.0597	0.0000	OK	6.001	S19	4.6	0.664	0.116	0.1294	
240 minute summer	S19	248	28.251	1.054	12.2	4.7698	0.0000	OK	5.003	S20	9.5	0.070	0.004	8.1415	
240 minute summer	S20	248	28.251	1.060	72.9	4.7969	0.0000	OK	1.007	S33	65.8	0.268	0.028	27.0512	
240 minute summer	S21	124	30.139	0.039	2.6	0.0062	0.0000	OK	7.000	S22	2.6	0.716	0.147	0.1277	
240 minute summer	S22	124	29.745	0.069	7.9	0.0780	0.0000	OK	7.001	S23	7.9	0.779	0.199	0.3563	
240 minute summer	S23	124	29.008	0.064	10.5	0.1135	0.0000	OK	7.002	S26	10.5	0.506	0.045	0.5301	
240 minute summer	S24	124	29.981	0.056	5.3	0.0635	0.0000	OK	8.000	S25	5.3	0.696	0.133	0.2509	
240 minute summer	S25	124	29.198	0.071	15.8	0.1252	0.0000	OK	8.001	S26	15.8	0.726	0.055	0.8855	
240 minute summer	S27	124	29.736	0.061	6.3	0.0693	0.0000	OK	10.000	S28	6.3	0.731	0.158	0.2819	
240 minute summer	S26	124	28.920	0.106	26.3	0.1869	0.0000	OK	7.003	S32	26.3	0.960	0.114	0.6392	
240 minute summer	S28	124	29.498	0.091	11.9	0.1032	0.0000	OK	10.001	S29	11.9	0.665	0.168	0.1350	
240 minute summer	S29	124	29.466	0.090	11.9	0.1015	0.0000	OK	10.002	S32	11.9	0.720	0.165	0.0775	
240 minute summer	S30	124	30.131	0.031	1.6	0.0049	0.0000	OK	9.000	S31	1.6	0.623	0.090	0.0903	
240 minute summer	S31	124	29.303	0.057	6.9	0.0646	0.0000	OK	9.001	S32	6.9	0.884	0.138	0.2742	
240 minute summer	S32	124	28.706	0.162	47.7	0.1835	0.0000	OK	7.004	S33	47.7	0.868	0.166	0.3445	
240 minute summer	S33	248	28.251	1.080	122.3	4.8875	0.0000	OK	1.008	S34	105.0	0.397	0.044	72.8595	
240 minute summer	S34	248	28.251	1.132	112.3	5.1228	0.0000	OK	1.009	S39	87.8	0.378	0.037	76.3578	
240 minute summer	S35	124	29.427	0.052	4.5	0.0586	0.0000	OK	11.000	S36	4.5	0.663	0.113	0.1660	
240 minute summer	S36	124	29.232	0.076	9.0	0.0855	0.0000	OK	11.001	S37	9.0	0.676	0.126	0.1308	
240 minute summer	S37	124	29.165	0.125	21.9	0.2204	0.0000	OK	11.002	S38	21.9	0.709	0.195	0.2331	
240 minute summer	S38	124	29.134	0.118	21.9	0.2090	0.0000	OK	11.003	S39	21.9	0.795	0.195	0.2598	

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240 minute summer	S39	248	28.251	1.184	114.5	5.3583	0.0000	OK	1.010	S40	97.1	0.898	0.041	31.3984	
240 minute summer	S40	248	28.251	1.205	97.5	331.3605	0.0000	OK	1.011	S41	6.9	0.207	0.003	27.1884	
240 minute summer	S41	248	28.251	1.223	6.9	5.5349	0.0000	SURCHARGED	Hydro-Brake®	S42	2.0				
240 minute summer	S42	248	26.933	0.087	12.2	0.0981	0.0000	OK	1.013	S43	12.2	0.855	0.307	0.5349	
240 minute summer	S43	248	26.714	0.089	12.2	0.1002	0.0000	OK	1.014	C1	12.2	1.020	0.306	0.0444	
240 minute summer	C1	248	26.668	0.065	12.2	0.0739	0.0000	OK	1.015	EXG	12.2	1.340	0.163	0.0893	344.8
240 minute summer	EXG	248	26.461	0.061	12.2	0.0000	0.0000	OK							

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Results for 100 year +30% 240 minute winter. 480 minute analysis at 4 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)
240 minute winter	S1	116	29.774	0.024	1.0	0.0039	0.0000	OK	1.000	S2	1.0	0.414	0.056	0.0110	
240 minute winter	S2	124	29.739	0.034	2.0	0.0055	0.0000	OK	1.001	S3	2.0	0.664	0.113	0.1091	
240 minute winter	S3	124	29.330	0.059	5.9	0.0669	0.0000	OK	1.002	S4	5.9	0.719	0.148	0.2971	
240 minute winter	S4	124	29.051	0.069	6.9	0.0783	0.0000	OK	1.003	S5	6.9	0.565	0.096	0.0632	
240 minute winter	S5	124	29.029	0.069	7.9	0.0779	0.0000	OK	1.004	S8	7.9	0.580	0.112	0.2239	
240 minute winter	S6	124	29.784	0.034	2.0	0.0055	0.0000	OK	2.000	S7	2.0	0.664	0.113	0.1173	
240 minute winter	S7	124	29.343	0.054	5.9	0.0614	0.0000	OK	2.001	S8	5.9	0.811	0.125	0.2834	
240 minute winter	S8	124	28.973	0.080	15.8	0.1419	0.0000	OK	1.005	S13	15.8	1.093	0.140	0.1689	
240 minute winter	S9	124	29.323	0.048	4.2	0.0538	0.0000	OK	4.000	S13	4.2	0.697	0.096	0.1691	
240 minute winter	S10	124	29.067	0.067	10.2	0.0757	0.0000	OK	3.000	S11	10.2	0.657	0.111	0.4241	
240 minute winter	S11	124	28.912	0.097	15.5	0.1708	0.0000	OK	3.001	S12	15.5	0.736	0.139	0.5712	
240 minute winter	S12	124	28.768	0.113	21.1	0.2003	0.0000	OK	3.002	S13	21.1	0.743	0.132	0.3796	
240 minute winter	S13	244	28.394	0.222	44.5	0.7701	0.0000	OK	1.006	S20	44.5	0.737	0.070	3.5765	
240 minute winter	S14	124	28.776	0.026	1.1	0.0290	0.0000	OK	5.000	S15	1.1	0.556	0.062	0.0462	
240 minute winter	S15	124	28.487	0.044	3.4	0.0499	0.0000	OK	5.001	S16	3.4	0.551	0.085	0.1778	
240 minute winter	S16	244	28.395	0.089	4.5	0.1012	0.0000	OK	5.002	S19	4.5	0.663	0.113	0.6098	
240 minute winter	S17	124	29.176	0.026	1.1	0.0041	0.0000	OK	6.000	S18	1.1	0.556	0.062	0.0369	
240 minute winter	S18	124	28.934	0.045	3.4	0.0511	0.0000	OK	6.001	S19	3.4	0.610	0.085	0.1042	
240 minute winter	S19	244	28.394	1.197	9.0	5.4173	0.0000	OK	5.003	S20	7.0	0.059	0.003	9.2703	
240 minute winter	S20	244	28.394	1.203	54.2	5.4444	0.0000	OK	1.007	S33	49.0	0.280	0.021	30.7094	
240 minute winter	S21	124	30.134	0.034	2.0	0.0055	0.0000	OK	7.000	S22	2.0	0.664	0.113	0.1058	
240 minute winter	S22	124	29.735	0.059	5.9	0.0670	0.0000	OK	7.001	S23	5.9	0.718	0.148	0.2886	
240 minute winter	S23	124	29.000	0.056	7.9	0.0991	0.0000	OK	7.002	S26	7.9	0.470	0.034	0.4293	
240 minute winter	S24	124	29.973	0.048	3.9	0.0543	0.0000	OK	8.000	S25	3.9	0.638	0.098	0.2014	
240 minute winter	S25	124	29.188	0.061	11.7	0.1083	0.0000	OK	8.001	S26	11.7	0.664	0.041	0.7145	
240 minute winter	S27	124	29.728	0.053	4.7	0.0596	0.0000	OK	10.000	S28	4.7	0.673	0.118	0.2284	
240 minute winter	S26	124	28.905	0.091	19.6	0.1605	0.0000	OK	7.003	S32	19.6	0.885	0.085	0.5169	
240 minute winter	S28	124	29.484	0.077	8.8	0.0874	0.0000	OK	10.001	S29	8.8	0.619	0.124	0.1074	
240 minute winter	S29	124	29.452	0.076	8.8	0.0865	0.0000	OK	10.002	S32	8.8	0.663	0.122	0.0622	
240 minute winter	S30	128	30.127	0.027	1.2	0.0042	0.0000	OK	9.000	S31	1.2	0.572	0.068	0.0737	
240 minute winter	S31	124	29.295	0.049	5.1	0.0553	0.0000	OK	9.001	S32	5.1	0.812	0.102	0.2207	
240 minute winter	S32	124	28.684	0.140	35.5	0.1579	0.0000	OK	7.004	S33	35.5	0.801	0.124	0.2777	
240 minute winter	S33	244	28.395	1.224	91.0	5.5352	0.0000	OK	1.008	S34	78.2	0.408	0.033	82.0095	
240 minute winter	S34	244	28.394	1.275	83.6	5.7703	0.0000	OK	1.009	S39	65.6	0.418	0.028	84.9005	
240 minute winter	S35	124	29.420	0.045	3.4	0.0509	0.0000	OK	11.000	S36	3.4	0.612	0.085	0.1358	
240 minute winter	S36	124	29.221	0.065	6.8	0.0738	0.0000	OK	11.001	S37	6.8	0.628	0.095	0.1063	
240 minute winter	S37	124	29.146	0.106	16.4	0.1878	0.0000	OK	11.002	S38	16.4	0.661	0.146	0.1874	

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240 minute winter	S38	124	29.117	0.101	16.4	0.1793	0.0000	OK	11.003	S39	16.4	0.737	0.146	0.2100	
240 minute winter	S39	244	28.395	1.328	85.6	6.0059	0.0000	OK	1.010	S40	72.7	0.957	0.030	34.6174	
240 minute winter	S40	244	28.395	1.349	73.0	373.9693	0.0000	OK	1.011	S41	5.6	0.195	0.002	29.8336	
240 minute winter	S41	244	28.395	1.367	5.6	6.1825	0.0000	SURCHARGED	Hydro-Brake®	S42	2.1				
240 minute winter	S42	244	26.933	0.087	12.3	0.0986	0.0000	OK	1.013	S43	12.3	0.857	0.310	0.5382	
240 minute winter	S43	244	26.714	0.089	12.3	0.1007	0.0000	OK	1.014	C1	12.3	1.023	0.308	0.0447	
240 minute winter	C1	244	26.669	0.066	12.3	0.0743	0.0000	OK	1.015	EXG	12.3	1.343	0.164	0.0898	346.7
240 minute winter	EXG	244	26.461	0.061	12.3	0.0000	0.0000	OK							

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Results for 100 year +30% 360 minute summer. 600 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)
360 minute summer	S1	184	29.774	0.024	1.0	0.0039	0.0000	OK	1.000	S2	1.0	0.414	0.056	0.0110	
360 minute summer	S2	184	29.739	0.034	2.0	0.0054	0.0000	OK	1.001	S3	2.0	0.661	0.112	0.1082	
360 minute summer	S3	184	29.330	0.059	6.0	0.0670	0.0000	OK	1.002	S4	5.9	0.719	0.148	0.2974	
360 minute summer	S4	184	29.051	0.069	6.9	0.0782	0.0000	OK	1.003	S5	6.9	0.565	0.095	0.0631	
360 minute summer	S5	184	29.029	0.069	7.9	0.0777	0.0000	OK	1.004	S8	7.8	0.578	0.111	0.2228	
360 minute summer	S6	184	29.784	0.034	2.0	0.0054	0.0000	OK	2.000	S7	2.0	0.661	0.111	0.1160	
360 minute summer	S7	184	29.343	0.054	6.0	0.0614	0.0000	OK	2.001	S8	5.9	0.810	0.125	0.2833	
360 minute summer	S8	184	28.973	0.080	15.7	0.1413	0.0000	OK	1.005	S13	15.7	1.090	0.138	0.1679	
360 minute summer	S9	184	29.323	0.048	4.3	0.0542	0.0000	OK	4.000	S13	4.3	0.699	0.097	0.1708	
360 minute summer	S10	184	29.067	0.067	10.4	0.0763	0.0000	OK	3.000	S11	10.4	0.662	0.113	0.4271	
360 minute summer	S11	184	28.912	0.097	15.8	0.1714	0.0000	OK	3.001	S12	15.6	0.736	0.140	0.5734	
360 minute summer	S12	184	28.768	0.113	21.2	0.2002	0.0000	OK	3.002	S13	21.0	0.742	0.132	0.3791	
360 minute summer	S13	368	28.348	0.176	44.3	0.6099	0.0000	OK	1.006	S20	43.9	0.733	0.069	2.6276	
360 minute summer	S14	184	28.776	0.026	1.1	0.0289	0.0000	OK	5.000	S15	1.1	0.555	0.062	0.0460	
360 minute summer	S15	184	28.487	0.044	3.4	0.0497	0.0000	OK	5.001	S16	3.4	0.551	0.085	0.1435	
360 minute summer	S16	184	28.356	0.051	4.5	0.0582	0.0000	OK	5.002	S19	4.4	0.660	0.111	0.4339	
360 minute summer	S17	184	29.176	0.026	1.1	0.0041	0.0000	OK	6.000	S18	1.1	0.555	0.062	0.0368	
360 minute summer	S18	184	28.934	0.045	3.4	0.0509	0.0000	OK	6.001	S19	3.4	0.608	0.085	0.1035	
360 minute summer	S19	368	28.348	1.151	8.9	5.2081	0.0000	OK	5.003	S20	6.9	0.049	0.003	8.9233	
360 minute summer	S20	368	28.348	1.157	53.6	5.2353	0.0000	OK	1.007	S33	48.5	0.247	0.020	29.5858	
360 minute summer	S21	184	30.134	0.034	2.0	0.0054	0.0000	OK	7.000	S22	2.0	0.661	0.111	0.1047	
360 minute summer	S22	184	29.735	0.059	6.0	0.0670	0.0000	OK	7.001	S23	5.9	0.718	0.148	0.2886	
360 minute summer	S23	184	29.000	0.056	7.9	0.0988	0.0000	OK	7.002	S26	7.8	0.469	0.034	0.4271	
360 minute summer	S24	184	29.973	0.048	4.0	0.0546	0.0000	OK	8.000	S25	3.9	0.640	0.099	0.2031	
360 minute summer	S25	184	29.189	0.062	11.9	0.1091	0.0000	OK	8.001	S26	11.9	0.671	0.042	0.7148	
360 minute summer	S27	184	29.728	0.053	4.8	0.0600	0.0000	OK	10.000	S28	4.7	0.674	0.119	0.2299	
360 minute summer	S26	184	28.905	0.091	19.7	0.1600	0.0000	OK	7.003	S32	19.4	0.882	0.084	0.5138	
360 minute summer	S28	184	29.485	0.078	8.9	0.0880	0.0000	OK	10.001	S29	8.9	0.621	0.126	0.1083	
360 minute summer	S29	184	29.453	0.077	8.9	0.0869	0.0000	OK	10.002	S32	8.9	0.664	0.123	0.0626	
360 minute summer	S30	184	30.127	0.027	1.2	0.0042	0.0000	OK	9.000	S31	1.2	0.571	0.067	0.0732	
360 minute summer	S31	184	29.295	0.049	5.2	0.0556	0.0000	OK	9.001	S32	5.1	0.813	0.102	0.2219	
360 minute summer	S32	184	28.683	0.139	35.4	0.1576	0.0000	OK	7.004	S33	35.3	0.800	0.123	0.2769	
360 minute summer	S33	368	28.348	1.177	90.4	5.3257	0.0000	OK	1.008	S34	77.9	0.354	0.033	79.2215	
360 minute summer	S34	368	28.348	1.229	83.4	5.5613	0.0000	OK	1.009	S39	65.4	0.347	0.028	82.3449	
360 minute summer	S35	184	29.420	0.045	3.4	0.0507	0.0000	OK	11.000	S36	3.4	0.610	0.085	0.1350	
360 minute summer	S36	184	29.221	0.065	6.8	0.0735	0.0000	OK	11.001	S37	6.7	0.626	0.094	0.1057	
360 minute summer	S37	184	29.146	0.106	16.4	0.1878	0.0000	OK	11.002	S38	16.4	0.661	0.146	0.1871	
360 minute summer	S38	184	29.117	0.101	16.4	0.1789	0.0000	OK	11.003	S39	16.3	0.735	0.145	0.2093	

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360 minute summer	S39	368	28.348	1.281	85.3	5.7966	0.0000	OK	1.010	S40	72.5	0.850	0.030	33.6672	
360 minute summer	S40	368	28.348	1.302	72.8	360.1206	0.0000	OK	1.011	S41	5.5	0.171	0.002	29.0635	
360 minute summer	S41	368	28.348	1.320	5.5	5.9731	0.0000	SURCHARGED	Hydro-Brake®	S42	2.1				
360 minute summer	S42	368	26.933	0.087	12.3	0.0984	0.0000	OK	1.013	S43	12.3	0.857	0.309	0.5372	
360 minute summer	S43	368	26.714	0.089	12.3	0.1005	0.0000	OK	1.014	C1	12.3	1.022	0.308	0.0446	
360 minute summer	C1	368	26.669	0.066	12.3	0.0742	0.0000	OK	1.015	EXG	12.3	1.343	0.164	0.0897	430.9
360 minute summer	EXG	368	26.461	0.061	12.3	0.0000	0.0000	OK							

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Results for 100 year +30% 360 minute winter. 600 minute analysis at 8 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)
360 minute winter	S1	176	29.770	0.020	0.7	0.0032	0.0000	OK	1.000	S2	0.7	0.375	0.040	0.0085	
360 minute winter	S2	184	29.734	0.029	1.4	0.0046	0.0000	OK	1.001	S3	1.4	0.599	0.079	0.0847	
360 minute winter	S3	184	29.321	0.050	4.3	0.0568	0.0000	OK	1.002	S4	4.3	0.658	0.108	0.2364	
360 minute winter	S4	184	29.040	0.058	5.0	0.0656	0.0000	OK	1.003	S5	5.0	0.525	0.069	0.0491	
360 minute winter	S5	184	29.018	0.058	5.7	0.0653	0.0000	OK	1.004	S8	5.7	0.535	0.080	0.1746	
360 minute winter	S6	192	29.779	0.029	1.4	0.0046	0.0000	OK	2.000	S7	1.4	0.599	0.079	0.0911	
360 minute winter	S7	184	29.335	0.046	4.3	0.0522	0.0000	OK	2.001	S8	4.3	0.741	0.091	0.2257	
360 minute winter	S8	184	28.960	0.067	11.4	0.1192	0.0000	OK	1.005	S13	11.4	1.001	0.101	0.1327	
360 minute winter	S9	184	29.316	0.041	3.1	0.0463	0.0000	OK	4.000	S13	3.1	0.638	0.071	0.1363	
360 minute winter	S10	184	29.058	0.058	7.6	0.0654	0.0000	OK	3.000	S11	7.6	0.605	0.083	0.3431	
360 minute winter	S11	184	28.898	0.083	11.5	0.1464	0.0000	OK	3.001	S12	11.5	0.678	0.103	0.4583	
360 minute winter	S12	184	28.752	0.097	15.6	0.1714	0.0000	OK	3.002	S13	15.5	0.685	0.097	0.3034	
360 minute winter	S13	368	28.505	0.333	32.5	1.1542	0.0000	OK	1.006	S20	32.5	0.680	0.051	6.0769	
360 minute winter	S14	184	28.772	0.022	0.8	0.0248	0.0000	OK	5.000	S15	0.8	0.507	0.045	0.0369	
360 minute winter	S15	368	28.505	0.062	2.5	0.0700	0.0000	OK	5.001	S16	2.5	0.505	0.063	0.5399	
360 minute winter	S16	368	28.505	0.200	3.3	0.2263	0.0000	OK	5.002	S19	3.3	0.606	0.082	0.8646	
360 minute winter	S17	184	29.172	0.022	0.8	0.0035	0.0000	OK	6.000	S18	0.8	0.507	0.045	0.0295	
360 minute winter	S18	184	28.928	0.039	2.5	0.0438	0.0000	OK	6.001	S19	2.5	0.557	0.063	0.0836	
360 minute winter	S19	368	28.505	1.308	6.6	5.9183	0.0000	OK	5.003	S20	5.1	0.051	0.002	10.0176	
360 minute winter	S20	368	28.505	1.314	39.6	5.9455	0.0000	OK	1.007	S33	35.8	0.252	0.015	33.1036	
360 minute winter	S21	192	30.129	0.029	1.4	0.0046	0.0000	OK	7.000	S22	1.4	0.599	0.079	0.0821	
360 minute winter	S22	184	29.726	0.050	4.3	0.0569	0.0000	OK	7.001	S23	4.3	0.657	0.108	0.2296	
360 minute winter	S23	184	28.992	0.048	5.7	0.0849	0.0000	OK	7.002	S26	5.7	0.425	0.025	0.3415	
360 minute winter	S24	184	29.966	0.041	2.9	0.0468	0.0000	OK	8.000	S25	2.9	0.585	0.073	0.1629	
360 minute winter	S25	184	29.180	0.053	8.7	0.0940	0.0000	OK	8.001	S26	8.7	0.612	0.030	0.5727	
360 minute winter	S27	184	29.720	0.045	3.5	0.0513	0.0000	OK	10.000	S28	3.5	0.619	0.088	0.1846	
360 minute winter	S26	184	28.892	0.078	14.4	0.1370	0.0000	OK	7.003	S32	14.3	0.809	0.062	0.4128	
360 minute winter	S28	184	29.473	0.066	6.6	0.0747	0.0000	OK	10.001	S29	6.6	0.577	0.093	0.0862	
360 minute winter	S29	184	29.442	0.066	6.6	0.0743	0.0000	OK	10.002	S32	6.6	0.612	0.091	0.0503	
360 minute winter	S30	192	30.123	0.023	0.9	0.0037	0.0000	OK	9.000	S31	0.9	0.527	0.051	0.0601	
360 minute winter	S31	184	29.288	0.042	3.8	0.0477	0.0000	OK	9.001	S32	3.8	0.745	0.076	0.1789	
360 minute winter	S32	184	28.664	0.120	26.1	0.1354	0.0000	OK	7.004	S33	26.1	0.734	0.091	0.2228	
360 minute winter	S33	368	28.505	1.334	66.7	6.0361	0.0000	OK	1.008	S34	57.4	0.369	0.024	87.7971	
360 minute winter	S34	368	28.505	1.386	61.4	6.2715	0.0000	OK	1.009	S39	48.2	0.372	0.020	89.9221	
360 minute winter	S35	184	29.414	0.039	2.5	0.0436	0.0000	OK	11.000	S36	2.5	0.559	0.063	0.1090	
360 minute winter	S36	184	29.212	0.056	5.0	0.0630	0.0000	OK	11.001	S37	5.0	0.576	0.070	0.0850	
360 minute winter	S37	184	29.130	0.090	12.1	0.1591	0.0000	OK	11.002	S38	12.1	0.612	0.108	0.1489	

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360 minute winter	S38	184	29.102	0.086	12.1	0.1528	0.0000	OK	11.003	S39	12.1	0.679	0.107	0.1677	
360 minute winter	S39	368	28.505	1.438	63.0	6.5068	0.0000	OK	1.010	S40	53.6	0.792	0.022	36.3548	
360 minute winter	S40	368	28.505	1.459	53.8	407.3969	0.0000	OK	1.011	S41	4.5	0.181	0.002	31.1678	
360 minute winter	S41	368	28.505	1.477	4.5	6.6833	0.0000	SURCHARGED	Hydro-Brake®	S42	2.2				
360 minute winter	S42	368	26.933	0.087	12.4	0.0989	0.0000	OK	1.013	S43	12.4	0.859	0.312	0.5407	
360 minute winter	S43	368	26.714	0.089	12.4	0.1010	0.0000	OK	1.014	C1	12.4	1.024	0.310	0.0449	
360 minute winter	C1	368	26.669	0.066	12.4	0.0745	0.0000	OK	1.015	EXG	12.4	1.346	0.165	0.0902	433.0
360 minute winter	EXG	368	26.462	0.062	12.4	0.0000	0.0000	OK							

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Results for 100 year +30% 480 minute summer. 720 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 summer	S1	248	29.772	0.022	0.8	0.0035	0.0000	OK	1.000	S2	0.8	0.390	0.045	0.0094	
480 minute summer	S2	248	29.736	0.031	1.6	0.0049	0.0000	OK	1.001	S3	1.6	0.623	0.091	0.0931	
480 minute summer	S3	248	29.324	0.053	4.7	0.0595	0.0000	OK	1.002	S4	4.7	0.675	0.118	0.2524	
480 minute summer	S4	248	29.043	0.061	5.5	0.0692	0.0000	OK	1.003	S5	5.5	0.536	0.076	0.0531	
480 minute summer	S5	248	29.021	0.061	6.3	0.0690	0.0000	OK	1.004	S8	6.3	0.549	0.089	0.1886	
480 minute summer	S6	248	29.781	0.031	1.6	0.0049	0.0000	OK	2.000	S7	1.6	0.623	0.091	0.1001	
480 minute summer	S7	248	29.337	0.048	4.7	0.0547	0.0000	OK	2.001	S8	4.7	0.760	0.100	0.2408	
480 minute summer	S8	248	28.964	0.071	12.6	0.1258	0.0000	OK	1.005	S13	12.6	1.029	0.111	0.1431	
480 minute summer	S9	248	29.318	0.043	3.4	0.0484	0.0000	OK	4.000	S13	3.4	0.655	0.078	0.1455	
480 minute summer	S10	248	29.060	0.060	8.1	0.0676	0.0000	OK	3.000	S11	8.1	0.617	0.088	0.3599	
480 minute summer	S11	248	28.901	0.086	12.3	0.1517	0.0000	OK	3.001	S12	12.3	0.691	0.110	0.4830	
480 minute summer	S12	248	28.756	0.101	16.7	0.1776	0.0000	OK	3.002	S13	16.7	0.700	0.105	0.3191	
480 minute summer	S13	488	28.421	0.249	35.4	0.8631	0.0000	OK	1.006	S20	35.4	0.696	0.056	4.1562	
480 minute summer	S14	248	28.773	0.023	0.9	0.0262	0.0000	OK	5.000	S15	0.9	0.525	0.051	0.0401	
480 minute summer	S15	248	28.482	0.039	2.7	0.0446	0.0000	OK	5.001	S16	2.7	0.514	0.068	0.2464	
480 minute summer	S16	488	28.421	0.116	3.6	0.1314	0.0000	OK	5.002	S19	3.6	0.623	0.090	0.6778	
480 minute summer	S17	248	29.173	0.023	0.9	0.0037	0.0000	OK	6.000	S18	0.9	0.525	0.051	0.0320	
480 minute summer	S18	248	28.929	0.040	2.7	0.0456	0.0000	OK	6.001	S19	2.7	0.570	0.068	0.0885	
480 minute summer	S19	488	28.421	1.224	7.2	5.5384	0.0000	OK	5.003	S20	5.6	0.052	0.002	9.4635	
480 minute summer	S20	488	28.421	1.230	43.2	5.5655	0.0000	OK	1.007	S33	39.1	0.231	0.016	31.3306	
480 minute summer	S21	248	30.131	0.031	1.6	0.0049	0.0000	OK	7.000	S22	1.6	0.623	0.090	0.0903	
480 minute summer	S22	248	29.729	0.053	4.7	0.0596	0.0000	OK	7.001	S23	4.7	0.674	0.118	0.2452	
480 minute summer	S23	248	28.994	0.050	6.3	0.0892	0.0000	OK	7.002	S26	6.3	0.441	0.027	0.3646	
480 minute summer	S24	248	29.968	0.043	3.1	0.0484	0.0000	OK	8.000	S25	3.1	0.597	0.078	0.1711	
480 minute summer	S25	248	29.182	0.055	9.3	0.0971	0.0000	OK	8.001	S26	9.3	0.623	0.033	0.6066	
480 minute summer	S27	248	29.722	0.047	3.7	0.0528	0.0000	OK	10.000	S28	3.7	0.629	0.093	0.1925	
480 minute summer	S26	248	28.895	0.081	15.6	0.1430	0.0000	OK	7.003	S32	15.6	0.830	0.067	0.4391	
480 minute summer	S28	248	29.475	0.068	7.0	0.0772	0.0000	OK	10.001	S29	7.0	0.585	0.099	0.0903	
480 minute summer	S29	248	29.444	0.068	7.0	0.0767	0.0000	OK	10.002	S32	7.0	0.623	0.097	0.0526	
480 minute summer	S30	248	30.124	0.024	1.0	0.0039	0.0000	OK	9.000	S31	1.0	0.543	0.057	0.0648	
480 minute summer	S31	248	29.290	0.044	4.1	0.0496	0.0000	OK	9.001	S32	4.1	0.762	0.082	0.1890	
480 minute summer	S32	248	28.669	0.125	28.3	0.1414	0.0000	OK	7.004	S33	28.3	0.747	0.099	0.2374	
480 minute summer	S33	488	28.421	1.250	72.6	5.6561	0.0000	OK	1.008	S34	62.4	0.335	0.026	83.5327	
480 minute summer	S34	488	28.421	1.302	66.7	5.8916	0.0000	OK	1.009	S39	52.3	0.322	0.022	86.2789	
480 minute summer	S35	248	29.415	0.040	2.7	0.0454	0.0000	OK	11.000	S36	2.7	0.572	0.068	0.1154	
480 minute summer	S36	248	29.214	0.058	5.4	0.0655	0.0000	OK	11.001	S37	5.4	0.590	0.076	0.0899	
480 minute summer	S37	248	29.134	0.094	13.0	0.1656	0.0000	OK	11.002	S38	13.0	0.623	0.116	0.1576	
480 minute summer	S38	248	29.106	0.090	13.0	0.1590	0.0000	OK	11.003	S39	13.0	0.691	0.116	0.1775	

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480 minute summer	S39	488	28.421	1.354	68.2	6.1269	0.0000	OK	1.010	S40	58.0	0.800	0.024	35.1158	
480 minute summer	S40	488	28.421	1.375	58.3	382.0017	0.0000	OK	1.011	S41	4.8	0.173	0.002	30.2306	
480 minute summer	S41	488	28.421	1.393	4.8	6.3034	0.0000	SURCHARGED	Hydro-Brake®	S42	2.2				
480 minute summer	S42	488	26.933	0.087	12.4	0.0987	0.0000	OK	1.013	S43	12.4	0.858	0.310	0.5388	
480 minute summer	S43	488	26.714	0.089	12.4	0.1008	0.0000	OK	1.014	C1	12.4	1.023	0.309	0.0448	
480 minute summer	C1	488	26.669	0.066	12.4	0.0743	0.0000	OK	1.015	EXG	12.4	1.344	0.165	0.0899	518.6
480 minute summer	EXG	488	26.461	0.061	12.4	0.0000	0.0000	OK							

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Results for 100 year +30% 480 minute winter. 720 minute analysis at 8 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)
480 minute winter	S1	240	29.769	0.019	0.6	0.0030	0.0000	OK	1.000	S2	0.6	0.359	0.034	0.0077	
480 minute winter	S2	248	29.732	0.027	1.2	0.0042	0.0000	OK	1.001	S3	1.2	0.572	0.068	0.0760	
480 minute winter	S3	248	29.316	0.045	3.5	0.0513	0.0000	OK	1.002	S4	3.5	0.620	0.088	0.2044	
480 minute winter	S4	256	29.034	0.052	4.1	0.0592	0.0000	OK	1.003	S5	4.1	0.500	0.057	0.0425	
480 minute winter	S5	256	29.012	0.052	4.7	0.0593	0.0000	OK	1.004	S8	4.7	0.512	0.066	0.1514	
480 minute winter	S6	248	29.777	0.027	1.2	0.0042	0.0000	OK	2.000	S7	1.2	0.572	0.068	0.0817	
480 minute winter	S7	248	29.331	0.042	3.5	0.0472	0.0000	OK	2.001	S8	3.5	0.698	0.074	0.1954	
480 minute winter	S8	248	28.954	0.061	9.4	0.1079	0.0000	OK	1.005	S13	9.4	0.951	0.083	0.1156	
480 minute winter	S9	248	29.312	0.037	2.5	0.0416	0.0000	OK	4.000	S13	2.5	0.599	0.057	0.1170	
480 minute winter	S10	248	29.052	0.052	6.1	0.0588	0.0000	OK	3.000	S11	6.1	0.565	0.067	0.2952	
480 minute winter	S11	248	28.890	0.075	9.3	0.1318	0.0000	OK	3.001	S12	9.3	0.639	0.083	0.3948	
480 minute winter	S12	248	28.742	0.087	12.6	0.1543	0.0000	OK	3.002	S13	12.6	0.647	0.079	0.2607	
480 minute winter	S13	480	28.604	0.432	26.5	1.4948	0.0000	OK	1.006	S20	26.5	0.638	0.042	8.4314	
480 minute winter	S14	232	28.769	0.019	0.6	0.0216	0.0000	OK	5.000	S15	0.6	0.465	0.034	0.1231	
480 minute winter	S15	480	28.604	0.161	2.0	0.1817	0.0000	OK	5.001	S16	2.0	0.476	0.050	0.8194	
480 minute winter	S16	480	28.604	0.299	2.6	0.3377	0.0000	SURCHARGED	5.002	S19	2.6	0.567	0.065	0.8920	
480 minute winter	S17	232	29.169	0.019	0.6	0.0030	0.0000	OK	6.000	S18	0.6	0.465	0.034	0.0241	
480 minute winter	S18	248	28.924	0.035	2.0	0.0393	0.0000	OK	6.001	S19	2.0	0.523	0.050	0.0714	
480 minute winter	S19	480	28.604	1.407	5.2	6.3631	0.0000	OK	5.003	S20	4.0	0.070	0.002	10.5381	
480 minute winter	S20	480	28.604	1.413	32.1	6.3902	0.0000	OK	1.007	S33	29.1	0.237	0.012	34.7310	
480 minute winter	S21	248	30.127	0.027	1.2	0.0042	0.0000	OK	7.000	S22	1.2	0.572	0.068	0.0737	
480 minute winter	S22	248	29.721	0.045	3.5	0.0514	0.0000	OK	7.001	S23	3.5	0.619	0.088	0.1986	
480 minute winter	S23	248	28.988	0.044	4.7	0.0775	0.0000	OK	7.002	S26	4.7	0.407	0.020	0.2947	
480 minute winter	S24	248	29.962	0.037	2.3	0.0418	0.0000	OK	8.000	S25	2.3	0.547	0.058	0.1385	
480 minute winter	S25	248	29.175	0.048	6.9	0.0844	0.0000	OK	8.001	S26	6.9	0.571	0.024	0.4898	
480 minute winter	S27	248	29.716	0.041	2.8	0.0460	0.0000	OK	10.000	S28	2.8	0.580	0.070	0.1580	
480 minute winter	S26	248	28.884	0.070	11.6	0.1232	0.0000	OK	7.003	S32	11.6	0.763	0.050	0.3548	
480 minute winter	S28	248	29.465	0.058	5.2	0.0659	0.0000	OK	10.001	S29	5.2	0.543	0.073	0.0723	
480 minute winter	S29	248	29.434	0.058	5.2	0.0658	0.0000	OK	10.002	S32	5.2	0.574	0.072	0.0425	
480 minute winter	S30	240	30.120	0.020	0.7	0.0033	0.0000	OK	9.000	S31	0.7	0.488	0.040	0.0504	
480 minute winter	S31	240	29.284	0.038	3.0	0.0425	0.0000	OK	9.001	S32	3.0	0.696	0.060	0.1515	
480 minute winter	S32	248	28.651	0.107	21.0	0.1214	0.0000	OK	7.004	S33	21.0	0.695	0.073	0.1895	
480 minute winter	S33	480	28.604	1.433	54.0	6.4808	0.0000	OK	1.008	S34	46.5	0.346	0.020	91.3328	
480 minute winter	S34	480	28.604	1.485	49.7	6.7162	0.0000	OK	1.009	S39	39.2	0.342	0.017	92.0567	
480 minute winter	S35	248	29.410	0.035	2.0	0.0391	0.0000	OK	11.000	S36	2.0	0.525	0.050	0.0932	
480 minute winter	S36	248	29.206	0.050	4.0	0.0563	0.0000	OK	11.001	S37	4.0	0.547	0.056	0.0719	
480 minute winter	S37	248	29.120	0.080	9.7	0.1415	0.0000	OK	11.002	S38	9.7	0.579	0.086	0.1266	

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480 minute winter	S38	248	29.093	0.077	9.7	0.1367	0.0000	OK	11.003	S39	9.7	0.640	0.086	0.1431	
480 minute winter	S39	480	28.604	1.537	51.0	6.9514	0.0000	SURCHARGED	1.010	S40	43.5	0.773	0.018	36.7430	
480 minute winter	S40	480	28.604	1.558	43.7	437.4112	0.0000	SURCHARGED	1.011	S41	4.0	0.152	0.002	31.3331	
480 minute winter	S41	480	28.604	1.576	4.0	7.1278	0.0000	SURCHARGED	Hydro-Brake®	S42	2.3				
480 minute winter	S42	480	26.934	0.088	12.5	0.0992	0.0000	OK	1.013	S43	12.5	0.860	0.313	0.5428	
480 minute winter	S43	480	26.715	0.090	12.5	0.1013	0.0000	OK	1.014	C1	12.5	1.026	0.312	0.0451	
480 minute winter	C1	480	26.669	0.066	12.5	0.0747	0.0000	OK	1.015	EXG	12.5	1.348	0.166	0.0906	521.2
480 minute winter	EXG	480	26.462	0.062	12.5	0.0000	0.0000	OK							

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Results for 100 year +30% 600 minute summer. 840 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)
600 minute summer	S1	315	29.769	0.019	0.6	0.0030	0.0000	OK	1.000	S2	0.6	0.358	0.034	0.0077	
600 minute summer	S2	315	29.732	0.027	1.2	0.0042	0.0000	OK	1.001	S3	1.2	0.572	0.068	0.0760	
600 minute summer	S3	315	29.318	0.047	3.7	0.0527	0.0000	OK	1.002	S4	3.7	0.630	0.093	0.2127	
600 minute summer	S4	315	29.036	0.054	4.3	0.0606	0.0000	OK	1.003	S5	4.3	0.508	0.060	0.0438	
600 minute summer	S5	315	29.013	0.053	4.9	0.0603	0.0000	OK	1.004	S8	4.9	0.512	0.069	0.1572	
600 minute summer	S6	315	29.778	0.028	1.3	0.0044	0.0000	OK	2.000	S7	1.3	0.586	0.074	0.0865	
600 minute summer	S7	315	29.332	0.043	3.8	0.0492	0.0000	OK	2.001	S8	3.8	0.715	0.081	0.2071	
600 minute summer	S8	315	28.956	0.063	10.0	0.1114	0.0000	OK	1.005	S13	10.0	0.967	0.088	0.1209	
600 minute summer	S9	315	29.313	0.038	2.7	0.0432	0.0000	OK	4.000	S13	2.7	0.613	0.062	0.1236	
600 minute summer	S10	315	29.054	0.054	6.6	0.0611	0.0000	OK	3.000	S11	6.6	0.579	0.072	0.3126	
600 minute summer	S11	315	28.893	0.078	10.1	0.1374	0.0000	OK	3.001	S12	10.1	0.655	0.091	0.4185	
600 minute summer	S12	315	28.746	0.091	13.7	0.1611	0.0000	OK	3.002	S13	13.7	0.659	0.086	0.2780	
600 minute summer	S13	615	28.461	0.289	28.6	1.0021	0.0000	OK	1.006	S20	28.6	0.654	0.045	5.0574	
600 minute summer	S14	315	28.771	0.021	0.7	0.0232	0.0000	OK	5.000	S15	0.7	0.487	0.040	0.0336	
600 minute summer	S15	315	28.479	0.036	2.2	0.0404	0.0000	OK	5.001	S16	2.2	0.487	0.055	0.3619	
600 minute summer	S16	615	28.461	0.156	2.9	0.1768	0.0000	OK	5.002	S19	2.9	0.585	0.073	0.7762	
600 minute summer	S17	315	29.171	0.021	0.7	0.0033	0.0000	OK	6.000	S18	0.7	0.487	0.040	0.0268	
600 minute summer	S18	315	28.925	0.036	2.2	0.0412	0.0000	OK	6.001	S19	2.2	0.538	0.055	0.0764	
600 minute summer	S19	615	28.461	1.264	5.8	5.7197	0.0000	OK	5.003	S20	4.5	0.052	0.002	9.7380	
600 minute summer	S20	615	28.461	1.270	34.9	5.7469	0.0000	OK	1.007	S33	31.6	0.222	0.013	32.2120	
600 minute summer	S21	315	30.128	0.028	1.3	0.0044	0.0000	OK	7.000	S22	1.3	0.586	0.073	0.0780	
600 minute summer	S22	315	29.723	0.047	3.8	0.0535	0.0000	OK	7.001	S23	3.8	0.634	0.096	0.2106	
600 minute summer	S23	315	28.990	0.046	5.1	0.0806	0.0000	OK	7.002	S26	5.1	0.416	0.022	0.3141	
600 minute summer	S24	315	29.963	0.038	2.5	0.0435	0.0000	OK	8.000	S25	2.5	0.561	0.063	0.1469	
600 minute summer	S25	315	29.177	0.050	7.6	0.0884	0.0000	OK	8.001	S26	7.6	0.589	0.027	0.5237	
600 minute summer	S27	315	29.717	0.042	3.0	0.0476	0.0000	OK	10.000	S28	3.0	0.592	0.075	0.1659	
600 minute summer	S26	315	28.887	0.073	12.7	0.1289	0.0000	OK	7.003	S32	12.7	0.783	0.055	0.3787	
600 minute summer	S28	315	29.468	0.061	5.7	0.0691	0.0000	OK	10.001	S29	5.7	0.556	0.080	0.0774	
600 minute summer	S29	315	29.437	0.061	5.7	0.0689	0.0000	OK	10.002	S32	5.7	0.589	0.079	0.0453	
600 minute summer	S30	315	30.122	0.022	0.8	0.0035	0.0000	OK	9.000	S31	0.8	0.508	0.045	0.0553	
600 minute summer	S31	315	29.285	0.039	3.3	0.0446	0.0000	OK	9.001	S32	3.3	0.715	0.066	0.1621	
600 minute summer	S32	315	28.656	0.112	23.0	0.1270	0.0000	OK	7.004	S33	23.0	0.713	0.080	0.2025	
600 minute summer	S33	615	28.461	1.290	58.8	5.8374	0.0000	OK	1.008	S34	50.6	0.315	0.021	85.6735	
600 minute summer	S34	615	28.461	1.342	54.1	6.0728	0.0000	OK	1.009	S39	42.5	0.303	0.018	88.1513	
600 minute summer	S35	315	29.411	0.036	2.2	0.0410	0.0000	OK	11.000	S36	2.2	0.539	0.055	0.0997	
600 minute summer	S36	315	29.208	0.052	4.4	0.0591	0.0000	OK	11.001	S37	4.4	0.560	0.062	0.0772	
600 minute summer	S37	315	29.124	0.084	10.6	0.1484	0.0000	OK	11.002	S38	10.6	0.592	0.094	0.1351	
600 minute summer	S38	315	29.097	0.081	10.6	0.1430	0.0000	OK	11.003	S39	10.6	0.656	0.094	0.1525	

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600 minute summer	S39	615	28.461	1.394	55.4	6.3080	0.0000	OK	1.010	S40	47.2	0.711	0.020	35.7781	
600 minute summer	S40	615	28.461	1.415	47.4	394.0787	0.0000	OK	1.011	S41	4.2	0.137	0.002	30.7488	
600 minute summer	S41	615	28.461	1.433	4.2	6.4845	0.0000	SURCHARGED	Hydro-Brake®	S42	2.2				
600 minute summer	S42	615	26.933	0.087	12.4	0.0988	0.0000	OK	1.013	S43	12.4	0.858	0.311	0.5397	
600 minute summer	S43	615	26.714	0.089	12.4	0.1009	0.0000	OK	1.014	C1	12.4	1.024	0.310	0.0448	
600 minute summer	C1	615	26.669	0.066	12.4	0.0744	0.0000	OK	1.015	EXG	12.4	1.345	0.165	0.0901	603.1
600 minute summer	EXG	615	26.462	0.062	12.4	0.0000	0.0000	OK							

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Results for 100 year +30% 600 minute winter. 840 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	S1	300	29.767	0.017	0.5	0.0028	0.0000	OK	1.000	S2	0.5	0.339	0.028	0.0067	
600 minute winter	S2	300	29.729	0.024	1.0	0.0039	0.0000	OK	1.001	S3	1.0	0.542	0.057	0.0668	
600 minute winter	S3	315	29.312	0.041	2.9	0.0467	0.0000	OK	1.002	S4	2.9	0.587	0.073	0.1790	
600 minute winter	S4	315	29.029	0.047	3.4	0.0536	0.0000	OK	1.003	S5	3.4	0.477	0.047	0.0369	
600 minute winter	S5	315	29.008	0.048	3.9	0.0537	0.0000	OK	1.004	S8	3.9	0.486	0.055	0.1319	
600 minute winter	S6	315	29.774	0.024	1.0	0.0039	0.0000	OK	2.000	S7	1.0	0.542	0.057	0.0718	
600 minute winter	S7	315	29.327	0.038	2.9	0.0430	0.0000	OK	2.001	S8	2.9	0.660	0.062	0.1711	
600 minute winter	S8	315	28.948	0.055	7.8	0.0980	0.0000	OK	1.005	S13	7.8	0.902	0.069	0.1011	
600 minute winter	S9	315	29.309	0.034	2.1	0.0382	0.0000	OK	4.000	S13	2.1	0.570	0.048	0.1034	
600 minute winter	S10	315	29.048	0.048	5.1	0.0539	0.0000	OK	3.000	S11	5.1	0.538	0.056	0.2593	
600 minute winter	S11	315	28.883	0.068	7.7	0.1201	0.0000	OK	3.001	S12	7.7	0.608	0.069	0.3439	
600 minute winter	S12	315	28.735	0.080	10.5	0.1409	0.0000	OK	3.002	S13	10.5	0.617	0.066	0.2275	
600 minute winter	S13	600	28.680	0.508	22.1	1.7595	0.0000	OK	1.006	S20	22.1	0.600	0.035	10.2717	
600 minute winter	S14	285	28.767	0.017	0.5	0.0198	0.0000	OK	5.000	S15	0.5	0.440	0.028	0.2101	
600 minute winter	S15	600	28.680	0.237	1.6	0.2679	0.0000	SURCHARGED	5.001	S16	1.6	0.444	0.040	0.9298	
600 minute winter	S16	600	28.680	0.375	2.1	0.4240	0.0000	SURCHARGED	5.002	S19	2.1	0.533	0.053	0.8920	
600 minute winter	S17	285	29.167	0.017	0.5	0.0028	0.0000	OK	6.000	S18	0.5	0.440	0.028	0.0212	
600 minute winter	S18	300	28.920	0.031	1.6	0.0352	0.0000	OK	6.001	S19	1.6	0.490	0.040	0.0610	
600 minute winter	S19	600	28.680	1.483	4.2	6.7089	0.0000	OK	5.003	S20	3.3	0.047	0.001	10.7841	
600 minute winter	S20	600	28.680	1.489	26.6	6.7361	0.0000	OK	1.007	S33	24.1	0.223	0.010	35.3895	
600 minute winter	S21	315	30.124	0.024	1.0	0.0039	0.0000	OK	7.000	S22	1.0	0.543	0.057	0.0648	
600 minute winter	S22	315	29.717	0.041	2.9	0.0468	0.0000	OK	7.001	S23	2.9	0.586	0.073	0.1739	
600 minute winter	S23	315	28.984	0.040	3.9	0.0711	0.0000	OK	7.002	S26	3.9	0.385	0.017	0.2588	
600 minute winter	S24	315	29.959	0.034	1.9	0.0380	0.0000	OK	8.000	S25	1.9	0.518	0.048	0.1209	
600 minute winter	S25	315	29.171	0.044	5.8	0.0776	0.0000	OK	8.001	S26	5.8	0.544	0.020	0.4318	
600 minute winter	S27	315	29.712	0.037	2.3	0.0417	0.0000	OK	10.000	S28	2.3	0.548	0.058	0.1374	
600 minute winter	S26	315	28.878	0.064	9.7	0.1126	0.0000	OK	7.003	S32	9.7	0.724	0.042	0.3125	
600 minute winter	S28	315	29.460	0.053	4.3	0.0597	0.0000	OK	10.001	S29	4.3	0.519	0.061	0.0626	
600 minute winter	S29	315	29.429	0.053	4.3	0.0595	0.0000	OK	10.002	S32	4.3	0.548	0.059	0.0367	
600 minute winter	S30	300	30.119	0.019	0.6	0.0030	0.0000	OK	9.000	S31	0.6	0.466	0.034	0.0452	
600 minute winter	S31	315	29.280	0.034	2.5	0.0389	0.0000	OK	9.001	S32	2.5	0.660	0.050	0.1330	
600 minute winter	S32	600	28.680	0.136	17.5	0.1538	0.0000	OK	7.004	S33	17.5	0.658	0.061	0.3168	
600 minute winter	S33	600	28.680	1.509	44.8	6.8266	0.0000	SURCHARGED	1.008	S34	38.6	0.333	0.016	92.1071	
600 minute winter	S34	600	28.680	1.561	41.3	7.0619	0.0000	SURCHARGED	1.009	S39	32.6	0.321	0.014	92.1243	
600 minute winter	S35	315	29.407	0.032	1.7	0.0361	0.0000	OK	11.000	S36	1.7	0.500	0.043	0.0831	
600 minute winter	S36	315	29.202	0.046	3.4	0.0519	0.0000	OK	11.001	S37	3.4	0.523	0.048	0.0638	
600 minute winter	S37	315	29.113	0.073	8.1	0.1287	0.0000	OK	11.002	S38	8.1	0.552	0.072	0.1107	

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600 minute winter	S38	315	29.087	0.071	8.1	0.1247	0.0000	OK	11.003	S39	8.1	0.609	0.072	0.1255	
600 minute winter	S39	600	28.680	1.613	42.5	7.2972	0.0000	SURCHARGED	1.010	S40	36.4	0.686	0.015	36.7430	
600 minute winter	S40	600	28.680	1.634	36.6	460.9921	0.0000	SURCHARGED	1.011	S41	3.6	0.156	0.002	31.3331	
600 minute winter	S41	600	28.680	1.652	3.6	7.4736	0.0000	SURCHARGED	Hydro-Brake®	S42	2.3				
600 minute winter	S42	600	26.934	0.088	12.5	0.0994	0.0000	OK	1.013	S43	12.5	0.861	0.315	0.5444	
600 minute winter	S43	600	26.715	0.090	12.5	0.1015	0.0000	OK	1.014	C1	12.5	1.027	0.313	0.0452	
600 minute winter	C1	600	26.669	0.066	12.5	0.0749	0.0000	OK	1.015	EXG	12.5	1.349	0.167	0.0909	606.3
600 minute winter	EXG	600	26.462	0.062	12.5	0.0000	0.0000	OK							

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Results for 100 year +30% 720 minute summer. 960 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 summer	S1	375	29.769	0.019	0.6	0.0030	0.0000	OK	1.000	S2	0.6	0.358	0.034	0.0077	
720 minute summer	S2	375	29.732	0.027	1.2	0.0042	0.0000	OK	1.001	S3	1.2	0.572	0.068	0.0760	
720 minute summer	S3	375	29.316	0.045	3.5	0.0513	0.0000	OK	1.002	S4	3.5	0.620	0.088	0.2044	
720 minute summer	S4	375	29.034	0.052	4.1	0.0592	0.0000	OK	1.003	S5	4.1	0.498	0.057	0.0426	
720 minute summer	S5	375	29.012	0.052	4.7	0.0594	0.0000	OK	1.004	S8	4.7	0.513	0.066	0.1504	
720 minute summer	S6	375	29.776	0.026	1.1	0.0041	0.0000	OK	2.000	S7	1.1	0.558	0.062	0.0768	
720 minute summer	S7	375	29.330	0.041	3.4	0.0465	0.0000	OK	2.001	S8	3.4	0.692	0.072	0.1915	
720 minute summer	S8	375	28.953	0.060	9.2	0.1067	0.0000	OK	1.005	S13	9.2	0.945	0.081	0.1139	
720 minute summer	S9	375	29.311	0.036	2.4	0.0408	0.0000	OK	4.000	S13	2.4	0.593	0.055	0.1136	
720 minute summer	S10	375	29.051	0.051	5.9	0.0579	0.0000	OK	3.000	S11	5.9	0.560	0.064	0.2884	
720 minute summer	S11	375	28.888	0.073	9.0	0.1297	0.0000	OK	3.001	S12	9.0	0.632	0.081	0.3859	
720 minute summer	S12	375	28.741	0.086	12.2	0.1518	0.0000	OK	3.002	S13	12.2	0.642	0.076	0.2544	
720 minute summer	S13	735	28.513	0.341	25.7	1.1800	0.0000	OK	1.006	S20	25.7	0.632	0.040	6.2528	
720 minute summer	S14	375	28.769	0.019	0.6	0.0216	0.0000	OK	5.000	S15	0.6	0.465	0.034	0.0302	
720 minute summer	S15	735	28.513	0.070	1.9	0.0788	0.0000	OK	5.001	S16	1.9	0.467	0.048	0.5702	
720 minute summer	S16	735	28.513	0.208	2.5	0.2349	0.0000	OK	5.002	S19	2.5	0.560	0.063	0.8759	
720 minute summer	S17	375	29.169	0.019	0.6	0.0030	0.0000	OK	6.000	S18	0.6	0.465	0.034	0.0241	
720 minute summer	S18	375	28.923	0.034	1.9	0.0383	0.0000	OK	6.001	S19	1.9	0.515	0.048	0.0689	
720 minute summer	S19	735	28.513	1.316	5.0	5.9521	0.0000	OK	5.003	S20	3.9	0.052	0.002	10.0634	
720 minute summer	S20	735	28.513	1.322	31.2	5.9792	0.0000	OK	1.007	S33	28.2	0.219	0.012	33.2479	
720 minute summer	S21	375	30.126	0.026	1.1	0.0041	0.0000	OK	7.000	S22	1.1	0.558	0.062	0.0693	
720 minute summer	S22	375	29.721	0.045	3.4	0.0506	0.0000	OK	7.001	S23	3.4	0.614	0.085	0.1945	
720 minute summer	S23	375	28.987	0.043	4.5	0.0760	0.0000	OK	7.002	S26	4.5	0.399	0.019	0.2880	
720 minute summer	S24	375	29.962	0.037	2.3	0.0418	0.0000	OK	8.000	S25	2.3	0.547	0.058	0.1385	
720 minute summer	S25	375	29.174	0.047	6.8	0.0838	0.0000	OK	8.001	S26	6.8	0.572	0.024	0.4821	
720 minute summer	S27	375	29.715	0.040	2.7	0.0452	0.0000	OK	10.000	S28	2.7	0.574	0.068	0.1540	
720 minute summer	S26	375	28.883	0.069	11.3	0.1216	0.0000	OK	7.003	S32	11.3	0.757	0.049	0.3482	
720 minute summer	S28	375	29.465	0.058	5.1	0.0652	0.0000	OK	10.001	S29	5.1	0.540	0.072	0.0712	
720 minute summer	S29	375	29.434	0.058	5.1	0.0651	0.0000	OK	10.002	S32	5.1	0.570	0.071	0.0419	
720 minute summer	S30	375	30.120	0.020	0.7	0.0033	0.0000	OK	9.000	S31	0.7	0.488	0.040	0.0504	
720 minute summer	S31	375	29.284	0.038	3.0	0.0425	0.0000	OK	9.001	S32	3.0	0.696	0.060	0.1515	
720 minute summer	S32	375	28.650	0.106	20.5	0.1200	0.0000	OK	7.004	S33	20.5	0.690	0.072	0.1862	
720 minute summer	S33	735	28.513	1.342	52.5	6.0697	0.0000	OK	1.008	S34	45.2	0.299	0.019	88.1220	
720 minute summer	S34	735	28.513	1.394	48.3	6.3051	0.0000	OK	1.009	S39	38.1	0.291	0.016	90.1816	
720 minute summer	S35	375	29.409	0.034	1.9	0.0381	0.0000	OK	11.000	S36	1.9	0.517	0.048	0.0899	
720 minute summer	S36	375	29.204	0.048	3.8	0.0548	0.0000	OK	11.001	S37	3.8	0.540	0.053	0.0692	
720 minute summer	S37	375	29.118	0.078	9.3	0.1384	0.0000	OK	11.002	S38	9.3	0.572	0.083	0.1227	
720 minute summer	S38	375	29.092	0.076	9.3	0.1338	0.0000	OK	11.003	S39	9.3	0.631	0.083	0.1389	

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720 minute summer	S39	735	28.513	1.446	49.5	6.5403	0.0000	OK	1.010	S40	42.2	0.661	0.018	36.4329	
720 minute summer	S40	735	28.513	1.467	42.4	409.6454	0.0000	OK	1.011	S41	3.9	0.145	0.002	31.2220	
720 minute summer	S41	735	28.513	1.485	3.9	6.7167	0.0000	SURCHARGED	Hydro-Brake®	S42	2.2				
720 minute summer	S42	735	26.933	0.087	12.4	0.0990	0.0000	OK	1.013	S43	12.4	0.859	0.312	0.5409	
720 minute summer	S43	735	26.714	0.089	12.4	0.1010	0.0000	OK	1.014	C1	12.4	1.024	0.310	0.0449	
720 minute summer	C1	735	26.669	0.066	12.4	0.0745	0.0000	OK	1.015	EXG	12.4	1.346	0.165	0.0903	690.8
720 minute summer	EXG	735	26.462	0.062	12.4	0.0000	0.0000	OK							

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Results for 100 year +30% 720 minute winter. 960 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	S1	330	29.766	0.016	0.4	0.0025	0.0000	OK	1.000	S2	0.4	0.318	0.023	0.0058	
720 minute winter	S2	330	29.727	0.022	0.8	0.0035	0.0000	OK	1.001	S3	0.8	0.508	0.045	0.0571	
720 minute winter	S3	375	29.309	0.038	2.5	0.0434	0.0000	OK	1.002	S4	2.5	0.562	0.063	0.1612	
720 minute winter	S4	375	29.026	0.044	2.9	0.0493	0.0000	OK	1.003	S5	2.9	0.459	0.040	0.0327	
720 minute winter	S5	375	29.004	0.044	3.3	0.0494	0.0000	OK	1.004	S8	3.3	0.465	0.047	0.1167	
720 minute winter	S6	345	29.772	0.022	0.8	0.0035	0.0000	OK	2.000	S7	0.8	0.508	0.045	0.0614	
720 minute winter	S7	375	29.324	0.035	2.5	0.0400	0.0000	OK	2.001	S8	2.5	0.633	0.053	0.1539	
720 minute winter	S8	375	28.944	0.051	6.6	0.0900	0.0000	OK	1.005	S13	6.6	0.861	0.058	0.0896	
720 minute winter	S9	360	29.306	0.031	1.8	0.0354	0.0000	OK	4.000	S13	1.8	0.544	0.041	0.0928	
720 minute winter	S10	375	29.044	0.044	4.4	0.0502	0.0000	OK	3.000	S11	4.4	0.513	0.048	0.2347	
720 minute winter	S11	375	28.878	0.063	6.7	0.1122	0.0000	OK	3.001	S12	6.7	0.586	0.060	0.3102	
720 minute winter	S12	720	28.748	0.093	9.1	0.1645	0.0000	OK	3.002	S13	9.1	0.593	0.057	0.4002	
720 minute winter	S13	720	28.748	0.576	19.0	1.9956	0.0000	OK	1.006	S20	19.0	0.568	0.030	11.8709	
720 minute winter	S14	360	28.767	0.017	0.5	0.0198	0.0000	OK	5.000	S15	0.5	0.440	0.028	0.2101	
720 minute winter	S15	720	28.748	0.305	1.5	0.3451	0.0000	SURCHARGED	5.001	S16	1.5	0.433	0.038	0.9298	
720 minute winter	S16	720	28.748	0.443	2.0	0.5011	0.0000	SURCHARGED	5.002	S19	2.0	0.526	0.050	0.8920	
720 minute winter	S17	360	29.167	0.017	0.5	0.0028	0.0000	OK	6.000	S18	0.5	0.440	0.028	0.0212	
720 minute winter	S18	360	28.919	0.030	1.5	0.0341	0.0000	OK	6.001	S19	1.5	0.481	0.038	0.0583	
720 minute winter	S19	720	28.748	1.551	4.0	7.0172	0.0000	SURCHARGED	5.003	S20	3.2	0.051	0.001	10.8006	
720 minute winter	S20	720	28.748	1.557	23.4	7.0443	0.0000	SURCHARGED	1.007	S33	21.2	0.220	0.009	35.4174	
720 minute winter	S21	345	30.122	0.022	0.8	0.0035	0.0000	OK	7.000	S22	0.8	0.508	0.045	0.0553	
720 minute winter	S22	375	29.714	0.038	2.5	0.0435	0.0000	OK	7.001	S23	2.5	0.561	0.063	0.1565	
720 minute winter	S23	375	28.981	0.037	3.3	0.0657	0.0000	OK	7.002	S26	3.3	0.363	0.014	0.2324	
720 minute winter	S24	375	29.957	0.032	1.7	0.0360	0.0000	OK	8.000	S25	1.7	0.501	0.043	0.1118	
720 minute winter	S25	375	29.168	0.041	5.1	0.0731	0.0000	OK	8.001	S26	5.1	0.528	0.018	0.3909	
720 minute winter	S27	375	29.709	0.034	2.0	0.0390	0.0000	OK	10.000	S28	2.0	0.526	0.050	0.1244	
720 minute winter	S26	375	28.873	0.059	8.4	0.1050	0.0000	OK	7.003	S32	8.4	0.695	0.036	0.2821	
720 minute winter	S28	375	29.456	0.049	3.8	0.0559	0.0000	OK	10.001	S29	3.8	0.503	0.054	0.0571	
720 minute winter	S29	375	29.425	0.049	3.8	0.0558	0.0000	OK	10.002	S32	3.8	0.532	0.053	0.0334	
720 minute winter	S30	360	30.117	0.017	0.5	0.0028	0.0000	OK	9.000	S31	0.5	0.441	0.028	0.0398	
720 minute winter	S31	375	29.278	0.032	2.2	0.0365	0.0000	OK	9.001	S32	2.2	0.635	0.044	0.1217	
720 minute winter	S32	720	28.748	0.204	15.2	0.2308	0.0000	OK	7.004	S33	15.2	0.631	0.053	0.5484	
720 minute winter	S33	720	28.748	1.577	39.2	7.1348	0.0000	SURCHARGED	1.008	S34	33.8	0.325	0.014	92.1243	
720 minute winter	S34	720	28.748	1.629	36.2	7.3701	0.0000	SURCHARGED	1.009	S39	28.7	0.311	0.012	92.1243	
720 minute winter	S35	375	29.405	0.030	1.5	0.0340	0.0000	OK	11.000	S36	1.5	0.482	0.038	0.0761	
720 minute winter	S36	375	29.199	0.043	3.0	0.0487	0.0000	OK	11.001	S37	3.0	0.504	0.042	0.0585	
720 minute winter	S37	375	29.108	0.068	7.1	0.1202	0.0000	OK	11.002	S38	7.1	0.534	0.063	0.1004	

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720 minute winter	S38	375	29.082	0.066	7.1	0.1167	0.0000	OK	11.003	S39	7.1	0.590	0.063	0.1135	
720 minute winter	S39	720	28.748	1.681	37.4	7.6054	0.0000	SURCHARGED	1.010	S40	32.0	0.672	0.013	36.7430	
720 minute winter	S40	720	28.748	1.702	32.1	482.1717	0.0000	SURCHARGED	1.011	S41	3.4	0.106	0.001	31.3331	
720 minute winter	S41	720	28.748	1.720	3.4	7.7819	0.0000	SURCHARGED	Hydro-Brake®	S42	2.4				
720 minute winter	S42	720	26.934	0.088	12.6	0.0996	0.0000	OK	1.013	S43	12.6	0.862	0.316	0.5458	
720 minute winter	S43	720	26.715	0.090	12.6	0.1017	0.0000	OK	1.014	C1	12.6	1.028	0.314	0.0453	
720 minute winter	C1	720	26.669	0.066	12.6	0.0751	0.0000	OK	1.015	EXG	12.6	1.350	0.167	0.0911	694.6
720 minute winter	EXG	720	26.462	0.062	12.6	0.0000	0.0000	OK							

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Results for 100 year +30% 960 minute summer. 1200 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 summer	S1	495	29.767	0.017	0.5	0.0028	0.0000	OK	1.000	S2	0.5	0.339	0.028	0.0067	
960 minute summer	S2	495	29.729	0.024	1.0	0.0039	0.0000	OK	1.001	S3	1.0	0.542	0.057	0.0668	
960 minute summer	S3	495	29.312	0.041	2.8	0.0459	0.0000	OK	1.002	S4	2.8	0.581	0.070	0.1746	
960 minute summer	S4	495	29.029	0.047	3.3	0.0528	0.0000	OK	1.003	S5	3.3	0.472	0.046	0.0362	
960 minute summer	S5	495	29.007	0.047	3.8	0.0532	0.0000	OK	1.004	S8	3.8	0.486	0.054	0.1283	
960 minute summer	S6	495	29.773	0.023	0.9	0.0037	0.0000	OK	2.000	S7	0.9	0.526	0.051	0.0666	
960 minute summer	S7	495	29.326	0.037	2.7	0.0415	0.0000	OK	2.001	S8	2.7	0.647	0.057	0.1626	
960 minute summer	S8	495	28.947	0.054	7.4	0.0955	0.0000	OK	1.005	S13	7.4	0.889	0.065	0.0973	
960 minute summer	S9	495	29.308	0.033	2.0	0.0373	0.0000	OK	4.000	S13	2.0	0.562	0.046	0.0999	
960 minute summer	S10	495	29.046	0.046	4.8	0.0524	0.0000	OK	3.000	S11	4.8	0.527	0.052	0.2492	
960 minute summer	S11	495	28.881	0.066	7.3	0.1170	0.0000	OK	3.001	S12	7.3	0.599	0.066	0.3304	
960 minute summer	S12	495	28.732	0.077	9.9	0.1369	0.0000	OK	3.002	S13	9.9	0.607	0.062	0.2182	
960 minute summer	S13	975	28.569	0.397	20.9	1.3743	0.0000	OK	1.006	S20	20.9	0.587	0.033	7.5922	
960 minute summer	S14	495	28.767	0.017	0.5	0.0198	0.0000	OK	5.000	S15	0.5	0.440	0.028	0.0613	
960 minute summer	S15	975	28.569	0.126	1.6	0.1422	0.0000	OK	5.001	S16	1.6	0.444	0.040	0.7315	
960 minute summer	S16	975	28.569	0.264	2.1	0.2983	0.0000	SURCHARGED	5.002	S19	2.1	0.533	0.053	0.8920	
960 minute summer	S17	495	29.167	0.017	0.5	0.0028	0.0000	OK	6.000	S18	0.5	0.440	0.028	0.0212	
960 minute summer	S18	495	28.920	0.031	1.6	0.0352	0.0000	OK	6.001	S19	1.6	0.490	0.040	0.0610	
960 minute summer	S19	975	28.569	1.372	4.2	6.2058	0.0000	OK	5.003	S20	3.3	0.056	0.001	10.3735	
960 minute summer	S20	975	28.569	1.378	25.5	6.2329	0.0000	OK	1.007	S33	23.1	0.205	0.010	34.2247	
960 minute summer	S21	495	30.123	0.023	0.9	0.0037	0.0000	OK	7.000	S22	0.9	0.527	0.051	0.0601	
960 minute summer	S22	495	29.716	0.040	2.7	0.0452	0.0000	OK	7.001	S23	2.7	0.574	0.068	0.1653	
960 minute summer	S23	495	28.983	0.039	3.6	0.0685	0.0000	OK	7.002	S26	3.6	0.374	0.016	0.2464	
960 minute summer	S24	495	29.958	0.033	1.8	0.0370	0.0000	OK	8.000	S25	1.8	0.510	0.045	0.1164	
960 minute summer	S25	495	29.170	0.043	5.5	0.0757	0.0000	OK	8.001	S26	5.5	0.539	0.019	0.4137	
960 minute summer	S27	495	29.711	0.036	2.2	0.0408	0.0000	OK	10.000	S28	2.2	0.541	0.055	0.1331	
960 minute summer	S26	495	28.876	0.062	9.1	0.1092	0.0000	OK	7.003	S32	9.1	0.711	0.039	0.2986	
960 minute summer	S28	495	29.458	0.051	4.1	0.0582	0.0000	OK	10.001	S29	4.1	0.512	0.058	0.0604	
960 minute summer	S29	495	29.427	0.051	4.1	0.0581	0.0000	OK	10.002	S32	4.1	0.542	0.057	0.0354	
960 minute summer	S30	495	30.119	0.019	0.6	0.0030	0.0000	OK	9.000	S31	0.6	0.466	0.034	0.0452	
960 minute summer	S31	495	29.280	0.034	2.4	0.0381	0.0000	OK	9.001	S32	2.4	0.652	0.048	0.1293	
960 minute summer	S32	495	28.640	0.096	16.5	0.1083	0.0000	OK	7.004	S33	16.5	0.645	0.058	0.1605	
960 minute summer	S33	975	28.569	1.398	42.7	6.3234	0.0000	OK	1.008	S34	36.8	0.280	0.015	90.3239	
960 minute summer	S34	975	28.569	1.450	39.4	6.5587	0.0000	OK	1.009	S39	31.1	0.263	0.013	91.6397	
960 minute summer	S35	495	29.406	0.031	1.6	0.0351	0.0000	OK	11.000	S36	1.6	0.491	0.040	0.0796	
960 minute summer	S36	495	29.200	0.044	3.2	0.0503	0.0000	OK	11.001	S37	3.2	0.514	0.045	0.0612	
960 minute summer	S37	495	29.111	0.071	7.7	0.1253	0.0000	OK	11.002	S38	7.7	0.545	0.069	0.1066	
960 minute summer	S38	495	29.085	0.069	7.7	0.1215	0.0000	OK	11.003	S39	7.7	0.602	0.069	0.1207	

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960 minute summer	S39	975	28.569	1.502	40.5	6.7940	0.0000	SURCHARGED	1.010	S40	34.6	0.574	0.014	36.7307	
960 minute summer	S40	975	28.569	1.523	34.8	426.7513	0.0000	SURCHARGED	1.011	S41	3.5	0.135	0.001	31.3331	
960 minute summer	S41	975	28.569	1.541	3.5	6.9704	0.0000	SURCHARGED	Hydro-Brake®	S42	2.3				
960 minute summer	S42	975	26.934	0.088	12.5	0.0991	0.0000	OK	1.013	S43	12.5	0.860	0.313	0.5421	
960 minute summer	S43	975	26.714	0.089	12.5	0.1012	0.0000	OK	1.014	C1	12.5	1.025	0.311	0.0450	
960 minute summer	C1	975	26.669	0.066	12.5	0.0747	0.0000	OK	1.015	EXG	12.5	1.347	0.166	0.0905	865.6
960 minute summer	EXG	975	26.462	0.062	12.5	0.0000	0.0000	OK							

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Results for 100 year +30% 960 minute winter. 1200 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	S1	420	29.764	0.014	0.3	0.0022	0.0000	OK	1.000	S2	0.3	0.293	0.017	0.0047	
960 minute winter	S2	435	29.724	0.019	0.6	0.0030	0.0000	OK	1.001	S3	0.6	0.466	0.034	0.0467	
960 minute winter	S3	495	29.305	0.034	2.0	0.0389	0.0000	OK	1.002	S4	2.0	0.527	0.050	0.1375	
960 minute winter	S4	495	29.021	0.039	2.3	0.0438	0.0000	OK	1.003	S5	2.3	0.432	0.032	0.0275	
960 minute winter	S5	495	28.999	0.039	2.6	0.0441	0.0000	OK	1.004	S8	2.6	0.429	0.037	0.0998	
960 minute winter	S6	495	29.770	0.020	0.7	0.0033	0.0000	OK	2.000	S7	0.7	0.488	0.040	0.0559	
960 minute winter	S7	495	29.321	0.032	2.1	0.0367	0.0000	OK	2.001	S8	2.1	0.601	0.045	0.1361	
960 minute winter	S8	495	28.939	0.046	5.4	0.0813	0.0000	OK	1.005	S13	5.4	0.814	0.048	0.0775	
960 minute winter	S9	495	29.304	0.029	1.5	0.0324	0.0000	OK	4.000	S13	1.5	0.516	0.034	0.0816	
960 minute winter	S10	495	29.040	0.040	3.6	0.0456	0.0000	OK	3.000	S11	3.6	0.482	0.039	0.2042	
960 minute winter	S11	495	28.873	0.058	5.5	0.1019	0.0000	OK	3.001	S12	5.5	0.553	0.049	0.3387	
960 minute winter	S12	945	28.829	0.174	7.4	0.3078	0.0000	OK	3.002	S13	7.4	0.557	0.046	0.8538	
960 minute winter	S13	945	28.829	0.657	15.5	2.2765	0.0000	OK	1.006	S20	15.5	0.545	0.024	13.6632	
960 minute winter	S14	945	28.829	0.079	0.4	0.0896	0.0000	OK	5.000	S15	0.4	0.412	0.023	0.3160	
960 minute winter	S15	945	28.829	0.386	1.2	0.4368	0.0000	SURCHARGED	5.001	S16	1.2	0.406	0.030	0.9298	
960 minute winter	S16	945	28.829	0.524	1.6	0.5929	0.0000	SURCHARGED	5.002	S19	1.6	0.492	0.040	0.8920	
960 minute winter	S17	465	29.166	0.016	0.4	0.0025	0.0000	OK	6.000	S18	0.4	0.412	0.023	0.0181	
960 minute winter	S18	480	28.916	0.027	1.2	0.0306	0.0000	OK	6.001	S19	1.2	0.450	0.030	0.0659	
960 minute winter	S19	945	28.829	1.632	3.2	7.3840	0.0000	SURCHARGED	5.003	S20	2.6	0.050	0.001	10.8006	
960 minute winter	S20	945	28.829	1.638	18.9	7.4112	0.0000	SURCHARGED	1.007	S33	17.2	0.209	0.007	35.4174	
960 minute winter	S21	480	30.120	0.020	0.7	0.0033	0.0000	OK	7.000	S22	0.7	0.488	0.040	0.0504	
960 minute winter	S22	495	29.711	0.035	2.1	0.0399	0.0000	OK	7.001	S23	2.1	0.534	0.053	0.1382	
960 minute winter	S23	495	28.978	0.034	2.8	0.0609	0.0000	OK	7.002	S26	2.8	0.351	0.012	0.2040	
960 minute winter	S24	495	29.954	0.029	1.4	0.0328	0.0000	OK	8.000	S25	1.4	0.473	0.035	0.0976	
960 minute winter	S25	495	29.164	0.037	4.1	0.0660	0.0000	OK	8.001	S26	4.1	0.490	0.014	0.3386	
960 minute winter	S27	480	29.706	0.031	1.6	0.0350	0.0000	OK	10.000	S28	1.6	0.492	0.040	0.1063	
960 minute winter	S26	495	28.868	0.054	6.9	0.0953	0.0000	OK	7.003	S32	6.9	0.655	0.030	0.4910	
960 minute winter	S28	480	29.451	0.044	3.0	0.0495	0.0000	OK	10.001	S29	3.0	0.473	0.042	0.0479	
960 minute winter	S29	480	29.420	0.044	3.0	0.0496	0.0000	OK	10.002	S32	3.0	0.498	0.041	0.0282	
960 minute winter	S30	465	30.116	0.016	0.4	0.0025	0.0000	OK	9.000	S31	0.4	0.412	0.023	0.0341	
960 minute winter	S31	495	29.275	0.029	1.8	0.0331	0.0000	OK	9.001	S32	1.8	0.599	0.036	0.1056	
960 minute winter	S32	945	28.829	0.285	12.4	0.3225	0.0000	OK	7.004	S33	12.4	0.604	0.043	0.8467	
960 minute winter	S33	945	28.829	1.658	31.9	7.5017	0.0000	SURCHARGED	1.008	S34	27.6	0.298	0.012	92.1243	
960 minute winter	S34	945	28.829	1.710	29.5	7.7369	0.0000	SURCHARGED	1.009	S39	23.5	0.281	0.010	92.1243	
960 minute winter	S35	495	29.402	0.027	1.2	0.0305	0.0000	OK	11.000	S36	1.2	0.451	0.030	0.0651	
960 minute winter	S36	495	29.195	0.039	2.4	0.0437	0.0000	OK	11.001	S37	2.4	0.477	0.034	0.0494	
960 minute winter	S37	495	29.101	0.061	5.7	0.1072	0.0000	OK	11.002	S38	5.7	0.504	0.051	0.0854	

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960 minute winter	S38	495	29.075	0.059	5.7	0.1046	0.0000	OK	11.003	S39	5.7	0.555	0.051	0.0969	
960 minute winter	S39	945	28.829	1.762	30.4	7.9722	0.0000	SURCHARGED	1.010	S40	26.1	0.604	0.011	36.7430	
960 minute winter	S40	945	28.829	1.783	26.2	507.5790	0.0000	SURCHARGED	1.011	S41	3.1	0.130	0.001	31.3331	
960 minute winter	S41	945	28.829	1.801	3.1	8.1486	0.0000	SURCHARGED	Hydro-Brake®	S42	2.4				
960 minute winter	S42	945	26.934	0.088	12.6	0.0999	0.0000	OK	1.013	S43	12.6	0.863	0.317	0.5474	
960 minute winter	S43	945	26.715	0.090	12.6	0.1019	0.0000	OK	1.014	C1	12.6	1.029	0.316	0.0455	
960 minute winter	C1	960	26.670	0.067	12.6	0.0752	0.0000	OK	1.015	EXG	12.6	1.352	0.168	0.0914	870.5
960 minute winter	EXG	960	26.462	0.062	12.6	0.0000	0.0000	OK							

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Results for 100 year +30% 1440 minute summer. 1680 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	S1	720	29.764	0.014	0.3	0.0022	0.0000	OK	1.000	S2	0.3	0.292	0.017	0.0047	
1440 minute summer	S2	720	29.724	0.019	0.6	0.0030	0.0000	OK	1.001	S3	0.6	0.466	0.034	0.0467	
1440 minute summer	S3	750	29.305	0.034	1.9	0.0379	0.0000	OK	1.002	S4	1.9	0.519	0.048	0.1326	
1440 minute summer	S4	750	29.020	0.038	2.2	0.0428	0.0000	OK	1.003	S5	2.2	0.426	0.030	0.0267	
1440 minute summer	S5	750	28.998	0.038	2.5	0.0433	0.0000	OK	1.004	S8	2.5	0.427	0.035	0.0971	
1440 minute summer	S6	750	29.770	0.020	0.7	0.0033	0.0000	OK	2.000	S7	0.7	0.488	0.040	0.0559	
1440 minute summer	S7	750	29.321	0.032	2.0	0.0359	0.0000	OK	2.001	S8	2.0	0.592	0.042	0.1315	
1440 minute summer	S8	750	28.938	0.045	5.2	0.0798	0.0000	OK	1.005	S13	5.2	0.805	0.046	0.0755	
1440 minute summer	S9	750	29.303	0.028	1.4	0.0314	0.0000	OK	4.000	S13	1.4	0.505	0.032	0.0778	
1440 minute summer	S10	750	29.039	0.039	3.4	0.0444	0.0000	OK	3.000	S11	3.4	0.474	0.037	0.1963	
1440 minute summer	S11	750	28.871	0.056	5.2	0.0991	0.0000	OK	3.001	S12	5.2	0.543	0.047	0.2595	
1440 minute summer	S12	750	28.721	0.066	7.1	0.1165	0.0000	OK	3.002	S13	7.1	0.552	0.044	0.1721	
1440 minute summer	S13	1440	28.616	0.444	14.8	1.5365	0.0000	OK	1.006	S20	14.8	0.540	0.023	8.7228	
1440 minute summer	S14	750	28.766	0.016	0.4	0.0178	0.0000	OK	5.000	S15	0.4	0.412	0.023	0.1418	
1440 minute summer	S15	1440	28.616	0.173	1.2	0.1952	0.0000	OK	5.001	S16	1.2	0.406	0.030	0.8469	
1440 minute summer	S16	1440	28.616	0.311	1.6	0.3512	0.0000	SURCHARGED	5.002	S19	1.6	0.492	0.040	0.8920	
1440 minute summer	S17	750	29.166	0.016	0.4	0.0025	0.0000	OK	6.000	S18	0.4	0.412	0.023	0.0181	
1440 minute summer	S18	750	28.916	0.027	1.2	0.0306	0.0000	OK	6.001	S19	1.2	0.450	0.030	0.0499	
1440 minute summer	S19	1440	28.616	1.419	3.2	6.4176	0.0000	OK	5.003	S20	2.6	0.053	0.001	10.5903	
1440 minute summer	S20	1440	28.616	1.425	18.3	6.4447	0.0000	OK	1.007	S33	16.6	0.177	0.007	34.8853	
1440 minute summer	S21	750	30.120	0.020	0.7	0.0033	0.0000	OK	7.000	S22	0.7	0.488	0.040	0.0504	
1440 minute summer	S22	750	29.710	0.034	2.0	0.0390	0.0000	OK	7.001	S23	2.0	0.526	0.050	0.1335	
1440 minute summer	S23	750	28.978	0.034	2.7	0.0599	0.0000	OK	7.002	S26	2.7	0.348	0.012	0.1981	
1440 minute summer	S24	750	29.953	0.028	1.3	0.0316	0.0000	OK	8.000	S25	1.3	0.462	0.033	0.0927	
1440 minute summer	S25	750	29.163	0.036	3.9	0.0645	0.0000	OK	8.001	S26	3.9	0.482	0.014	0.3277	
1440 minute summer	S27	750	29.706	0.031	1.6	0.0350	0.0000	OK	10.000	S28	1.6	0.492	0.040	0.1063	
1440 minute summer	S26	750	28.867	0.053	6.6	0.0933	0.0000	OK	7.003	S32	6.6	0.647	0.029	0.2381	
1440 minute summer	S28	750	29.451	0.044	3.0	0.0495	0.0000	OK	10.001	S29	3.0	0.473	0.042	0.0479	
1440 minute summer	S29	750	29.420	0.044	3.0	0.0496	0.0000	OK	10.002	S32	3.0	0.498	0.041	0.0282	
1440 minute summer	S30	750	30.116	0.016	0.4	0.0025	0.0000	OK	9.000	S31	0.4	0.412	0.023	0.0341	
1440 minute summer	S31	750	29.275	0.029	1.7	0.0322	0.0000	OK	9.001	S32	1.7	0.588	0.034	0.1015	
1440 minute summer	S32	750	28.626	0.082	12.0	0.0922	0.0000	OK	7.004	S33	12.0	0.599	0.042	0.1322	
1440 minute summer	S33	1440	28.616	1.445	30.8	6.5352	0.0000	OK	1.008	S34	26.6	0.248	0.011	91.5482	
1440 minute summer	S34	1440	28.616	1.497	28.4	6.7705	0.0000	OK	1.009	S39	22.6	0.233	0.010	92.0834	
1440 minute summer	S35	750	29.401	0.026	1.1	0.0293	0.0000	OK	11.000	S36	1.1	0.439	0.028	0.0613	
1440 minute summer	S36	750	29.193	0.037	2.2	0.0419	0.0000	OK	11.001	S37	2.2	0.467	0.031	0.0462	
1440 minute summer	S37	750	29.099	0.059	5.4	0.1043	0.0000	OK	11.002	S38	5.4	0.497	0.048	0.0821	
1440 minute summer	S38	750	29.074	0.058	5.4	0.1018	0.0000	OK	11.003	S39	5.4	0.546	0.048	0.0932	

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1440 minute summer	S39	1440	28.616	1.549	29.2	7.0057	0.0000	SURCHARGED	1.010	S40	25.1	0.548	0.011	36.7430	
1440 minute summer	S40	1440	28.616	1.570	25.2	441.1045	0.0000	SURCHARGED	1.011	S41	3.0	0.097	0.001	31.3331	
1440 minute summer	S41	1440	28.616	1.588	3.0	7.1821	0.0000	SURCHARGED	Hydro-Brake®	S42	2.3				
1440 minute summer	S42	1440	26.934	0.088	12.5	0.0993	0.0000	OK	1.013	S43	12.5	0.860	0.313	0.5431	
1440 minute summer	S43	1440	26.715	0.090	12.5	0.1013	0.0000	OK	1.014	C1	12.5	1.026	0.312	0.0451	
1440 minute summer	C1	1440	26.669	0.066	12.5	0.0748	0.0000	OK	1.015	EXG	12.5	1.348	0.166	0.0906	1208.6
1440 minute summer	EXG	1440	26.462	0.062	12.5	0.0000	0.0000	OK							

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Results for 100 year +30% 1440 minute winter. 1680 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	S1	600	29.761	0.011	0.2	0.0018	0.0000	OK	1.000	S2	0.2	0.259	0.011	0.0036	
1440 minute winter	S2	600	29.721	0.016	0.4	0.0025	0.0000	OK	1.001	S3	0.4	0.412	0.023	0.0352	
1440 minute winter	S3	720	29.300	0.029	1.4	0.0327	0.0000	OK	1.002	S4	1.4	0.474	0.035	0.1071	
1440 minute winter	S4	720	29.014	0.032	1.6	0.0365	0.0000	OK	1.003	S5	1.6	0.391	0.022	0.0212	
1440 minute winter	S5	720	28.993	0.033	1.8	0.0371	0.0000	OK	1.004	S8	1.8	0.384	0.025	0.0773	
1440 minute winter	S6	720	29.767	0.017	0.5	0.0028	0.0000	OK	2.000	S7	0.5	0.441	0.028	0.0442	
1440 minute winter	S7	720	29.317	0.028	1.5	0.0312	0.0000	OK	2.001	S8	1.5	0.543	0.032	0.1076	
1440 minute winter	S8	720	28.932	0.039	3.8	0.0683	0.0000	OK	1.005	S13	3.8	0.736	0.034	0.2083	
1440 minute winter	S9	750	29.300	0.025	1.1	0.0280	0.0000	OK	4.000	S13	1.1	0.470	0.025	0.0657	
1440 minute winter	S10	750	29.035	0.035	2.6	0.0391	0.0000	OK	3.000	S11	2.6	0.435	0.028	0.2939	
1440 minute winter	S11	1410	28.916	0.101	4.0	0.1776	0.0000	OK	3.001	S12	4.0	0.508	0.036	1.0576	
1440 minute winter	S12	1410	28.916	0.261	5.4	0.4603	0.0000	OK	3.002	S13	5.4	0.515	0.034	1.3661	
1440 minute winter	S13	1410	28.916	0.744	11.2	2.5756	0.0000	OK	1.006	S20	11.2	0.498	0.018	15.3434	
1440 minute winter	S14	1410	28.916	0.166	0.3	0.1872	0.0000	SURCHARGED	5.000	S15	0.3	0.378	0.017	0.4116	
1440 minute winter	S15	1410	28.916	0.473	0.9	0.5344	0.0000	SURCHARGED	5.001	S16	0.9	0.373	0.023	0.9298	
1440 minute winter	S16	1410	28.916	0.611	1.2	0.6905	0.0000	SURCHARGED	5.002	S19	1.2	0.451	0.030	0.8920	
1440 minute winter	S17	720	29.164	0.014	0.3	0.0022	0.0000	OK	6.000	S18	0.3	0.378	0.017	0.0148	
1440 minute winter	S18	1410	28.916	0.027	0.9	0.0300	0.0000	OK	6.001	S19	0.9	0.413	0.023	0.2598	
1440 minute winter	S19	1410	28.916	1.719	2.4	7.7746	0.0000	SURCHARGED	5.003	S20	1.9	0.052	0.001	10.8006	
1440 minute winter	S20	1410	28.916	1.725	13.8	7.8018	0.0000	SURCHARGED	1.007	S33	12.5	0.183	0.005	35.4174	
1440 minute winter	S21	720	30.117	0.017	0.5	0.0028	0.0000	OK	7.000	S22	0.5	0.441	0.028	0.0398	
1440 minute winter	S22	720	29.706	0.030	1.5	0.0339	0.0000	OK	7.001	S23	1.5	0.483	0.038	0.1091	
1440 minute winter	S23	720	28.974	0.030	2.0	0.0524	0.0000	OK	7.002	S26	2.0	0.318	0.009	0.3442	
1440 minute winter	S24	720	29.950	0.025	1.0	0.0280	0.0000	OK	8.000	S25	1.0	0.427	0.025	0.0771	
1440 minute winter	S25	750	29.159	0.032	3.0	0.0572	0.0000	OK	8.001	S26	3.0	0.450	0.010	0.5551	
1440 minute winter	S27	750	29.702	0.027	1.2	0.0304	0.0000	OK	10.000	S28	1.2	0.451	0.030	0.0870	
1440 minute winter	S26	1410	28.916	0.102	5.0	0.1794	0.0000	OK	7.003	S32	5.0	0.596	0.022	1.2181	
1440 minute winter	S28	750	29.444	0.037	2.2	0.0424	0.0000	OK	10.001	S29	2.2	0.436	0.031	0.0381	
1440 minute winter	S29	750	29.413	0.037	2.2	0.0423	0.0000	OK	10.002	S32	2.2	0.463	0.030	0.0222	
1440 minute winter	S30	660	30.114	0.014	0.3	0.0022	0.0000	OK	9.000	S31	0.3	0.379	0.017	0.0278	
1440 minute winter	S31	720	29.271	0.025	1.3	0.0284	0.0000	OK	9.001	S32	1.3	0.543	0.026	0.0841	
1440 minute winter	S32	1410	28.916	0.372	9.0	0.4202	0.0000	OK	7.004	S33	9.0	0.552	0.031	1.1668	
1440 minute winter	S33	1410	28.916	1.745	23.2	7.8922	0.0000	SURCHARGED	1.008	S34	20.2	0.270	0.009	92.1243	
1440 minute winter	S34	1410	28.916	1.797	21.6	8.1275	0.0000	SURCHARGED	1.009	S39	17.3	0.247	0.007	92.1243	
1440 minute winter	S35	750	29.399	0.024	0.9	0.0266	0.0000	OK	11.000	S36	0.9	0.413	0.023	0.0532	
1440 minute winter	S36	750	29.190	0.034	1.8	0.0380	0.0000	OK	11.001	S37	1.8	0.444	0.025	0.0399	
1440 minute winter	S37	750	29.092	0.052	4.2	0.0917	0.0000	OK	11.002	S38	4.2	0.464	0.037	0.0683	
1440 minute winter	S38	750	29.067	0.051	4.2	0.0899	0.0000	OK	11.003	S39	4.2	0.513	0.037	0.0773	

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1440 minute winter	S39	1410	28.916	1.849	22.4	8.3628	0.0000	SURCHARGED	1.010	S40	19.4	0.449	0.008	36.7430	
1440 minute winter	S40	1410	28.916	1.870	19.5	534.8810	0.0000	SURCHARGED	1.011	S41	2.8	0.107	0.001	31.3331	
1440 minute winter	S41	1410	28.916	1.888	2.8	8.5392	0.0000	SURCHARGED	Hydro-Brake®	S42	2.5				
1440 minute winter	S42	1410	26.935	0.088	12.7	0.1001	0.0000	OK	1.013	S43	12.7	0.863	0.318	0.5491	
1440 minute winter	S43	1410	26.715	0.090	12.7	0.1022	0.0000	OK	1.014	C1	12.7	1.030	0.317	0.0456	
1440 minute winter	C1	1410	26.670	0.067	12.7	0.0754	0.0000	OK	1.015	EXG	12.7	1.353	0.169	0.0916	1215.8
1440 minute winter	EXG	1410	26.462	0.062	12.7	0.0000	0.0000	OK							

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Adoptable						
Max Width (mm)	**Diameter (mm)**	**Width (mm)**		**Max Depth (m)**	**Diameter (mm)**	**Width (mm)**
225	450			1.500	1050	
374	1200			99.999	1200	
499	1350					
749	1500					
900	1800					
>900	Link+900 mm					
Plastic						
Max Width (mm)	**Diameter (mm)**	**Width (mm)**		**Max Depth (m)**	**Diameter (mm)**	**Width (mm)**
225	450			1.500	450	
>225	Link+225 mm					

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Circular						
Shape	Circular		**Dia (mm)**			
Barrels	1		150			
Height (mm)			225			
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						

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