



Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	5	Maximum Rainfall (mm/hr)	20.0
Additional Flow (%)	0	Minimum Velocity (m/s)	0.75
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	17.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	0.600
CV	1.000	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Width (mm)	Easting (m)	Northing (m)	Depth (m)
SW01	0.070	5.00	31.300	450		383524.188	392547.086	0.900
SW08			31.290	450		383551.877	392566.941	1.881
SW09	0.006	5.00	31.140	450		383557.914	392563.631	1.810
TANK			31.140	1200		383563.292	392561.433	1.840
SW02			31.140	450		383544.064	392535.506	1.064
SW06	0.066	5.00	31.290	450		383538.002	392582.598	1.588
ByPass01			31.140	1700	1350	383559.916	392564.903	1.540
SW03			31.140	1200		383558.114	392561.719	1.425
SW13	0.034	5.00	31.140	1200		383567.200	392565.849	1.870
SW05	0.060	5.00	31.450	450		383532.173	392572.854	1.391
SW14	0.015	5.00	31.290	450		383548.766	392593.618	1.574
SW18			31.290	1200		383573.776	392578.921	2.287
SW19			31.450	1200		383582.393	392584.550	3.050
SW15			31.290	450		383562.375	392586.374	1.950
SW16			31.290	450		383565.124	392584.129	2.020
SW07			31.290	450		383552.989	392574.237	1.795
SW04			31.140	1200		383561.135	392567.094	1.560
SW11	0.075	5.00	31.290	450		383512.184	392556.913	1.483
SW12			31.140	450		383544.916	392539.351	1.810

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	SW01	SW02	23.003	0.600	30.400	30.076	0.324	71.0	225	5.68	20.0
3.004	SW04	SW13	6.191	0.600	29.580	29.503	0.077	80.0	225	6.20	20.0
2.002	SW09	TANK	7.122	0.600	29.330	29.300	0.030	237.4	225	5.56	20.0
1.002	TANK	SW13	5.897	0.600	29.300	29.270	0.030	196.6	225	6.68	20.0
3.001	SW02	SW03	29.741	0.600	30.076	29.715	0.361	82.4	225	6.02	20.0
3.002	SW03	ByPass01	3.659	0.600	29.715	29.700	0.015	243.9	225	6.10	20.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	1.554	61.8	5.1	0.675	0.839	0.070	0.0
3.004	1.463	58.2	5.1	1.335	1.412	0.070	0.0
2.002	0.844	33.6	9.5	1.585	1.615	0.132	0.0
1.002	0.929	36.9	15.0	1.615	1.645	0.207	0.0
3.001	1.441	57.3	5.1	0.839	1.200	0.070	0.0
3.002	0.833	33.1	5.1	1.200	1.215	0.070	0.0

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
2.001	SW06	SW07	17.161	0.600	29.702	29.495	0.207	82.9	225	5.28	20.0
3.003	ByPass01	SW04	2.507	0.600	29.600	29.580	0.020	125.4	225	6.13	20.0
1.003	SW13	SW18	14.633	0.600	29.270	29.003	0.267	54.8	225	6.82	20.0
2.000	SW05	SW06	11.354	0.600	30.059	29.702	0.357	31.8	225	5.08	20.0
2.003	SW08	SW09	6.885	0.600	29.409	29.330	0.079	87.2	225	5.45	20.0
4.000	SW14	SW15	15.417	0.600	29.716	29.340	0.376	41.0	150	5.16	20.0
1.005	SW15	SW16	3.549	0.600	29.340	29.270	0.070	50.7	150	6.19	20.0
1.004	SW18	SW19	10.293	0.600	29.003	28.400	0.603	17.1	225	6.87	20.0
4.002	SW16	SW18	10.185	0.600	29.270	29.078	0.192	53.0	150	6.34	20.0
2.002_1	SW07	SW08	7.380	0.600	29.495	29.409	0.086	85.8	225	5.37	20.0
1.000_1	SW11	SW12	37.146	0.600	29.807	29.330	0.477	77.9	225	5.42	20.0
1.001	SW12	TANK	28.728	0.600	29.330	29.300	0.030	957.6	225	6.57	20.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
2.001	1.437	57.1	9.1	1.363	1.570	0.126	0.0
3.003	1.166	46.4	5.1	1.315	1.335	0.070	0.0
1.003	1.770	70.4	22.5	1.645	2.062	0.311	0.0
2.000	2.328	92.6	4.3	1.166	1.363	0.060	0.0
2.003	1.401	55.7	9.1	1.656	1.585	0.126	0.0
4.000	1.576	27.8	1.1	1.424	1.800	0.015	0.0
1.005	1.416	25.0	1.1	1.800	1.870	0.015	0.0
1.004	3.182	126.5	23.6	2.062	2.825	0.326	0.0
4.002	1.384	24.5	1.1	1.870	2.062	0.015	0.0
2.002_1	1.412	56.1	9.1	1.570	1.656	0.126	0.0
1.000_1	1.483	59.0	5.4	1.258	1.585	0.075	0.0
1.001	0.414	16.5	5.4	1.585	1.615	0.075	0.0

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	23.003	71.0	225	Circular	31.300	30.400	0.675	31.140	30.076	0.839
3.004	6.191	80.0	225	Circular	31.140	29.580	1.335	31.140	29.503	1.412
2.002	7.122	237.4	225	Circular	31.140	29.330	1.585	31.140	29.300	1.615
1.002	5.897	196.6	225	Circular	31.140	29.300	1.615	31.140	29.270	1.645
3.001	29.741	82.4	225	Circular	31.140	30.076	0.839	31.140	29.715	1.200
3.002	3.659	243.9	225	Circular	31.140	29.715	1.200	31.140	29.700	1.215
2.001	17.161	82.9	225	Circular	31.290	29.702	1.363	31.290	29.495	1.570

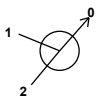
Link	US Node	Dia (mm)	Width (mm)	Node Type	MH Type	DS Node	Dia (mm)	Width (mm)	Node Type	MH Type
1.000	SW01	450		Manhole	Adoptable	SW02	450		Manhole	Adoptable
3.004	SW04	1200		Manhole	Adoptable	SW13	1200		Manhole	Adoptable
2.002	SW09	450		Manhole	Adoptable	TANK	1200		Manhole	Adoptable
1.002	TANK	1200		Manhole	Adoptable	SW13	1200		Manhole	Adoptable
3.001	SW02	450		Manhole	Adoptable	SW03	1200		Manhole	Adoptable
3.002	SW03	1200		Manhole	Adoptable	ByPass01	1700	1350	Manhole	Adoptable
2.001	SW06	450		Manhole	Adoptable	SW07	450		Manhole	Adoptable

Pipeline Schedule

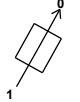
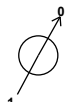
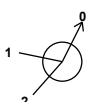
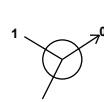
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
3.003	2.507	125.4	225	Circular	31.140	29.600	1.315	31.140	29.580	1.335
1.003	14.633	54.8	225	Circular	31.140	29.270	1.645	31.290	29.003	2.062
2.000	11.354	31.8	225	Circular	31.450	30.059	1.166	31.290	29.702	1.363
2.003	6.885	87.2	225	Circular	31.290	29.409	1.656	31.140	29.330	1.585
4.000	15.417	41.0	150	Circular	31.290	29.716	1.424	31.290	29.340	1.800
1.005	3.549	50.7	150	Circular	31.290	29.340	1.800	31.290	29.270	1.870
1.004	10.293	17.1	225	Circular	31.290	29.003	2.062	31.450	28.400	2.825
4.002	10.185	53.0	150	Circular	31.290	29.270	1.870	31.290	29.078	2.062
2.002_1	7.380	85.8	225	Circular	31.290	29.495	1.570	31.290	29.409	1.656
1.000_1	37.146	77.9	225	Circular	31.290	29.807	1.258	31.140	29.330	1.585
1.001	28.728	957.6	225	Circular	31.140	29.330	1.585	31.140	29.300	1.615

Link	US Node	Dia (mm)	Width (mm)	Node Type	MH Type	DS Node	Dia (mm)	Width (mm)	Node Type	MH Type
3.003	ByPass01	1700	1350	Manhole	Adoptable	SW04	1200		Manhole	Adoptable
1.003	SW13	1200		Manhole	Adoptable	SW18	1200		Manhole	Adoptable
2.000	SW05	450		Manhole	Adoptable	SW06	450		Manhole	Adoptable
2.003	SW08	450		Manhole	Adoptable	SW09	450		Manhole	Adoptable
4.000	SW14	450		Manhole	Adoptable	SW15	450		Manhole	Adoptable
1.005	SW15	450		Manhole	Adoptable	SW16	450		Manhole	Adoptable
1.004	SW18	1200		Manhole	Adoptable	SW19	1200		Manhole	Adoptable
4.002	SW16	450		Manhole	Adoptable	SW18	1200		Manhole	Adoptable
2.002_1	SW07	450		Manhole	Adoptable	SW08	450		Manhole	Adoptable
1.000_1	SW11	450		Manhole	Adoptable	SW12	450		Manhole	Adoptable
1.001	SW12	450		Manhole	Adoptable	TANK	1200		Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
SW01	383524.188	392547.086	31.300	0.900	450					
							0	1.000	30.400	225
SW08	383551.877	392566.941	31.290	1.881	450					
							1	2.002_1	29.409	225
							0	2.003	29.409	225
SW09	383557.914	392563.631	31.140	1.810	450					
							1	2.003	29.330	225
							0	2.002	29.330	225
TANK	383563.292	392561.433	31.140	1.840	1200					
							1	2.002	29.300	225
							2	1.001	29.300	225
							0	1.002	29.300	225
SW02	383544.064	392535.506	31.140	1.064	450					
							1	1.000	30.076	225
							0	3.001	30.076	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
SW06	383538.002	392582.598	31.290	1.588	450			1 2.000	29.702	225
ByPass01	383559.916	392564.903	31.140	1.540	1700	1350		0 2.001 1 3.002	29.702 29.700	225 225
SW03	383558.114	392561.719	31.140	1.425	1200			0 3.003 1 3.001	29.600 29.715	225 225
SW13	383567.200	392565.849	31.140	1.870	1200			1 3.004 2 1.002 0 1.003	29.503 29.270 29.270	225 225 225
SW05	383532.173	392572.854	31.450	1.391	450			0 2.000	30.059	225
SW14	383548.766	392593.618	31.290	1.574	450			0 4.000	29.716	150
SW18	383573.776	392578.921	31.290	2.287	1200			1 4.002 2 1.003 0 1.004	29.078 29.003 29.003	150 225 225
SW19	383582.393	392584.550	31.450	3.050	1200			1 1.004	28.400	225
SW15	383562.375	392586.374	31.290	1.950	450			1 4.000 0 1.005	29.340 29.340	150 150
SW16	383565.124	392584.129	31.290	2.020	450			1 1.005 0 4.002	29.270 29.270	150 150
SW07	383552.989	392574.237	31.290	1.795	450			1 2.001 0 2.002_1	29.495 29.495	225 225
SW04	383561.135	392567.094	31.140	1.560	1200			1 3.003 0 3.004	29.580 29.580	225 225
SW11	383512.184	392556.913	31.290	1.483	450			0 1.000_1	29.807	225



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
SW12	383544.916	392539.351	31.140	1.810	450		1	1.000_1	29.330	225
							0	1.001	29.330	225

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	17.000	Drain Down Time (mins)	1440
Ratio-R	0.400	Additional Storage (m³/ha)	20.0
Summer CV	1.000	Check Discharge Rate(s)	x
Winter CV	1.000	Check Discharge Volume	x

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	0	0	0
100	45	0	0

Node SW18 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	29.003	Product Number	CTL-SHE-0089-5000-2250-5000
Design Depth (m)	2.250	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node TANK Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.300
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	448

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	132.0	0.0	1.200	132.0	0.0	1.201	0.0	0.0

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.48%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW01	10	30.474	0.074	13.7	0.1265	0.0000	OK
15 minute winter	SW08	7	29.553	0.144	22.5	0.0229	0.0000	OK
15 minute winter	SW09	7	29.539	0.209	23.6	0.0469	0.0000	OK
120 minute summer	TANK	98	29.524	0.224	21.1	28.3812	0.0000	OK
15 minute summer	SW02	11	30.150	0.074	13.6	0.0117	0.0000	OK
15 minute summer	SW06	10	29.811	0.109	24.6	0.1076	0.0000	OK
15 minute summer	ByPass01	11	29.695	0.095	13.5	0.2175	0.0000	OK
15 minute summer	SW03	11	29.824	0.109	13.4	0.1232	0.0000	OK
120 minute summer	SW13	98	29.524	0.254	8.7	0.3798	0.0000	SURCHARGED
15 minute summer	SW05	10	30.113	0.054	11.7	0.0549	0.0000	OK
15 minute summer	SW14	10	29.749	0.033	2.9	0.0114	0.0000	OK
120 minute summer	SW18	98	29.523	0.520	5.8	0.5882	0.0000	SURCHARGED
15 minute summer	SW19	1	28.400	0.000	3.9	0.0000	0.0000	OK
120 minute summer	SW15	98	29.523	0.183	1.3	0.0291	0.0000	SURCHARGED
120 minute summer	SW16	98	29.523	0.253	1.4	0.0402	0.0000	SURCHARGED
15 minute summer	SW07	10	29.615	0.120	24.3	0.0190	0.0000	OK
15 minute summer	SW04	11	29.661	0.081	13.4	0.0919	0.0000	OK
15 minute summer	SW11	10	29.883	0.076	14.7	0.0886	0.0000	OK
120 minute summer	SW12	98	29.524	0.194	6.3	0.0309	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SW01	1.000	SW02	13.6	1.206	0.220	0.2593	
15 minute winter	SW08	2.003	SW09	22.6	1.003	0.405	0.2248	
15 minute winter	SW09	2.002	TANK	23.7	1.596	0.706	0.1870	
120 minute summer	TANK	1.002	SW13	-4.8	0.634	-0.129	0.2344	
15 minute summer	SW02	3.001	SW03	13.4	0.903	0.234	0.4504	
15 minute summer	SW06	2.001	SW07	24.3	1.205	0.426	0.3467	
15 minute summer	ByPass01	3.003	SW04	13.4	0.935	0.290	0.0361	
15 minute summer	SW03	3.002	ByPass01	13.5	0.769	0.407	0.0641	
120 minute summer	SW13	1.003	SW18	5.3	0.479	0.076	0.5820	
15 minute summer	SW05	2.000	SW06	11.7	0.904	0.126	0.1489	
15 minute summer	SW14	4.000	SW15	2.9	0.950	0.103	0.1222	
120 minute summer	SW18	Hydro-Brake®	SW19	3.9				54.2
120 minute summer	SW15	1.005	SW16	1.4	0.538	0.054	0.0625	
120 minute summer	SW16	4.002	SW18	1.2	0.416	0.048	0.1793	
15 minute summer	SW07	2.002_1	SW08	24.1	1.101	0.430	0.1620	
15 minute summer	SW04	3.004	SW13	13.4	1.114	0.230	0.0745	
15 minute summer	SW11	1.000_1	SW12	14.5	0.833	0.246	0.6540	
120 minute summer	SW12	1.001	TANK	5.6	0.462	0.337	1.0947	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.48%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW01	10	30.506	0.106	25.9	0.1813	0.0000	OK
180 minute winter	SW08	172	29.849	0.440	10.2	0.0699	0.0000	SURCHARGED
180 minute winter	SW09	176	29.849	0.519	10.3	0.1167	0.0000	SURCHARGED
180 minute winter	TANK	176	29.848	0.548	20.5	69.3836	0.0000	SURCHARGED
15 minute summer	SW02	10	30.181	0.105	25.7	0.0167	0.0000	OK
15 minute summer	SW06	10	29.875	0.173	46.5	0.1716	0.0000	OK
180 minute winter	ByPass01	176	29.849	0.249	5.7	0.5724	0.0000	SURCHARGED
15 minute summer	SW03	11	29.874	0.159	25.4	0.1793	0.0000	OK
180 minute winter	SW13	176	29.847	0.577	8.6	0.8630	0.0000	SURCHARGED
15 minute summer	SW05	10	30.134	0.075	22.2	0.0762	0.0000	OK
180 minute winter	SW14	176	29.848	0.132	1.2	0.0461	0.0000	OK
180 minute winter	SW18	176	29.848	0.845	5.0	0.9553	0.0000	SURCHARGED
15 minute summer	SW19	1	28.400	0.000	3.9	0.0000	0.0000	OK
180 minute winter	SW15	176	29.847	0.507	1.2	0.0807	0.0000	SURCHARGED
180 minute winter	SW16	176	29.847	0.577	1.2	0.0918	0.0000	SURCHARGED
180 minute winter	SW07	176	29.848	0.353	10.3	0.0562	0.0000	SURCHARGED
180 minute winter	SW04	172	29.851	0.271	5.7	0.3060	0.0000	SURCHARGED
15 minute summer	SW11	10	29.914	0.107	27.7	0.1254	0.0000	OK
180 minute winter	SW12	176	29.848	0.518	6.1	0.0824	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SW01	1.000	SW02	25.7	1.409	0.416	0.4193	
180 minute winter	SW08	2.003	SW09	9.8	0.646	0.176	0.2738	
180 minute winter	SW09	2.002	TANK	10.1	0.794	0.300	0.2832	
180 minute winter	TANK	1.002	SW13	-5.2	0.622	-0.140	0.2345	
15 minute summer	SW02	3.001	SW03	25.4	1.064	0.443	0.7108	
15 minute summer	SW06	2.001	SW07	46.1	1.308	0.807	0.6059	
180 minute winter	ByPass01	3.003	SW04	5.7	0.804	0.124	0.0997	
15 minute summer	SW03	3.002	ByPass01	25.6	0.939	0.772	0.0995	
180 minute winter	SW13	1.003	SW18	4.7	0.352	0.067	0.5820	
15 minute summer	SW05	2.000	SW06	22.1	0.992	0.239	0.2515	
180 minute winter	SW14	4.000	SW15	1.2	0.547	0.043	0.2620	
180 minute winter	SW18	Hydro-Brake®	SW19	3.9				114.6
180 minute winter	SW15	1.005	SW16	1.2	0.470	0.047	0.0625	
180 minute winter	SW16	4.002	SW18	0.8	0.416	0.033	0.1793	
180 minute winter	SW07	2.002_1	SW08	10.2	0.968	0.182	0.2935	
180 minute winter	SW04	3.004	SW13	5.8	0.881	0.100	0.2462	
15 minute summer	SW11	1.000_1	SW12	27.4	1.022	0.465	1.0720	
180 minute winter	SW12	1.001	TANK	5.6	0.499	0.341	1.1425	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.48%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	SW01	236	30.659	0.259	8.8	0.4436	0.0000	SURCHARGED
240 minute winter	SW08	236	30.654	1.245	15.1	0.1980	0.0000	SURCHARGED
240 minute winter	SW09	236	30.656	1.326	15.7	0.2984	0.0000	SURCHARGED
240 minute winter	TANK	236	30.654	1.354	31.5	152.0743	0.0000	SURCHARGED
240 minute winter	SW02	236	30.658	0.582	8.8	0.0925	0.0000	SURCHARGED
15 minute summer	SW06	11	30.915	1.213	81.9	1.2008	0.0000	SURCHARGED
240 minute winter	ByPass01	236	30.656	1.056	8.3	2.4234	0.0000	SURCHARGED
240 minute winter	SW03	236	30.657	0.942	8.8	1.0654	0.0000	SURCHARGED
240 minute winter	SW13	236	30.655	1.385	11.4	2.0709	0.0000	SURCHARGED
15 minute summer	SW05	11	31.000	0.941	41.5	0.9614	0.0000	SURCHARGED
240 minute winter	SW14	236	30.653	0.937	1.9	0.3281	0.0000	SURCHARGED
240 minute winter	SW18	236	30.654	1.651	4.7	1.8668	0.0000	SURCHARGED
15 minute summer	SW19	1	28.400	0.000	3.9	0.0000	0.0000	OK
240 minute winter	SW15	236	30.653	1.313	1.7	0.2088	0.0000	SURCHARGED
240 minute winter	SW16	236	30.653	1.383	1.4	0.2199	0.0000	SURCHARGED
240 minute winter	SW07	236	30.655	1.160	15.4	0.1845	0.0000	SURCHARGED
240 minute winter	SW04	236	30.657	1.077	7.9	1.2178	0.0000	SURCHARGED
240 minute winter	SW11	236	30.654	0.847	9.4	0.9922	0.0000	SURCHARGED
240 minute winter	SW12	236	30.655	1.325	9.0	0.2106	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	SW01	1.000	SW02	8.8	1.068	0.142	0.9149	
240 minute winter	SW08	2.003	SW09	14.9	0.586	0.267	0.2738	
240 minute winter	SW09	2.002	TANK	15.4	0.856	0.460	0.2832	
240 minute winter	TANK	1.002	SW13	-8.5	0.644	-0.229	0.2345	
240 minute winter	SW02	3.001	SW03	8.8	0.776	0.153	1.1828	
15 minute summer	SW06	2.001	SW07	79.1	1.990	1.385	0.6825	
240 minute winter	ByPass01	3.003	SW04	7.9	0.827	0.170	0.0997	
240 minute winter	SW03	3.002	ByPass01	8.3	0.662	0.250	0.1455	
240 minute winter	SW13	1.003	SW18	4.7	0.352	0.067	0.5820	
15 minute summer	SW05	2.000	SW06	37.5	1.000	0.406	0.4516	
240 minute winter	SW14	4.000	SW15	1.7	0.498	0.059	0.2714	
240 minute winter	SW18	Hydro-Brake®	SW19	4.3				234.5
240 minute winter	SW15	1.005	SW16	1.4	0.470	0.056	0.0625	
240 minute winter	SW16	4.002	SW18	1.2	0.470	0.047	0.1793	
240 minute winter	SW07	2.002_1	SW08	15.1	0.939	0.270	0.2935	
240 minute winter	SW04	3.004	SW13	7.2	0.863	0.123	0.2462	
240 minute winter	SW11	1.000_1	SW12	9.0	0.465	0.152	1.4773	
240 minute winter	SW12	1.001	TANK	8.5	0.520	0.514	1.1425	