

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	17.000	Minimum Backdrop Height (m)	5.000
Ratio-R	0.300	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Depth (m)
SW1.01	0.201	5.00	100.526	1200	1.491
SW1.02	0.054	5.00	100.880	1200	1.928
SW1.03			100.825	1200	2.060
SW1.06			100.040	1500	1.792
SW1.07			100.062	1500	2.489
SW1.08			100.258	1500	2.745
SW1.10			100.283	1500	3.229
SW1.11			99.924	1500	3.853
SW1.14			95.354	1350	0.954
SW1.12			99.734	1500	3.684
SW1.13			97.731	1500	1.797
SW2.01	0.103	5.00	101.066	1200	1.132
SW2.02	0.177	5.00	100.952	1200	1.261
SW2.03	0.097	5.00	101.031	1200	1.435
SW2.04			100.583	1200	1.255
SW2.05			100.176	1200	1.263
SW6.01	0.284	5.00	100.530	1200	1.964
SW5.01	0.284	5.00	100.528	1200	1.985
SW4.04	0.156	5.00	100.022	1500	2.868
SW4.03			99.968	1500	2.720
SW4.02	0.016	5.00	100.088	1500	2.729
SW3.01		5.00	99.935	1200	1.132
SW3.02	0.073	5.00	100.111	1200	1.390
SW1.05			100.194	1350	1.630
SW1.09			100.286	1500	2.858
SW4.01	0.451	5.00	100.496	1350	2.676
SW1.04	0.020	5.00	100.696	1200	1.981
FPI02			100.150	1500	3.085
FPI01			100.114	1350	1.601
Depth/Area 1		5.00	98.530	1500	2.030

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)
Pipe1	SW1.01	SW1.02	19.833	0.600	99.035	98.952	0.083	239.0	300	5.53	49.5
Pipe2	SW1.02	SW1.03	27.087	0.600	98.952	98.840	0.112	241.8	300	6.25	47.1
Pipe3	SW1.03	SW1.04	11.971	0.600	98.765	98.715	0.050	239.4	375	6.48	46.4
Pipe3 (1)	SW1.04	SW1.05	36.393	0.600	98.715	98.564	0.151	241.0	375	7.09	44.6
Pipe4	SW1.06	SW1.07	15.676	0.600	98.248	97.573	0.675	23.2	525	7.36	43.9
Pipe5	SW1.07	SW1.08	23.866	0.600	97.573	97.513	0.060	397.8	525	7.76	42.9
Pipe6	SW1.08	SW1.09	33.749	0.600	97.513	97.428	0.085	397.0	525	8.32	41.5
Pipe6 (1)	SW1.09	SW1.10	18.831	0.600	97.428	97.381	0.047	400.7	525	8.64	40.8
Pipe7	SW1.10	SW1.11	35.364	0.600	97.054	96.071	0.983	36.0	600	8.80	40.5
Pipe8	SW1.11	SW1.12	8.523	0.600	96.071	96.050	0.021	405.9	525	8.90	40.2
Pipe11 (1)	SW1.12	SW1.13	31.620	0.600	96.050	95.970	0.080	395.3	525	9.16	39.7
Pipe11 (1) (1)	SW1.13	SW1.14	80.896	0.600	95.934	94.400	1.534	52.7	375	9.57	38.9
Pipe19 (1)	SW4.01	SW4.02	23.444	0.600	97.820	97.722	0.098	239.2	375	5.79	48.6
Pipe21	SW2.01	SW2.02	27.908	0.600	99.934	99.766	0.168	166.1	225	5.78	48.6
Pipe22	SW2.02	SW2.03	22.831	0.600	99.691	99.596	0.095	240.3	300	6.56	46.2
Pipe23	SW2.03	SW2.04	10.920	0.600	99.596	99.328	0.268	40.7	300	6.71	45.7
Pipe24	SW2.04	SW2.05	22.635	0.600	99.328	98.913	0.415	54.5	300	7.07	44.7
Pipe25	SW2.05	SW1.06	7.474	0.600	98.913	98.784	0.129	57.9	300	7.19	44.4
Pipe26	SW3.01	SW3.02	13.732	0.600	98.803	98.721	0.082	167.5	225	5.33	50.0
Pipe27	SW3.02	SW1.05	4.239	0.600	98.721	98.695	0.026	163.0	225	5.42	49.9
Pipe28	SW6.01	SW1.10	9.892	0.600	98.566	98.507	0.059	167.7	225	5.28	50.0
Pipe29	SW5.01	SW1.09	9.973	0.600	98.543	98.483	0.060	166.2	225	5.28	50.0
Pipe30	SW4.02	SW4.03	14.516	0.600	97.359	97.323	0.036	403.2	450	6.43	46.5
Pipe31	SW4.03	SW4.04	37.559	0.600	97.248	97.154	0.094	399.6	525	8.09	42.1

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
Pipe1	1.013	71.6	27.0	1.191	1.628	0.201	0.0	127	0.943
Pipe2	1.006	71.1	32.6	1.628	1.685	0.255	0.0	143	0.986
Pipe3	1.166	128.8	32.1	1.685	1.606	0.255	0.0	127	0.974
Pipe3 (1)	1.162	128.4	33.3	1.606	1.255	0.275	0.0	130	0.982
Pipe4	4.661	1009.1	86.3	1.267	1.964	0.725	0.0	102	2.897
Pipe5	1.117	241.7	84.3	1.964	2.220	0.725	0.0	214	1.021
Pipe6	1.118	242.0	81.6	2.220	2.333	0.725	0.0	209	1.012
Pipe6 (1)	1.113	240.8	111.6	2.333	2.377	1.009	0.0	251	1.092
Pipe7	4.068	1150.3	210.4	2.629	3.253	1.917	0.0	173	3.136
Pipe8	1.105	239.3	208.8	3.328	3.159	1.917	0.0	382	1.238
Pipe11 (1)	1.120	242.5	206.2	3.159	1.236	1.917	0.0	374	1.251
Pipe11 (1) (1)	2.499	276.1	202.1	1.422	0.579	1.917	0.0	239	2.720
Pipe19 (1)	1.167	128.9	59.4	2.301	1.991	0.451	0.0	178	1.143
Pipe21	1.011	40.2	13.6	0.907	0.961	0.103	0.0	90	0.916
Pipe22	1.010	71.4	35.0	0.961	1.135	0.280	0.0	149	1.006
Pipe23	2.470	174.6	46.7	1.135	0.955	0.377	0.0	106	2.105
Pipe24	2.133	150.8	45.7	0.955	0.963	0.377	0.0	113	1.876
Pipe25	2.069	146.3	45.4	0.963	0.956	0.377	0.0	115	1.834
Pipe26	1.007	40.1	0.0	0.907	1.165	0.000	0.0	0	0.000
Pipe27	1.021	40.6	9.8	1.165	1.274	0.073	0.0	75	0.844
Pipe28	1.007	40.0	38.5	1.739	1.551	0.284	0.0	178	1.142
Pipe29	1.011	40.2	38.5	1.760	1.578	0.284	0.0	177	1.146
Pipe30	1.006	160.0	58.8	2.279	2.195	0.467	0.0	189	0.932
Pipe31	1.114	241.2	53.3	2.195	2.343	0.467	0.0	167	0.902

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)
Pipe32	SW4.04	FPI02	5.448	0.600	97.154	97.140	0.014	389.1	525	8.32	41.5
Pipe32 (1)	FPI02	SW1.10	5.600	0.600	97.065	97.054	0.011	509.1	600	8.57	41.0
Pipe43	SW1.05	FPI01	5.065	0.600	98.564	98.513	0.051	99.3	375	7.18	44.4
Pipe43 (1)	FPI01	SW1.06	4.444	0.600	98.513	98.469	0.044	101.0	375	7.23	44.2
2.000	Depth/Area 1	SW1.11	27.017	0.600	96.500	96.298	0.202	133.7	600	5.21	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
Pipe32	1.129	244.4	70.1	2.343	2.485	0.623	0.0	191	0.980
Pipe32 (1)	1.072	303.1	69.2	2.485	2.629	0.623	0.0	194	0.875
Pipe43	1.818	200.8	41.9	1.255	1.226	0.348	0.0	115	1.446
Pipe43 (1)	1.803	199.1	41.7	1.226	1.196	0.348	0.0	116	1.438
2.000	2.104	594.8	0.0	1.430	3.026	0.000	0.0	0	0.000

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)	240
Ratio-R	0.300	Additional Storage (m³/ha)	20.0
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	0	0	0
100	40	0	0

Node SW1.11 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	Pipe8	Sump Available	✓
Replaces Downstream Link	✓	Product Number	CTL-SHE-0108-6000-1500-6000
Invert Level (m)	96.071	Min Outlet Diameter (m)	0.150
Design Depth (m)	1.500	Min Node Diameter (mm)	1200
Design Flow (l/s)	6.0		

Node Depth/Area 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	96.500
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	
Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	776.2	0.0	1.500	1381.1	0.0

Results for 2 year Critical Storm Duration. Lowest mass balance: 92.39%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SW1.01	10	99.174	0.139	28.3	0.5337	0.0000	OK
15 minute winter	SW1.02	11	99.107	0.155	35.3	0.2617	0.0000	OK
15 minute winter	SW1.03	11	98.913	0.148	35.0	0.1669	0.0000	OK
15 minute winter	SW1.06	11	98.357	0.109	98.4	0.1922	0.0000	OK
15 minute winter	SW1.07	13	97.846	0.273	98.3	0.4817	0.0000	OK
15 minute winter	SW1.08	13	97.806	0.293	96.9	0.5175	0.0000	OK
15 minute winter	SW1.10	12	97.779	0.725	296.5	1.2817	0.0000	SURCHARGED
15 minute winter	SW1.11	12	97.704	1.633	349.7	2.8852	0.0000	SURCHARGED
15 minute winter	SW1.14	13	94.438	0.038	6.1	0.0000	0.0000	OK
15 minute winter	SW1.12	12	96.109	0.059	6.2	0.1036	0.0000	OK
15 minute winter	SW1.13	13	95.972	0.038	6.1	0.0678	0.0000	OK
15 minute winter	SW2.01	10	100.028	0.094	14.5	0.2783	0.0000	OK
15 minute winter	SW2.02	10	99.850	0.159	38.7	0.6255	0.0000	OK
15 minute winter	SW2.03	10	99.719	0.123	51.6	0.3061	0.0000	OK
15 minute winter	SW2.04	11	99.454	0.126	51.3	0.1421	0.0000	OK
15 minute winter	SW2.05	11	99.056	0.143	51.7	0.1621	0.0000	OK
15 minute winter	SW6.01	10	98.765	0.199	39.9	0.8004	0.0000	OK
15 minute winter	SW5.01	10	98.741	0.198	39.9	0.7909	0.0000	OK
15 minute summer	SW4.04	12	97.796	0.642	87.8	1.8336	0.0000	SURCHARGED
15 minute winter	SW4.03	12	97.794	0.546	63.0	0.9641	0.0000	SURCHARGED
15 minute summer	SW4.02	12	97.772	0.413	61.2	0.7796	0.0000	OK
15 minute winter	SW3.01	11	98.805	0.002	0.1	0.0022	0.0000	OK
15 minute winter	SW3.02	10	98.805	0.084	10.2	0.1820	0.0000	OK
15 minute winter	SW1.05	11	98.715	0.151	47.4	0.2157	0.0000	OK
15 minute winter	SW1.09	12	97.808	0.380	129.1	0.6706	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 winter	SW1.01	Pipe1	SW1.02	27.7	0.814	0.387	0.6750	89.1
15 minute winter	SW1.02	Pipe2	SW1.03	35.0	0.999	0.492	0.9496	
15 minute winter	SW1.03	Pipe3	SW1.04	35.1	0.887	0.272	0.4732	
15 minute winter	SW1.06	Pipe4	SW1.07	98.3	1.498	0.097	1.1109	
15 minute winter	SW1.07	Pipe5	SW1.08	96.9	0.941	0.401	2.8280	
15 minute winter	SW1.08	Pipe6	SW1.09	100.3	0.888	0.415	4.6951	
15 minute winter	SW1.10	Pipe7	SW1.11	349.7	1.368	0.304	9.9612	
15 minute winter	SW1.11	Hydro-Brake®	SW1.12	6.2				
15 minute winter	SW1.12	Pipe11 (1)	SW1.13	6.1	0.520	0.025	0.3700	
15 minute winter	SW1.13	Pipe11 (1) (1)	SW1.14	6.1	1.033	0.022	0.4749	
15 minute winter	SW2.01	Pipe21	SW2.02	14.0	0.914	0.349	0.4280	
15 minute winter	SW2.02	Pipe22	SW2.03	37.9	1.174	0.532	0.7436	
15 minute winter	SW2.03	Pipe23	SW2.04	51.3	1.860	0.294	0.3011	
15 minute winter	SW2.04	Pipe24	SW2.05	51.7	1.689	0.343	0.6924	
15 minute winter	SW2.05	Pipe25	SW1.06	51.9	1.726	0.355	0.2249	
15 minute winter	SW6.01	Pipe28	SW1.10	38.8	1.130	0.970	0.3383	
15 minute winter	SW5.01	Pipe29	SW1.09	38.8	1.131	0.965	0.3405	
15 minute summer	SW4.04	Pipe32	FPI02	127.3	1.040	0.521	1.1769	
15 minute winter	SW4.03	Pipe31	SW4.04	88.3	0.749	0.366	8.1140	
15 minute summer	SW4.02	Pipe30	SW4.03	60.4	0.995	0.378	2.2018	
15 minute winter	SW3.01	Pipe26	SW3.02	-0.1	-0.013	-0.002	0.0921	
15 minute winter	SW3.02	Pipe27	SW1.05	10.0	0.796	0.245	0.0530	
15 minute winter	SW1.05	Pipe43	FPI01	46.8	1.162	0.233	0.2039	
15 minute winter	SW1.09	Pipe6 (1)	SW1.10	142.2	1.207	0.591	3.2287	

Results for 2 year Critical Storm Duration. Lowest mass balance: 92.39%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SW4.01	10	98.015	0.195	63.3	0.9362	0.0000	OK
15 minute winter	SW1.04	11	98.859	0.144	37.8	0.1919	0.0000	OK
15 minute winter	FPI02	12	97.778	0.713	128.5	1.2606	0.0000	SURCHARGED
15 minute winter	FPI01	11	98.658	0.145	46.8	0.2068	0.0000	OK
480 minute winter	Depth/Area 1	464	96.838	0.338	33.3	285.7802	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 winter	SW4.01	Pipe19 (1)	SW4.02	61.7	1.129	0.479	1.2888	
15 minute winter	SW1.04	Pipe3 (1)	SW1.05	37.6	0.938	0.293	1.4596	
15 minute winter	FPI02	Pipe32 (1)	SW1.10	146.7	1.119	0.484	1.5774	
15 minute winter	FPI01	Pipe43 (1)	SW1.06	46.5	1.333	0.234	0.1556	
480 minute winter	Depth/Area 1	2.000	SW1.11	-33.3	-0.311	-0.056	5.8148	

Results for 30 year Critical Storm Duration. Lowest mass balance: 92.39%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SW1.01	10	99.253	0.218	53.2	0.8335	0.0000	OK
15 minute winter	SW1.02	11	99.190	0.238	65.9	0.4015	0.0000	OK
15 minute winter	SW1.03	11	98.983	0.218	65.4	0.2466	0.0000	OK
15 minute winter	SW1.06	12	98.736	0.488	184.7	0.8626	0.0000	OK
15 minute winter	SW1.07	11	98.735	1.162	189.2	2.0540	0.0000	SURCHARGED
15 minute winter	SW1.08	11	98.665	1.152	234.9	2.0356	0.0000	SURCHARGED
15 minute winter	SW1.10	11	98.518	1.464	570.1	2.5869	0.0000	SURCHARGED
15 minute winter	SW1.11	11	98.331	2.260	584.1	3.9928	0.0000	SURCHARGED
15 minute winter	SW1.14	12	94.441	0.041	7.0	0.0000	0.0000	OK
15 minute summer	SW1.12	12	96.113	0.063	7.1	0.1107	0.0000	OK
15 minute winter	SW1.13	12	95.975	0.041	7.0	0.0727	0.0000	OK
15 minute winter	SW2.01	10	100.073	0.139	27.2	0.4092	0.0000	OK
15 minute winter	SW2.02	10	99.936	0.245	73.4	0.9618	0.0000	OK
15 minute winter	SW2.03	11	99.783	0.187	96.5	0.4653	0.0000	OK
15 minute winter	SW2.04	11	99.518	0.190	96.8	0.2152	0.0000	OK
15 minute winter	SW2.05	11	99.131	0.218	97.2	0.2469	0.0000	OK
15 minute winter	SW6.01	10	99.002	0.436	75.1	1.7533	0.0000	SURCHARGED
15 minute winter	SW5.01	10	98.978	0.435	74.9	1.7345	0.0000	SURCHARGED
15 minute winter	SW4.04	11	98.549	1.395	167.9	3.9851	0.0000	SURCHARGED
15 minute winter	SW4.03	11	98.638	1.390	128.9	2.4570	0.0000	SURCHARGED
15 minute winter	SW4.02	11	98.659	1.300	131.9	2.4520	0.0000	SURCHARGED
15 minute winter	SW3.01	12	98.845	0.042	0.7	0.0472	0.0000	OK
15 minute winter	SW3.02	12	98.844	0.123	19.2	0.2678	0.0000	OK
15 minute winter	SW1.05	12	98.825	0.261	89.2	0.3741	0.0000	OK
15 minute winter	SW1.09	11	98.578	1.150	303.6	2.0315	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 winter	SW1.01	Pipe1	SW1.02	51.7	0.911	0.722	1.1314	
15 minute winter	SW1.02	Pipe2	SW1.03	65.4	1.189	0.919	1.4846	
15 minute winter	SW1.03	Pipe3	SW1.04	65.5	1.009	0.508	0.7767	
15 minute winter	SW1.06	Pipe4	SW1.07	189.2	1.639	0.188	3.3342	
15 minute winter	SW1.07	Pipe5	SW1.08	234.9	1.087	0.972	5.1558	
15 minute winter	SW1.08	Pipe6	SW1.09	253.1	1.172	1.046	7.2909	
15 minute winter	SW1.10	Pipe7	SW1.11	584.1	2.074	0.508	9.9612	
15 minute winter	SW1.11	Hydro-Brake®	SW1.12	7.2				
15 minute summer	SW1.12	Pipe11 (1)	SW1.13	7.0	0.545	0.029	0.4092	
15 minute winter	SW1.13	Pipe11 (1) (1)	SW1.14	7.0	1.078	0.025	0.5242	88.2
15 minute winter	SW2.01	Pipe21	SW2.02	26.8	0.960	0.666	0.8062	
15 minute winter	SW2.02	Pipe22	SW2.03	72.0	1.330	1.008	1.2284	
15 minute winter	SW2.03	Pipe23	SW2.04	96.8	2.075	0.554	0.5095	
15 minute winter	SW2.04	Pipe24	SW2.05	97.2	1.903	0.645	1.1549	
15 minute winter	SW2.05	Pipe25	SW1.06	97.4	1.980	0.666	0.3667	
15 minute winter	SW6.01	Pipe28	SW1.10	72.4	1.821	1.809	0.3879	
15 minute winter	SW5.01	Pipe29	SW1.09	72.2	1.816	1.796	0.3910	
15 minute winter	SW4.04	Pipe32	FPI02	193.4	1.203	0.791	1.1769	
15 minute winter	SW4.03	Pipe31	SW4.04	141.0	0.834	0.585	8.1140	
15 minute winter	SW4.02	Pipe30	SW4.03	128.9	1.067	0.805	2.3000	
15 minute winter	SW3.01	Pipe26	SW3.02	0.9	0.107	0.024	0.1870	
15 minute winter	SW3.02	Pipe27	SW1.05	18.7	0.936	0.460	0.0976	
15 minute winter	SW1.05	Pipe43	FPI01	88.1	1.309	0.439	0.4244	
15 minute winter	SW1.09	Pipe6 (1)	SW1.10	318.2	1.531	1.321	4.0681	

Results for 30 year Critical Storm Duration. Lowest mass balance: 92.39%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SW4.01	11	98.701	0.881	119.0	4.2274	0.0000	SURCHARGED
15 minute winter	SW1.04	11	98.925	0.210	70.6	0.2800	0.0000	OK
15 minute winter	FPI02	11	98.529	1.464	193.4	2.5874	0.0000	SURCHARGED
15 minute winter	FPI01	12	98.785	0.272	88.1	0.3889	0.0000	OK
960 minute winter	Depth/Area 1	930	97.231	0.731	38.0	676.3580	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 winter	SW4.01	Pipe19 (1)	SW4.02	116.9	1.292	0.907	2.5858	
15 minute winter	SW1.04	Pipe3 (1)	SW1.05	70.6	1.045	0.550	2.5903	
15 minute winter	FPI02	Pipe32 (1)	SW1.10	212.6	1.291	0.701	1.5774	
15 minute winter	FPI01	Pipe43 (1)	SW1.06	92.9	1.537	0.467	0.3768	
960 minute winter	Depth/Area 1	2.000	SW1.11	-38.0	-0.207	-0.064	7.6101	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 92.39%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SW1.01	12	100.423	1.388	95.6	5.3185	0.0000	FLOOD RISK
15 minute winter	SW1.02	12	100.296	1.344	102.7	2.2704	0.0000	SURCHARGED
15 minute winter	SW1.03	12	100.033	1.267	97.0	1.4335	0.0000	SURCHARGED
15 minute winter	SW1.06	11	99.730	1.482	326.6	2.6192	0.0000	SURCHARGED
15 minute winter	SW1.07	11	99.661	2.088	340.2	3.6898	0.0000	SURCHARGED
15 minute winter	SW1.08	11	99.571	2.058	356.2	3.6360	0.0000	SURCHARGED
15 minute winter	SW1.10	10	99.282	2.228	865.4	3.9376	0.0000	SURCHARGED
15 minute winter	SW1.11	10	98.876	2.805	878.7	4.9563	0.0000	SURCHARGED
15 minute winter	SW1.14	11	94.443	0.043	7.8	0.0000	0.0000	OK
15 minute winter	SW1.12	11	96.116	0.066	8.0	0.1164	0.0000	OK
15 minute winter	SW1.13	11	95.977	0.043	7.9	0.0766	0.0000	OK
15 minute winter	SW2.01	12	101.030	1.096	48.9	3.2360	0.0000	FLOOD RISK
15 minute winter	SW2.02	12	100.872	1.181	116.9	4.6445	0.0000	FLOOD RISK
15 minute winter	SW2.03	12	100.633	1.037	146.3	2.5780	0.0000	SURCHARGED
15 minute winter	SW2.04	12	100.373	1.045	141.4	1.1815	0.0000	FLOOD RISK
15 minute winter	SW2.05	12	99.929	1.016	145.6	1.1491	0.0000	FLOOD RISK
15 minute winter	SW6.01	11	100.131	1.565	135.0	6.3021	0.0000	SURCHARGED
15 minute winter	SW5.01	11	100.248	1.705	134.8	6.8048	0.0000	FLOOD RISK
15 minute winter	SW4.04	11	99.388	2.234	287.6	6.3836	0.0000	SURCHARGED
15 minute winter	SW4.03	11	99.498	2.250	217.4	3.9758	0.0000	SURCHARGED
15 minute winter	SW4.02	11	99.613	2.254	212.5	4.2516	0.0000	SURCHARGED
15 minute winter	SW3.01	12	99.881	1.078	32.0	1.2194	0.0000	FLOOD RISK
15 minute winter	SW3.02	12	99.879	1.158	40.9	2.5230	0.0000	FLOOD RISK
15 minute winter	SW1.05	12	99.847	1.283	151.9	1.8366	0.0000	SURCHARGED
15 minute winter	SW1.09	11	99.453	2.025	456.8	3.5780	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 winter	SW1.01	Pipe1	SW1.02	78.6	1.116	1.098	1.3966	81.9
15 minute winter	SW1.02	Pipe2	SW1.03	97.0	1.380	1.364	1.9074	
15 minute winter	SW1.03	Pipe3	SW1.04	102.1	1.034	0.792	1.3204	
15 minute winter	SW1.06	Pipe4	SW1.07	340.2	1.711	0.337	3.3865	
15 minute winter	SW1.07	Pipe5	SW1.08	356.2	1.649	1.473	5.1558	
15 minute winter	SW1.08	Pipe6	SW1.09	369.1	1.708	1.525	7.2909	
15 minute winter	SW1.10	Pipe7	SW1.11	878.7	3.120	0.764	9.9612	
15 minute winter	SW1.11	Hydro-Brake®	SW1.12	8.0				
15 minute winter	SW1.12	Pipe11 (1)	SW1.13	7.9	0.563	0.032	0.4420	
15 minute winter	SW1.13	Pipe11 (1) (1)	SW1.14	7.8	1.115	0.028	0.5675	
15 minute winter	SW2.01	Pipe21	SW2.02	40.1	1.007	0.996	1.1099	81.9
15 minute winter	SW2.02	Pipe22	SW2.03	102.9	1.462	1.442	1.6077	
15 minute winter	SW2.03	Pipe23	SW2.04	141.4	2.108	0.810	0.7690	
15 minute winter	SW2.04	Pipe24	SW2.05	145.6	2.067	0.965	1.5939	
15 minute winter	SW2.05	Pipe25	SW1.06	153.8	2.184	1.051	0.5263	
15 minute winter	SW6.01	Pipe28	SW1.10	129.1	3.247	3.226	0.3934	
15 minute winter	SW5.01	Pipe29	SW1.09	124.2	3.123	3.089	0.3966	
15 minute winter	SW4.04	Pipe32	FPI02	300.6	1.392	1.230	1.1769	
15 minute winter	SW4.03	Pipe31	SW4.04	227.4	1.053	0.943	8.1140	
15 minute winter	SW4.02	Pipe30	SW4.03	217.4	1.373	1.359	2.3000	
15 minute winter	SW3.01	Pipe26	SW3.02	-32.0	-0.855	-0.798	0.5461	81.9
15 minute winter	SW3.02	Pipe27	SW1.05	37.3	0.983	0.920	0.1686	
15 minute winter	SW1.05	Pipe43	FPI01	162.3	1.519	0.808	0.5587	
15 minute winter	SW1.09	Pipe6 (1)	SW1.10	472.6	2.188	1.962	4.0681	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 92.39%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SW4.01	11	99.958	2.138	214.1	10.2646	0.0000	SURCHARGED
15 minute winter	SW1.04	12	99.982	1.267	107.6	1.6928	0.0000	SURCHARGED
15 minute winter	FPI02	11	99.320	2.255	300.6	3.9850	0.0000	SURCHARGED
15 minute winter	FPI01	12	99.781	1.268	162.3	1.8143	0.0000	SURCHARGED
960 minute winter	Depth/Area 1	915	97.785	1.285	71.2	1333.1090	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 winter	SW4.01	Pipe19 (1)	SW4.02	205.3	1.861	1.593	2.5858	
15 minute winter	SW1.04	Pipe3 (1)	SW1.05	114.5	1.092	0.892	4.0140	
15 minute winter	FPI02	Pipe32 (1)	SW1.10	310.2	1.101	1.023	1.5774	
15 minute winter	FPI01	Pipe43 (1)	SW1.06	172.9	1.812	0.868	0.4902	
960 minute winter	Depth/Area 1	2.000	SW1.11	-71.2	-0.253	-0.120	7.6101	