

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.590	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	4.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S58	0.071	4.00	162.474	1350	448637.514	309590.577	1.857
S59	0.033	4.00	162.504	1350	448645.062	309558.845	2.079
S60	0.074	4.00	162.272	1350	448645.354	309548.203	1.910
S61	0.028	4.00	161.900	1350	448630.032	309539.285	2.138
S62	0.028	4.00	161.664	1350	448622.928	309531.196	2.979
S63	0.029	4.00	159.357	1500	448573.149	309529.335	1.725
S63A	0.145	4.00	159.975	1500	448585.457	309525.740	2.375
S64A	0.000		160.549	1500	448600.319	309520.912	4.256
S64	0.012	4.00	160.559	1500	448602.102	309512.744	4.287
S65	0.034	4.00	161.265	1500	448616.020	309508.506	5.029
S66	0.224	4.00	161.921	1500	448644.806	309499.743	5.760
S67	0.034	4.00	162.125	1500	448658.604	309495.542	6.000
S68	0.000	4.00	162.118	1500	448699.998	309480.755	6.103
S69	0.138	4.00	161.277	1500	448729.897	309464.434	5.493
S70	0.000	4.00	160.164	1500	448752.186	309453.204	4.442
S71	0.092	4.00	159.616	1500	448762.667	309446.563	3.925
S72	0.012	4.00	159.326	1500	448770.589	309442.556	3.657
S73	0.056	4.00	162.883	1350	448684.704	309516.693	1.425
S74	0.000	4.00	163.181	1350	448690.936	309524.292	1.781
S75	0.095	4.00	163.440	1350	448701.970	309528.314	2.184
S76	0.010	4.00	163.470	1350	448708.887	309527.562	2.242
S77	0.111	4.00	162.977	1350	448723.318	309522.594	1.812
S78	0.053	4.00	161.336	1350	448762.235	309510.207	1.729
S79	0.053	4.00	161.165	1350	448789.705	309547.008	2.406
S80	0.138	4.00	161.047	1350	448791.605	309541.011	2.992
S81	0.022	4.00	161.085	1350	448787.314	309535.707	3.058
S82	0.027	4.00	160.728	1350	448778.652	309505.500	2.829
S83	0.000	4.00	160.102	1350	448793.715	309499.933	2.252
S84	0.090	4.00	159.763	1350	448799.159	309491.582	2.019
S85	0.026	4.00	159.559	1350	448799.410	309484.984	1.831
S86	0.095	4.00	159.099	1350	448792.131	309459.600	1.702
S87	0.000	4.00	159.072	1350	448789.894	309451.798	2.487
S88	0.000	4.00	158.851	1500	448789.966	309442.885	3.232
S89	0.045	4.00	158.482	1500	448793.781	309435.324	2.884
S90	0.062	4.00	158.054	1500	448800.197	309430.568	2.551
S91	0.038	4.00	158.002	1500	448783.401	309398.356	2.562
S92	0.027	4.00	157.432	1500	448782.234	309377.036	2.029
S93	0.050	4.00	157.200	1500	448777.555	309366.817	1.816
S94	0.162	4.00	156.904	1500	448768.779	309356.410	2.677
S95	0.007	4.00	156.439	1500	448758.815	309334.562	2.253
S96	0.084	4.00	156.060	1500	448745.202	309323.854	1.904

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)
7.005	S65	S66	30.090	0.600	156.236	156.161	0.075	401.2	525	5.44	50.0
7.006	S66	S67	14.424	0.600	156.161	156.125	0.036	400.7	525	5.65	50.0
7.007	S67	S68	43.956	0.600	156.125	156.015	0.110	399.6	525	6.31	50.0
7.008	S68	S69	34.063	0.600	156.015	155.784	0.231	147.5	525	6.62	50.0
7.009	S69	S70	24.959	0.600	155.784	155.722	0.062	402.6	525	6.99	50.0
7.010	S70	S71	12.407	0.600	155.722	155.691	0.031	400.2	525	7.18	50.0
7.011	S71	S72	8.878	0.600	155.691	155.669	0.022	403.5	525	7.31	50.0
7.012	S72	S88	19.380	0.600	155.669	155.619	0.050	387.6	525	7.60	50.0
9.000	S73	S74	9.828	0.600	161.458	161.400	0.058	169.4	225	4.16	50.0
9.001	S74	S75	11.743	0.600	161.400	161.331	0.069	170.2	225	4.36	50.0
9.002	S75	S76	6.958	0.600	161.256	161.228	0.028	248.5	300	4.48	50.0
9.003	S76	S77	15.262	0.600	161.228	161.166	0.062	246.2	300	4.73	50.0
9.004	S77	S78	40.840	0.600	161.165	159.607	1.558	26.2	300	4.95	50.0
9.005	S78	S82	17.079	0.600	159.607	157.899	1.708	10.0	300	5.01	50.0
10.000	S79	S80	6.291	0.600	158.759	158.130	0.629	10.0	225	4.03	50.0
10.001	S80	S81	6.822	0.600	158.055	158.027	0.028	243.6	300	4.14	50.0
10.002	S81	S82	31.425	0.600	158.027	157.899	0.128	245.5	300	4.66	50.0
9.006	S82	S83	16.059	0.600	157.899	157.850	0.049	327.7	375	5.28	50.0
9.007	S83	S84	9.968	0.600	157.850	157.819	0.031	321.5	375	5.44	50.0
9.008	S84	S85	6.602	0.600	157.744	157.728	0.016	412.6	450	5.55	50.0
9.009	S85	S86	26.407	0.600	157.728	157.397	0.331	79.8	450	5.75	50.0
9.010	S86	S87	8.116	0.600	157.397	156.585	0.812	10.0	450	5.77	50.0
9.011	S87	S88	8.913	0.600	156.585	155.694	0.891	10.0	450	5.79	50.0
7.013	S88	S89	8.469	0.600	155.619	155.598	0.021	403.3	525	7.73	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)
7.005	1.112	240.7	61.5	4.504	5.235	0.454	0.0
7.006	1.113	240.8	91.9	5.235	5.475	0.678	0.0
7.007	1.114	241.2	96.5	5.475	5.578	0.712	0.0
7.008	1.842	398.8	96.5	5.578	4.968	0.712	0.0
7.009	1.110	240.3	115.2	4.968	3.917	0.850	0.0
7.010	1.113	241.0	115.2	3.917	3.400	0.850	0.0
7.011	1.109	240.0	127.7	3.400	3.132	0.942	0.0
7.012	1.131	244.9	129.3	3.132	2.707	0.954	0.0
9.000	1.001	39.8	7.6	1.200	1.556	0.056	0.0
9.001	0.999	39.7	7.6	1.556	1.884	0.056	0.0
9.002	0.993	70.2	20.5	1.884	1.942	0.151	0.0
9.003	0.997	70.5	21.8	1.942	1.511	0.161	0.0
9.004	3.083	217.9	36.9	1.512	1.429	0.272	0.0
9.005	4.999	353.4	44.0	1.429	2.529	0.325	0.0
10.000	4.161	165.4	7.2	2.181	2.692	0.053	0.0
10.001	1.003	70.9	25.9	2.692	2.758	0.191	0.0
10.002	0.999	70.6	28.9	2.758	2.529	0.213	0.0
9.006	0.995	109.9	76.6	2.454	1.877	0.565	0.0
9.007	1.005	111.0	76.6	1.877	1.569	0.565	0.0
9.008	0.994	158.1	88.8	1.569	1.381	0.655	0.0
9.009	2.277	362.2	92.3	1.381	1.252	0.681	0.0
9.010	6.458	1027.1	105.2	1.252	2.037	0.776	0.0
9.011	6.455	1026.7	105.2	2.037	2.707	0.776	0.0
7.013	1.109	240.1	234.5	2.707	2.359	1.730	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)
7.014	S89	S90	7.987	0.600	155.598	155.578	0.020	399.4	525	7.84	50.0
7.015	S90	S91	36.328	0.600	155.503	155.440	0.063	576.6	600	8.45	50.0
7.016	S91	S92	21.352	0.600	155.440	155.403	0.037	577.1	600	8.80	50.0
7.017	S92	S93	11.240	0.600	155.403	155.384	0.019	591.6	600	8.99	50.0
7.018	S93	S94	13.613	0.600	155.384	154.227	1.157	11.8	600	9.02	50.0
7.019	S94	S95	24.013	0.600	154.227	154.186	0.041	585.7	600	9.42	50.0
7.020	S95	S96	17.319	0.600	154.186	154.156	0.030	577.3	600	9.71	50.0
7.021	S96	S101	9.370	0.600	154.156	153.701	0.455	20.6	600	9.74	50.0
11.000	S97	S98	15.401	0.600	156.069	155.978	0.091	169.2	225	4.26	50.0
11.001	S98	S99	22.379	0.600	155.978	155.281	0.697	32.1	225	4.42	50.0
11.002	S99	S100	15.907	0.600	155.281	154.626	0.655	24.3	225	4.52	50.0
11.003	S100	S101	11.357	0.600	154.626	154.076	0.550	20.6	225	4.58	50.0
7.022	S101	S102	19.399	0.600	153.626	153.546	0.080	242.5	675	9.93	50.0
7.023	S102	S103	12.253	0.600	153.546	153.290	0.256	47.9	675	9.98	50.0
7.024	S103	S104	14.137	0.600	153.290	152.623	0.667	21.2	675	10.02	50.0
7.025	S104	S105	12.925	0.600	152.623	152.016	0.607	21.3	675	10.06	50.0
7.026	S105	S106	11.825	0.600	152.016	151.434	0.582	20.3	675	10.10	50.0
7.027	S106	S107	25.454	0.600	151.434	150.770	0.664	38.3	675	10.20	50.0
7.028	S107	S108	21.700	0.600	150.695	150.666	0.029	748.3	750	10.55	50.0
7.029	S108	HW9	14.033	0.600	150.516	150.500	0.016	877.1	900	10.78	49.8
6.000	S50	S51	11.369	0.600	155.185	154.886	0.299	38.0	225	4.09	50.0
6.001	S51	S52	17.535	0.600	154.886	154.514	0.372	47.1	225	4.24	50.0
6.002	S52	S53	10.929	0.600	154.514	154.069	0.445	24.6	225	4.31	50.0
6.003	S53	S54	17.693	0.600	153.994	153.313	0.681	26.0	300	4.41	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)
7.014	1.114	241.2	240.6	2.359	1.951	1.775	0.0
7.015	1.007	284.6	249.0	1.951	1.962	1.837	0.0
7.016	1.006	284.5	254.1	1.962	1.429	1.875	0.0
7.017	0.994	281.0	257.8	1.429	1.216	1.902	0.0
7.018	7.124	2014.2	264.5	1.216	2.077	1.952	0.0
7.019	0.999	282.4	286.5	2.077	1.653	2.114	0.0
7.020	1.006	284.5	287.4	1.653	1.304	2.121	0.0
7.021	5.381	1521.5	298.8	1.304	1.550	2.205	0.0
11.000	1.002	39.8	14.1	2.237	1.751	0.104	0.0
11.001	2.317	92.1	16.8	1.751	1.336	0.124	0.0
11.002	2.666	106.0	24.1	1.336	1.200	0.178	0.0
11.003	2.892	115.0	29.1	1.200	1.550	0.215	0.0
7.022	1.678	600.6	330.3	1.550	1.200	2.437	0.0
7.023	3.794	1357.6	336.2	1.200	1.200	2.481	0.0
7.024	5.708	2042.5	342.7	1.200	1.198	2.529	0.0
7.025	5.694	2037.7	342.7	1.198	1.196	2.529	0.0
7.026	5.830	2086.2	348.0	1.196	1.199	2.568	0.0
7.027	4.241	1517.5	356.2	1.199	0.910	2.628	0.0
7.028	1.015	448.4	361.0	0.910	1.190	2.664	0.0
7.029	1.050	667.7	371.8	1.190	0.900	2.756	0.0
6.000	2.128	84.6	17.8	1.200	1.200	0.131	0.0
6.001	1.910	75.9	20.7	1.200	1.200	0.153	0.0
6.002	2.651	105.4	20.7	1.200	0.981	0.153	0.0
6.003	3.096	218.9	25.7	0.981	1.200	0.190	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)
6.004	S54	S55	17.168	0.600	153.313	152.970	0.343	50.1	300	4.53	50.0
6.005	S55	S56	19.845	0.600	152.970	152.654	0.316	62.8	300	4.70	50.0
6.006	S56	S57	37.223	0.600	152.654	151.257	1.397	26.6	300	4.90	50.0
6.007	S57	HW8	7.574	0.600	151.257	150.500	0.757	10.0	300	4.93	50.0
6.008	HW10	S109	7.671	0.600	150.500	150.448	0.052	147.5	450	4.08	50.0
6.009	S109	HW11	20.959	0.600	150.448	150.325	0.123	170.4	225	4.43	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)
6.004	2.227	157.4	27.6	1.200	1.200	0.204	0.0
6.005	1.987	140.4	32.8	1.200	1.200	0.242	0.0
6.006	3.057	216.1	39.3	1.200	1.237	0.290	0.0
6.007	4.998	353.3	39.3	1.237	1.500	0.290	0.0
6.008	1.671	265.8	0.0	1.350	1.136	0.000	0.0
6.009	0.998	39.7	0.0	1.361	0.370	0.000	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)
7.000	32.618	169.9	225	1	162.474	160.617	1.632	162.504	160.425	1.854
7.001	10.645	169.0	225	1	162.504	160.425	1.854	162.272	160.362	1.685
7.002	17.728	29.5	225	1	162.272	160.362	1.685	161.900	159.762	1.913
7.003	10.766	10.0	225	1	161.900	159.762	1.913	161.664	158.685	2.754
7.004	23.717	11.0	225	1	161.664	158.685	2.754	161.265	156.535	4.505
8.000	12.823	400.7	525	1	159.357	157.632	1.200	159.975	157.600	1.850
8.001	15.626	12.0	525	1	159.975	157.600	1.850	160.549	156.293	3.731
8.002	8.361	398.1	525	1	160.549	156.293	3.731	160.559	156.272	3.762
8.003	14.548	404.1	525	1	160.559	156.272	3.762	161.265	156.236	4.504
7.005	30.090	401.2	525	1	161.265	156.236	4.504	161.921	156.161	5.235
7.006	14.424	400.7	525	1	161.921	156.161	5.235	162.125	156.125	5.475
7.007	43.956	399.6	525	1	162.125	156.125	5.475	162.118	156.015	5.578
7.008	34.063	147.5	525	1	162.118	156.015	5.578	161.277	155.784	4.968
7.009	24.959	402.6	525	1	161.277	155.784	4.968	160.164	155.722	3.917

Link	US Node	Dia (mm)	Node Type	DS Node	Dia (mm)	Node Type
7.000	S58	1350	Manhole	S59	1350	Manhole
7.001	S59	1350	Manhole	S60	1350	Manhole
7.002	S60	1350	Manhole	S61	1350	Manhole
7.003	S61	1350	Manhole	S62	1350	Manhole
7.004	S62	1350	Manhole	S65	1500	Manhole
8.000	S63	1500	Manhole	S63A	1500	Manhole
8.001	S63A	1500	Manhole	S64A	1500	Manhole
8.002	S64A	1500	Manhole	S64	1500	Manhole
8.003	S64	1500	Manhole	S65	1500	Manhole
7.005	S65	1500	Manhole	S66	1500	Manhole
7.006	S66	1500	Manhole	S67	1500	Manhole
7.007	S67	1500	Manhole	S68	1500	Manhole
7.008	S68	1500	Manhole	S69	1500	Manhole
7.009	S69	1500	Manhole	S70	1500	Manhole

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)
7.010	12.407	400.2	525	1	160.164	155.722	3.917	159.616	155.691	3.400
7.011	8.878	403.5	525	1	159.616	155.691	3.400	159.326	155.669	3.132
7.012	19.380	387.6	525	1	159.326	155.669	3.132	158.851	155.619	2.707
9.000	9.828	169.4	225	1	162.883	161.458	1.200	163.181	161.400	1.556
9.001	11.743	170.2	225	1	163.181	161.400	1.556	163.440	161.331	1.884
9.002	6.958	248.5	300	1	163.440	161.256	1.884	163.470	161.228	1.942
9.003	15.262	246.2	300	1	163.470	161.228	1.942	162.977	161.166	1.511
9.004	40.840	26.2	300	1	162.977	161.165	1.512	161.336	159.607	1.429
9.005	17.079	10.0	300	1	161.336	159.607	1.429	160.728	157.899	2.529
10.000	6.291	10.0	225	1	161.165	158.759	2.181	161.047	158.130	2.692
10.001	6.822	243.6	300	1	161.047	158.055	2.692	161.085	158.027	2.758
10.002	31.425	245.5	300	1	161.085	158.027	2.758	160.728	157.899	2.529
9.006	16.059	327.7	375	1	160.728	157.899	2.454	160.102	157.850	1.877
9.007	9.968	321.5	375	1	160.102	157.850	1.877	159.763	157.819	1.569
9.008	6.602	412.6	450	1	159.763	157.744	1.569	159.559	157.728	1.381
9.009	26.407	79.8	450	1	159.559	157.728	1.381	159.099	157.397	1.252
9.010	8.116	10.0	450	1	159.099	157.397	1.252	159.072	156.585	2.037
9.011	8.913	10.0	450	1	159.072	156.585	2.037	158.851	155.694	2.707
7.013	8.469	403.3	525	1	158.851	155.619	2.707	158.482	155.598	2.359
7.014	7.987	399.4	525	1	158.482	155.598	2.359	158.054	155.578	1.951
7.015	36.328	576.6	600	1	158.054	155.503	1.951	158.002	155.440	1.962
7.016	21.352	577.1	600	1	158.002	155.440	1.962	157.432	155.403	1.429
7.017	11.240	591.6	600	1	157.432	155.403	1.429	157.200	155.384	1.216
7.018	13.613	11.8	600	1	157.200	155.384	1.216	156.904	154.227	2.077
7.019	24.013	585.7	600	1	156.904	154.227	2.077	156.439	154.186	1.653

Link	US Node	Dia (mm)	Node Type	DS Node	Dia (mm)	Node Type
7.010	S70	1500	Manhole	S71	1500	Manhole
7.011	S71	1500	Manhole	S72	1500	Manhole
7.012	S72	1500	Manhole	S88	1500	Manhole
9.000	S73	1350	Manhole	S74	1350	Manhole
9.001	S74	1350	Manhole	S75	1350	Manhole
9.002	S75	1350	Manhole	S76	1350	Manhole
9.003	S76	1350	Manhole	S77	1350	Manhole
9.004	S77	1350	Manhole	S78	1350	Manhole
9.005	S78	1350	Manhole	S82	1350	Manhole
10.000	S79	1350	Manhole	S80	1350	Manhole
10.001	S80	1350	Manhole	S81	1350	Manhole
10.002	S81	1350	Manhole	S82	1350	Manhole
9.006	S82	1350	Manhole	S83	1350	Manhole
9.007	S83	1350	Manhole	S84	1350	Manhole
9.008	S84	1350	Manhole	S85	1350	Manhole
9.009	S85	1350	Manhole	S86	1350	Manhole
9.010	S86	1350	Manhole	S87	1350	Manhole
9.011	S87	1350	Manhole	S88	1500	Manhole
7.013	S88	1500	Manhole	S89	1500	Manhole
7.014	S89	1500	Manhole	S90	1500	Manhole
7.015	S90	1500	Manhole	S91	1500	Manhole
7.016	S91	1500	Manhole	S92	1500	Manhole
7.017	S92	1500	Manhole	S93	1500	Manhole
7.018	S93	1500	Manhole	S94	1500	Manhole
7.019	S94	1500	Manhole	S95	1500	Manhole

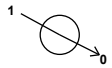
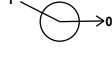
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
7.020	17.319	577.3	600	1	156.439	154.186	1.653	156.060	154.156	1.304
7.021	9.370	20.6	600	1	156.060	154.156	1.304	155.851	153.701	1.550
11.000	15.401	169.2	225	1	158.531	156.069	2.237	157.954	155.978	1.75
11.001	22.379	32.1	225	1	157.954	155.978	1.751	156.842	155.281	1.336
11.002	15.907	24.3	225	1	156.842	155.281	1.336	156.051	154.626	1.200
11.003	11.357	20.6	225	1	156.051	154.626	1.200	155.851	154.076	1.550
7.022	19.399	242.5	675	1	155.851	153.626	1.550	155.421	153.546	1.200
7.023	12.253	47.9	675	1	155.421	153.546	1.200	155.165	153.290	1.200
7.024	14.137	21.2	675	1	155.165	153.290	1.200	154.496	152.623	1.198
7.025	12.925	21.3	675	1	154.496	152.623	1.198	153.887	152.016	1.196
7.026	11.825	20.3	675	1	153.887	152.016	1.196	153.308	151.434	1.199
7.027	25.454	38.3	675	1	153.308	151.434	1.199	152.355	150.770	0.910
7.028	21.700	748.3	750	1	152.355	150.695	0.910	152.606	150.666	1.190
7.029	14.033	877.1	900	1	152.606	150.516	1.190	152.300	150.500	0.900
6.000	11.369	38.0	225	1	156.610	155.185	1.200	156.311	154.886	1.200
6.001	17.535	47.1	225	1	156.311	154.886	1.200	155.939	154.514	1.200
6.002	10.929	24.6	225	1	155.939	154.514	1.200	155.275	154.069	0.981
6.003	17.693	26.0	300	1	155.275	153.994	0.981	154.813	153.313	1.200
6.004	17.168	50.1	300	1	154.813	153.313	1.200	154.470	152.970	1.200
6.005	19.845	62.8	300	1	154.470	152.970	1.200	154.154	152.654	1.200
6.006	37.223	26.6	300	1	154.154	152.654	1.200	152.794	151.257	1.237
6.007	7.574	10.0	300	1	152.794	151.257	1.237	152.300	150.500	1.500
6.008	7.671	147.5	450	1	152.300	150.500	1.350	152.034	150.448	1.136
6.009	20.959	170.4	225	1	152.034	150.448	1.361	150.920	150.325	0.370

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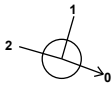
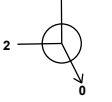
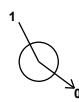
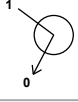
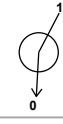
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
S58	448637.514	309590.577	162.474	1.857	1350	1		0	7.000	160.617	225
S59	448645.062	309558.845	162.504	2.079	1350	1		1	7.000	160.425	225
S60	448645.354	309548.203	162.272	1.910	1350	1		0	7.001	160.425	225
S61	448630.032	309539.285	161.900	2.138	1350	1		1	7.001	160.362	225
S62	448622.928	309531.196	161.664	2.979	1350	1		0	7.002	160.362	225
S63	448573.149	309529.335	159.357	1.725	1500	1		0	7.002	159.762	225
S63A	448585.457	309525.740	159.975	2.375	1500	1		1	7.003	159.762	225
S64A	448600.319	309520.912	160.549	4.256	1500	1		0	7.003	158.685	225
S64	448602.102	309512.744	160.559	4.287	1500	1		1	7.004	158.685	225
S65	448616.020	309508.506	161.265	5.029	1500	1		0	8.000	157.632	525
S66	448644.806	309499.743	161.921	5.760	1500	1		1	8.000	157.600	525
S67	448658.604	309495.542	162.125	6.000	1500	1		0	8.001	157.600	525
S68	448699.998	309480.755	162.118	6.103	1500	1		1	8.001	156.293	525
								0	8.002	156.293	525
								1	8.002	156.272	525
								0	8.003	156.272	525
								1	8.003	156.236	525
								0	7.004	156.535	225
								1	7.005	156.236	525
								0	7.005	156.161	525
								1	7.006	156.161	525
								0	7.006	156.125	525
								1	7.007	156.125	525
								0	7.007	156.015	525
								1	7.008	156.015	525

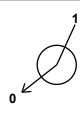
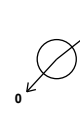
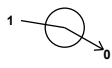
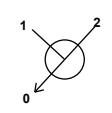
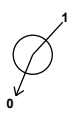
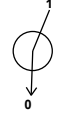
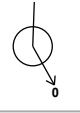
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)
S69	448729.897	309464.434	161.277	5.493	1500	1		1 7.008	155.784	525
								0 7.009	155.784	525
S70	448752.186	309453.204	160.164	4.442	1500	1		1 7.009	155.722	525
								0 7.010	155.722	525
S71	448762.667	309446.563	159.616	3.925	1500	1		1 7.010	155.691	525
								0 7.011	155.691	525
S72	448770.589	309442.556	159.326	3.657	1500	1		1 7.011	155.669	525
								0 7.012	155.669	525
S73	448684.704	309516.693	162.883	1.425	1350	1		0 9.000	161.458	225
S74	448690.936	309524.292	163.181	1.781	1350	1		1 9.000	161.400	225
								0 9.001	161.400	225
S75	448701.970	309528.314	163.440	2.184	1350	1		1 9.001	161.331	225
								0 9.002	161.256	300
S76	448708.887	309527.562	163.470	2.242	1350	1		1 9.002	161.228	300
								0 9.003	161.228	300
S77	448723.318	309522.594	162.977	1.812	1350	1		1 9.003	161.166	300
								0 9.004	161.165	300
S78	448762.235	309510.207	161.336	1.729	1350	1		1 9.004	159.607	300
								0 9.005	159.607	300
S79	448789.705	309547.008	161.165	2.406	1350	1		0 10.000	158.759	225
S80	448791.605	309541.011	161.047	2.992	1350	1		1 10.000	158.130	225
								0 10.001	158.055	300
S81	448787.314	309535.707	161.085	3.058	1350	1		1 10.001	158.027	300
								0 10.002	158.027	300

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)	
S82	448778.652	309505.500	160.728	2.829	1350	1		1	10.002	157.899	300
								2	9.005	157.899	300
								0	9.006	157.899	375
S83	448793.715	309499.933	160.102	2.252	1350	1		1	9.006	157.850	375
								0	9.007	157.850	375
S84	448799.159	309491.582	159.763	2.019	1350	1		1	9.007	157.819	375
								0	9.008	157.744	450
S85	448799.410	309484.984	159.559	1.831	1350	1		1	9.008	157.728	450
								0	9.009	157.728	450
S86	448792.131	309459.600	159.099	1.702	1350	1		1	9.009	157.397	450
								0	9.010	157.397	450
S87	448789.894	309451.798	159.072	2.487	1350	1		1	9.010	156.585	450
								0	9.011	156.585	450
S88	448789.966	309442.885	158.851	3.232	1500	1		1	9.011	155.694	450
								2	7.012	155.619	525
								0	7.013	155.619	525
S89	448793.781	309435.324	158.482	2.884	1500	1		1	7.013	155.598	525
								0	7.014	155.598	525
S90	448800.197	309430.568	158.054	2.551	1500	1		1	7.014	155.578	525
								0	7.015	155.503	600
S91	448783.401	309398.356	158.002	2.562	1500	1		1	7.015	155.440	600
								0	7.016	155.440	600
S92	448782.234	309377.036	157.432	2.029	1500	1		1	7.016	155.403	600
								0	7.017	155.403	600
S93	448777.555	309366.817	157.200	1.816	1500	1		1	7.017	155.384	600
								0	7.018	155.384	600
S94	448768.779	309356.410	156.904	2.677	1500	1		1	7.018	154.227	600
								0	7.019	154.227	600

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)
S95	448758.815	309334.562	156.439	2.253	1500	1		1 7.019	154.186	600
								0 7.020	154.186	600
S96	448745.202	309323.854	156.060	1.904	1500	1		1 7.020	154.156	600
								0 7.021	154.156	600
S97	448681.794	309345.625	158.531	2.462	1350	1		0 11.000	156.069	225
S98	448696.996	309343.161	157.954	1.976	1350	1		1 11.000	155.978	225
								0 11.001	155.978	225
S99	448716.464	309332.123	156.842	1.561	1350	1		1 11.001	155.281	225
								0 11.002	155.281	225
S100	448730.500	309324.639	156.051	1.425	1350	1		1 11.002	154.626	225
								0 11.003	154.626	225
S101	448738.862	309316.955	155.851	2.225	1500	1		1 11.003	154.076	225
								2 7.021	153.701	600
								0 7.022	153.626	675
S102	448725.736	309302.671	155.421	1.875	1500	1		1 7.022	153.546	675
								0 7.023	153.546	675
S103	448721.103	309291.328	155.165	1.875	1500	1		1 7.023	153.290	675
								0 7.024	153.290	675
S104	448720.610	309277.199	154.496	1.873	1500	1		1 7.024	152.623	675
								0 7.025	152.623	675
S105	448726.922	309265.920	153.887	1.871	1500	1		1 7.025	152.016	675
								0 7.026	152.016	675
S106	448737.033	309259.788	153.308	1.874	1500	1		1 7.026	151.434	675
								0 7.027	151.434	675
S107	448758.798	309246.590	152.355	1.660	1800	1		1 7.027	150.770	675
								0 7.028	150.695	750

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)
S108	448774.203	309261.874	152.606	2.090	1800	1	 1	7.028	150.666	750
							 0	7.029	150.516	900
HW9	448787.627	309257.785	152.300	1.800		1	 1	7.029	150.500	900
S50	448830.309	309414.014	156.610	1.425	1350	1	 0	6.000	155.185	225
S51	448840.273	309408.537	156.311	1.425	1350	1	 1	6.000	154.886	225
							 0	6.001	154.886	225
S52	448836.560	309391.400	155.939	1.425	1350	1	 1	6.001	154.514	225
							 0	6.002	154.514	225
S53	448836.560	309374.986	155.275	1.281	1350	1	 1	6.002	154.069	225
							 0	6.003	153.994	300
S54	448836.560	309362.778	154.813	1.500	1350	1	 1	6.003	153.313	300
							 0	6.004	153.313	300
S55	448832.409	309346.119	154.470	1.500	1350	1	 1	6.004	152.970	300
							 0	6.005	152.970	300
S56	448822.604	309328.866	154.154	1.500	1350	1	 1	6.005	152.654	300
							 0	6.006	152.654	300
S57	448823.853	309291.664	152.794	1.537	1350	1	 1	6.006	151.257	300
							 0	6.007	151.257	300
HW8	448824.257	309284.101	152.300	1.800		1	 1	6.007	150.500	300
HW10	448819.609	309242.518	152.300	1.800		1	 0	6.008	150.500	450
S109	448821.590	309235.107	152.034	1.586	2700	1	 1	6.008	150.448	450
							 0	6.009	150.448	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	MH Type	Connections	Link	IL (m)	Dia (mm)
HW11	448829.816	309215.830	150.920	0.595		1	1 	6.009	150.325	225

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Detailed
Rainfall Events	Singular	Skip Steady State	x
FSR Region	England and Wales	Drain Down Time (mins)	240
M5-60 (mm)	20.590	Additional Storage (m³/ha)	20.0
Ratio-R	0.400	Starting Level (m)	
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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	10	0
30	0	10	0
100	40	10	0

Node S109 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	150.448	Product Number	CTL-SHE-0159-1320-1400-1320
Design Depth (m)	1.400	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	13.2	Min Node Diameter (mm)	1500

Node HW9 Online Orifice Control

Flap Valve	x	Invert Level (m)	150.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.950		

Node HW8 Online Orifice Control

Flap Valve	x	Invert Level (m)	150.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.350		

Node HW10 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	38.900
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	150.500	Main Channel Slope (1:X)	1000.0
Safety Factor	2.0	Time to half empty (mins)		Main Channel n	0.035

Inlets

HW8 | HW9

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	2100.0	0.0	0.500	2395.0	0.0	1.000	2705.0	0.0	1.500	3029.1	0.0

Results for 1 year +10% A Critical Storm Duration. Lowest mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S58	10	160.701	0.084	12.0	0.1906	0.0000	OK
15 minute winter	S59	10	160.528	0.103	17.6	0.1831	0.0000	OK
15 minute winter	S60	10	160.451	0.089	29.9	0.2022	0.0000	OK
15 minute winter	S61	10	159.831	0.069	34.5	0.1192	0.0000	OK
15 minute winter	S62	10	158.761	0.076	39.1	0.1246	0.0000	OK
15 minute summer	S63	10	157.683	0.051	4.9	0.1091	0.0000	OK
15 minute summer	S63A	10	157.652	0.052	29.4	0.1614	0.0000	OK
15 minute winter	S64A	10	156.443	0.150	29.4	0.2656	0.0000	OK
15 minute winter	S64	10	156.441	0.169	30.3	0.3098	0.0000	OK
15 minute winter	S65	10	156.439	0.203	73.8	0.3890	0.0000	OK
15 minute winter	S66	10	156.399	0.238	110.1	0.6235	0.0000	OK
15 minute winter	S67	11	156.359	0.234	113.4	0.4422	0.0000	OK
15 minute winter	S68	11	156.205	0.190	115.6	0.3350	0.0000	OK
15 minute winter	S69	11	156.078	0.293	135.7	0.6809	0.0000	OK
15 minute winter	S70	11	156.042	0.320	133.2	0.5653	0.0000	OK
15 minute winter	S71	11	156.030	0.339	143.8	0.7732	0.0000	OK
15 minute winter	S72	11	156.020	0.351	146.2	0.6455	0.0000	OK
15 minute winter	S73	10	161.532	0.074	9.5	0.1704	0.0000	OK
15 minute winter	S74	10	161.474	0.074	9.5	0.1063	0.0000	OK
15 minute winter	S75	10	161.381	0.125	25.6	0.2995	0.0000	OK
15 minute winter	S76	10	161.355	0.127	27.3	0.1948	0.0000	OK
15 minute winter	S77	10	161.261	0.096	45.9	0.2655	0.0000	OK
15 minute winter	S78	10	159.686	0.079	54.8	0.1667	0.0000	OK
15 minute summer	S79	10	158.795	0.036	9.0	0.0681	0.0000	OK
15 minute winter	S80	10	158.200	0.145	32.3	0.3540	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	S58	7.000	S59	12.0	0.769	0.301	0.5077	
15 minute winter	S59	7.001	S60	17.4	1.080	0.435	0.1711	
15 minute winter	S60	7.002	S61	29.8	2.399	0.310	0.2204	
15 minute winter	S61	7.003	S62	34.4	3.105	0.208	0.1193	
15 minute winter	S62	7.004	S65	38.9	3.308	0.247	0.2792	
15 minute summer	S63	8.000	S63A	4.9	0.452	0.020	0.1390	
15 minute summer	S63A	8.001	S64A	29.4	1.217	0.021	0.4796	
15 minute winter	S64A	8.002	S64	28.3	0.592	0.117	0.4644	
15 minute winter	S64	8.003	S65	29.8	0.448	0.124	0.9977	
15 minute winter	S65	7.005	S66	73.8	0.867	0.307	2.5870	
15 minute winter	S66	7.006	S67	108.4	1.160	0.450	1.3499	
15 minute winter	S67	7.007	S68	115.6	1.419	0.479	3.5840	
15 minute winter	S68	7.008	S69	115.8	1.194	0.290	3.3092	
15 minute winter	S69	7.009	S70	133.2	1.017	0.554	3.2680	
15 minute winter	S70	7.010	S71	132.8	0.956	0.551	1.7681	
15 minute winter	S71	7.011	S72	144.9	0.992	0.604	1.3346	
15 minute winter	S72	7.012	S88	149.1	0.967	0.609	3.1269	
15 minute winter	S73	9.000	S74	9.5	0.833	0.239	0.1121	
15 minute winter	S74	9.001	S75	9.5	0.832	0.239	0.1340	
15 minute winter	S75	9.002	S76	25.6	0.908	0.364	0.1960	
15 minute winter	S76	9.003	S77	27.1	0.961	0.385	0.4311	
15 minute winter	S77	9.004	S78	45.8	2.691	0.210	0.6964	
15 minute winter	S78	9.005	S82	54.6	1.388	0.155	0.6594	
15 minute summer	S79	10.000	S80	9.0	1.780	0.054	0.0455	
15 minute winter	S80	10.001	S81	32.3	0.952	0.455	0.2340	

Results for 1 year +10% A Critical Storm Duration. Lowest mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S81	10	158.176	0.149	36.0	0.2372	0.0000	OK
15 minute winter	S82	10	158.148	0.248	95.0	0.4078	0.0000	OK
15 minute winter	S83	10	158.086	0.236	94.0	0.3377	0.0000	OK
15 minute winter	S84	10	157.991	0.247	108.3	0.5946	0.0000	OK
15 minute winter	S85	10	157.902	0.174	103.7	0.3038	0.0000	OK
15 minute winter	S86	10	157.503	0.105	127.1	0.2804	0.0000	OK
15 minute winter	S87	11	156.690	0.105	126.3	0.1504	0.0000	OK
15 minute winter	S88	11	156.003	0.384	268.7	0.6787	0.0000	OK
15 minute winter	S89	11	155.968	0.370	272.9	0.7816	0.0000	OK
15 minute winter	S90	12	155.935	0.432	280.4	0.9943	0.0000	OK
15 minute winter	S91	12	155.858	0.418	283.6	0.8744	0.0000	OK
15 minute winter	S92	12	155.804	0.401	288.8	0.8266	0.0000	OK
15 minute winter	S93	12	155.533	0.149	295.0	0.3546	0.0000	OK
15 minute winter	S94	12	154.663	0.436	305.9	1.3498	0.0000	OK
15 minute winter	S95	12	154.595	0.409	312.5	0.7512	0.0000	OK
15 minute summer	S96	12	154.341	0.185	356.9	0.5075	0.0000	OK
15 minute winter	S97	10	156.173	0.104	17.6	0.2447	0.0000	OK
15 minute winter	S98	10	156.051	0.073	21.0	0.1202	0.0000	OK
15 minute winter	S99	10	155.363	0.082	30.1	0.1788	0.0000	OK
15 minute winter	S100	10	154.713	0.086	36.3	0.1732	0.0000	OK
15 minute winter	S101	12	153.983	0.357	347.3	0.6908	0.0000	OK
15 minute winter	S102	12	153.775	0.229	352.5	0.5222	0.0000	OK
15 minute winter	S103	12	153.477	0.187	357.2	0.4354	0.0000	OK
15 minute winter	S104	12	152.811	0.188	358.4	0.3318	0.0000	OK
15 minute winter	S105	12	152.202	0.186	363.8	0.4146	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	S81	10.002	S82	35.8	0.723	0.507	1.5297	
15 minute winter	S82	9.006	S83	94.0	1.249	0.855	1.2087	
15 minute winter	S83	9.007	S84	93.3	1.324	0.841	0.7061	
15 minute winter	S84	9.008	S85	99.3	1.367	0.628	0.4803	
15 minute winter	S85	9.009	S86	112.0	2.689	0.309	1.1204	
15 minute winter	S86	9.010	S87	126.3	4.498	0.123	0.2282	
15 minute winter	S87	9.011	S88	126.5	2.822	0.123	0.6425	
15 minute winter	S88	7.013	S89	266.4	1.604	1.110	1.4066	
15 minute winter	S89	7.014	S90	271.4	1.707	1.125	1.2730	
15 minute winter	S90	7.015	S91	279.6	1.313	0.982	7.7499	
15 minute winter	S91	7.016	S92	285.9	1.396	1.005	4.3744	
15 minute winter	S92	7.017	S93	289.6	2.298	1.031	1.4325	
15 minute winter	S93	7.018	S94	288.7	2.117	0.143	1.8642	
15 minute winter	S94	7.019	S95	311.8	1.470	1.104	5.0919	
15 minute winter	S95	7.020	S96	330.5	2.384	1.162	2.4041	
15 minute summer	S96	7.021	S101	309.8	3.151	0.204	0.9255	
15 minute winter	S97	11.000	S98	17.6	1.221	0.442	0.2228	
15 minute winter	S98	11.001	S99	21.0	1.745	0.228	0.2691	
15 minute winter	S99	11.002	S100	30.0	2.225	0.283	0.2149	
15 minute winter	S100	11.003	S101	36.3	2.586	0.316	0.1594	
15 minute winter	S101	7.022	S102	347.9	2.345	0.579	2.8892	
15 minute winter	S102	7.023	S103	352.0	3.779	0.259	1.1441	
15 minute winter	S103	7.024	S104	358.4	4.445	0.175	1.1399	
15 minute winter	S104	7.025	S105	359.7	4.471	0.177	1.0399	
15 minute winter	S105	7.026	S106	363.4	4.012	0.174	1.0731	

Results for 1 year +10% A Critical Storm Duration. Lowest mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S106	12	151.655	0.221	369.8	0.5464	0.0000	OK
15 minute winter	S107	12	151.102	0.407	372.1	1.2311	0.0000	OK
15 minute winter	S108	12	150.977	0.461	380.4	1.6204	0.0000	OK
15 minute winter	HW9	12	150.960	0.460	378.2	0.0000	0.0000	OK
15 minute winter	S50	10	155.263	0.078	22.2	0.2703	0.0000	OK
15 minute winter	S51	10	154.978	0.092	25.9	0.1631	0.0000	OK
15 minute winter	S52	10	154.590	0.076	25.9	0.1083	0.0000	OK
15 minute winter	S53	10	154.071	0.077	32.2	0.1596	0.0000	OK
15 minute winter	S54	10	153.408	0.095	34.6	0.1550	0.0000	OK
15 minute winter	S55	10	153.081	0.111	41.0	0.2206	0.0000	OK
15 minute winter	S56	10	152.755	0.101	49.0	0.2149	0.0000	OK
15 minute winter	S57	10	151.332	0.074	48.7	0.1066	0.0000	OK
15 minute winter	HW8	10	150.747	0.247	48.4	0.0000	0.0000	OK
480 minute winter	HW10	384	150.726	0.226	77.0	0.0000	0.0000	OK
480 minute winter	S109	448	150.795	0.347	69.5	1.9862	0.0000	SURCHARGED
15 minute summer	HW11	1	150.325	0.000	12.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S106	7.027	S107	368.3	2.676	0.243	3.5175	
15 minute winter	S107	7.028	S108	370.6	1.604	0.827	5.0217	
15 minute winter	S108	7.029	HW9	378.2	1.159	0.566	4.5822	
15 minute winter	HW9	Flow through Pond	HW10	412.6	0.146	0.004	207.2641	
15 minute winter	S50	6.000	S51	22.2	1.614	0.262	0.1566	
15 minute winter	S51	6.001	S52	25.9	1.922	0.341	0.2366	
15 minute winter	S52	6.002	S53	25.9	2.213	0.246	0.1280	
15 minute winter	S53	6.003	S54	32.2	1.935	0.147	0.2953	
15 minute winter	S54	6.004	S55	34.6	1.620	0.220	0.3666	
15 minute winter	S55	6.005	S56	40.9	1.843	0.291	0.4403	
15 minute winter	S56	6.006	S57	48.7	2.848	0.225	0.6390	
15 minute winter	S57	6.007	HW8	48.4	1.257	0.137	0.2869	
15 minute winter	HW8	Flow through Pond	HW10	412.6	0.146	0.004	207.2641	
480 minute winter	HW10	6.008	S109	69.5	0.750	0.262	0.8017	
480 minute winter	S109	Hydro-Brake®	HW11	13.1				423.4

Results for 30 year +10% A Critical Storm Duration. Lowest mass balance: 99.83%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S58	10	160.759	0.142	29.5	0.3236	0.0000	OK
15 minute winter	S59	10	160.599	0.174	43.1	0.3099	0.0000	OK
15 minute winter	S60	10	160.514	0.152	73.8	0.3465	0.0000	OK
15 minute winter	S61	10	159.876	0.114	85.4	0.1959	0.0000	OK
15 minute winter	S62	10	158.812	0.127	97.0	0.2082	0.0000	OK
15 minute winter	S63	10	157.710	0.078	12.0	0.1674	0.0000	OK
15 minute summer	S63A	10	157.680	0.080	72.2	0.2475	0.0000	OK
15 minute winter	S64A	12	157.151	0.858	72.2	1.5156	0.0000	SURCHARGED
15 minute winter	S64	11	157.169	0.897	99.9	1.6407	0.0000	SURCHARGED
15 minute winter	S65	11	157.190	0.954	165.8	1.8277	0.0000	SURCHARGED
15 minute winter	S66	12	157.121	0.960	247.2	2.5171	0.0000	SURCHARGED
15 minute winter	S67	12	157.087	0.962	249.8	1.8204	0.0000	SURCHARGED
15 minute winter	S68	12	157.019	1.004	234.6	1.7733	0.0000	SURCHARGED
15 minute winter	S69	11	156.954	1.170	274.4	2.7138	0.0000	SURCHARGED
15 minute winter	S70	12	156.836	1.114	272.5	1.9689	0.0000	SURCHARGED
15 minute winter	S71	12	156.802	1.111	305.2	2.5371	0.0000	SURCHARGED
15 minute winter	S72	12	156.768	1.098	320.9	2.0201	0.0000	SURCHARGED
15 minute summer	S73	10	161.581	0.123	23.2	0.2833	0.0000	OK
15 minute summer	S74	10	161.526	0.126	23.2	0.1806	0.0000	OK
15 minute summer	S75	10	161.472	0.216	62.6	0.5151	0.0000	OK
15 minute summer	S76	10	161.443	0.215	66.8	0.3295	0.0000	OK
15 minute summer	S77	10	161.322	0.157	112.9	0.4354	0.0000	OK
15 minute winter	S78	10	159.734	0.127	134.7	0.2678	0.0000	OK
15 minute summer	S79	10	158.814	0.055	22.0	0.1058	0.0000	OK
15 minute winter	S80	10	158.744	0.689	79.3	1.6860	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	S58	7.000	S59	29.4	0.987	0.741	0.9692	
15 minute winter	S59	7.001	S60	43.1	1.401	1.081	0.3270	
15 minute winter	S60	7.002	S61	73.8	3.027	0.768	0.4310	
15 minute winter	S61	7.003	S62	85.4	3.949	0.516	0.2329	
15 minute winter	S62	7.004	S65	97.3	4.114	0.618	0.7261	
15 minute winter	S63	8.000	S63A	12.0	0.592	0.050	0.2603	
15 minute summer	S63A	8.001	S64A	72.2	1.291	0.051	1.8308	
15 minute winter	S64A	8.002	S64	96.8	0.602	0.401	1.8062	
15 minute winter	S64	8.003	S65	73.4	0.507	0.306	3.1428	
15 minute winter	S65	7.005	S66	154.5	0.980	0.642	6.5004	
15 minute winter	S66	7.006	S67	235.7	1.448	0.979	3.1161	
15 minute winter	S67	7.007	S68	234.6	1.636	0.973	9.4959	
15 minute winter	S68	7.008	S69	237.1	1.235	0.595	7.3587	
15 minute winter	S69	7.009	S70	272.5	1.262	1.134	5.3920	
15 minute winter	S70	7.010	S71	281.2	1.302	1.167	2.6803	
15 minute winter	S71	7.011	S72	317.8	1.471	1.324	1.9179	
15 minute winter	S72	7.012	S88	328.9	1.522	1.343	4.1867	
15 minute summer	S73	9.000	S74	23.2	1.027	0.583	0.2221	
15 minute summer	S74	9.001	S75	23.2	0.982	0.584	0.2879	
15 minute summer	S75	9.002	S76	62.6	1.155	0.892	0.3770	
15 minute summer	S76	9.003	S77	66.8	1.278	0.947	0.7972	
15 minute summer	S77	9.004	S78	112.7	3.438	0.517	1.3399	
15 minute winter	S78	9.005	S82	134.5	2.335	0.381	0.8440	
15 minute summer	S79	10.000	S80	22.0	1.827	0.133	0.1488	
15 minute winter	S80	10.001	S81	76.5	1.086	1.079	0.4804	

Results for 30 year +10% A Critical Storm Duration. Lowest mass balance: 99.83%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S81	10	158.710	0.683	85.6	1.0861	0.0000	SURCHARGED
15 minute winter	S82	10	158.520	0.621	229.7	1.0193	0.0000	SURCHARGED
15 minute winter	S83	10	158.302	0.452	226.8	0.6464	0.0000	SURCHARGED
15 minute winter	S84	10	158.140	0.396	266.5	0.9548	0.0000	OK
15 minute winter	S85	10	158.027	0.299	311.1	0.5222	0.0000	OK
15 minute summer	S86	10	157.565	0.168	319.2	0.4467	0.0000	OK
15 minute winter	S87	12	156.806	0.221	310.1	0.3167	0.0000	OK
15 minute winter	S88	12	156.675	1.056	587.2	1.8662	0.0000	SURCHARGED
15 minute winter	S89	12	156.537	0.939	604.4	1.9820	0.0000	SURCHARGED
15 minute winter	S90	12	156.406	0.903	622.2	2.0790	0.0000	SURCHARGED
15 minute summer	S91	11	156.136	0.696	600.0	1.4572	0.0000	SURCHARGED
15 minute winter	S92	10	155.967	0.564	632.3	1.1627	0.0000	OK
15 minute summer	S93	10	155.631	0.247	532.6	0.5865	0.0000	OK
15 minute winter	S94	12	155.000	0.773	682.0	2.3944	0.0000	SURCHARGED
15 minute winter	S95	13	154.768	0.582	738.0	1.0687	0.0000	OK
15 minute winter	S96	12	154.483	0.327	802.9	0.8949	0.0000	OK
15 minute winter	S97	10	156.247	0.178	43.2	0.4208	0.0000	OK
15 minute summer	S98	10	156.098	0.120	52.5	0.1985	0.0000	OK
15 minute summer	S99	10	155.419	0.137	74.2	0.3013	0.0000	OK
15 minute summer	S100	10	154.774	0.148	89.3	0.2958	0.0000	OK
15 minute winter	S101	12	154.249	0.623	818.5	1.2047	0.0000	OK
15 minute winter	S102	11	153.924	0.378	809.3	0.8639	0.0000	OK
15 minute summer	S103	11	153.591	0.301	859.5	0.7010	0.0000	OK
15 minute winter	S104	10	152.924	0.301	845.7	0.5315	0.0000	OK
15 minute winter	S105	12	152.315	0.299	870.6	0.6648	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	S81	10.002	S82	84.6	1.202	1.199	2.2129	
15 minute winter	S82	9.006	S83	226.8	2.056	2.063	1.7713	
15 minute winter	S83	9.007	S84	229.1	2.079	2.065	1.0732	
15 minute winter	S84	9.008	S85	301.8	2.371	1.909	0.8571	
15 minute winter	S85	9.009	S86	279.8	3.373	0.773	2.1868	
15 minute summer	S86	9.010	S87	312.0	5.486	0.304	0.5080	
15 minute winter	S87	9.011	S88	301.4	2.721	0.294	1.0519	
15 minute winter	S88	7.013	S89	592.7	2.744	2.469	1.8296	
15 minute winter	S89	7.014	S90	606.1	2.806	2.513	1.7255	
15 minute winter	S90	7.015	S91	622.9	2.212	2.188	10.2328	
15 minute summer	S91	7.016	S92	598.7	2.126	2.104	5.9186	
15 minute winter	S92	7.017	S93	704.5	3.569	2.507	2.1031	
15 minute summer	S93	7.018	S94	632.4	2.828	0.314	2.6641	
15 minute winter	S94	7.019	S95	736.2	2.614	2.607	6.7319	
15 minute winter	S95	7.020	S96	781.0	3.453	2.746	3.7556	
15 minute winter	S96	7.021	S101	738.4	3.461	0.485	1.9989	
15 minute winter	S97	11.000	S98	45.0	1.611	1.129	0.4255	
15 minute summer	S98	11.001	S99	51.8	2.208	0.563	0.5250	
15 minute summer	S99	11.002	S100	73.9	2.789	0.698	0.4217	
15 minute summer	S100	11.003	S101	89.0	3.225	0.774	0.3135	
15 minute winter	S101	7.022	S102	797.8	2.911	1.328	5.2442	
15 minute winter	S102	7.023	S103	836.4	4.690	0.616	2.1855	
15 minute summer	S103	7.024	S104	845.5	5.511	0.414	2.1690	
15 minute winter	S104	7.025	S105	856.8	5.668	0.420	1.9540	
15 minute winter	S105	7.026	S106	864.0	4.865	0.414	2.1546	

Results for 30 year +10% A Critical Storm Duration. Lowest mass balance: 99.83%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S106	11	151.824	0.390	885.4	0.9652	0.0000	OK
15 minute winter	S107	11	151.481	0.786	939.8	2.3757	0.0000	SURCHARGED
15 minute summer	S108	11	151.356	0.840	987.4	2.9520	0.0000	OK
15 minute summer	HW9	11	151.313	0.813	957.8	0.0000	0.0000	OK
15 minute winter	S50	10	155.315	0.130	54.4	0.4500	0.0000	OK
15 minute winter	S51	10	155.044	0.158	63.5	0.2802	0.0000	OK
15 minute winter	S52	10	154.639	0.125	63.5	0.1791	0.0000	OK
15 minute winter	S53	10	154.117	0.123	78.9	0.2552	0.0000	OK
15 minute summer	S54	10	153.468	0.155	84.7	0.2538	0.0000	OK
15 minute summer	S55	10	153.156	0.186	100.5	0.3699	0.0000	OK
15 minute summer	S56	10	152.821	0.167	120.6	0.3557	0.0000	OK
15 minute winter	S57	10	151.377	0.120	120.4	0.1711	0.0000	OK
480 minute winter	HW8	480	151.042	0.541	12.3	0.0000	0.0000	OK
480 minute winter	HW10	472	151.039	0.539	122.4	0.0000	0.0000	SURCHARGED
600 minute winter	S109	585	151.039	0.591	56.6	3.3846	0.0000	SURCHARGED
15 minute summer	HW11	1	150.325	0.000	13.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S106	7.027	S107	926.9	3.038	0.611	7.2649	
15 minute winter	S107	7.028	S108	921.0	2.114	2.054	9.2417	
15 minute summer	S108	7.029	HW9	957.8	1.571	1.434	8.5522	
15 minute summer	HW9	Flow through Pond	HW10	927.8	0.207	0.010	467.6548	
15 minute winter	S50	6.000	S51	54.4	2.024	0.643	0.3050	
15 minute winter	S51	6.001	S52	63.5	2.412	0.836	0.4604	
15 minute winter	S52	6.002	S53	63.5	2.801	0.602	0.2478	
15 minute winter	S53	6.003	S54	78.9	2.466	0.361	0.5665	
15 minute summer	S54	6.004	S55	84.7	2.050	0.538	0.7090	
15 minute summer	S55	6.005	S56	100.7	2.341	0.717	0.8537	
15 minute summer	S56	6.006	S57	120.4	3.634	0.557	1.2345	
15 minute winter	S57	6.007	HW8	120.1	2.122	0.340	0.3658	
480 minute winter	HW8	Flow through Pond	HW10	82.2	0.038	0.001	1171.3586	
480 minute winter	HW10	6.008	S109	73.6	0.735	0.277	1.2154	
600 minute winter	S109	Hydro-Brake®	HW11	13.2				549.2

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 96.96%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S58	12	161.616	0.999	53.6	2.2716	0.0000	SURCHARGED
15 minute winter	S59	12	161.456	1.031	69.5	1.8366	0.0000	SURCHARGED
15 minute winter	S60	12	161.342	0.980	115.7	2.2378	0.0000	SURCHARGED
15 minute winter	S61	12	160.800	1.038	124.3	1.7848	0.0000	SURCHARGED
15 minute winter	S62	12	160.363	1.678	143.7	2.7490	0.0000	SURCHARGED
15 minute winter	S63	12	159.168	1.536	21.9	3.2826	0.0000	FLOOD RISK
15 minute winter	S63A	12	159.158	1.558	166.9	4.8467	0.0000	SURCHARGED
15 minute winter	S64A	12	159.163	2.870	108.6	5.0715	0.0000	SURCHARGED
15 minute winter	S64	12	159.154	2.882	164.1	5.2716	0.0000	SURCHARGED
15 minute winter	S65	12	159.157	2.921	250.0	5.5971	0.0000	SURCHARGED
15 minute winter	S66	12	159.073	2.912	345.6	7.6393	0.0000	SURCHARGED
15 minute winter	S67	12	159.024	2.899	364.9	5.4844	0.0000	SURCHARGED
15 minute winter	S68	12	158.788	2.773	354.2	4.8997	0.0000	SURCHARGED
15 minute winter	S69	12	158.604	2.820	430.8	6.5430	0.0000	SURCHARGED
15 minute winter	S70	12	158.417	2.695	418.8	4.7613	0.0000	SURCHARGED
15 minute winter	S71	12	158.322	2.631	463.7	6.0062	0.0000	SURCHARGED
15 minute winter	S72	12	158.240	2.571	470.8	4.7278	0.0000	SURCHARGED
15 minute winter	S73	10	161.816	0.358	42.3	0.8219	0.0000	SURCHARGED
15 minute winter	S74	10	161.752	0.352	40.9	0.5031	0.0000	SURCHARGED
15 minute winter	S75	10	161.676	0.420	111.8	1.0036	0.0000	SURCHARGED
15 minute winter	S76	10	161.603	0.375	118.5	0.5738	0.0000	SURCHARGED
15 minute winter	S77	10	161.389	0.224	201.8	0.6223	0.0000	OK
15 minute winter	S78	11	160.236	0.629	240.9	1.3244	0.0000	SURCHARGED
15 minute winter	S79	11	160.088	1.328	40.0	2.5454	0.0000	SURCHARGED
15 minute winter	S80	11	160.066	2.011	133.3	4.9196	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	S58	7.000	S59	44.6	1.121	1.121	1.2973	
15 minute winter	S59	7.001	S60	59.8	1.503	1.499	0.4234	
15 minute winter	S60	7.002	S61	103.3	3.097	1.075	0.7051	
15 minute winter	S61	7.003	S62	122.6	4.193	0.741	0.4282	
15 minute winter	S62	7.004	S65	129.7	4.123	0.824	0.9433	
15 minute winter	S63	8.000	S63A	40.1	1.126	0.167	2.7702	
15 minute winter	S63A	8.001	S64A	108.6	1.243	0.077	3.3757	
15 minute winter	S64A	8.002	S64	162.9	0.754	0.674	1.8062	
15 minute winter	S64	8.003	S65	210.3	0.974	0.877	3.1428	
15 minute winter	S65	7.005	S66	284.1	1.315	1.180	6.5004	
15 minute winter	S66	7.006	S67	342.9	1.587	1.424	3.1161	
15 minute winter	S67	7.007	S68	354.2	1.669	1.469	9.4959	
15 minute winter	S68	7.008	S69	357.6	1.655	0.897	7.3587	
15 minute winter	S69	7.009	S70	418.8	1.939	1.743	5.3920	
15 minute winter	S70	7.010	S71	424.3	1.964	1.761	2.6803	
15 minute winter	S71	7.011	S72	465.2	2.154	1.939	1.9179	
15 minute winter	S72	7.012	S88	482.2	2.232	1.969	4.1867	
15 minute winter	S73	9.000	S74	40.9	1.088	1.026	0.3909	
15 minute winter	S74	9.001	S75	41.4	1.042	1.043	0.4670	
15 minute winter	S75	9.002	S76	110.9	1.575	1.581	0.4900	
15 minute winter	S76	9.003	S77	118.0	1.679	1.673	1.0366	
15 minute winter	S77	9.004	S78	200.9	3.654	0.922	2.5508	
15 minute winter	S78	9.005	S82	218.1	3.274	0.617	1.2027	
15 minute winter	S79	10.000	S80	38.5	1.826	0.233	0.2502	
15 minute winter	S80	10.001	S81	118.0	1.676	1.666	0.4804	

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 96.96%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S81	11	159.994	1.967	134.6	3.1279	0.0000	SURCHARGED
15 minute winter	S82	12	159.615	1.716	362.8	2.8156	0.0000	SURCHARGED
15 minute winter	S83	12	159.164	1.314	353.5	1.8798	0.0000	SURCHARGED
15 minute winter	S84	12	158.878	1.134	413.2	2.7346	0.0000	SURCHARGED
15 minute winter	S85	12	158.785	1.057	421.7	1.8433	0.0000	SURCHARGED
15 minute winter	S86	12	158.383	0.986	484.8	2.6211	0.0000	SURCHARGED
15 minute winter	S87	12	158.228	1.643	467.7	2.3505	0.0000	SURCHARGED
15 minute winter	S88	12	158.056	2.437	917.4	4.3055	0.0000	SURCHARGED
15 minute winter	S89	12	157.751	2.153	939.9	4.5426	0.0000	SURCHARGED
15 minute winter	S90	12	157.449	1.946	971.1	4.4796	0.0000	SURCHARGED
15 minute winter	S91	12	156.725	1.285	991.3	2.6904	0.0000	SURCHARGED
15 minute winter	S92	12	156.282	0.879	1006.1	1.8107	0.0000	SURCHARGED
15 minute winter	S93	12	156.042	0.658	1031.9	1.5612	0.0000	SURCHARGED
15 minute winter	S94	11	155.743	1.516	1112.8	4.6963	0.0000	SURCHARGED
15 minute winter	S95	11	155.115	0.929	1118.6	1.7044	0.0000	SURCHARGED
15 minute winter	S96	11	154.659	0.502	1160.5	1.3758	0.0000	OK
15 minute winter	S97	11	156.835	0.766	78.5	1.8079	0.0000	SURCHARGED
15 minute winter	S98	11	156.573	0.595	87.9	0.9840	0.0000	SURCHARGED
15 minute winter	S99	11	156.040	0.759	122.5	1.6645	0.0000	SURCHARGED
15 minute winter	S100	11	155.264	0.637	136.5	1.2769	0.0000	SURCHARGED
15 minute winter	S101	11	154.448	0.822	1310.1	1.5896	0.0000	SURCHARGED
15 minute winter	S102	11	154.067	0.521	1342.7	1.1897	0.0000	OK
15 minute winter	S103	11	153.687	0.397	1374.8	0.9244	0.0000	OK
15 minute winter	S104	11	153.125	0.502	1375.7	0.8874	0.0000	OK
15 minute winter	S105	11	152.871	0.855	1396.7	1.9038	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	S81	10.002	S82	128.9	1.830	1.826	2.2129	
15 minute winter	S82	9.006	S83	353.5	3.205	3.216	1.7713	
15 minute winter	S83	9.007	S84	345.2	3.130	3.111	1.0994	
15 minute winter	S84	9.008	S85	402.1	2.538	2.542	1.0460	
15 minute winter	S85	9.009	S86	413.1	3.529	1.141	4.1840	
15 minute winter	S86	9.010	S87	467.7	5.486	0.455	1.2859	
15 minute winter	S87	9.011	S88	459.7	2.902	0.448	1.4122	
15 minute winter	S88	7.013	S89	918.7	4.253	3.827	1.8296	
15 minute winter	S89	7.014	S90	941.8	4.360	3.904	1.7255	
15 minute winter	S90	7.015	S91	973.3	3.456	3.420	10.2328	
15 minute winter	S91	7.016	S92	996.1	3.537	3.501	6.0144	
15 minute winter	S92	7.017	S93	1008.6	4.038	3.590	3.1661	
15 minute winter	S93	7.018	S94	1035.1	3.706	0.514	3.8345	
15 minute winter	S94	7.019	S95	1115.2	3.960	3.949	6.7639	
15 minute winter	S95	7.020	S96	1120.7	4.037	3.940	4.6219	
15 minute winter	S96	7.021	S101	1164.1	4.429	0.765	2.5006	
15 minute winter	S97	11.000	S98	72.8	1.875	1.827	0.6125	
15 minute winter	S98	11.001	S99	81.8	2.299	0.888	0.8900	
15 minute winter	S99	11.002	S100	112.1	2.886	1.058	0.6326	
15 minute winter	S100	11.003	S101	135.9	3.417	1.182	0.4517	
15 minute winter	S101	7.022	S102	1314.2	3.783	2.188	6.3308	
15 minute winter	S102	7.023	S103	1343.8	5.221	0.990	3.1476	
15 minute winter	S103	7.024	S104	1375.7	6.170	0.674	3.5542	
15 minute winter	S104	7.025	S105	1371.6	5.897	0.673	4.1473	
15 minute winter	S105	7.026	S106	1391.9	4.838	0.667	4.2213	

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 96.96%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S106	11	152.612	1.178	1430.7	2.9110	0.0000	SURCHARGED
15 minute winter	S107	11	152.029	1.334	1453.5	4.0302	0.0000	SURCHARGED
15 minute winter	S108	11	151.734	1.218	1510.9	4.2783	0.0000	SURCHARGED
15 minute winter	HW9	11	151.656	1.156	1509.7	0.0000	0.0000	OK
15 minute winter	S50	11	155.819	0.634	98.9	2.1904	0.0000	SURCHARGED
15 minute winter	S51	11	155.467	0.581	107.2	1.0281	0.0000	SURCHARGED
15 minute winter	S52	11	154.698	0.184	105.7	0.2638	0.0000	OK
15 minute winter	S53	11	154.159	0.165	130.2	0.3408	0.0000	OK
15 minute winter	S54	11	153.562	0.249	140.3	0.4072	0.0000	OK
15 minute winter	S55	11	153.352	0.382	166.0	0.7593	0.0000	SURCHARGED
15 minute winter	S56	11	152.876	0.222	196.3	0.4732	0.0000	OK
960 minute winter	S57	930	151.534	0.277	12.8	0.3967	0.0000	OK
960 minute winter	HW8	960	151.536	1.036	19.9	0.0000	0.0000	OK
960 minute winter	HW10	945	151.534	1.034	155.7	0.0000	0.0000	SURCHARGED
960 minute winter	S109	945	151.534	1.086	64.3	6.2206	0.0000	SURCHARGED
15 minute summer	HW11	1	150.325	0.000	13.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S106	7.027	S107	1430.2	4.007	0.942	9.0865	
15 minute winter	S107	7.028	S108	1451.5	3.298	3.237	9.5506	
15 minute winter	S108	7.029	HW9	1509.7	2.382	2.261	8.8937	
15 minute winter	HW9	Flow through Pond	HW10	1356.9	0.236	0.015	966.3598	
15 minute winter	S50	6.000	S51	90.6	2.278	1.071	0.4522	
15 minute winter	S51	6.001	S52	105.7	2.695	1.392	0.6540	
15 minute winter	S52	6.002	S53	106.0	3.062	1.006	0.4076	
15 minute winter	S53	6.003	S54	130.2	2.661	0.595	0.9033	
15 minute winter	S54	6.004	S55	140.1	2.158	0.890	1.1406	
15 minute winter	S55	6.005	S56	165.4	2.518	1.177	1.2524	
15 minute winter	S56	6.006	S57	196.9	3.762	0.911	2.1888	
960 minute winter	S57	6.007	HW8	19.9	0.427	0.056	0.5243	
960 minute winter	HW8	Flow through Pond	HW10	155.7	0.035	0.002	2439.4854	
960 minute winter	HW10	6.008	S109	64.3	0.734	0.242	1.2154	
960 minute winter	S109	Hydro-Brake®	HW11	13.2				756.5