

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Detailed
Rainfall Events	Singular	Skip Steady State	✓
FSR Region	England and Wales	Drain Down Time (mins)	1440
M5-60 (mm)	20.000	Additional Storage (m³/ha)	0.0
Ratio-R	0.450	Starting Level (m)	
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

15	60	180	360	600	960	2880	10080
30	120	240	480	720	1440	5760	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	0	0	0
100	40	0	0

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
N21	0.030	5.00	2.989	300	524586.440	310901.607	0.347	2.642
N22	0.024	5.00	3.170	300	524557.792	310909.539	0.300	2.870
N23			2.843	450	524565.675	310895.341	0.988	1.855
S7			3.040	1350	524554.458	310901.346	1.354	1.686
N51	0.008	5.00	3.211	300	524556.818	310916.204	0.300	2.911
N50			3.178	450	524555.799	310924.293	0.900	2.278
S6	0.201	5.00	3.152	1350	524550.414	310928.720	1.727	1.425
S5			3.016	1200	524547.734	310948.870	2.066	0.950
N61	0.016	5.00	3.350	300	524571.079	310956.367	0.300	3.050
N60			3.015	450	524554.032	310952.105	0.900	2.115
N64			2.979	300	524547.003	310954.363	2.059	0.920
PS170		5.00	1.966		524515.788	310956.283	0.603	1.363
PS171	0.015	5.00	1.863		524513.847	310971.256	0.551	1.312
PS172	0.010	5.00	1.850		524511.734	310987.183	0.591	1.259
PS173			1.843	450	524511.084	310992.005	0.600	1.243
S1	0.039	5.00	2.273	1350	524515.861	311001.291	1.093	1.180
S2	0.040	5.00	2.607	1350	524540.257	311005.611	1.577	1.030
S32			2.772	1350	524542.924	310985.028	2.092	0.680
N40	0.019	5.00	2.935	300	524569.678	310987.814	0.300	2.635
N41			2.730	450	524551.048	310983.097	1.050	1.680
N55			2.786	450	524551.782	310986.650	2.137	0.649
S33	0.020	5.00	2.893	1350	524558.828	310987.939	2.268	0.625
N31	0.014	5.00	3.062	300	524596.854	310905.225	0.292	2.770
N32			3.079	450	524609.236	310909.557	0.809	2.270
S343			3.078	1350	524611.829	310905.811	1.428	1.650
N33	0.015	5.00	3.030	300	524617.094	310912.266	0.300	2.730
N34			2.970	450	524626.178	310915.486	0.900	2.070
N30			2.965	225	524629.212	310911.755	1.433	1.532
N35	0.022	5.00	2.888	300	524637.834	310919.508	0.300	2.588
N36			2.794	450	524651.012	310924.174	0.900	1.894
S342			2.793	1350	524655.843	310920.860	1.443	1.350
S341			2.726	1350	524660.900	310928.273	1.676	1.050
N39	0.014	5.00	2.717	300	524653.623	310943.124	0.291	2.426
N37	0.015	5.00	2.742	300	524655.122	310927.086	0.302	2.440
N38			2.692	450	524656.300	310934.599	0.902	1.790
N29			2.650	300	524658.438	310936.522	1.639	1.011
N45	0.014	5.00	2.840	300	524647.993	310960.826	0.300	2.540
N46			2.769	450	524651.209	310950.744	0.904	1.865
N47	0.078	5.00	2.745	300	524653.455	310953.222	1.814	0.931
S35	0.077	5.00	2.931	1200	524648.336	310970.375	2.081	0.850
N62	0.072	5.00	3.350	300	524571.699	310956.838	0.300	3.050
N63			2.984	450	524639.414	310976.958	1.054	1.930
S36	0.028	5.00	2.862	1200	524642.459	310978.748	2.137	0.725
N42	0.030	5.00	2.935	300	524570.370	310987.882	0.302	2.633
N43	0.026	5.00	2.700	300	524603.848	310996.478	0.300	2.400
N44			2.541	450	524630.659	311007.567	0.900	1.641
S34	0.044	5.00	2.545	1500	524632.066	311012.052	2.270	0.275
HW1	0.030	5.00	1.600	1	524649.091	311017.657	1.375	0.225
HW2			1.600	1	524645.850	311035.360	1.425	0.175
N1	0.092	5.00	1.900	1	524531.694	311043.948	0.300	1.600
N2			2.081	450	524613.686	311068.498	1.181	0.900
S11	0.056	5.00	2.261	1350	524620.666	311059.752	1.911	0.350

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
HW3			1.600	1	524635.197	311063.782	1.475	0.125
HW4			1.600	1	524639.281	311069.670	1.500	0.100
S101			1.600	1350	524640.743	311078.191	1.550	0.050
S103			1.497	1350	524639.723	311086.598	1.482	0.015
S104			1.207	1350	524622.126	311139.468	1.419	-0.212
S105			1.224	1350	524605.711	311188.784	1.648	-0.424
HW5			1.500	1	524603.876	311194.299	1.948	-0.448

Links (Input)

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	N21	N23	21.689	0.030	2.642	2.530	0.112	193.7	300	5.48	50.0
2.000	N22	N23	16.240	0.030	2.870	2.530	0.340	47.8	300	5.18	50.0
1.001	N23	S7	12.723	0.600	1.855	1.686	0.169	75.3	225	5.62	50.0
1.002	S7	S6	27.671	0.600	1.686	1.500	0.186	148.8	225	6.05	50.0
3.000	N51	N50	8.153	0.030	2.911	2.878	0.033	247.1	300	5.20	50.0
3.001	N50	S6	6.971	0.600	2.278	1.575	0.703	9.9	150	5.24	50.0
1.003	S6	S5	20.328	0.600	1.425	1.335	0.090	225.9	300	6.38	50.0
1.004	S5	N64	5.541	0.600	0.950	0.920	0.030	184.7	375	6.45	50.0
4.000	N61	N60	17.571	0.030	3.050	2.715	0.335	52.5	300	5.20	50.0
4.001	N60	N64	7.383	0.600	2.115	1.145	0.970	7.6	150	5.24	50.0
1.005	N64	S32	30.936	0.600	0.920	0.755	0.165	187.5	375	6.84	50.0
5.000	PS170	PS171	15.098	0.030	1.363	1.312	0.051	296.0	300	5.41	50.0
5.001	PS171	PS172	16.066	0.030	1.312	1.259	0.053	303.1	300	5.86	50.0
5.002	PS172	PS173	4.866	0.030	1.259	1.243	0.016	304.1	300	6.00	50.0
5.003	PS173	S1	10.443	0.600	1.243	1.180	0.063	165.8	225	6.17	50.0
5.004	S1	S2	24.776	0.600	1.180	1.030	0.150	165.2	225	6.58	50.0
5.005	S2	S32	20.755	0.600	1.030	0.905	0.125	166.0	225	6.92	50.0
1.006	S32	N55	9.005	0.600	0.680	0.649	0.031	290.5	450	7.04	50.0
6.000	N40	N41	19.218	0.030	2.635	2.430	0.205	93.7	300	5.30	50.0
6.001	N41	N55	3.627	0.600	1.680	0.949	0.731	5.0	150	5.31	50.0
1.007	N55	S33	7.163	0.600	0.649	0.625	0.024	298.5	450	7.15	50.0
1.008	S33	S34	77.105	0.600	0.625	0.350	0.275	280.4	450	8.21	50.0
7.000	N31	N32	13.118	0.030	2.770	2.720	0.050	262.4	300	5.34	50.0
7.001	N32	S343	4.555	0.600	2.270	1.725	0.545	8.4	150	5.36	50.0
7.002	S343	N30	18.372	0.600	1.650	1.532	0.118	155.7	225	5.65	50.0
8.000	N33	N34	9.638	0.030	2.730	2.670	0.060	160.6	300	5.20	50.0
8.001	N34	N30	4.809	0.600	2.070	1.607	0.463	10.4	150	5.22	50.0
7.003	N30	S342	28.144	0.600	1.532	1.350	0.182	154.6	225	6.10	50.0
9.000	N35	N36	13.980	0.030	2.588	2.495	0.093	150.3	300	5.27	50.0
9.001	N36	S342	5.859	0.600	1.894	1.425	0.469	12.5	150	5.31	50.0
7.004	S342	S341	8.974	0.600	1.350	1.125	0.225	39.9	225	6.17	50.0
7.005	S341	N29	8.608	0.600	1.050	1.011	0.039	220.7	300	6.31	50.0
10.000	N39	N38	8.935	0.030	2.426	2.390	0.036	248.2	300	5.22	50.0
11.000	N37	N38	7.605	0.030	2.440	2.390	0.050	152.1	300	5.15	50.0
10.001	N38	N29	2.876	0.600	1.790	1.161	0.629	4.6	150	5.23	50.0
7.006	N29	N47	17.428	0.600	1.011	0.931	0.080	217.9	300	6.58	50.0
12.000	N45	N46	10.582	0.030	2.540	2.470	0.070	151.2	300	5.21	50.0
12.001	N46	N47	3.344	0.600	1.865	1.081	0.784	4.3	150	5.22	50.0
7.007	N47	S35	17.901	0.600	0.931	0.850	0.081	221.0	300	6.87	50.0
7.008	S35	S36	10.230	0.600	0.850	0.800	0.050	204.6	300	7.02	50.0

Links (Input)

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)
13.000	N62	N63	70.641	0.030	3.050	2.680	0.370	190.9	300	6.56	50.0
13.001	N63	S36	3.532	0.600	1.930	0.800	1.130	3.1	300	6.57	50.0
7.009	S36	S34	34.888	0.600	0.725	0.425	0.300	116.3	375	7.37	50.0
14.000	N42	N43	34.563	0.030	2.633	2.400	0.233	148.3	300	5.67	50.0
14.001	N43	N44	29.014	0.030	2.400	2.241	0.159	182.5	300	6.30	50.0
14.002	N44	S34	4.700	0.600	1.641	0.500	1.141	4.1	300	6.31	50.0
1.009	S34	HW1	17.924	0.600	0.275	0.225	0.050	358.5	525	8.46	50.0
1.010	HW1	HW2	17.997	0.600	0.225	0.175	0.050	359.9	525	8.72	50.0
1.011	HW2	HW3	30.353	0.600	0.175	0.125	0.050	607.1	525	9.28	50.0
15.000	N1	N2	85.588	0.030	1.600	1.250	0.350	244.5	300	7.14	50.0
15.001	N2	S11	11.190	0.600	0.900	0.350	0.550	20.3	300	7.19	50.0
15.002	S11	HW3	15.079	0.600	0.350	0.125	0.225	67.0	300	7.32	50.0
1.012	HW3	HW4	7.166	0.600	0.125	0.100	0.025	286.6	525	9.37	50.0
1.013	HW4	S101	8.645	0.600	0.100	0.050	0.050	172.9	450	9.46	50.0
1.014	S101	S103	8.469	0.600	0.050	0.015	0.035	242.0	450	9.57	50.0
1.015	S103	S104	55.722	0.600	0.015	-0.212	0.227	245.5	450	10.29	50.0
1.016	S104	S105	51.977	0.600	-0.212	-0.424	0.212	245.2	450	10.96	50.0
1.017	S105	HW5	5.812	0.600	-0.424	-0.448	0.024	242.2	450	11.03	50.0

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	21.689	193.7	300	Swale	2.989	2.642	0.047	2.843	2.530	0.013
2.000	16.240	47.8	300	Swale	3.170	2.870	0.000	2.843	2.530	0.013
1.001	12.723	75.3	225	Circular	2.843	1.855	0.763	3.040	1.686	1.129
1.002	27.671	148.8	225	Circular	3.040	1.686	1.129	3.152	1.500	1.427
3.000	8.153	247.1	300	Swale	3.211	2.911	0.000	3.178	2.878	0.000
3.001	6.971	9.9	150	Circular	3.178	2.278	0.750	3.152	1.575	1.427
1.003	20.328	225.9	300	Circular	3.152	1.425	1.427	3.016	1.335	1.381
1.004	5.541	184.7	375	Circular	3.016	0.950	1.691	2.979	0.920	1.684
4.000	17.571	52.5	300	Swale	3.350	3.050	0.000	3.015	2.715	0.000
4.001	7.383	7.6	150	Circular	3.015	2.115	0.750	2.979	1.145	1.684
1.005	30.936	187.5	375	Circular	2.979	0.920	1.684	2.772	0.755	1.642
5.000	15.098	296.0	300	Swale	1.966	1.363	0.303	1.863	1.312	0.251
5.001	16.066	303.1	300	Swale	1.863	1.312	0.251	1.850	1.259	0.291

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	N21	300	Manhole	Adoptable	N23	450	Manhole	Adoptable
2.000	N22	300	Manhole	Adoptable	N23	450	Manhole	Adoptable
1.001	N23	450	Manhole	Adoptable	S7	1350	Manhole	Adoptable
1.002	S7	1350	Manhole	Adoptable	S6	1350	Manhole	Adoptable
3.000	N51	300	Manhole	Adoptable	N50	450	Manhole	Adoptable
3.001	N50	450	Manhole	Adoptable	S6	1350	Manhole	Adoptable
1.003	S6	1350	Manhole	Adoptable	S5	1200	Manhole	Adoptable
1.004	S5	1200	Manhole	Adoptable	N64	300	Manhole	Adoptable
4.000	N61	300	Manhole	Adoptable	N60	450	Manhole	Adoptable
4.001	N60	450	Manhole	Adoptable	N64	300	Manhole	Adoptable
1.005	N64	300	Manhole	Adoptable	S32	1350	Manhole	Adoptable
5.000	PS170		Junction		PS171		Junction	
5.001	PS171		Junction		PS172		Junction	

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)
5.002	4.866	304.1	300	Swale	1.850	1.259	0.291	1.843	1.243	0.300
5.003	10.443	165.8	225	Circular	1.843	1.243	0.375	2.273	1.180	0.868
5.004	24.776	165.2	225	Circular	2.273	1.180	0.868	2.607	1.030	1.352
5.005	20.755	166.0	225	Circular	2.607	1.030	1.352	2.772	0.905	1.642
1.006	9.005	290.5	450	Circular	2.772	0.680	1.642	2.786	0.649	1.687
6.000	19.218	93.7	300	Swale	2.935	2.635	0.000	2.730	2.430	0.000
6.001	3.627	5.0	150	Circular	2.730	1.680	0.900	2.786	0.949	1.687
1.007	7.163	298.5	450	Circular	2.786	0.649	1.687	2.893	0.625	1.818
1.008	77.105	280.4	450	Circular	2.893	0.625	1.818	2.545	0.350	1.745
7.000	13.118	262.4	300	Swale	3.062	2.770	-0.008	3.079	2.720	0.059
7.001	4.555	8.4	150	Circular	3.079	2.270	0.659	3.078	1.725	1.203
7.002	18.372	155.7	225	Circular	3.078	1.650	1.203	2.965	1.532	1.208
8.000	9.638	160.6	300	Swale	3.030	2.730	0.000	2.970	2.670	0.000
8.001	4.809	10.4	150	Circular	2.970	2.070	0.750	2.965	1.607	1.208
7.003	28.144	154.6	225	Circular	2.965	1.532	1.208	2.793	1.350	1.218
9.000	13.980	150.3	300	Swale	2.888	2.588	0.000	2.794	2.495	-0.001
9.001	5.859	12.5	150	Circular	2.794	1.894	0.750	2.793	1.425	1.218
7.004	8.974	39.9	225	Circular	2.793	1.350	1.218	2.726	1.125	1.376
7.005	8.608	220.7	300	Circular	2.726	1.050	1.376	2.650	1.011	1.339
10.000	8.935	248.2	300	Swale	2.717	2.426	-0.009	2.692	2.390	0.002
11.000	7.605	152.1	300	Swale	2.742	2.440	0.002	2.692	2.390	0.002
10.001	2.876	4.6	150	Circular	2.692	1.790	0.752	2.650	1.161	1.339
7.006	17.428	217.9	300	Circular	2.650	1.011	1.339	2.745	0.931	1.514
12.000	10.582	151.2	300	Swale	2.840	2.540	0.000	2.769	2.470	-0.001
12.001	3.344	4.3	150	Circular	2.769	1.865	0.754	2.745	1.081	1.514

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
5.002	PS172		Junction		PS173	450	Manhole	Adoptable
5.003	PS173	450	Manhole	Adoptable	S1	1350	Manhole	Adoptable
5.004	S1	1350	Manhole	Adoptable	S2	1350	Manhole	Adoptable
5.005	S2	1350	Manhole	Adoptable	S32	1350	Manhole	Adoptable
1.006	S32	1350	Manhole	Adoptable	N55	450	Manhole	Adoptable
6.000	N40	300	Manhole	Adoptable	N41	450	Manhole	Adoptable
6.001	N41	450	Manhole	Adoptable	N55	450	Manhole	Adoptable
1.007	N55	450	Manhole	Adoptable	S33	1350	Manhole	Adoptable
1.008	S33	1350	Manhole	Adoptable	S34	1500	Manhole	Adoptable
7.000	N31	300	Manhole	Adoptable	N32	450	Manhole	Adoptable
7.001	N32	450	Manhole	Adoptable	S343	1350	Manhole	Adoptable
7.002	S343	1350	Manhole	Adoptable	N30	225	Manhole	Adoptable
8.000	N33	300	Manhole	Adoptable	N34	450	Manhole	Adoptable
8.001	N34	450	Manhole	Adoptable	N30	225	Manhole	Adoptable
7.003	N30	225	Manhole	Adoptable	S342	1350	Manhole	Adoptable
9.000	N35	300	Manhole	Adoptable	N36	450	Manhole	Adoptable
9.001	N36	450	Manhole	Adoptable	S342	1350	Manhole	Adoptable
7.004	S342	1350	Manhole	Adoptable	S341	1350	Manhole	Adoptable
7.005	S341	1350	Manhole	Adoptable	N29	300	Manhole	Adoptable
10.000	N39	300	Manhole	Adoptable	N38	450	Manhole	Adoptable
11.000	N37	300	Manhole	Adoptable	N38	450	Manhole	Adoptable
10.001	N38	450	Manhole	Adoptable	N29	300	Manhole	Adoptable
7.006	N29	300	Manhole	Adoptable	N47	300	Manhole	Adoptable
12.000	N45	300	Manhole	Adoptable	N46	450	Manhole	Adoptable
12.001	N46	450	Manhole	Adoptable	N47	300	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)
7.007	17.901	221.0	300	Circular	2.745	0.931	1.514	2.931	0.850	1.781
7.008	10.230	204.6	300	Circular	2.931	0.850	1.781	2.862	0.800	1.762
13.000	70.641	190.9	300	Swale	3.350	3.050	0.000	2.984	2.680	0.004
13.001	3.532	3.1	300	Circular	2.984	1.930	0.754	2.862	0.800	1.762
7.009	34.888	116.3	375	Circular	2.862	0.725	1.762	2.545	0.425	1.745
14.000	34.563	148.3	300	Swale	2.935	2.633	0.002	2.700	2.400	0.000
14.001	29.014	182.5	300	Swale	2.700	2.400	0.000	2.541	2.241	0.000
14.002	4.700	4.1	300	Circular	2.541	1.641	0.600	2.545	0.500	1.745
1.009	17.924	358.5	525	Circular	2.545	0.275	1.745	1.600	0.225	0.850
1.010	17.997	359.9	525	Circular	1.600	0.225	0.850	1.600	0.175	0.900
1.011	30.353	607.1	525	Circular	1.600	0.175	0.900	1.600	0.125	0.950
15.000	85.588	244.5	300	Swale	1.900	1.600	0.000	2.081	1.250	0.531
15.001	11.190	20.3	300	Circular	2.081	0.900	0.881	2.261	0.350	1.611
15.002	15.079	67.0	300	Circular	2.261	0.350	1.611	1.600	0.125	1.175
1.012	7.166	286.6	525	Circular	1.600	0.125	0.950	1.600	0.100	0.975
1.013	8.645	172.9	450	Circular	1.600	0.100	1.050	1.600	0.050	1.100
1.014	8.469	242.0	450	Circular	1.600	0.050	1.100	1.497	0.015	1.032
1.015	55.722	245.5	450	Circular	1.497	0.015	1.032	1.207	-0.212	0.969
1.016	51.977	245.2	450	Circular	1.207	-0.212	0.969	1.224	-0.424	1.198
1.017	5.812	242.2	450	Circular	1.224	-0.424	1.198	1.500	-0.448	1.498

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
7.007	N47	300	Manhole	Adoptable	S35	1200	Manhole	Adoptable
7.008	S35	1200	Manhole	Adoptable	S36	1200	Manhole	Adoptable
13.000	N62	300	Manhole	Adoptable	N63	450	Manhole	Adoptable
13.001	N63	450	Manhole	Adoptable	S36	1200	Manhole	Adoptable
7.009	S36	1200	Manhole	Adoptable	S34	1500	Manhole	Adoptable
14.000	N42	300	Manhole	Adoptable	N43	300	Manhole	Adoptable
14.001	N43	300	Manhole	Adoptable	N44	450	Manhole	Adoptable
14.002	N44	450	Manhole	Adoptable	S34	1500	Manhole	Adoptable
1.009	S34	1500	Manhole	Adoptable	HW1	1	Manhole	Adoptable
1.010	HW1	1	Manhole	Adoptable	HW2	1	Manhole	Adoptable
1.011	HW2	1	Manhole	Adoptable	HW3	1	Manhole	Adoptable
15.000	N1	1	Manhole	Adoptable	N2	450	Manhole	Adoptable
15.001	N2	450	Manhole	Adoptable	S11	1350	Manhole	Adoptable
15.002	S11	1350	Manhole	Adoptable	HW3	1	Manhole	Adoptable
1.012	HW3	1	Manhole	Adoptable	HW4	1	Manhole	Adoptable
1.013	HW4	1	Manhole	Adoptable	S101	1350	Manhole	Adoptable
1.014	S101	1350	Manhole	Adoptable	S103	1350	Manhole	Adoptable
1.015	S103	1350	Manhole	Adoptable	S104	1350	Manhole	Adoptable
1.016	S104	1350	Manhole	Adoptable	S105	1350	Manhole	Adoptable
1.017	S105	1350	Manhole	Adoptable	HW5	1	Manhole	Adoptable

Node S101 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	0.050	Product Number	CTL-SHE-0101-4800-1200-4800
Design Depth (m)	1.200	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	4.8	Min Node Diameter (mm)	1200

Node HW4 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	0.100
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	570

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	427.6	0.0	0.400	592.6	0.0	0.800	1079.1	0.0	1.200	1278.1	0.0
0.100	467.4	0.0	0.500	635.5	0.0	0.900	1128.0	0.0	1.300	1329.2	0.0
0.200	508.6	0.0	0.600	678.9	0.0	1.000	1177.4	0.0	1.400	1380.9	0.0
0.300	550.3	0.0	0.700	1030.7	0.0	1.100	1227.5	0.0			

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.16%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	N21	11	2.690	0.048	5.8	0.0034	0.0000	OK
15 minute winter	N22	10	2.893	0.023	4.5	0.0016	0.0000	OK
15 minute winter	N23	11	1.917	0.062	9.5	0.0099	0.0000	OK
15 minute winter	S7	11	1.757	0.071	9.5	0.1016	0.0000	OK
15 minute winter	N51	11	2.936	0.025	1.6	0.0018	0.0000	OK
15 minute winter	N50	11	2.295	0.017	1.5	0.0027	0.0000	OK
15 minute winter	S6	11	1.611	0.186	47.8	0.2663	0.0000	OK
15 minute winter	S5	11	1.122	0.172	47.3	0.1947	0.0000	OK
15 minute winter	N61	11	3.069	0.019	3.0	0.0014	0.0000	OK
15 minute winter	N60	11	2.137	0.022	2.9	0.0035	0.0000	OK
15 minute winter	N64	11	1.078	0.158	50.2	0.0112	0.0000	OK
15 minute summer	PS170	1	1.363	0.000	0.0	0.0000	0.0000	OK
15 minute winter	PS171	11	1.340	0.028	2.8	0.0000	0.0000	OK
15 minute winter	PS172	11	1.300	0.041	4.4	0.0000	0.0000	OK
15 minute winter	PS173	12	1.292	0.049	4.2	0.0078	0.0000	OK
15 minute winter	S1	11	1.260	0.080	11.2	0.1146	0.0000	OK
15 minute winter	S2	11	1.141	0.111	18.3	0.1593	0.0000	OK
15 minute winter	S32	11	0.901	0.221	68.5	0.3168	0.0000	OK
15 minute winter	N40	11	2.663	0.028	3.6	0.0020	0.0000	OK
15 minute winter	N41	11	1.702	0.022	3.4	0.0035	0.0000	OK
15 minute winter	N55	12	0.863	0.214	71.6	0.0341	0.0000	OK
15 minute winter	S33	12	0.819	0.194	74.8	0.2771	0.0000	OK
15 minute winter	N31	11	2.805	0.035	2.7	0.0025	0.0000	OK
15 minute winter	N32	11	2.291	0.021	2.5	0.0034	0.0000	OK
15 minute winter	S343	12	1.687	0.037	2.5	0.0524	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	N21	1.000	N23	5.2	0.246	0.016	0.4672	
15 minute winter	N22	2.000	N23	4.3	0.366	0.007	0.1914	
15 minute winter	N23	1.001	S7	9.5	0.965	0.158	0.1251	
15 minute winter	S7	1.002	S6	9.3	0.786	0.219	0.4185	
15 minute winter	N51	3.000	N50	1.5	0.157	0.005	0.0805	
15 minute winter	N50	3.001	S6	1.5	1.266	0.027	0.0151	
15 minute winter	S6	1.003	S5	47.3	1.092	0.643	0.8808	
15 minute winter	S5	1.004	N64	47.4	1.016	0.323	0.2591	
15 minute winter	N61	4.000	N60	2.9	0.310	0.005	0.1626	
15 minute winter	N60	4.001	N64	2.9	1.816	0.044	0.0117	
15 minute winter	N64	1.005	S32	50.2	1.180	0.344	1.3156	
15 minute summer	PS170	5.000	PS171	0.0	0.000	0.000	0.1206	
15 minute winter	PS171	5.001	PS172	2.6	0.127	0.010	0.3349	
15 minute winter	PS172	5.002	PS173	4.2	0.151	0.017	0.1383	
15 minute winter	PS173	5.003	S1	4.2	0.468	0.105	0.0988	
15 minute winter	S1	5.004	S2	11.1	0.692	0.276	0.3993	
15 minute winter	S2	5.005	S32	18.3	0.968	0.455	0.3927	
15 minute winter	S32	1.006	N55	68.2	0.902	0.361	0.6808	
15 minute winter	N40	6.000	N41	3.4	0.272	0.008	0.2424	
15 minute winter	N41	6.001	N55	3.4	2.183	0.042	0.0057	
15 minute winter	N55	1.007	S33	71.2	1.049	0.382	0.5002	
15 minute winter	S33	1.008	S34	71.7	0.895	0.373	8.4091	
15 minute winter	N31	7.000	N32	2.5	0.181	0.009	0.1838	
15 minute winter	N32	7.001	S343	2.5	1.664	0.040	0.0068	
15 minute winter	S343	7.002	N30	2.4	0.428	0.058	0.1055	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.16%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	N33	11	2.761	0.031	2.9	0.0022	0.0000	OK
15 minute winter	N34	11	2.094	0.024	2.8	0.0038	0.0000	OK
15 minute winter	N30	11	1.586	0.054	5.2	0.0022	0.0000	OK
15 minute winter	N35	11	2.626	0.038	4.2	0.0027	0.0000	OK
15 minute winter	N36	11	1.924	0.030	4.0	0.0048	0.0000	OK
15 minute winter	S342	12	1.403	0.053	9.1	0.0758	0.0000	OK
15 minute winter	S341	12	1.127	0.077	9.0	0.1101	0.0000	OK
15 minute winter	N39	11	2.459	0.033	2.6	0.0024	0.0000	OK
15 minute winter	N37	11	2.470	0.030	2.8	0.0022	0.0000	OK
15 minute winter	N38	11	1.818	0.028	5.3	0.0044	0.0000	OK
15 minute winter	N29	12	1.098	0.087	14.0	0.0062	0.0000	OK
15 minute winter	N45	11	2.570	0.030	2.7	0.0021	0.0000	OK
15 minute winter	N46	11	1.884	0.019	2.6	0.0030	0.0000	OK
15 minute winter	N47	11	1.078	0.147	30.4	0.0104	0.0000	OK
15 minute winter	S35	11	1.028	0.178	44.1	0.2017	0.0000	OK
15 minute winter	N62	13	3.115	0.065	13.6	0.0046	0.0000	OK
15 minute winter	N63	13	1.954	0.024	8.5	0.0038	0.0000	OK
15 minute winter	S36	10	0.865	0.140	56.4	0.1581	0.0000	OK
15 minute winter	N42	11	2.667	0.034	5.6	0.0024	0.0000	OK
15 minute winter	N43	13	2.459	0.059	10.1	0.0042	0.0000	OK
15 minute winter	N44	13	1.666	0.025	7.8	0.0039	0.0000	OK
15 minute winter	S34	12	0.765	0.490	142.4	0.8665	0.0000	OK
15 minute summer	HW1	12	0.728	0.503	164.3	0.0000	0.0000	OK
15 minute winter	HW2	11	0.718	0.543	185.3	0.0000	0.0000	SURCHARGED
15 minute winter	N1	13	1.675	0.075	17.4	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	N33	8.000	N34	2.8	0.213	0.008	0.1272	
15 minute winter	N34	8.001	N30	2.8	1.593	0.050	0.0084	
15 minute winter	N30	7.003	S342	5.1	0.711	0.122	0.2024	
15 minute winter	N35	9.000	N36	4.0	0.244	0.011	0.2345	
15 minute winter	N36	9.001	S342	4.0	1.660	0.079	0.0142	
15 minute winter	S342	7.004	S341	9.0	1.321	0.109	0.0613	
15 minute winter	S341	7.005	N29	9.1	0.582	0.122	0.1345	
15 minute winter	N39	10.000	N38	2.5	0.190	0.009	0.1216	
15 minute winter	N37	11.000	N38	2.7	0.217	0.008	0.0972	
15 minute winter	N38	10.001	N29	5.3	2.505	0.063	0.0060	
15 minute winter	N29	7.006	N47	14.1	0.581	0.188	0.4443	
15 minute winter	N45	12.000	N46	2.6	0.211	0.007	0.1333	
15 minute winter	N46	12.001	N47	2.6	2.136	0.030	0.0041	
15 minute winter	N47	7.007	S35	30.3	0.782	0.407	0.6965	
15 minute winter	S35	7.008	S36	44.0	1.077	0.569	0.4182	
15 minute winter	N62	13.000	N63	8.5	0.282	0.027	2.2075	
15 minute winter	N63	13.001	S36	8.5	2.819	0.013	0.0237	
15 minute winter	S36	7.009	S34	56.1	1.298	0.302	2.4742	
15 minute winter	N42	14.000	N43	5.4	0.209	0.015	1.0332	
15 minute winter	N43	14.001	N44	7.8	0.284	0.024	0.8159	
15 minute winter	N44	14.002	S34	7.8	2.430	0.014	0.1613	
15 minute winter	S34	1.009	HW1	176.0	0.927	0.691	3.7868	
15 minute summer	HW1	1.010	HW2	175.0	0.949	0.688	3.8394	
15 minute winter	HW2	1.011	HW3	193.3	1.182	0.991	6.5572	
15 minute winter	N1	15.000	N2	9.5	0.270	0.034	3.1285	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.16%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
15 minute winter	N2	13	0.940	0.040	9.5	0.0063	0.0000	OK
15 minute winter	S11	11	0.696	0.346	17.5	0.4955	0.0000	SURCHARGED
15 minute winter	HW3	11	0.693	0.568	217.5	0.0000	0.0000	SURCHARGED
240 minute winter	HW4	236	0.394	0.294	34.4	143.0017	0.0000	OK
240 minute winter	S101	240	0.405	0.355	13.0	0.5082	0.0000	OK
240 minute winter	S103	228	0.062	0.047	4.8	0.0677	0.0000	OK
240 minute winter	S104	240	-0.165	0.047	4.8	0.0670	0.0000	OK
240 minute winter	S105	240	-0.375	0.049	4.8	0.0706	0.0000	OK
240 minute winter	HW5	240	-0.402	0.046	4.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m ³)	Discharge Vol (m ³)
15 minute winter	N2	15.001	S11	9.5	1.169	0.038	0.4206	
15 minute winter	S11	15.002	HW3	25.7	0.603	0.189	1.0619	
15 minute winter	HW3	1.012	HW4	234.4	2.756	0.822	0.7815	
240 minute winter	HW4	1.013	S101	13.0	0.340	0.053	1.0533	
240 minute winter	S101	Hydro-Brake®	S103	4.8				
240 minute winter	S103	1.015	S104	4.8	0.547	0.023	0.4879	
240 minute winter	S104	1.016	S105	4.8	0.530	0.023	0.4694	
240 minute winter	S105	1.017	HW5	4.8	0.539	0.023	0.0516	200.6

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.68%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	N21	11	2.710	0.068	11.0	0.0049	0.0000	OK
15 minute winter	N22	10	2.903	0.033	8.6	0.0024	0.0000	OK
15 minute winter	N23	11	1.946	0.091	18.5	0.0145	0.0000	OK
15 minute winter	S7	11	1.789	0.103	18.5	0.1481	0.0000	OK
15 minute winter	N51	11	2.947	0.036	3.0	0.0025	0.0000	OK
15 minute winter	N50	11	2.301	0.023	2.9	0.0037	0.0000	OK
15 minute winter	S6	11	1.757	0.332	92.3	0.4752	0.0000	SURCHARGED
15 minute winter	S5	11	1.366	0.416	90.7	0.4707	0.0000	SURCHARGED
15 minute winter	N61	11	3.077	0.027	5.7	0.0019	0.0000	OK
15 minute winter	N60	10	2.146	0.031	5.5	0.0049	0.0000	OK
15 minute winter	N64	11	1.335	0.415	99.8	0.0295	0.0000	SURCHARGED
15 minute summer	PS170	1	1.363	0.000	0.0	0.0000	0.0000	OK
15 minute winter	PS171	11	1.353	0.041	5.4	0.0000	0.0000	OK
15 minute winter	PS172	12	1.349	0.090	8.5	0.0000	0.0000	OK
15 minute winter	PS173	12	1.345	0.102	9.2	0.0162	0.0000	OK
15 minute winter	S1	11	1.331	0.151	21.4	0.2168	0.0000	OK
15 minute winter	S2	11	1.311	0.281	35.3	0.4017	0.0000	SURCHARGED
15 minute winter	S32	11	1.290	0.610	127.3	0.8735	0.0000	SURCHARGED
15 minute winter	N40	11	2.674	0.039	6.8	0.0028	0.0000	OK
15 minute summer	N41	10	1.710	0.030	6.2	0.0047	0.0000	OK
15 minute winter	N55	11	1.253	0.604	134.1	0.0960	0.0000	SURCHARGED
15 minute winter	S33	11	1.218	0.593	141.1	0.8489	0.0000	SURCHARGED
15 minute winter	N31	11	2.819	0.049	5.1	0.0035	0.0000	OK
15 minute winter	N32	11	2.300	0.030	4.8	0.0048	0.0000	OK
15 minute winter	S343	11	1.701	0.051	4.8	0.0735	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	N21	1.000	N23	10.2	0.310	0.032	0.7353	
15 minute winter	N22	2.000	N23	8.3	0.454	0.013	0.2986	
15 minute winter	N23	1.001	S7	18.5	1.135	0.309	0.2090	
15 minute winter	S7	1.002	S6	18.7	0.819	0.440	0.7966	
15 minute winter	N51	3.000	N50	2.9	0.202	0.011	0.1208	
15 minute winter	N50	3.001	S6	2.9	1.274	0.052	0.0674	
15 minute winter	S6	1.003	S5	90.7	1.320	1.232	1.3164	
15 minute winter	S5	1.004	N64	94.3	1.149	0.642	0.6112	
15 minute winter	N61	4.000	N60	5.5	0.388	0.009	0.2500	
15 minute winter	N60	4.001	N64	5.5	2.177	0.085	0.0740	
15 minute winter	N64	1.005	S32	97.7	1.227	0.670	3.4122	
15 minute summer	PS170	5.000	PS171	0.0	0.000	0.000	0.1871	
15 minute winter	PS171	5.001	PS172	5.1	0.155	0.020	0.7573	
15 minute winter	PS172	5.002	PS173	9.2	0.184	0.036	0.3685	
15 minute winter	PS173	5.003	S1	10.4	0.608	0.258	0.2255	
15 minute winter	S1	5.004	S2	22.3	0.794	0.554	0.8449	
15 minute winter	S2	5.005	S32	37.3	1.078	0.927	0.8254	
15 minute winter	S32	1.006	N55	128.1	1.008	0.678	1.4268	
15 minute winter	N40	6.000	N41	6.5	0.343	0.014	0.3677	
15 minute summer	N41	6.001	N55	6.2	2.535	0.077	0.0360	
15 minute winter	N55	1.007	S33	135.3	1.204	0.727	1.1349	
15 minute winter	S33	1.008	S34	143.3	0.931	0.746	12.2168	
15 minute winter	N31	7.000	N32	4.8	0.232	0.018	0.2815	
15 minute winter	N32	7.001	S343	4.8	2.005	0.078	0.0110	
15 minute winter	S343	7.002	N30	4.8	0.515	0.116	0.1731	

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.68%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	N33	10	2.774	0.044	5.5	0.0031	0.0000	OK
15 minute winter	N34	11	2.103	0.033	5.3	0.0053	0.0000	OK
15 minute winter	N30	11	1.609	0.077	10.1	0.0031	0.0000	OK
15 minute winter	N35	11	2.641	0.053	8.1	0.0037	0.0000	OK
15 minute winter	N36	11	1.937	0.043	7.8	0.0068	0.0000	OK
15 minute winter	S342	10	1.423	0.073	17.9	0.1051	0.0000	OK
15 minute winter	S341	11	1.299	0.249	18.9	0.3568	0.0000	OK
15 minute winter	N39	11	2.472	0.046	5.0	0.0033	0.0000	OK
15 minute winter	N37	10	2.482	0.042	5.4	0.0030	0.0000	OK
15 minute winter	N38	10	1.830	0.040	10.1	0.0063	0.0000	OK
15 minute winter	N29	12	1.278	0.267	32.9	0.0190	0.0000	OK
15 minute winter	N45	11	2.582	0.042	5.2	0.0030	0.0000	OK
15 minute winter	N46	11	1.889	0.024	5.0	0.0039	0.0000	OK
15 minute winter	N47	11	1.257	0.326	59.7	0.0231	0.0000	SURCHARGED
15 minute winter	S35	11	1.218	0.368	82.7	0.4163	0.0000	SURCHARGED
15 minute winter	N62	12	3.146	0.096	25.8	0.0068	0.0000	OK
15 minute winter	N63	12	1.964	0.034	18.1	0.0055	0.0000	OK
15 minute winter	S36	11	1.132	0.407	110.0	0.4607	0.0000	SURCHARGED
15 minute winter	N42	11	2.683	0.050	10.7	0.0035	0.0000	OK
15 minute winter	N43	12	2.486	0.086	19.4	0.0061	0.0000	OK
15 minute winter	N44	12	1.676	0.035	16.4	0.0056	0.0000	OK
15 minute summer	S34	10	1.016	0.741	275.4	1.3088	0.0000	SURCHARGED
15 minute summer	HW1	10	0.997	0.772	286.1	0.0000	0.0000	SURCHARGED
15 minute summer	HW2	10	0.930	0.755	287.5	0.0000	0.0000	SURCHARGED
15 minute winter	N1	13	1.711	0.111	33.0	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	N33	8.000	N34	5.3	0.272	0.015	0.1923	
15 minute winter	N34	8.001	N30	5.3	1.904	0.096	0.0135	
15 minute winter	N30	7.003	S342	10.1	0.886	0.242	0.3253	
15 minute winter	N35	9.000	N36	7.8	0.313	0.022	0.3543	
15 minute winter	N36	9.001	S342	7.8	1.983	0.154	0.0230	
15 minute winter	S342	7.004	S341	18.9	1.533	0.228	0.1978	
15 minute winter	S341	7.005	N29	24.0	0.603	0.322	0.5440	
15 minute winter	N39	10.000	N38	4.8	0.241	0.017	0.1827	
15 minute winter	N37	11.000	N38	5.3	0.280	0.015	0.1456	
15 minute winter	N38	10.001	N29	10.0	2.947	0.120	0.0253	
15 minute winter	N29	7.006	N47	33.0	0.623	0.440	1.1907	
15 minute winter	N45	12.000	N46	5.0	0.269	0.014	0.2005	
15 minute winter	N46	12.001	N47	5.0	2.275	0.058	0.0325	
15 minute winter	N47	7.007	S35	61.0	0.898	0.819	1.2606	
15 minute winter	S35	7.008	S36	83.9	1.289	1.084	0.7204	
15 minute winter	N62	13.000	N63	18.1	0.357	0.057	3.7132	
15 minute winter	N63	13.001	S36	18.1	3.046	0.029	0.1317	
15 minute winter	S36	7.009	S34	112.9	1.335	0.609	3.8480	
15 minute winter	N42	14.000	N43	10.2	0.240	0.028	1.6443	
15 minute winter	N43	14.001	N44	16.4	0.365	0.051	1.3443	
15 minute winter	N44	14.002	S34	16.4	2.499	0.030	0.1763	
15 minute summer	S34	1.009	HW1	278.0	1.287	1.091	3.8722	
15 minute summer	HW1	1.010	HW2	287.5	1.331	1.131	3.8879	
15 minute summer	HW2	1.011	HW3	289.6	1.434	1.484	6.5572	
15 minute winter	N1	15.000	N2	20.6	0.344	0.074	5.3643	

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.68%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	N2	13	0.958	0.058	20.6	0.0093	0.0000	OK
15 minute summer	S11	10	0.942	0.592	33.9	0.8474	0.0000	SURCHARGED
15 minute summer	HW3	10	0.879	0.754	326.9	0.0000	0.0000	SURCHARGED
360 minute winter	HW4	360	0.648	0.548	44.6	295.9560	0.0000	SURCHARGED
480 minute winter	S101	472	0.657	0.607	13.4	0.8683	0.0000	SURCHARGED
15 minute winter	S103	14	0.063	0.048	4.8	0.0686	0.0000	OK
15 minute winter	S104	17	-0.165	0.047	4.8	0.0672	0.0000	OK
30 minute summer	S105	120	-0.375	0.049	4.8	0.0707	0.0000	OK
30 minute summer	HW5	120	-0.402	0.046	4.8	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	N2	15.001	S11	20.6	1.322	0.083	0.4421	
15 minute summer	S11	15.002	HW3	38.5	0.684	0.283	1.0619	
15 minute summer	HW3	1.012	HW4	336.8	3.025	1.181	0.8155	
360 minute winter	HW4	1.013	S101	12.6	0.334	0.051	1.3697	
480 minute winter	S101	Hydro-Brake®	S103	4.8				
15 minute winter	S103	1.015	S104	4.8	0.686	0.023	0.4882	
15 minute winter	S104	1.016	S105	4.8	0.577	0.023	0.4697	
30 minute summer	S105	1.017	HW5	4.8	0.539	0.023	0.0517	196.9

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.03%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	N21	10	2.732	0.090	20.0	0.0064	0.0000	OK
15 minute winter	N22	10	2.916	0.046	15.6	0.0032	0.0000	OK
15 minute winter	N23	12	2.699	0.844	36.8	0.1342	0.0000	FLOOD RISK
15 minute winter	S7	11	2.650	0.964	50.6	1.3791	0.0000	SURCHARGED
15 minute winter	N51	10	2.959	0.048	5.5	0.0034	0.0000	OK
15 minute winter	N50	11	2.618	0.340	5.3	0.0540	0.0000	SURCHARGED
15 minute winter	S6	11	2.609	1.184	149.3	1.6950	0.0000	SURCHARGED
15 minute winter	S5	11	2.141	1.191	145.7	1.3475	0.0000	SURCHARGED
15 minute winter	N61	10	3.088	0.038	10.4	0.0027	0.0000	OK
15 minute winter	N60	11	2.159	0.044	10.1	0.0070	0.0000	OK
15 minute winter	N64	11	2.068	1.148	154.9	0.0815	0.0000	SURCHARGED
15 minute winter	PS170	14	1.648	0.285	24.6	0.0000	0.0000	OK
15 minute winter	PS171	14	1.649	0.337	50.8	0.0000	0.0000	FLOOD RISK
15 minute winter	PS172	14	1.648	0.389	59.2	0.0000	0.0000	FLOOD RISK
15 minute winter	PS173	14	1.647	0.404	56.8	0.0643	0.0000	FLOOD RISK
15 minute winter	S1	12	1.720	0.540	59.8	0.7725	0.0000	SURCHARGED
15 minute winter	S2	11	1.824	0.794	47.1	1.1365	0.0000	SURCHARGED
15 minute winter	S32	11	1.828	1.148	154.9	1.6433	0.0000	SURCHARGED
15 minute winter	N40	11	2.688	0.053	12.3	0.0038	0.0000	OK
15 minute winter	N41	11	1.810	0.130	11.9	0.0207	0.0000	OK
15 minute winter	N55	11	1.787	1.138	160.2	0.1810	0.0000	SURCHARGED
15 minute winter	S33	11	1.744	1.119	171.9	1.6007	0.0000	SURCHARGED
15 minute winter	N31	11	2.836	0.066	9.3	0.0047	0.0000	OK
15 minute winter	N32	12	2.371	0.101	8.9	0.0161	0.0000	OK
15 minute winter	S343	12	2.364	0.714	11.1	1.0213	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	N21	1.000	N23	21.3	0.378	0.068	2.3901	
15 minute winter	N22	2.000	N23	15.5	0.529	0.024	1.5890	
15 minute winter	N23	1.001	S7	50.6	1.272	0.843	0.5060	
15 minute winter	S7	1.002	S6	54.4	1.367	1.279	1.1005	
15 minute winter	N51	3.000	N50	5.3	0.252	0.019	0.1762	
15 minute winter	N50	3.001	S6	7.9	1.217	0.139	0.1227	
15 minute winter	S6	1.003	S5	145.7	2.069	1.978	1.4315	
15 minute winter	S5	1.004	N64	144.8	1.313	0.986	0.6112	
15 minute winter	N61	4.000	N60	10.1	0.471	0.017	0.3761	
15 minute winter	N60	4.001	N64	10.1	2.098	0.155	0.0807	
15 minute winter	N64	1.005	S32	154.9	1.405	1.063	3.4122	
15 minute winter	PS170	5.000	PS171	-24.6	-0.253	-0.097	6.7601	
15 minute winter	PS171	5.001	PS172	-41.0	-0.208	-0.163	9.3021	
15 minute winter	PS172	5.002	PS173	-52.7	-0.340	-0.210	3.2637	
15 minute winter	PS173	5.003	S1	-56.8	-1.429	-1.412	0.4153	
15 minute winter	S1	5.004	S2	44.0	1.106	1.090	0.9854	
15 minute winter	S2	5.005	S32	48.3	1.232	1.200	0.8254	
15 minute winter	S32	1.006	N55	149.3	0.994	0.791	1.4268	
15 minute winter	N40	6.000	N41	11.9	0.420	0.026	0.5470	
15 minute winter	N41	6.001	N55	12.0	2.456	0.149	0.0614	
15 minute winter	N55	1.007	S33	161.5	1.130	0.867	1.1349	
15 minute winter	S33	1.008	S34	173.6	1.096	0.903	12.2168	
15 minute winter	N31	7.000	N32	8.9	0.288	0.033	0.4173	
15 minute winter	N32	7.001	S343	8.9	2.236	0.144	0.0689	
15 minute winter	S343	7.002	N30	13.5	0.536	0.326	0.7307	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.03%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	N33	10	2.788	0.058	10.0	0.0041	0.0000	OK
15 minute winter	N34	12	2.368	0.298	9.7	0.0473	0.0000	SURCHARGED
15 minute winter	N30	12	2.352	0.820	19.6	0.0328	0.0000	SURCHARGED
15 minute winter	N35	10	2.658	0.070	14.7	0.0050	0.0000	OK
15 minute winter	N36	12	2.369	0.475	14.2	0.0755	0.0000	SURCHARGED
15 minute winter	S342	12	2.325	0.975	34.5	1.3956	0.0000	SURCHARGED
15 minute winter	S341	12	2.290	1.240	47.5	1.7751	0.0000	SURCHARGED
15 minute winter	N39	10	2.489	0.063	9.1	0.0044	0.0000	OK
15 minute winter	N37	10	2.496	0.056	9.8	0.0040	0.0000	OK
15 minute winter	N38	12	2.328	0.538	18.5	0.0855	0.0000	SURCHARGED
15 minute winter	N29	12	2.280	1.269	58.8	0.0901	0.0000	SURCHARGED
15 minute winter	N45	10	2.596	0.056	9.5	0.0040	0.0000	OK
15 minute winter	N46	12	2.255	0.390	9.2	0.0620	0.0000	SURCHARGED
15 minute winter	N47	12	2.240	1.309	94.1	0.0930	0.0000	SURCHARGED
15 minute winter	S35	11	2.075	1.225	130.5	1.3853	0.0000	SURCHARGED
15 minute winter	N62	12	3.183	0.133	47.0	0.0095	0.0000	OK
15 minute winter	N63	12	1.978	0.048	36.7	0.0077	0.0000	OK
15 minute winter	S36	11	1.851	1.126	182.7	1.2739	0.0000	SURCHARGED
15 minute winter	N42	11	2.702	0.069	19.4	0.0049	0.0000	OK
15 minute winter	N43	12	2.516	0.116	35.6	0.0082	0.0000	OK
15 minute winter	N44	12	1.689	0.048	31.9	0.0077	0.0000	OK
15 minute winter	S34	11	1.496	1.221	412.2	2.1570	0.0000	SURCHARGED
15 minute winter	HW1	9	1.320	1.095	429.9	0.0000	0.0000	FLOOD RISK
15 minute winter	HW2	9	1.191	1.016	430.9	0.0000	0.0000	SURCHARGED
15 minute winter	N1	12	1.755	0.155	59.9	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	N33	8.000	N34	9.7	0.341	0.028	0.2806	
15 minute winter	N34	8.001	N30	9.3	2.155	0.168	0.0847	
15 minute winter	N30	7.003	S342	23.9	0.828	0.573	1.1193	
15 minute winter	N35	9.000	N36	14.2	0.387	0.040	0.5214	
15 minute winter	N36	9.001	S342	12.8	2.082	0.252	0.1031	
15 minute winter	S342	7.004	S341	47.5	1.391	0.575	0.3569	
15 minute winter	S341	7.005	N29	53.6	0.761	0.719	0.6062	
15 minute winter	N39	10.000	N38	8.8	0.300	0.032	0.2705	
15 minute winter	N37	11.000	N38	9.6	0.351	0.027	0.2126	
15 minute winter	N38	10.001	N29	17.0	2.872	0.203	0.0506	
15 minute winter	N29	7.006	N47	62.8	0.892	0.838	1.2273	
15 minute winter	N45	12.000	N46	9.2	0.338	0.026	0.2939	
15 minute winter	N46	12.001	N47	9.2	2.174	0.106	0.0589	
15 minute winter	N47	7.007	S35	97.3	1.382	1.307	1.2606	
15 minute winter	S35	7.008	S36	131.6	1.868	1.699	0.7204	
15 minute winter	N62	13.000	N63	36.7	0.448	0.116	6.0037	
15 minute winter	N63	13.001	S36	36.7	3.271	0.058	0.1372	
15 minute winter	S36	7.009	S34	184.1	1.670	0.993	3.8480	
15 minute winter	N42	14.000	N43	18.7	0.279	0.052	2.5216	
15 minute winter	N43	14.001	N44	31.9	0.457	0.098	2.0792	
15 minute winter	N44	14.002	S34	31.9	2.194	0.058	0.1827	
15 minute winter	S34	1.009	HW1	414.4	1.918	1.626	3.8722	
15 minute winter	HW1	1.010	HW2	430.9	1.995	1.695	3.8879	
15 minute winter	HW2	1.011	HW3	431.6	1.998	2.212	6.5572	
15 minute winter	N1	15.000	N2	41.3	0.424	0.147	8.7551	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.03%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	N2	9	1.059	0.159	41.3	0.0253	0.0000	OK
15 minute winter	S11	9	1.065	0.715	71.7	1.0226	0.0000	SURCHARGED
15 minute winter	HW3	8	1.045	0.920	503.0	0.0000	0.0000	SURCHARGED
720 minute winter	HW4	705	0.991	0.891	46.1	622.1341	0.0000	SURCHARGED
720 minute winter	S101	705	0.991	0.941	13.8	1.3467	0.0000	SURCHARGED
15 minute winter	S103	12	0.064	0.049	4.8	0.0698	0.0000	OK
15 minute summer	S104	16	-0.165	0.047	4.9	0.0677	0.0000	OK
15 minute summer	S105	18	-0.375	0.049	4.8	0.0708	0.0000	OK
15 minute summer	HW5	18	-0.402	0.046	4.8	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	N2	15.001	S11	41.3	0.800	0.167	0.6063	
15 minute winter	S11	15.002	HW3	76.8	1.091	0.565	1.0619	
15 minute winter	HW3	1.012	HW4	503.4	3.166	1.765	1.5339	
720 minute winter	HW4	1.013	S101	13.8	0.235	0.056	1.3697	
720 minute winter	S101	Hydro-Brake®	S103	4.8				
15 minute winter	S103	1.015	S104	4.9	0.691	0.024	0.4919	
15 minute summer	S104	1.016	S105	4.8	0.582	0.024	0.4709	
15 minute summer	S105	1.017	HW5	4.8	0.540	0.023	0.0518	277.7