

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	100	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)	19.300	Minimum Backdrop Height (m)	0.200
Ratio-R	0.350	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.038	5.00	7.155	1200	497552.231	103029.538	1.686
2	0.106	5.00	6.800	1350	497539.611	103077.088	1.415
3	0.036	5.00	6.850	1350	497559.350	103059.824	1.596
4	0.046	5.00	6.929	1350	497571.935	103051.657	1.723
5	0.125	5.00	6.846	1350	497585.164	103043.136	1.690
6	0.068	5.00	7.002	1350	497590.660	103000.100	1.671
7	0.019	5.00	6.685	1350	497604.372	103017.637	1.575
8	0.092	5.00	6.603	1350	497612.241	103021.537	1.691
9	0.064	5.00	6.364	1350	497635.255	103004.339	1.527
10	0.149	5.00	6.151	1350	497655.721	102986.433	1.450
11	0.049	5.00	6.327	1350	497641.332	102952.267	1.595
12			6.072	1500	497654.913	102970.239	1.637
13	0.135	5.00	7.000	1350	497499.484	103039.625	1.200
14	0.020	5.00	7.250	1350	497525.876	103017.381	1.964
15	0.124	5.00	7.066	1350	497535.009	103009.673	1.818
16	0.032	5.00	6.756	1350	497513.641	102972.397	1.645
17	0.066	5.00	6.913	1200	497467.397	102997.137	1.413
18	0.017	5.00	6.750	1200	497498.214	102967.655	1.450
19	0.018	5.00	6.630	1200	497502.042	102962.765	1.380
20	0.068	5.00	6.671	1350	497503.260	102956.475	1.696
21	0.066	5.00	6.407	1350	497523.608	102940.127	1.500
22	0.088	5.00	6.752	1350	497574.498	102962.839	1.277
23	0.020	5.00	6.226	1350	497551.443	102931.329	1.181
24	0.025	5.00	6.179	1500	497545.274	102923.674	1.468
25	0.060	5.00	5.997	1500	497564.995	102908.999	1.436
26	0.029	5.00	6.216	1200	497579.848	102890.834	1.394
27	0.006	5.00	5.834	1500	497583.062	102896.995	1.444
28	0.108	5.00	5.860	1200	497608.318	102908.311	1.133
29	0.030	5.00	5.755	1500	497597.317	102897.924	1.425
30	0.042	5.00	6.777	1200	497477.886	102927.975	1.575
31	0.160	5.00	6.763	1350	497471.231	102919.225	1.739
32	0.070	5.00	7.030	1350	497499.441	102896.593	2.122
33	0.055	5.00	6.745	1350	497526.695	102877.052	1.944
34	0.067	5.00	6.426	1350	497551.262	102857.498	1.725
35	0.015	5.00	6.279	1350	497566.357	102851.788	1.629
36	0.033	5.00	6.191	1350	497580.671	102843.107	1.594
BASIN 1	0.246	5.00	5.900	1500	497601.326	102875.626	1.699
74			5.882	1350	497594.357	102849.961	1.717
38			6.242	1350	497593.413	102841.502	2.109
39			6.251	1350	497590.111	102837.377	2.132
37			6.372	1350	497598.771	102829.931	2.288



Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
40	0.047	5.00	6.392	1350	497622.499	102810.202	2.383
41	0.037	5.00	6.232	1350	497628.078	102797.219	2.260
42			6.135	1350	497628.652	102787.909	2.187
43	0.068	5.00	6.009	1350	497625.116	102775.056	2.091
44	0.100	5.00	5.800	1200	497579.872	102770.785	1.070
45	0.020	5.00	5.750	1200	497602.552	102754.784	1.925
46			5.694	1350	497606.812	102751.095	2.068
48	0.059	5.00	7.030	1200	497390.455	102929.884	1.225
49	0.038	5.00	7.345	1200	497411.974	102888.160	1.500
50	0.031	5.00	7.220	1200	497400.701	102890.896	1.500
51	0.047	5.00	7.140	1200	497393.545	102895.774	1.500
52	0.016	5.00	6.850	1200	497373.311	102917.367	1.334
53	0.059	5.00	6.650	1200	497353.872	102903.929	1.233
54	0.039	5.00	6.580	1350	497341.517	102892.612	1.308
55			6.400	1350	497329.023	102880.244	1.260
56	0.039	5.00	6.097	1200	497354.644	102861.878	0.897
57			6.232	1350	497348.809	102857.022	1.216
58			6.180	1350	497361.334	102842.322	1.214
59	0.088	5.00	7.134	1200	497438.881	102887.624	1.494
60	0.024	5.00	7.121	1200	497434.432	102877.962	1.525
61	0.033	5.00	6.886	1200	497434.531	102856.291	1.486
62	0.059	5.00	7.173	1200	497466.708	102845.045	1.493
63			6.932	1200	497447.327	102844.469	1.512
64	0.047	5.00	6.766	1350	497435.347	102844.237	1.543
65	0.064	5.00	6.590	1350	497435.267	102824.528	1.665
BASIN 2	0.034	5.00	6.015	1800	497418.107	102812.176	1.220
67	0.020	5.00	6.337	1350	497440.390	102786.537	1.629
68	0.036	5.00	6.369	1350	497459.959	102772.205	1.725
69	0.132	5.00	6.831	1200	497505.438	102818.775	1.491
70	0.073	5.00	6.700	1200	497517.882	102809.512	1.500
71	0.072	5.00	6.679	1200	497525.135	102803.490	1.519
72	0.054	5.00	6.400	1200	497500.256	102777.094	1.500
73	0.025	5.00	6.025	1350	497483.096	102764.999	1.449
BASIN 3	0.050	5.00	5.700	1350	497507.441	102755.325	1.536
75			5.639	1500	497518.306	102740.602	2.092
76			5.353	1350	497531.441	102728.920	1.849
77	0.014	5.00	5.054	1500	497567.496	102698.010	1.666
78	0.057	5.00	4.912	1500	497562.536	102684.309	1.561
TANK		5.00	5.650	1500	497534.313	102686.411	2.349
80			5.400	1500	497534.432	102682.029	2.112
BASIN 4	0.032	5.00	5.070	1500	497512.163	102676.808	1.821
82			4.914	1500	497503.313	102664.439	1.699
83	0.094	5.00	6.102	1500	497779.960	102515.557	1.770
84	0.076	5.00	6.460	1350	497776.707	102565.301	1.585
85	0.075	5.00	6.460	1350	497761.013	102534.122	1.698
86	0.101	5.00	6.584	1500	497756.347	102527.881	2.391
87			6.822	1500	497729.188	102543.326	2.706
88	0.072	5.00	6.670	1200	497722.976	102587.848	1.720
89			6.046	1200	497710.486	102567.105	1.214
90	0.114	5.00	6.812	1500	497702.030	102558.771	2.783
91	0.028	5.00	6.450	1200	497680.788	102617.068	0.770
92			6.300	1200	497677.195	102609.405	1.502



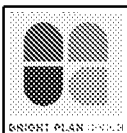
Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
93	0.032	5.00	6.262	1500	497666.150	102600.747	2.363
94	0.151	5.00	6.020	1500	497653.393	102611.458	2.164
95			5.481	1500	497605.242	102635.463	1.753
BASIN 5	0.094	5.00	5.321	1500	497573.800	102631.702	2.221
66			4.878	1500	497558.722	102635.120	2.089
98			4.758	1500	497554.454	102636.894	2.375
—			4.829		497549.020	102627.742	2.471

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	4	29.623	0.600	5.469	5.281	0.188	157.6	300	5.40	50.0
2.000	2	3	26.224	0.600	5.385	5.254	0.131	200.2	375	5.34	50.0
2.001	3	4	15.003	0.600	5.254	5.206	0.048	312.6	375	5.69	50.0
1.001	4	5	15.735	0.600	5.206	5.156	0.050	314.7	375	5.85	50.0
1.002	5	8	34.637	0.600	5.156	4.987	0.169	205.0	375	6.30	50.0
3.000	6	7	22.261	0.600	5.331	5.110	0.221	100.7	375	5.21	50.0
3.001	7	8	8.782	0.600	5.110	4.987	0.123	71.4	375	5.27	50.0
1.003	8	9	28.730	0.600	4.912	4.837	0.075	333.1	450	6.77	50.0
1.004	9	10	27.193	0.600	4.837	4.701	0.136	199.9	450	7.06	50.0
1.005	10	12	16.213	0.600	4.701	4.585	0.116	139.8	450	7.24	50.0
4.000	11	12	22.527	0.600	4.732	4.660	0.072	312.9	375	5.37	50.0
1.006	12	BASIN 1	108.735	0.600	4.435	4.201	0.234	464.7	600	8.85	50.0
5.000	13	14	34.516	0.600	5.800	5.286	0.514	67.2	375	5.26	50.0
5.001	14	15	11.952	0.600	5.286	5.248	0.038	314.5	375	5.46	50.0
5.002	15	16	42.967	0.600	5.248	5.111	0.137	313.6	375	6.16	50.0
5.003	16	20	19.007	0.600	5.111	5.050	0.061	311.6	375	6.47	50.0
6.000	17	18	42.648	0.600	5.500	5.300	0.200	213.2	300	5.66	50.0
6.001	18	19	6.210	0.600	5.300	5.250	0.050	124.2	300	5.74	50.0

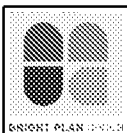
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Minimum Depth (m)	Maximum Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	1.250	88.3	5.1	1.386	1.348	1.294	1.386	0.038	0.0
2.000	1.277	141.0	14.4	1.040	1.221	0.672	1.221	0.106	0.0
2.001	1.019	112.6	19.2	1.221	1.348	0.730	1.348	0.142	0.0
1.001	1.016	112.2	30.6	1.348	1.315	0.711	1.348	0.226	0.0
1.002	1.262	139.3	47.6	1.315	1.241	0.811	1.315	0.351	0.0
3.000	1.805	199.4	9.2	1.296	1.200	0.797	1.296	0.068	0.0
3.001	2.146	237.0	11.8	1.200	1.241	0.835	1.241	0.087	0.0
1.003	1.032	164.2	71.8	1.241	1.077	0.884	1.241	0.530	0.0
1.004	1.434	228.0	80.5	1.077	1.000	0.986	1.077	0.594	0.0
1.005	1.717	273.1	100.7	1.000	1.037	0.912	1.037	0.743	0.0
4.000	1.019	112.5	6.6	1.220	1.037	1.037	1.220	0.049	0.0
1.006	1.123	317.5	107.3	1.037	1.099	1.037	1.439	0.792	0.0
5.000	2.213	244.5	18.3	0.825	1.589	0.601	1.589	0.135	0.0
5.001	1.016	112.2	21.0	1.589	1.443	0.970	1.589	0.155	0.0
5.002	1.017	112.4	37.8	1.443	1.270	1.009	1.443	0.279	0.0
5.003	1.021	112.7	42.1	1.270	1.246	1.233	1.270	0.311	0.0
6.000	1.073	75.8	8.9	1.113	1.150	0.867	1.150	0.066	0.0
6.001	1.409	99.6	11.2	1.150	1.080	0.933	1.150	0.083	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)
6.002	19	20	6.407	0.600	5.250	5.125	0.125	51.3	300	5.78	50.0
5.004	20	21	26.102	0.600	4.975	4.907	0.068	383.9	450	6.89	50.0
5.005	21	24	27.205	0.600	4.907	4.786	0.121	224.8	450	7.23	50.0
7.000	22	23	39.044	0.600	5.475	5.120	0.355	110.0	375	5.38	50.0
7.001	23	24	9.832	0.600	5.045	4.786	0.259	38.0	450	5.43	50.0
5.006	24	25	24.581	0.600	4.711	4.561	0.150	163.9	525	7.46	50.0
5.007	25	27	21.692	0.600	4.561	4.390	0.171	126.9	525	7.64	50.0
8.000	26	27	6.949	0.600	4.822	4.765	0.057	121.9	150	5.13	50.0
5.008	27	29	14.285	0.600	4.390	4.330	0.060	238.1	525	7.81	50.0
9.000	28	29	15.131	0.600	4.727	4.630	0.097	156.0	225	5.24	50.0
5.009	29	BASIN 1	22.656	0.600	4.330	4.201	0.129	175.6	525	8.03	50.0
10.000	30	31	10.994	0.600	5.202	5.099	0.103	106.7	375	5.10	50.0
10.001	31	32	36.167	0.600	5.024	4.908	0.116	311.8	450	5.63	50.0
10.002	32	33	33.536	0.600	4.908	4.801	0.107	313.4	450	6.12	50.0
10.003	33	34	31.399	0.600	4.801	4.701	0.100	314.0	450	6.58	50.0
10.004	34	35	16.139	0.600	4.701	4.650	0.051	314.0	450	6.81	50.0
10.005	35	36	16.741	0.600	4.650	4.597	0.053	315.9	450	7.06	50.0
10.006	36	BASIN 1	38.524	0.600	4.597	4.374	0.223	172.8	450	7.47	50.0
1.007	BASIN 1	74	26.594	0.600	4.201	4.165	0.036	738.7	450	9.45	50.0
1.008	74	38	8.512	0.600	4.165	4.133	0.032	266.0	450	9.57	50.0
1.009	38	39	5.284	0.600	4.133	4.119	0.014	377.4	450	9.65	50.0
1.010	39	37	11.421	0.600	4.119	4.084	0.035	326.3	450	9.82	50.0
1.011	37	40	30.858	0.600	4.084	4.009	0.075	411.4	450	10.34	50.0
1.012	40	41	14.131	0.600	4.009	3.972	0.037	381.9	450	10.57	50.0

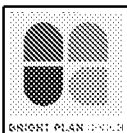
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Minimum Depth (m)	Maximum Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
6.002	2.201	155.6	13.7	1.080	1.246	0.992	1.246	0.101	0.0
5.004	1.031	164.0	65.1	1.246	1.050	1.050	1.246	0.480	0.0
5.005	1.351	214.9	74.0	1.050	0.943	0.943	1.105	0.546	0.0
7.000	1.727	190.7	11.9	0.902	0.731	0.731	0.902	0.088	0.0
7.001	3.307	526.0	14.6	0.731	0.943	0.731	0.943	0.108	0.0
5.006	1.747	378.1	92.0	0.943	0.911	0.911	1.055	0.679	0.0
5.007	1.987	430.1	100.2	0.911	0.919	0.911	1.247	0.739	0.0
8.000	0.909	16.1	3.9	1.244	0.919	0.919	1.275	0.029	0.0
5.008	1.447	313.2	104.9	0.919	0.900	0.900	1.344	0.774	0.0
9.000	1.044	41.5	14.6	0.908	0.900	0.900	1.391	0.108	0.0
5.009	1.687	365.2	123.6	0.900	1.174	0.900	1.343	0.912	0.0
10.000	1.753	193.6	5.7	1.200	1.289	1.200	1.289	0.042	0.0
10.001	1.146	182.2	27.4	1.289	1.672	1.289	1.672	0.202	0.0
10.002	1.143	181.7	36.9	1.672	1.494	1.494	1.672	0.272	0.0
10.003	1.142	181.6	44.3	1.494	1.275	1.275	1.494	0.327	0.0
10.004	1.142	181.6	53.4	1.275	1.179	1.179	1.275	0.394	0.0
10.005	1.138	181.0	55.4	1.179	1.144	1.134	1.179	0.409	0.0
10.006	1.544	245.5	59.9	1.144	1.076	0.999	1.144	0.442	0.0
1.007	0.740	117.7	324.2	1.249	1.267	1.249	1.324	2.392	0.0
1.008	1.241	197.4	324.2	1.267	1.659	1.264	1.659	2.392	0.0
1.009	1.040	165.4	324.2	1.659	1.682	1.422	1.682	2.392	0.0
1.010	1.120	178.1	324.2	1.682	1.838	1.682	1.838	2.392	0.0
1.011	0.996	158.4	324.2	1.838	1.933	1.838	1.969	2.392	0.0
1.012	1.034	164.5	330.5	1.933	1.810	1.810	1.933	2.439	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)
1.013	41	42	9.328	0.600	3.972	3.948	0.024	338.7	450	10.72	50.0
1.014	42	43	13.331	0.600	3.948	3.918	0.030	444.4	450	10.95	50.0
1.015	43	46	30.152	0.600	3.918	3.626	0.292	103.3	450	11.20	50.0
11.000	44	45	27.756	0.600	4.730	4.505	0.225	123.4	300	5.33	50.0
11.001	45	46	5.635	0.600	3.825	3.776	0.049	115.0	300	5.39	50.0
1.016	46	77	66.059	0.600	3.626	3.463	0.163	405.3	450	12.30	50.0
12.000	48	52	21.227	0.600	5.805	5.591	0.214	99.2	225	5.27	50.0
13.000	49	50	11.599	0.600	5.845	5.720	0.125	92.8	300	5.12	50.0
13.001	50	51	8.661	0.600	5.720	5.640	0.080	108.3	300	5.21	50.0
13.002	51	52	29.592	0.600	5.640	5.516	0.124	238.6	300	5.70	50.0
12.001	52	53	23.632	0.600	5.516	5.417	0.099	238.7	300	6.09	50.0
12.002	53	54	16.754	0.600	5.417	5.347	0.070	239.3	300	6.37	50.0
12.003	54	55	17.581	0.600	5.272	5.215	0.057	308.4	375	6.65	50.0
12.004	55	57	30.508	0.600	5.140	5.016	0.124	246.0	450	7.04	50.0
14.000	56	57	7.591	0.600	5.200	5.166	0.034	223.3	300	5.12	50.0
12.005	57	58	19.313	0.600	5.016	4.966	0.050	386.3	450	7.36	50.0
12.006	58	BASIN 2	64.279	0.600	4.966	4.795	0.171	375.9	450	8.39	50.0
15.000	59	60	10.638	0.600	5.640	5.596	0.044	241.8	300	5.18	50.0
15.001	60	61	21.671	0.600	5.596	5.400	0.196	110.6	300	5.42	50.0
15.002	61	64	12.081	0.600	5.400	5.298	0.102	118.4	300	5.56	50.0
16.000	62	63	19.390	0.600	5.680	5.420	0.260	74.6	300	5.18	50.0
16.001	63	64	11.982	0.600	5.420	5.298	0.122	98.2	300	5.30	50.0
15.003	64	65	19.710	0.600	5.223	4.925	0.298	66.1	375	5.70	50.0
15.004	65	BASIN 2	21.143	0.600	4.925	4.795	0.130	162.6	375	5.95	50.0

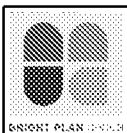
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Minimum Depth (m)	Maximum Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.013	1.025	163.0	335.6	1.810	1.737	1.737	1.810	2.476	0.0
1.014	0.958	152.3	335.6	1.737	1.641	1.641	1.737	2.476	0.0
1.015	2.000	318.1	344.8	1.641	1.618	1.618	1.641	2.544	0.0
11.000	1.414	100.0	13.6	0.770	0.945	0.364	0.945	0.100	0.0
11.001	1.465	103.6	16.3	1.625	1.618	0.966	1.625	0.120	0.0
1.016	1.003	159.6	361.0	1.618	1.141	1.141	1.618	2.664	0.0
12.000	1.313	52.2	8.0	1.000	1.034	0.431	1.034	0.059	0.0
13.000	1.632	115.4	5.1	1.200	1.200	0.301	1.200	0.038	0.0
13.001	1.510	106.8	9.4	1.200	1.200	0.428	1.200	0.069	0.0
13.002	1.013	71.6	15.7	1.200	1.034	0.508	1.200	0.116	0.0
12.001	1.013	71.6	25.9	1.034	0.933	0.549	1.034	0.191	0.0
12.002	1.012	71.5	33.9	0.933	0.933	0.529	0.933	0.250	0.0
12.003	1.026	113.3	39.2	0.933	0.810	0.495	0.933	0.289	0.0
12.004	1.291	205.4	39.2	0.810	0.766	0.524	0.810	0.289	0.0
14.000	1.048	74.1	5.3	0.597	0.766	0.589	0.766	0.039	0.0
12.005	1.028	163.5	44.5	0.766	0.764	0.595	0.766	0.328	0.0
12.006	1.042	165.8	44.5	0.764	0.770	0.748	0.770	0.328	0.0
15.000	1.007	71.1	11.9	1.194	1.225	1.194	1.225	0.088	0.0
15.001	1.494	105.6	15.2	1.225	1.186	1.186	1.225	0.112	0.0
15.002	1.443	102.0	19.7	1.186	1.168	1.168	1.186	0.145	0.0
16.000	1.822	128.8	8.0	1.193	1.212	0.397	1.212	0.059	0.0
16.001	1.586	112.1	8.0	1.212	1.168	0.570	1.212	0.059	0.0
15.003	2.230	246.3	34.0	1.168	1.290	1.168	1.290	0.251	0.0
15.004	1.418	156.6	42.7	1.290	0.845	0.845	1.290	0.315	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)
12.007	BASIN 2	67	33.969	0.600	4.795	4.708	0.087	390.4	450	3.94	50.0
12.008	67	68	24.256	0.600	4.708	4.644	0.064	379.0	450	3.33	50.0
12.009	68	73	24.233	0.600	4.644	4.576	0.068	356.4	450	3.71	50.0
17.000	69	70	15.513	0.600	5.340	5.200	0.140	110.8	300	5.17	50.0
17.001	70	71	9.427	0.600	5.200	5.160	0.040	235.7	300	5.33	50.0
17.002	71	72	36.273	0.600	5.160	4.900	0.260	139.5	300	5.78	50.0
17.003	72	73	20.994	0.600	4.900	4.726	0.174	120.7	300	6.03	50.0
12.010	73	BASIN 3	26.197	0.600	4.576	4.164	0.412	63.6	450	3.88	50.0
12.011	BASIN 3	75	18.298	0.600	4.164	3.547	0.617	29.7	450	3.96	50.0
12.012	75	76	17.579	0.600	3.547	3.504	0.043	408.8	450	10.25	50.0
12.013	76	77	47.491	0.600	3.504	3.463	0.041	1158.2	450	11.60	50.0
1.017	77	78	14.572	0.600	3.388	3.351	0.037	393.8	525	12.52	50.0
1.018	78	80	28.197	0.600	3.351	3.288	0.063	447.6	525	12.96	50.0
18.000	TANK	80	4.384	0.600	3.301	3.288	0.013	337.2	525	5.06	50.0
1.019	80	BASIN 4	22.872	0.600	3.288	3.249	0.039	586.5	525	13.38	50.0
1.020	BASIN 4	82	15.210	0.600	3.249	3.215	0.034	447.4	525	13.62	50.0
1.021	82	98	58.087	0.600	3.215	2.383	0.832	69.8	525	13.98	50.0
19.000	83	86	26.636	0.600	4.332	4.193	0.139	191.6	525	5.27	50.0
20.000	84	85	34.907	0.600	4.875	4.762	0.113	308.9	375	5.57	50.0
20.001	85	86	7.792	0.600	4.762	4.343	0.419	18.6	375	5.60	50.0
19.001	86	87	31.243	0.600	4.193	4.116	0.077	405.8	525	6.07	50.0
19.002	87	90	31.243	0.600	4.116	4.029	0.087	359.1	525	6.51	50.0
21.000	88	89	24.214	0.600	4.950	4.832	0.118	205.2	300	5.37	50.0
21.001	89	90	11.872	0.600	4.832	4.254	0.578	20.5	300	5.43	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Minimum Depth (m)	Maximum Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
12.007	1.023	162.6	91.8	0.770	1.179	0.770	1.179	0.677	0.0
12.008	1.038	165.1	94.5	1.179	1.275	1.179	1.275	0.697	0.0
12.009	1.071	170.3	99.3	1.275	0.999	0.999	1.275	0.733	0.0
17.000	1.493	105.5	17.9	1.191	1.200	0.587	1.200	0.132	0.0
17.001	1.020	72.1	27.8	1.200	1.219	0.589	1.219	0.205	0.0
17.002	1.329	93.9	37.5	1.219	1.200	1.187	1.230	0.277	0.0
17.003	1.430	101.1	44.9	1.200	0.999	0.877	1.200	0.331	0.0
12.010	2.552	406.0	147.6	0.999	1.086	0.999	1.201	1.089	0.0
12.011	3.744	595.4	154.4	1.086	1.642	1.086	1.642	1.139	0.0
12.012	0.999	158.9	154.4	1.642	1.399	1.399	1.642	1.139	0.0
12.013	0.589	93.6	154.4	1.399	1.141	1.105	1.399	1.139	0.0
1.017	1.122	242.9	517.3	1.141	1.036	1.036	1.141	3.817	0.0
1.018	1.052	227.7	525.0	1.036	1.587	0.822	1.587	3.874	0.0
18.000	1.214	262.8	0.0	1.824	1.587	1.109	1.824	0.000	0.0
1.019	0.917	198.6	525.0	1.587	1.296	1.201	1.587	3.874	0.0
1.020	1.052	227.8	529.4	1.296	1.174	1.174	1.394	3.906	0.0
1.021	2.683	580.8	529.4	1.174	1.850	1.174	1.850	3.906	0.0
19.000	1.614	349.5	12.7	1.245	1.866	1.245	1.866	0.094	0.0
20.000	1.025	113.2	10.3	1.210	1.323	0.910	1.323	0.076	0.0
20.001	4.218	465.9	20.5	1.323	1.866	1.283	1.866	0.151	0.0
19.001	1.105	239.3	46.9	1.866	2.181	1.866	2.181	0.346	0.0
19.002	1.176	254.5	46.9	2.181	2.258	2.181	2.270	0.346	0.0
21.000	1.094	77.3	9.8	1.420	0.914	0.891	1.420	0.072	0.0
21.001	3.484	246.3	9.8	0.914	2.258	0.914	2.258	0.072	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)
19.003	90	93	55.220	0.600	4.029	3.899	0.130	434.0	525	7.36	50.0
22.000	91	92	8.464	0.600	5.680	5.553	0.127	66.6	225	9.09	50.0
22.001	92	93	14.034	0.600	4.798	4.702	0.096	146.2	225	5.30	50.0
19.004	93	94	16.658	0.600	3.899	3.856	0.043	387.4	525	7.61	50.0
19.005	94	95	53.803	0.600	3.856	3.728	0.128	420.3	525	8.44	50.0
19.006	95	BASIN 5	31.666	0.600	3.728	3.100	0.628	50.4	525	8.60	50.0
19.007	BASIN 5	66	15.460	0.600	3.100	2.789	0.311	49.7	525	8.68	50.0
19.008	66	98	4.623	0.600	2.789	2.559	0.230	20.1	525	8.70	50.0
1.022	98	-	10.643	0.600	2.559	2.358	0.205	425.7	525	14.14	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Minimum Depth (m)	Maximum Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
19.003	1.080	233.8	72.1	2.258	1.838	1.838	2.258	0.532	0.0
22.000	1.604	63.8	3.8	0.545	0.522	0.119	0.545	0.028	0.0
22.001	1.079	42.9	3.8	1.277	1.335	1.015	1.335	0.028	0.0
19.004	1.132	245.0	80.2	1.838	1.639	1.639	1.838	0.592	0.0
19.005	1.086	235.1	100.7	1.639	1.228	1.228	1.639	0.743	0.0
19.006	3.159	683.9	100.7	1.228	1.696	1.228	1.696	0.743	0.0
19.007	3.182	688.8	113.4	1.696	1.564	1.564	1.696	0.837	0.0
19.008	5.011	1084.9	113.4	1.564	1.674	1.564	1.674	0.837	0.0
1.022	1.079	233.6	642.8	1.850	1.946	1.850	1.946	4.743	0.0

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	29.623	157.6	300	1 NETWORK 1 OCT 22	7.155	5.469	1.386	6.929	5.281	1.348
2.000	26.224	200.2	375	1 NETWORK 1 OCT 22	6.800	5.385	1.040	6.850	5.254	1.221
2.001	15.003	312.6	375	1 NETWORK 1 OCT 22	6.850	5.254	1.221	6.929	5.206	1.348
1.001	15.735	314.7	375	1 NETWORK 1 OCT 22	6.929	5.206	1.348	6.846	5.156	1.315
1.002	34.637	205.0	375	1 NETWORK 1 OCT 22	6.846	5.156	1.315	6.603	4.987	1.241
3.000	22.261	100.7	375	1 NETWORK 1 OCT 22	7.002	5.331	1.296	6.685	5.110	1.200
3.001	8.782	71.4	375	1 NETWORK 1 OCT 22	6.685	5.110	1.200	6.603	4.987	1.241
1.003	28.730	383.1	450	1 NETWORK 1 OCT 22	6.603	4.912	1.241	6.364	4.837	1.077
1.004	27.193	199.9	450	1 NETWORK 1 OCT 22	6.364	4.837	1.077	6.151	4.701	1.000
1.005	16.213	139.8	450	1 NETWORK 1 OCT 22	6.151	4.701	1.000	6.072	4.585	1.037
4.000	22.527	312.9	375	1 NETWORK 1 OCT 22	6.327	4.732	1.220	6.072	4.660	1.037

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1	1200	Manhole	1 NETWORK 1 OCT 22	4	1350	Manhole	1 NETWORK 1 OCT 22
2.000	2	1350	Manhole	1 NETWORK 1 OCT 22	3	1350	Manhole	1 NETWORK 1 OCT 22
2.001	3	1350	Manhole	1 NETWORK 1 OCT 22	4	1350	Manhole	1 NETWORK 1 OCT 22
1.001	4	1350	Manhole	1 NETWORK 1 OCT 22	5	1350	Manhole	1 NETWORK 1 OCT 22
1.002	5	1350	Manhole	1 NETWORK 1 OCT 22	8	1350	Manhole	1 NETWORK 1 OCT 22
3.000	6	1350	Manhole	1 NETWORK 1 OCT 22	7	1350	Manhole	1 NETWORK 1 OCT 22
3.001	7	1350	Manhole	1 NETWORK 1 OCT 22	8	1350	Manhole	1 NETWORK 1 OCT 22
1.003	8	1350	Manhole	1 NETWORK 1 OCT 22	9	1350	Manhole	1 NETWORK 1 OCT 22
1.004	9	1350	Manhole	1 NETWORK 1 OCT 22	10	1350	Manhole	1 NETWORK 1 OCT 22
1.005	10	1350	Manhole	1 NETWORK 1 OCT 22	12	1500	Manhole	1 NETWORK 1 OCT 22
4.000	11	1350	Manhole	1 NETWORK 1 OCT 22	12	1500	Manhole	1 NETWORK 1 OCT 22



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)
1.006	108.735	464.7	600	1 NETWORK 1 OCT 22	6.072	4.435	1.037	5.900	4.201	1.099
5.000	34.516	67.2	375	1 NETWORK 1 OCT 22	7.000	5.800	0.825	7.250	5.286	1.589
5.001	11.952	314.5	375	1 NETWORK 1 OCT 22	7.250	5.286	1.589	7.066	5.248	1.443
5.002	42.967	313.6	375	1 NETWORK 1 OCT 22	7.066	5.248	1.443	6.756	5.111	1.270
5.003	19.007	311.6	375	1 NETWORK 1 OCT 22	6.756	5.111	1.270	6.671	5.050	1.246
6.000	42.648	213.2	300	1 NETWORK 1 OCT 22	6.913	5.500	1.113	6.750	5.300	1.150
6.001	6.210	124.2	300	1 NETWORK 1 OCT 22	6.750	5.300	1.150	6.630	5.250	1.080
6.002	6.407	51.3	300	1 NETWORK 1 OCT 22	6.630	5.250	1.080	6.671	5.125	1.246
5.004	26.102	383.9	450	1 NETWORK 1 OCT 22	6.671	4.975	1.246	6.407	4.907	1.050
5.005	27.205	224.8	450	1 NETWORK 1 OCT 22	6.407	4.907	1.050	6.179	4.786	0.943
7.000	39.044	110.0	375	1 NETWORK 1 OCT 22	6.752	5.475	0.902	6.226	5.120	0.731
7.001	9.832	38.0	450	1 NETWORK 1 OCT 22	6.226	5.045	0.731	6.179	4.786	0.943
5.006	24.581	163.9	525	1 NETWORK 1 OCT 22	6.179	4.711	0.943	5.997	4.561	0.911
5.007	21.692	126.9	525	1 NETWORK 1 OCT 22	5.997	4.561	0.911	5.834	4.390	0.919
8.000	6.949	121.9	150	1 NETWORK 1 OCT 22	6.216	4.822	1.244	5.834	4.765	0.919
5.008	14.285	238.1	525	1 NETWORK 1 OCT 22	5.834	4.390	0.919	5.755	4.330	0.900
9.000	15.131	156.0	225	1 NETWORK 1 OCT 22	5.860	4.727	0.908	5.755	4.630	0.900
5.009	22.656	175.6	525	1 NETWORK 1 OCT 22	5.755	4.330	0.900	5.900	4.201	1.174
10.000	10.994	106.7	375	1 NETWORK 1 OCT 22	6.777	5.202	1.200	6.763	5.099	1.289
10.001	36.167	311.8	450	1 NETWORK 1 OCT 22	6.763	5.024	1.289	7.030	4.908	1.672
10.002	33.536	313.4	450	1 NETWORK 1 OCT 22	7.030	4.908	1.672	6.745	4.801	1.494
10.003	31.399	314.0	450	1 NETWORK 1 OCT 22	6.745	4.801	1.494	6.426	4.701	1.275
10.004	16.139	314.0	450	1 NETWORK 1 OCT 22	6.426	4.701	1.275	6.279	4.650	1.179
10.005	16.741	315.9	450	1 NETWORK 1 OCT 22	6.279	4.650	1.179	6.191	4.597	1.144
10.006	38.524	172.8	450	1 NETWORK 1 OCT 22	6.191	4.597	1.144	5.900	4.374	1.076

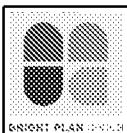
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.006	12	1500	Manhole	1 NETWORK 1 OCT 22	BASIN 1	1500	Manhole	1 NETWORK 1 OCT 22
5.000	13	1350	Manhole	1 NETWORK 1 OCT 22	14	1350	Manhole	1 NETWORK 1 OCT 22
5.001	14	1350	Manhole	1 NETWORK 1 OCT 22	15	1350	Manhole	1 NETWORK 1 OCT 22
5.002	15	1350	Manhole	1 NETWORK 1 OCT 22	16	1350	Manhole	1 NETWORK 1 OCT 22
5.003	16	1350	Manhole	1 NETWORK 1 OCT 22	20	1350	Manhole	1 NETWORK 1 OCT 22
6.000	17	1200	Manhole	1 NETWORK 1 OCT 22	18	1200	Manhole	1 NETWORK 1 OCT 22
6.001	18	1200	Manhole	1 NETWORK 1 OCT 22	19	1200	Manhole	1 NETWORK 1 OCT 22
6.002	19	1200	Manhole	1 NETWORK 1 OCT 22	20	1350	Manhole	1 NETWORK 1 OCT 22
5.004	20	1350	Manhole	1 NETWORK 1 OCT 22	21	1350	Manhole	1 NETWORK 1 OCT 22
5.005	21	1350	Manhole	1 NETWORK 1 OCT 22	24	1500	Manhole	1 NETWORK 1 OCT 22
7.000	22	1350	Manhole	1 NETWORK 1 OCT 22	23	1350	Manhole	1 NETWORK 1 OCT 22
7.001	23	1350	Manhole	1 NETWORK 1 OCT 22	24	1500	Manhole	1 NETWORK 1 OCT 22
5.006	24	1500	Manhole	1 NETWORK 1 OCT 22	25	1500	Manhole	1 NETWORK 1 OCT 22
5.007	25	1500	Manhole	1 NETWORK 1 OCT 22	27	1500	Manhole	1 NETWORK 1 OCT 22
8.000	26	1200	Manhole	1 NETWORK 1 OCT 22	27	1500	Manhole	1 NETWORK 1 OCT 22
5.008	27	1500	Manhole	1 NETWORK 1 OCT 22	29	1500	Manhole	1 NETWORK 1 OCT 22
9.000	28	1200	Manhole	1 NETWORK 1 OCT 22	29	1500	Manhole	1 NETWORK 1 OCT 22
5.009	29	1500	Manhole	1 NETWORK 1 OCT 22	BASIN 1	1500	Manhole	1 NETWORK 1 OCT 22
10.000	30	1200	Manhole	1 NETWORK 1 OCT 22	31	1350	Manhole	1 NETWORK 1 OCT 22
10.001	31	1350	Manhole	1 NETWORK 1 OCT 22	32	1350	Manhole	1 NETWORK 1 OCT 22
10.002	32	1350	Manhole	1 NETWORK 1 OCT 22	33	1350	Manhole	1 NETWORK 1 OCT 22
10.003	33	1350	Manhole	1 NETWORK 1 OCT 22	34	1350	Manhole	1 NETWORK 1 OCT 22
10.004	34	1350	Manhole	1 NETWORK 1 OCT 22	35	1350	Manhole	1 NETWORK 1 OCT 22
10.005	35	1350	Manhole	1 NETWORK 1 OCT 22	36	1350	Manhole	1 NETWORK 1 OCT 22
10.006	36	1350	Manhole	1 NETWORK 1 OCT 22	BASIN 1	1500	Manhole	1 NETWORK 1 OCT 22



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)
1.007	26.594	738.7	450	1 NETWORK 1 OCT 22	5.900	4.201	1.249	5.882	4.165	1.267
1.008	8.512	266.0	450	1 NETWORK 1 OCT 22	5.882	4.165	1.267	6.242	4.133	1.659
1.009	5.284	377.4	450	1 NETWORK 1 OCT 22	6.242	4.133	1.659	6.251	4.119	1.682
1.010	11.421	326.3	450	1 NETWORK 1 OCT 22	6.251	4.119	1.682	6.372	4.084	1.838
1.011	30.858	411.4	450	1 NETWORK 1 OCT 22	6.372	4.084	1.838	6.392	4.009	1.933
1.012	14.131	381.9	450	1 NETWORK 1 OCT 22	6.392	4.009	1.933	6.232	3.972	1.810
1.013	9.328	388.7	450	1 NETWORK 1 OCT 22	6.232	3.972	1.810	6.135	3.948	1.737
1.014	13.331	444.4	450	1 NETWORK 1 OCT 22	6.135	3.948	1.737	6.009	3.918	1.641
1.015	30.152	103.3	450	1 NETWORK 1 OCT 22	6.009	3.918	1.641	5.694	3.626	1.618
11.000	27.756	123.4	300	1 NETWORK 1 OCT 22	5.800	4.730	0.770	5.750	4.505	0.945
11.001	5.635	115.0	300	1 NETWORK 1 OCT 22	5.750	3.825	1.625	5.694	3.776	1.618
1.016	66.059	405.3	450	1 NETWORK 1 OCT 22	5.694	3.626	1.618	5.054	3.463	1.141
12.000	21.227	99.2	225	1 NETWORK 1 OCT 22	7.030	5.805	1.000	6.850	5.591	1.034
13.000	11.599	92.8	300	1 NETWORK 1 OCT 22	7.345	5.845	1.200	7.220	5.720	1.200
13.001	8.661	103.3	300	1 NETWORK 1 OCT 22	7.220	5.720	1.200	7.140	5.640	1.200
13.002	29.592	238.6	300	1 NETWORK 1 OCT 22	7.140	5.640	1.200	6.850	5.516	1.034
12.001	23.632	238.7	300	1 NETWORK 1 OCT 22	6.850	5.516	1.034	6.650	5.417	0.933
12.002	16.754	239.3	300	1 NETWORK 1 OCT 22	6.650	5.417	0.933	6.580	5.347	0.933
12.003	17.581	308.4	375	1 NETWORK 1 OCT 22	6.580	5.272	0.933	6.400	5.215	0.810
12.004	30.508	246.0	450	1 NETWORK 1 OCT 22	6.400	5.140	0.810	6.232	5.016	0.766
14.000	7.591	223.3	300	1 NETWORK 1 OCT 22	6.097	5.200	0.597	6.232	5.166	0.766
12.005	19.313	386.3	450	1 NETWORK 1 OCT 22	6.232	5.016	0.766	6.180	4.966	0.764
12.006	64.279	375.9	450	1 NETWORK 1 OCT 22	6.180	4.966	0.764	6.015	4.795	0.770
15.000	10.638	241.8	300	1 NETWORK 1 OCT 22	7.134	5.640	1.194	7.121	5.596	1.225
15.001	21.671	110.6	300	1 NETWORK 1 OCT 22	7.121	5.596	1.225	6.886	5.400	1.186

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.007	BASIN 1	1500	Manhole	1 NETWORK 1 OCT 22	74	1350	Manhole	1 NETWORK 1 OCT 22
1.008	74	1350	Manhole	1 NETWORK 1 OCT 22	38	1350	Manhole	1 NETWORK 1 OCT 22
1.009	38	1350	Manhole	1 NETWORK 1 OCT 22	39	1350	Manhole	1 NETWORK 1 OCT 22
1.010	39	1350	Manhole	1 NETWORK 1 OCT 22	37	1350	Manhole	1 NETWORK 1 OCT 22
1.011	37	1350	Manhole	1 NETWORK 1 OCT 22	40	1350	Manhole	1 NETWORK 1 OCT 22
1.012	40	1350	Manhole	1 NETWORK 1 OCT 22	41	1350	Manhole	1 NETWORK 1 OCT 22
1.013	41	1350	Manhole	1 NETWORK 1 OCT 22	42	1350	Manhole	1 NETWORK 1 OCT 22
1.014	42	1350	Manhole	1 NETWORK 1 OCT 22	43	1350	Manhole	1 NETWORK 1 OCT 22
1.015	43	1350	Manhole	1 NETWORK 1 OCT 22	46	1350	Manhole	1 NETWORK 1 OCT 22
11.000	44	1200	Manhole	1 NETWORK 1 OCT 22	45	1200	Manhole	1 NETWORK 1 OCT 22
11.001	45	1200	Manhole	1 NETWORK 1 OCT 22	46	1350	Manhole	1 NETWORK 1 OCT 22
1.016	46	1350	Manhole	1 NETWORK 1 OCT 22	77	1500	Manhole	1 NETWORK 1 OCT 22
12.000	48	1200	Manhole	1 NETWORK 1 OCT 22	52	1200	Manhole	1 NETWORK 1 OCT 22
13.000	49	1200	Manhole	1 NETWORK 1 OCT 22	50	1200	Manhole	1 NETWORK 1 OCT 22
13.001	50	1200	Manhole	1 NETWORK 1 OCT 22	51	1200	Manhole	1 NETWORK 1 OCT 22
13.002	51	1200	Manhole	1 NETWORK 1 OCT 22	52	1200	Manhole	1 NETWORK 1 OCT 22
12.001	52	1200	Manhole	1 NETWORK 1 OCT 22	53	1200	Manhole	1 NETWORK 1 OCT 22
12.002	53	1200	Manhole	1 NETWORK 1 OCT 22	54	1350	Manhole	1 NETWORK 1 OCT 22
12.003	54	1350	Manhole	1 NETWORK 1 OCT 22	55	1350	Manhole	1 NETWORK 1 OCT 22
12.004	55	1350	Manhole	1 NETWORK 1 OCT 22	57	1350	Manhole	1 NETWORK 1 OCT 22
14.000	56	1200	Manhole	1 NETWORK 1 OCT 22	57	1350	Manhole	1 NETWORK 1 OCT 22
12.005	57	1350	Manhole	1 NETWORK 1 OCT 22	58	1350	Manhole	1 NETWORK 1 OCT 22
12.006	58	1350	Manhole	1 NETWORK 1 OCT 22	BASIN 2	1800	Manhole	1 NETWORK 1 OCT 22
15.000	59	1200	Manhole	1 NETWORK 1 OCT 22	60	1200	Manhole	1 NETWORK 1 OCT 22
15.001	60	1200	Manhole	1 NETWORK 1 OCT 22	61	1200	Manhole	1 NETWORK 1 OCT 22



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)
15.002	12.081	118.4	300	1 NETWORK 1 OCT 22	6.886	5.400	1.186	6.766	5.298	1.168
16.000	19.390	74.6	300	1 NETWORK 1 OCT 22	7.173	5.680	1.193	6.932	5.420	1.212
16.001	11.982	98.2	300	1 NETWORK 1 OCT 22	6.932	5.420	1.212	6.766	5.298	1.168
15.003	19.710	66.1	375	1 NETWORK 1 OCT 22	6.766	5.223	1.168	6.590	4.925	1.290
15.004	21.143	162.6	375	1 NETWORK 1 OCT 22	6.590	4.925	1.290	6.015	4.795	0.845
12.007	33.969	390.4	450	1 NETWORK 1 OCT 22	6.015	4.795	0.770	6.337	4.708	1.179
12.008	24.256	379.0	450	1 NETWORK 1 OCT 22	6.337	4.708	1.179	6.369	4.644	1.275
12.009	24.233	356.4	450	1 NETWORK 1 OCT 22	6.369	4.644	1.275	6.025	4.576	0.999
17.000	15.513	110.8	300	1 NETWORK 1 OCT 22	6.831	5.340	1.191	6.700	5.200	1.200
17.001	9.427	235.7	300	1 NETWORK 1 OCT 22	6.700	5.200	1.200	6.679	5.160	1.219
17.002	36.273	139.5	300	1 NETWORK 1 OCT 22	6.679	5.160	1.219	6.400	4.900	1.200
17.003	20.994	120.7	300	1 NETWORK 1 OCT 22	6.400	4.900	1.200	6.025	4.726	0.999
12.010	26.197	63.6	450	1 NETWORK 1 OCT 22	6.025	4.576	0.999	5.700	4.164	1.086
12.011	18.298	29.7	450	1 NETWORK 1 OCT 22	5.700	4.164	1.086	5.639	3.547	1.642
12.012	17.579	408.8	450	1 NETWORK 1 OCT 22	5.639	3.547	1.642	5.353	3.504	1.399
12.013	47.491	1158.3	450	1 NETWORK 1 OCT 22	5.353	3.504	1.399	5.054	3.463	1.141
1.017	14.572	393.8	525	1 NETWORK 1 OCT 22	5.054	3.388	1.141	4.912	3.351	1.036
1.018	28.197	447.6	525	1 NETWORK 1 OCT 22	4.912	3.351	1.036	5.400	3.288	1.587
18.000	4.384	337.2	525	1 NETWORK 1 OCT 22	5.650	3.301	1.824	5.400	3.288	1.587
1.019	22.872	586.5	525	1 NETWORK 1 OCT 22	5.400	3.288	1.587	5.070	3.249	1.296
1.020	15.210	447.4	525	1 NETWORK 1 OCT 22	5.070	3.249	1.296	4.914	3.215	1.174
1.021	58.087	69.0	525	1 NETWORK 1 OCT 22	4.914	3.215	1.174	4.758	2.383	1.850
19.000	26.636	191.6	525	1 NETWORK 1 OCT 22	6.102	4.332	1.245	6.584	4.193	1.866
20.000	34.907	308.9	375	1 NETWORK 1 OCT 22	6.460	4.875	1.210	6.460	4.762	1.323
20.001	7.792	18.6	375	1 NETWORK 1 OCT 22	6.460	4.762	1.323	6.584	4.343	1.866

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
15.002	61	1200	Manhole	1 NETWORK 1 OCT 22	64	1350	Manhole	1 NETWORK 1 OCT 22
16.000	62	1200	Manhole	1 NETWORK 1 OCT 22	63	1200	Manhole	1 NETWORK 1 OCT 22
16.001	63	1200	Manhole	1 NETWORK 1 OCT 22	64	1350	Manhole	1 NETWORK 1 OCT 22
15.003	64	1350	Manhole	1 NETWORK 1 OCT 22	65	1350	Manhole	1 NETWORK 1 OCT 22
15.004	65	1350	Manhole	1 NETWORK 1 OCT 22	BASIN 2	1800	Manhole	1 NETWORK 1 OCT 22
12.007	BASIN 2	1800	Manhole	1 NETWORK 1 OCT 22	67	1350	Manhole	1 NETWORK 1 OCT 22
12.008	67	1350	Manhole	1 NETWORK 1 OCT 22	68	1350	Manhole	1 NETWORK 1 OCT 22
12.009	68	1350	Manhole	1 NETWORK 1 OCT 22	73	1350	Manhole	1 NETWORK 1 OCT 22
17.000	69	1200	Manhole	1 NETWORK 1 OCT 22	70	1200	Manhole	1 NETWORK 1 OCT 22
17.001	70	1200	Manhole	1 NETWORK 1 OCT 22	71	1200	Manhole	1 NETWORK 1 OCT 22
17.002	71	1200	Manhole	1 NETWORK 1 OCT 22	72	1200	Manhole	1 NETWORK 1 OCT 22
17.003	72	1200	Manhole	1 NETWORK 1 OCT 22	73	1350	Manhole	1 NETWORK 1 OCT 22
12.010	73	1350	Manhole	1 NETWORK 1 OCT 22	BASIN 3	1350	Manhole	1 NETWORK 1 OCT 22
12.011	BASIN 3	1350	Manhole	1 NETWORK 1 OCT 22	75	1500	Manhole	1 NETWORK 1 OCT 22
12.012	75	1500	Manhole	1 NETWORK 1 OCT 22	76	1350	Manhole	1 NETWORK 1 OCT 22
12.013	76	1350	Manhole	1 NETWORK 1 OCT 22	77	1500	Manhole	1 NETWORK 1 OCT 22
1.017	77	1500	Manhole	1 NETWORK 1 OCT 22	78	1500	Manhole	1 NETWORK 1 OCT 22
1.018	78	1500	Manhole	1 NETWORK 1 OCT 22	80	1500	Manhole	1 NETWORK 1 OCT 22
18.000	TANK	1500	Manhole	1 NETWORK 1 OCT 22	80	1500	Manhole	1 NETWORK 1 OCT 22
1.019	80	1500	Manhole	1 NETWORK 1 OCT 22	BASIN 4	1500	Manhole	1 NETWORK 1 OCT 22
1.020	BASIN 4	1500	Manhole	1 NETWORK 1 OCT 22	82	1500	Manhole	1 NETWORK 1 OCT 22
1.021	82	1500	Manhole	1 NETWORK 1 OCT 22	98	1500	Manhole	1 NETWORK 1 OCT 22
19.000	83	1500	Manhole	1 NETWORK 1 OCT 22	86	1500	Manhole	1 NETWORK 1 OCT 22
20.000	84	1350	Manhole	1 NETWORK 1 OCT 22	85	1350	Manhole	1 NETWORK 1 OCT 22
20.001	85	1350	Manhole	1 NETWORK 1 OCT 22	86	1500	Manhole	1 NETWORK 1 OCT 22



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)
19.001	31.243	405.8	525	1 NETWORK 1 OCT 22	6.584	4.193	1.866	6.822	4.116	2.181
19.002	31.243	359.1	525	1 NETWORK 1 OCT 22	6.822	4.116	2.181	6.812	4.029	2.258
21.000	24.214	205.2	300	1 NETWORK 1 OCT 22	6.670	4.950	1.420	6.046	4.832	0.914
21.001	11.872	20.6	300	1 NETWORK 1 OCT 22	6.046	4.832	0.914	6.812	4.254	2.258
19.003	55.220	424.8	525	1 NETWORK 1 OCT 22	6.812	4.029	2.258	6.262	3.899	1.838
22.000	8.464	66.6	225	1 NETWORK 1 OCT 22	6.450	5.680	0.545	6.300	5.553	0.522
22.001	14.034	146.2	225	1 NETWORK 1 OCT 22	6.300	4.798	1.277	6.262	4.702	1.335
19.004	16.658	387.4	525	1 NETWORK 1 OCT 22	6.262	3.899	1.838	6.020	3.856	1.639
19.005	53.803	420.3	525	1 NETWORK 1 OCT 22	6.020	3.856	1.639	5.481	3.728	1.228
19.006	31.666	50.4	525	1 NETWORK 1 OCT 22	5.481	3.728	1.228	5.321	3.100	1.696
19.007	15.460	49.7	525	1 NETWORK 1 OCT 22	5.321	3.100	1.696	4.878	2.789	1.564
19.008	4.623	20.1	525	1 NETWORK 1 OCT 22	4.878	2.789	1.564	4.758	2.559	1.674
1.022	10.643	425.7	525	1 NETWORK 1 OCT 22	4.758	2.383	1.850	4.829	2.358	1.946

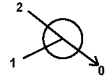
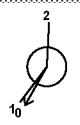
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
19.001	86	1500	Manhole	1 NETWORK 1 OCT 22	87	1500	Manhole	1 NETWORK 1 OCT 22
19.002	87	1500	Manhole	1 NETWORK 1 OCT 22	90	1500	Manhole	1 NETWORK 1 OCT 22
21.000	88	1200	Manhole	1 NETWORK 1 OCT 22	89	1200	Manhole	1 NETWORK 1 OCT 22
21.001	89	1200	Manhole	1 NETWORK 1 OCT 22	90	1500	Manhole	1 NETWORK 1 OCT 22
19.003	90	1500	Manhole	1 NETWORK 1 OCT 22	93	1500	Manhole	1 NETWORK 1 OCT 22
22.000	91	1200	Manhole	1 NETWORK 1 OCT 22	92	1200	Manhole	1 NETWORK 1 OCT 22
22.001	92	1200	Manhole	1 NETWORK 1 OCT 22	93	1500	Manhole	1 NETWORK 1 OCT 22
19.004	93	1500	Manhole	1 NETWORK 1 OCT 22	94	1500	Manhole	1 NETWORK 1 OCT 22
19.005	94	1500	Manhole	1 NETWORK 1 OCT 22	95	1500	Manhole	1 NETWORK 1 OCT 22
19.006	95	1500	Manhole	1 NETWORK 1 OCT 22	BASIN 5	1500	Manhole	1 NETWORK 1 OCT 22
19.007	BASIN 5	1500	Manhole	1 NETWORK 1 OCT 22	66	1500	Manhole	1 NETWORK 1 OCT 22
19.008	66	1500	Manhole	1 NETWORK 1 OCT 22	98	1500	Manhole	1 NETWORK 1 OCT 22
1.022	98	1500	Manhole	1 NETWORK 1 OCT 22	—		Manhole	1 NETWORK 1 OCT 22

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
1	497552.231	103029.538	7.155	1.686	1200					
						0	1.000	5.469	300	
2	497539.611	103077.088	6.800	1.415	1350					
						0	2.000	5.385	375	
3	497559.350	103059.824	6.850	1.596	1350		1	2.000	5.254	375
						0	2.001	5.254	375	
4	497571.935	103051.657	6.929	1.723	1350		1	2.001	5.206	375
						2	1.000	5.281	300	
						0	1.001	5.206	375	

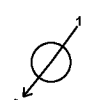


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
5	497585.164	103043.136	6.846	1.690	1350		1 1.001	5.156	375
							0 1.002	5.156	375
6	497590.660	103000.100	7.002	1.671	1350				
							0 3.000	5.931	375
7	497604.372	103017.637	6.685	1.575	1350		1 3.000	5.110	375
							0 3.001	5.110	375
8	497612.241	103021.537	6.603	1.691	1350		1 3.001	4.987	375
							2 1.002	4.987	375
							0 1.003	4.912	450
9	497635.255	103004.339	6.364	1.527	1350		1 1.003	4.837	450
							0 1.004	4.837	450
10	497655.721	102986.433	6.151	1.450	1350		1 1.004	4.701	450
							0 1.005	4.701	450
11	497641.332	102952.267	6.327	1.595	1350				
							0 4.000	4.732	375
12	497654.913	102970.239	6.072	1.637	1500		1 4.000	4.660	375
							2 1.005	4.585	450
							0 1.006	4.435	600
13	497499.484	103039.625	7.000	1.200	1350				
							0 5.000	5.800	375
14	497525.876	103017.381	7.250	1.964	1350		1 5.000	5.286	375
							0 5.001	5.286	375
15	497535.009	103009.673	7.066	1.818	1350		1 5.001	5.248	375
							0 5.002	5.248	375
16	497513.641	102972.397	6.756	1.645	1350		1 5.002	5.111	375
							0 5.003	5.111	375
17	497467.397	102997.137	6.913	1.413	1200				
							0 6.000	5.500	300

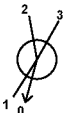
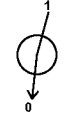


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
18	497498.214	102967.655	6.750	1.450	1200		1 6.000	5.300	300
							0 6.001	5.300	300
19	497502.042	102962.765	6.630	1.380	1200		1 6.001	5.250	300
							0 6.002	5.250	300
20	497503.260	102956.475	6.671	1.696	1350		1 6.002	5.125	300
							2 5.003	5.050	375
							0 5.004	4.975	450
21	497523.608	102940.127	6.407	1.500	1350		1 5.004	4.907	450
							0 5.005	4.907	450
22	497574.498	102962.839	6.752	1.277	1350		0 7.000	5.475	375
23	497551.443	102931.329	6.226	1.181	1350		1 7.000	5.120	375
							0 7.001	5.045	450
24	497545.274	102923.674	6.179	1.468	1500		1 7.001	4.786	450
							2 5.005	4.786	450
							0 5.006	4.711	525
25	497564.995	102908.999	5.997	1.436	1500		1 5.006	4.561	525
							0 5.007	4.561	525
26	497579.848	102890.834	6.216	1.394	1200		0 8.000	4.822	150
27	497583.062	102896.995	5.834	1.444	1500		1 8.000	4.765	150
							2 5.007	4.390	525
							0 5.008	4.390	525
28	497608.318	102908.311	5.860	1.133	1200		0 9.000	4.727	225
29	497597.317	102897.924	5.755	1.425	1500		1 9.000	4.630	225
							2 5.008	4.330	525
							0 5.009	4.330	525
30	497477.886	102927.975	6.777	1.575	1200		0 10.000	5.202	375

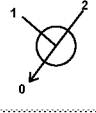
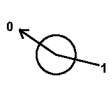
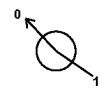
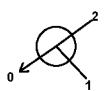
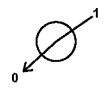
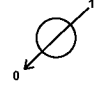


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
31	497471.231	102919.225	6.763	1.739	1350		1 10.000	5.099	375
							0 10.001	5.024	450
32	497499.441	102896.593	7.030	2.122	1350		1 10.001	4.908	450
							0 10.002	4.908	450
33	497526.695	102877.052	6.745	1.944	1350		1 10.002	4.801	450
							0 10.003	4.801	450
34	497551.262	102857.498	6.426	1.725	1350		1 10.003	4.701	450
							0 10.004	4.701	450
35	497566.357	102851.788	6.279	1.629	1350		1 10.004	4.650	450
							0 10.005	4.650	450
36	497580.671	102843.107	6.191	1.594	1350		1 10.005	4.597	450
							0 10.006	4.597	450
BASIN 1	497601.326	102875.626	5.900	1.699	1500		1 10.006	4.374	450
							2 5.009	4.201	525
							3 1.006	4.201	600
							0 1.007	4.201	450
74	497594.357	102849.961	5.882	1.717	1350		1 1.007	4.165	450
							0 1.008	4.165	450
38	497593.413	102841.502	6.242	2.109	1350		1 1.008	4.133	450
							0 1.009	4.133	450
39	497590.111	102837.377	6.251	2.132	1350		1 1.009	4.119	450
							0 1.010	4.119	450
37	497598.771	102829.931	6.372	2.288	1350		1 1.010	4.084	450
							0 1.011	4.084	450
40	497622.499	102810.202	6.392	2.383	1350		1 1.011	4.009	450
							0 1.012	4.009	450
41	497628.078	102797.219	6.232	2.260	1350		1 1.012	3.972	450
							0 1.013	3.972	450



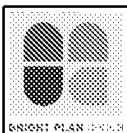
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
42	497628.652	102787.909	6.135	2.187	1350		1	1.013	3.948 450
43	497625.116	102775.056	6.009	2.091	1350		1	1.014	3.948 450
44	497579.872	102770.785	5.800	1.070	1200		0	11.000	4.730 300
45	497602.552	102754.784	5.750	1.925	1200		1	11.000	4.805 300
46	497606.812	102751.095	5.694	2.068	1350		1	11.001	3.825 300
48	497390.455	102929.884	7.030	1.225	1200		0	11.001	3.776 300
49	497411.974	102888.160	7.345	1.500	1200		0	1.015	3.626 450
50	497400.701	102890.896	7.220	1.500	1200		1	1.016	3.626 450
51	497393.545	102895.774	7.140	1.500	1200		0	12.000	5.805 225
52	497373.311	102917.367	6.850	1.334	1200		0	13.000	5.845 300
53	497353.872	102903.929	6.650	1.233	1200		1	13.000	5.720 300
54	497341.517	102892.612	6.580	1.308	1350		0	13.001	5.720 300
55	497329.023	102880.244	6.400	1.260	1350		1	13.001	5.640 300
							0	13.002	5.640 300
							1	13.002	5.516 300
							2	12.000	5.591 225
							0	12.001	5.516 300
							1	12.001	5.417 300
							0	12.002	5.417 300
							1	12.002	5.347 300
							0	12.003	5.272 375
							1	12.003	5.215 375
							0	12.004	5.140 450



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
56	497354.644	102861.878	6.097	0.897	1200		0	14.000	5.200 300
57	497348.809	102857.022	6.232	1.216	1350		1 2 0	14.000 12.004 12.005	5.166 5.016 4.966 300 450 450
58	497361.334	102842.322	6.180	1.214	1350		1 0	12.005 12.006	4.966 4.966 450 450
59	497438.881	102887.624	7.134	1.494	1200		0	15.000	5.640 300
60	497434.432	102877.962	7.121	1.525	1200		1 0	15.000 15.001	5.596 5.596 300 300
61	497434.531	102856.291	6.886	1.486	1200		1 0	15.001 15.002	5.400 5.400 300 300
62	497466.708	102845.045	7.173	1.493	1200		0	16.000	5.680 300
63	497447.327	102844.469	6.932	1.512	1200		1 0	16.000 16.001	5.420 5.420 300 300
64	497435.347	102844.237	6.766	1.543	1350		1 2 0	16.001 15.002 15.003	5.298 5.298 5.223 300 300 375
65	497435.267	102824.528	6.590	1.665	1350		1 0	15.003 15.004	4.925 4.925 375 375
BASIN 2	497418.107	102812.176	6.015	1.220	1800		1 2 0	15.004 12.006 12.007	4.795 4.795 4.795 375 450 450
67	497440.390	102786.537	6.337	1.629	1350		1 0	12.007 12.008	4.708 4.708 450 450
68	497459.959	102772.205	6.369	1.725	1350		1 0	12.008 12.009	4.644 4.644 450 450

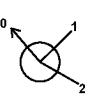
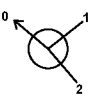


Manhole Schedule

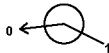
Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
69	497505.438	102818.775	6.831	1.491	1200		0	17.000	300
70	497517.882	102809.512	6.700	1.500	1200		1	17.000	300
71	497525.135	102803.490	6.679	1.519	1200		1	17.001	300
72	497500.256	102777.094	6.400	1.500	1200		1	17.002	300
73	497483.096	102764.999	6.025	1.449	1350		1	17.003	300
BASIN 3	497507.441	102755.325	5.700	1.536	1350		1	12.009	450
75	497518.306	102740.602	5.639	2.092	1500		0	12.010	450
76	497531.441	102728.920	5.353	1.849	1350		1	12.011	450
77	497567.496	102698.010	5.054	1.666	1500		0	12.012	450
78	497562.536	102684.309	4.912	1.561	1500		1	12.013	450
TANK	497534.313	102686.411	5.650	2.349	1500		0	1.016	525
80	497534.432	102682.029	5.400	2.112	1500		1	1.017	525
BASIN 4	497512.163	102676.808	5.070	1.821	1500		0	1.018	525



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
82	497503.313	102664.439	4.914	1.699	1500		1	1.020	525
							0	1.021	525
83	497779.960	102515.557	6.102	1.770	1500				
							0	19.000	525
84	497776.707	102565.301	6.460	1.585	1350		0	20.000	375
85	497761.013	102534.122	6.460	1.698	1350		1	20.000	375
							0	20.001	375
86	497756.347	102527.881	6.584	2.391	1500		1	20.001	375
							2	19.000	525
							0	19.001	525
87	497729.188	102543.326	6.822	2.706	1500		1	19.001	525
							0	19.002	525
88	497722.976	102587.848	6.670	1.720	1200		0	21.000	300
89	497710.486	102567.105	6.046	1.214	1200		1	21.000	300
							0	21.001	300
90	497702.030	102558.771	6.812	2.783	1500		1	21.001	300
							2	19.002	525
							0	19.003	525
91	497680.788	102617.068	6.450	0.770	1200		0	22.000	225
92	497677.195	102609.405	6.300	1.502	1200		1	22.000	225
							0	22.001	225
93	497666.150	102600.747	6.262	2.363	1500		1	22.001	225
							2	19.003	525
							0	19.004	525
94	497653.393	102611.458	6.020	2.164	1500		1	19.004	525
							0	19.005	525

 Bright Plan Civils 2 West Barn, Norton Lane Chichester West Sussex	File: SW NETWORK1 OCT 22.PFD Network: NETWORK 1 OCT 22.SWS LDF Oct 2022	Page 19 Bilsham Road, Yapton Surface Water Calculations Rev 3
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Manhole Schedule									
Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
95	497605.242	102635.463	5.481	1.753	1500		1	19.005	3.728 525
BASIN 5	497573.800	102631.702	5.321	2.221	1500		0	19.006	3.728 525
						1	19.006	3.100 525	
66	497558.722	102635.120	4.878	2.089	1500		0	19.007	3.100 525
						1	19.007	2.789 525	
98	497554.454	102636.894	4.758	2.375	1500		0	19.008	2.789 525
							1	19.008	2.559 525
							2	1.021	2.383 525
—	497549.020	102627.742	4.829	2.471			0	1.022	2.383 525
							1	1.022	2.358 525

Simulation Settings					
Rainfall Methodology	FEH-99	E (1km)	0.309	Skip Steady State	x
C (1km)	-0.025	F (1km)	2.339	Drain Down Time (mins)	240
D1 (1km)	0.395	Summer CV	0.750	Additional Storage (m³/ha)	20.0
D2 (1km)	0.244	Winter CV	0.840	Check Discharge Rate(s)	x
D3 (1km)	0.395	Analysis Speed	Detailed	Check Discharge Volume	x

Storm Durations									
15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
10	0	0	0
30	0	0	0
100	0	0	0
100	20	0	0
100	40	0	0

Node BASIN 1 Online Hydro-Brake® Control			
Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	4.201	Product Number	CTL-SHE-0091-4200-1400-4200
Design Depth (m)	1.400	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	4.2	Min Node Diameter (mm)	1200

Flow+ v10.5.1 Copyright © 1988-2022 Causeway Technologies Ltd



Node BASIN 2 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	4.795	Product Number	CTL-SHE-0319-6000-0920-6000
Design Depth (m)	0.920	Min Outlet Diameter (m)	0.375
Design Flow (l/s)	60.0	Min Node Diameter (mm)	1800

Node 75 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	3.547	Product Number	CTL-SHE-0182-1800-1520-1800
Design Depth (m)	1.520	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	18.0	Min Node Diameter (mm)	1500

Node 82 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	3.215	Product Number	CTL-SHE-0164-1440-1520-1440
Design Depth (m)	1.520	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	14.4	Min Node Diameter (mm)	1500

Node 66 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	2.789	Product Number	CTL-SHE-0055-1900-2000-1900
Design Depth (m)	2.000	Min Outlet Diameter (m)	0.075
Design Flow (l/s)	1.9	Min Node Diameter (mm)	1200

Node BASIN 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	4.201
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	952.2	0.0	1.700	2459.3	0.0

Node BASIN 2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	4.795
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	69

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	110.1	0.0	1.220	344.8	0.0

Node BASIN 3 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	4.164
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	



Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	187.2	0.0	1.500	501.8	0.0

Node TANK Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.301
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

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	240.0	0.0	1.600	240.0	0.0	1.601	0.0	0.0

Node BASIN 4 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.249
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	63.2	0.0	1.820	322.8	0.0

Node BASIN 5 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.100
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	209.5	0.0	1.780	944.9	0.0

Node 2 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.350	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	2	Depth (m)	
Safety Factor	2.0	Width (m)	28.800	Inf Depth (m)	
Porosity	1.00	Length (m)	4.800		

Node 24 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.000	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	
Safety Factor	2.0	Width (m)	14.400	Inf Depth (m)	
Porosity	1.00	Length (m)	4.800		

Node 69 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.800	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	
Safety Factor	2.0	Width (m)	36.000	Inf Depth (m)	
Porosity	1.00	Length (m)	4.800		



Node 70 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.300	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	2	Depth (m)	
Safety Factor	2.0	Width (m)	24.000	Inf Depth (m)	
Porosity	1.00	Length (m)	4.800		

Node 13 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.400	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	2	Depth (m)	
Safety Factor	2.0	Width (m)	40.800	Inf Depth (m)	
Porosity	1.00	Length (m)	4.800		



Results for 2 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	5.515	0.046	4.7	0.0730	0.0000	OK
15 minute winter	2	10	5.460	0.075	13.1	0.2211	0.0000	OK
15 minute winter	3	11	5.362	0.108	17.3	0.2036	0.0000	OK
15 minute winter	4	11	5.342	0.136	26.8	0.2676	0.0000	OK
15 minute winter	5	11	5.300	0.144	41.4	0.4194	0.0000	OK
15 minute winter	6	10	5.384	0.053	8.4	0.1185	0.0000	OK
15 minute winter	7	10	5.163	0.053	10.7	0.0891	0.0000	OK
15 minute winter	8	11	5.112	0.200	62.0	0.5041	0.0000	OK
15 minute winter	9	11	5.018	0.181	69.3	0.4117	0.0000	OK
15 minute winter	10	11	4.889	0.188	85.7	0.6546	0.0000	OK
15 minute winter	11	11	4.791	0.059	6.1	0.1211	0.0000	OK
15 minute winter	12	11	4.675	0.240	90.0	0.4235	0.0000	OK
15 minute winter	13	10	5.865	0.065	16.7	0.2398	0.0000	OK
15 minute winter	14	11	5.406	0.120	18.9	0.1964	0.0000	OK
15 minute winter	15	11	5.390	0.142	33.0	0.3977	0.0000	OK
15 minute winter	16	11	5.264	0.153	37.0	0.2776	0.0000	OK
15 minute winter	17	10	5.566	0.066	8.2	0.1364	0.0000	OK
15 minute winter	18	11	5.369	0.069	10.0	0.0944	0.0000	OK
15 minute winter	19	11	5.312	0.062	12.1	0.0857	0.0000	OK
15 minute winter	20	11	5.164	0.189	55.9	0.4223	0.0000	OK
15 minute winter	21	12	5.081	0.174	62.9	0.4019	0.0000	OK
15 minute winter	22	11	5.535	0.060	10.9	0.1691	0.0000	OK
15 minute winter	23	11	5.093	0.048	12.9	0.0853	0.0000	OK
15 minute winter	24	12	4.882	0.171	76.7	0.3609	0.0000	OK
15 minute winter	25	12	4.734	0.173	83.2	0.4492	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	1	1.000	4	4.6	0.611	0.052	0.2522	
15 minute winter	2	2.000	3	12.8	0.633	0.091	0.5484	
15 minute winter	3	2.001	4	17.0	0.548	0.151	0.4678	
15 minute winter	4	1.001	5	26.8	0.714	0.239	0.5906	
15 minute winter	5	1.002	8	40.9	1.088	0.294	1.3050	
15 minute winter	6	3.000	7	8.3	0.873	0.041	0.2109	
15 minute winter	7	3.001	8	10.5	0.794	0.044	0.1826	
15 minute winter	8	1.003	9	61.8	0.967	0.376	1.8362	
15 minute winter	9	1.004	10	68.3	1.128	0.300	1.6636	
15 minute winter	10	1.005	12	84.4	1.453	0.309	0.9454	
15 minute winter	11	4.000	12	5.9	0.567	0.052	0.2339	
15 minute winter	12	1.006	BASIN 1	94.0	1.744	0.296	6.4147	
15 minute winter	13	5.000	14	16.4	0.812	0.067	0.7406	
15 minute winter	14	5.001	15	18.5	0.540	0.165	0.4104	
15 minute winter	15	5.002	16	33.3	0.830	0.297	1.7263	
15 minute winter	16	5.003	20	36.1	0.926	0.321	0.7424	
15 minute winter	17	6.000	18	8.0	0.679	0.105	0.5023	
15 minute winter	18	6.001	19	10.0	0.889	0.101	0.0703	
15 minute winter	19	6.002	20	12.2	1.247	0.078	0.0625	
15 minute winter	20	5.004	21	55.2	0.928	0.336	1.5521	
15 minute winter	21	5.005	24	62.7	1.157	0.292	1.4748	
15 minute winter	22	7.000	23	10.5	0.937	0.055	0.4394	
15 minute winter	23	7.001	24	12.9	1.200	0.025	0.1635	
15 minute winter	24	5.006	25	77.4	1.261	0.205	1.5087	
15 minute winter	25	5.007	27	83.6	1.142	0.194	1.5980	



Results for 2 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	26	10	4.873	0.051	3.6	0.0783	0.0000	OK
960 minute winter	27	900	4.621	0.231	9.1	0.4266	0.0000	OK
15 minute winter	28	10	4.818	0.091	13.4	0.2770	0.0000	OK
960 minute winter	29	900	4.620	0.290	10.8	0.6343	0.0000	OK
15 minute winter	30	10	5.245	0.043	5.2	0.0720	0.0000	OK
15 minute winter	31	10	5.135	0.111	24.9	0.3646	0.0000	OK
15 minute winter	32	11	5.041	0.133	33.1	0.2777	0.0000	OK
15 minute winter	33	11	4.947	0.146	39.4	0.2925	0.0000	OK
15 minute winter	34	12	4.868	0.167	46.6	0.3692	0.0000	OK
15 minute winter	35	12	4.813	0.163	47.3	0.2628	0.0000	OK
15 minute winter	36	12	4.740	0.143	50.8	0.2637	0.0000	OK
960 minute winter	BASIN 1	915	4.617	0.416	28.1	474.9937	0.0000	OK
960 minute winter	74	915	4.211	0.046	4.1	0.0662	0.0000	OK
960 minute winter	38	915	4.184	0.051	4.1	0.0735	0.0000	OK
960 minute winter	39	915	4.167	0.048	4.1	0.0690	0.0000	OK
960 minute winter	37	960	4.134	0.050	4.1	0.0715	0.0000	OK
15 minute winter	40	11	4.066	0.057	5.8	0.1038	0.0000	OK
15 minute winter	41	11	4.052	0.080	10.0	0.1413	0.0000	OK
15 minute winter	42	11	4.028	0.080	9.9	0.1148	0.0000	OK
15 minute winter	43	11	3.989	0.071	17.8	0.1485	0.0000	OK
15 minute winter	44	10	4.802	0.072	12.4	0.2155	0.0000	OK
15 minute winter	45	10	3.908	0.083	14.5	0.1113	0.0000	OK
15 minute winter	46	12	3.761	0.135	32.2	0.1937	0.0000	OK
15 minute winter	48	10	5.863	0.058	7.3	0.1205	0.0000	OK
15 minute winter	49	10	5.886	0.041	4.7	0.0670	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	26	8.000	27	3.5	0.705	0.220	0.0348	
960 minute winter	27	5.008	29	9.1	0.609	0.029	1.5247	
15 minute winter	28	9.000	29	13.0	0.903	0.314	0.2193	
960 minute winter	29	5.009	BASIN 1	10.5	0.714	0.029	3.4637	
15 minute winter	30	10.000	31	5.1	0.748	0.026	0.0751	
15 minute winter	31	10.001	32	24.4	0.712	0.134	1.2446	
15 minute winter	32	10.002	33	33.0	0.789	0.182	1.4045	
15 minute winter	33	10.003	34	38.8	0.790	0.214	1.5420	
15 minute winter	34	10.004	35	45.8	0.872	0.252	0.8488	
15 minute winter	35	10.005	36	47.6	1.005	0.263	0.7937	
15 minute winter	36	10.006	BASIN 1	50.5	1.209	0.206	1.6108	
960 minute winter	BASIN 1	1.007	74	4.1	0.391	0.035	0.2787	
960 minute winter	74	1.008	38	4.1	0.443	0.021	0.0787	
960 minute winter	38	1.009	39	4.1	0.431	0.025	0.0502	
960 minute winter	39	1.010	37	4.1	0.442	0.023	0.1062	
960 minute winter	37	1.011	40	4.1	0.429	0.026	0.2975	
15 minute winter	40	1.012	41	5.6	0.366	0.034	0.2167	
15 minute winter	41	1.013	42	9.9	0.520	0.061	0.1780	
15 minute winter	42	1.014	43	9.9	0.568	0.065	0.2343	
15 minute winter	43	1.015	46	17.8	0.709	0.056	0.8362	
15 minute winter	44	11.000	45	12.0	0.953	0.120	0.3505	
15 minute winter	45	11.001	46	14.4	0.975	0.139	0.0834	
15 minute winter	46	1.016	77	30.2	0.825	0.189	2.4222	
15 minute winter	48	12.000	52	7.1	0.910	0.136	0.1660	
15 minute winter	49	13.000	50	4.6	0.610	0.040	0.0889	



Results for 2 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	50	10	5.778	0.058	8.4	0.0900	0.0000	OK
15 minute winter	51	11	5.729	0.089	14.1	0.1557	0.0000	OK
15 minute winter	52	11	5.637	0.121	22.9	0.1663	0.0000	OK
15 minute winter	53	11	5.560	0.143	29.9	0.2988	0.0000	OK
15 minute winter	54	11	5.419	0.147	34.1	0.2985	0.0000	OK
15 minute winter	55	12	5.265	0.125	33.7	0.1789	0.0000	OK
15 minute winter	56	10	5.254	0.054	4.8	0.1074	0.0000	OK
15 minute winter	57	12	5.172	0.156	38.1	0.2234	0.0000	OK
15 minute winter	58	12	5.113	0.147	38.1	0.2103	0.0000	OK
15 minute winter	59	10	5.722	0.082	10.9	0.1895	0.0000	OK
15 minute winter	60	10	5.670	0.074	13.7	0.1065	0.0000	OK
15 minute winter	61	11	5.489	0.089	17.6	0.1407	0.0000	OK
15 minute winter	62	10	5.729	0.049	7.3	0.0932	0.0000	OK
15 minute winter	63	11	5.473	0.053	7.2	0.0600	0.0000	OK
15 minute winter	64	11	5.312	0.089	30.2	0.1814	0.0000	OK
15 minute winter	65	10	5.058	0.133	37.9	0.2926	0.0000	OK
60 minute winter	BASIN 2	46	5.046	0.251	44.0	34.3935	0.0000	OK
60 minute winter	67	46	4.815	0.107	19.4	0.1799	0.0000	OK
60 minute winter	68	45	4.749	0.105	20.2	0.1933	0.0000	OK
15 minute winter	69	10	5.419	0.079	16.3	0.2279	0.0000	OK
15 minute winter	70	10	5.334	0.134	25.1	0.2820	0.0000	OK
15 minute winter	71	10	5.286	0.126	33.5	0.2627	0.0000	OK
15 minute winter	72	11	5.039	0.139	39.7	0.2574	0.0000	OK
15 minute winter	73	11	4.699	0.123	50.1	0.2192	0.0000	OK
120 minute winter	BASIN 3	104	4.339	0.175	53.8	36.2457	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	50	13.001	51	8.3	0.628	0.078	0.1160	
15 minute winter	51	13.002	52	13.9	0.640	0.194	0.6515	
15 minute winter	52	12.001	53	23.0	0.770	0.322	0.7070	
15 minute winter	53	12.002	54	29.6	0.941	0.414	0.5275	
15 minute winter	54	12.003	55	33.7	0.907	0.297	0.6564	
15 minute winter	55	12.004	57	34.0	0.805	0.166	1.2921	
15 minute winter	56	14.000	57	4.7	0.573	0.063	0.0621	
15 minute winter	57	12.005	58	38.1	0.814	0.233	0.9050	
15 minute winter	58	12.006	BASIN 2	37.9	0.971	0.229	3.1161	
15 minute winter	59	15.000	60	10.7	0.742	0.151	0.1543	
15 minute winter	60	15.001	61	13.5	0.882	0.128	0.3335	
15 minute winter	61	15.002	64	17.6	1.048	0.172	0.2026	
15 minute winter	62	16.000	63	7.2	0.918	0.056	0.1524	
15 minute winter	63	16.001	64	7.1	0.876	0.064	0.0975	
15 minute winter	64	15.003	65	30.4	1.122	0.123	0.5385	
15 minute winter	65	15.004	BASIN 2	38.4	1.669	0.245	0.8252	
60 minute winter	BASIN 2	12.007	67	18.9	0.663	0.116	0.9688	
60 minute winter	67	12.008	68	19.3	0.683	0.117	0.6884	
60 minute winter	68	12.009	73	20.2	0.882	0.119	0.6051	
15 minute winter	69	17.000	70	16.1	0.722	0.153	0.3499	
15 minute winter	70	17.001	71	24.6	0.840	0.342	0.2763	
15 minute winter	71	17.002	72	33.4	1.114	0.356	1.0900	
15 minute winter	72	17.003	73	39.9	1.308	0.395	0.6409	
15 minute winter	73	12.010	BASIN 3	50.3	2.394	0.124	0.6055	
120 minute winter	BASIN 3	12.011	75	61.6	0.504	0.103	1.9693	



Results for 2 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	75	112	4.419	0.872	61.6	1.5415	0.0000	SURCHARGED
480 minute winter	76	360	3.668	0.164	18.0	0.2351	0.0000	OK
480 minute winter	77	368	3.666	0.278	27.0	0.5377	0.0000	OK
480 minute winter	78	368	3.666	0.314	28.0	0.7853	0.0000	OK
480 minute winter	TANK	368	3.665	0.364	9.5	83.6622	0.0000	OK
480 minute winter	80	368	3.665	0.377	27.6	0.6664	0.0000	OK
480 minute winter	BASIN 4	368	3.665	0.416	18.2	39.4907	0.0000	OK
480 minute winter	82	368	3.665	0.450	14.4	0.7944	0.0000	OK
15 minute winter	83	10	4.396	0.064	11.6	0.1807	0.0000	OK
15 minute winter	84	10	4.949	0.074	9.4	0.1765	0.0000	OK
15 minute winter	85	10	4.816	0.054	18.4	0.1246	0.0000	OK
15 minute winter	86	11	4.346	0.153	42.0	0.3995	0.0000	OK
15 minute winter	87	11	4.263	0.147	41.6	0.2605	0.0000	OK
15 minute winter	88	10	5.022	0.072	8.9	0.1420	0.0000	OK
15 minute winter	89	11	4.872	0.040	8.7	0.0449	0.0000	OK
15 minute winter	90	11	4.214	0.185	62.7	0.4795	0.0000	OK
15 minute winter	91	10	5.717	0.037	3.5	0.0685	0.0000	OK
15 minute winter	92	11	4.842	0.044	3.4	0.0496	0.0000	OK
15 minute winter	93	12	4.111	0.212	67.9	0.4321	0.0000	OK
15 minute winter	94	12	4.067	0.211	82.3	0.6663	0.0000	OK
15 minute winter	95	12	3.868	0.140	82.2	0.2474	0.0000	OK
960 minute winter	BASIN 5	930	3.601	0.501	14.0	158.1731	0.0000	OK
960 minute winter	66	930	3.601	0.812	7.4	1.4350	0.0000	SURCHARGED
600 minute winter	98	450	2.476	0.093	15.6	0.1650	0.0000	OK
600 minute winter	—	450	2.438	0.080	15.6	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)
120 minute winter	75	12.012	76	18.0	0.520	0.113	0.6153	
480 minute winter	76	12.013	77	17.9	0.584	0.192	2.8883	
480 minute winter	77	1.017	78	26.9	0.643	0.111	1.8285	
480 minute winter	78	1.018	80	27.6	0.607	0.121	4.2438	
480 minute winter	TANK	18.000	80	-9.5	-0.322	-0.036	0.7143	
480 minute winter	80	1.019	BASIN 4	17.7	0.394	0.089	3.9967	
480 minute winter	BASIN 4	1.020	82	14.4	0.163	0.063	2.8926	
480 minute winter	82	1.021	98	14.3	0.764	0.025	1.1091	
15 minute winter	83	19.000	86	11.4	0.359	0.033	0.8915	
15 minute winter	84	20.000	85	9.1	0.743	0.081	0.4360	
15 minute winter	85	20.001	86	18.1	1.971	0.039	0.0717	
15 minute winter	86	19.001	87	41.6	0.827	0.174	1.5902	
15 minute winter	87	19.002	90	40.7	0.695	0.160	1.8385	
15 minute winter	88	21.000	89	8.7	0.967	0.113	0.2238	
15 minute winter	89	21.001	90	8.7	1.619	0.035	0.0636	
15 minute winter	90	19.003	93	61.7	0.827	0.264	4.1309	
15 minute winter	91	22.000	92	3.4	0.839	0.054	0.0347	
15 minute winter	92	22.001	93	3.4	0.641	0.080	0.0747	
15 minute winter	93	19.004	94	67.7	0.837	0.276	1.3539	
15 minute winter	94	19.005	95	82.2	1.325	0.350	3.4177	
15 minute winter	95	19.006	BASIN 5	83.6	2.792	0.122	1.1045	
960 minute winter	BASIN 5	19.007	66	7.4	0.166	0.011	3.3125	
960 minute winter	66	Hydro-Brake®	98	1.3				
600 minute winter	98	1.022	—	15.6	0.668	0.067	0.2483	533.9



Results for 10 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	5.532	0.063	9.0	0.1004	0.0000	OK
15 minute winter	2	10	5.490	0.105	25.1	0.3067	0.0000	OK
15 minute winter	3	11	5.427	0.173	33.2	0.3250	0.0000	OK
15 minute winter	4	11	5.412	0.206	50.9	0.4040	0.0000	OK
15 minute winter	5	11	5.371	0.215	78.7	0.6252	0.0000	OK
15 minute winter	6	10	5.404	0.073	16.1	0.1648	0.0000	OK
15 minute winter	7	12	5.212	0.102	20.4	0.1708	0.0000	OK
15 minute winter	8	11	5.211	0.299	123.8	0.7534	0.0000	OK
15 minute winter	9	11	5.107	0.270	129.6	0.6119	0.0000	OK
15 minute winter	10	11	4.979	0.278	161.5	0.9701	0.0000	OK
960 minute winter	11	945	4.846	0.114	2.0	0.2341	0.0000	OK
960 minute winter	12	960	4.845	0.410	14.9	0.7251	0.0000	OK
15 minute winter	13	10	5.890	0.090	31.9	0.3307	0.0000	OK
15 minute winter	14	11	5.474	0.188	36.2	0.3072	0.0000	OK
15 minute winter	15	11	5.458	0.210	63.4	0.5881	0.0000	OK
15 minute winter	16	11	5.341	0.230	70.6	0.4189	0.0000	OK
15 minute winter	17	10	5.592	0.092	15.6	0.1909	0.0000	OK
15 minute winter	18	11	5.399	0.099	19.3	0.1352	0.0000	OK
15 minute winter	19	11	5.341	0.091	23.1	0.1270	0.0000	OK
15 minute winter	20	11	5.258	0.283	107.9	0.6324	0.0000	OK
15 minute winter	21	11	5.164	0.257	121.7	0.5937	0.0000	OK
15 minute winter	22	10	5.559	0.084	20.8	0.2350	0.0000	OK
15 minute winter	23	11	5.111	0.066	24.8	0.1160	0.0000	OK
15 minute winter	24	11	4.966	0.255	149.2	0.5383	0.0000	OK
960 minute winter	25	960	4.846	0.285	13.7	0.7409	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	1	1.000	4	8.8	0.617	0.100	0.5939	
15 minute winter	2	2.000	3	24.7	0.709	0.175	0.9712	
15 minute winter	3	2.001	4	32.0	0.588	0.284	0.8351	
15 minute winter	4	1.001	5	50.9	0.807	0.454	0.9997	
15 minute winter	5	1.002	8	78.9	1.190	0.566	2.3187	
15 minute winter	6	3.000	7	15.9	1.051	0.080	0.4100	
15 minute winter	7	3.001	8	24.4	0.802	0.103	0.3994	
15 minute winter	8	1.003	9	115.3	1.093	0.702	3.0297	
15 minute winter	9	1.004	10	129.4	1.294	0.568	2.7462	
15 minute winter	10	1.005	12	160.9	1.696	0.589	1.5422	
960 minute winter	11	4.000	12	-1.7	0.337	-0.015	0.9271	
960 minute winter	12	1.006	BASIN 1	14.0	0.555	0.044	26.4812	
15 minute winter	13	5.000	14	31.5	0.895	0.129	1.2941	
15 minute winter	14	5.001	15	35.5	0.597	0.316	0.7101	
15 minute winter	15	5.002	16	63.5	0.947	0.565	2.8899	
15 minute winter	16	5.003	20	69.7	1.073	0.618	1.2708	
15 minute winter	17	6.000	18	15.3	0.798	0.201	0.8155	
15 minute winter	18	6.001	19	19.1	1.002	0.192	0.1191	
15 minute winter	19	6.002	20	23.2	1.292	0.149	0.1547	
15 minute winter	20	5.004	21	107.1	1.078	0.653	2.5913	
15 minute winter	21	5.005	24	120.4	1.360	0.560	2.4072	
15 minute winter	22	7.000	23	20.1	1.129	0.106	0.6981	
15 minute winter	23	7.001	24	24.7	1.190	0.047	0.3617	
15 minute winter	24	5.006	25	148.8	1.416	0.393	2.5834	
960 minute winter	25	5.007	27	15.6	0.755	0.036	3.4528	



Results for 10 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	26	10	4.896	0.074	6.9	0.1137	0.0000	OK
960 minute winter	27	945	4.847	0.457	16.1	0.8457	0.0000	OK
15 minute winter	28	10	4.862	0.135	25.5	0.4095	0.0000	OK
960 minute winter	29	945	4.847	0.517	16.6	1.1309	0.0000	OK
15 minute winter	30	10	5.261	0.059	9.9	0.0980	0.0000	OK
15 minute winter	31	10	5.184	0.160	47.6	0.5238	0.0000	OK
15 minute winter	32	11	5.101	0.193	63.2	0.4033	0.0000	OK
15 minute winter	33	11	5.019	0.218	75.0	0.4359	0.0000	OK
15 minute winter	34	11	4.949	0.248	89.2	0.5482	0.0000	OK
15 minute winter	35	12	4.886	0.236	90.9	0.3818	0.0000	OK
960 minute winter	36	945	4.845	0.248	8.3	0.4581	0.0000	OK
960 minute winter	BASIN 1	945	4.845	0.644	43.1	800.4857	0.0000	SURCHARGED
180 minute winter	74	192	4.211	0.046	4.1	0.0663	0.0000	OK
180 minute winter	38	164	4.184	0.051	4.1	0.0736	0.0000	OK
180 minute winter	39	164	4.167	0.048	4.1	0.0691	0.0000	OK
180 minute winter	37	192	4.134	0.050	4.1	0.0716	0.0000	OK
15 minute winter	40	11	4.094	0.085	11.1	0.1552	0.0000	OK
15 minute winter	41	11	4.084	0.112	18.8	0.1971	0.0000	OK
15 minute winter	42	11	4.058	0.110	18.6	0.1573	0.0000	OK
15 minute winter	43	11	4.016	0.098	33.9	0.2036	0.0000	OK
15 minute winter	44	10	4.832	0.102	23.7	0.3050	0.0000	OK
720 minute winter	45	600	4.010	0.185	2.9	0.2476	0.0000	OK
720 minute winter	46	600	4.010	0.384	10.6	0.5493	0.0000	OK
15 minute winter	48	10	5.885	0.080	14.0	0.1682	0.0000	OK
15 minute winter	49	10	5.903	0.058	9.0	0.0944	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	26	8.000	27	6.8	0.833	0.423	0.0567	
960 minute winter	27	5.008	29	14.0	0.628	0.045	2.9630	
15 minute winter	28	9.000	29	24.9	1.056	0.600	0.3580	
960 minute winter	29	5.009	BASIN 1	17.1	0.804	0.047	4.8856	
15 minute winter	30	10.000	31	9.9	0.747	0.051	0.1636	
15 minute winter	31	10.001	32	46.6	0.819	0.256	2.0663	
15 minute winter	32	10.002	33	62.8	0.892	0.346	2.3655	
15 minute winter	33	10.003	34	74.3	0.895	0.409	2.6040	
15 minute winter	34	10.004	35	87.6	1.010	0.482	1.4000	
15 minute winter	35	10.005	36	90.6	1.170	0.500	1.2986	
960 minute winter	36	10.006	BASIN 1	8.3	0.638	0.034	4.7789	
960 minute winter	BASIN 1	1.007	74	4.1	0.392	0.035	0.2791	
180 minute winter	74	1.008	38	4.1	0.443	0.021	0.0788	
180 minute winter	38	1.009	39	4.1	0.431	0.025	0.0503	
180 minute winter	39	1.010	37	4.1	0.445	0.023	0.1064	
180 minute winter	37	1.011	40	4.1	0.430	0.026	0.3399	
15 minute winter	40	1.012	41	10.2	0.412	0.062	0.3638	
15 minute winter	41	1.013	42	18.6	0.612	0.114	0.2829	
15 minute winter	42	1.014	43	18.7	0.679	0.123	0.3683	
15 minute winter	43	1.015	46	34.0	0.813	0.107	1.3590	
15 minute winter	44	11.000	45	23.1	1.138	0.231	0.5651	
720 minute winter	45	11.001	46	2.9	0.628	0.028	0.2944	
720 minute winter	46	1.016	77	10.6	0.575	0.066	9.9907	
15 minute winter	48	12.000	52	13.8	0.982	0.265	0.3382	
15 minute winter	49	13.000	50	8.9	0.692	0.077	0.1509	



Results for 10 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	50	10	5.806	0.086	16.2	0.1324	0.0000	OK
15 minute winter	51	10	5.766	0.126	27.1	0.2211	0.0000	OK
15 minute winter	52	11	5.703	0.187	44.2	0.2562	0.0000	OK
15 minute winter	53	11	5.633	0.216	57.0	0.4502	0.0000	OK
15 minute winter	54	11	5.487	0.215	65.5	0.4353	0.0000	OK
15 minute winter	55	11	5.324	0.184	65.1	0.2637	0.0000	OK
15 minute winter	56	10	5.275	0.075	9.2	0.1508	0.0000	OK
15 minute winter	57	12	5.243	0.227	73.2	0.3249	0.0000	OK
15 minute winter	58	12	5.178	0.212	72.9	0.3032	0.0000	OK
15 minute winter	59	10	5.757	0.117	20.8	0.2709	0.0000	OK
15 minute winter	60	10	5.702	0.106	26.2	0.1526	0.0000	OK
15 minute winter	61	11	5.528	0.128	33.7	0.2019	0.0000	OK
15 minute winter	62	10	5.748	0.068	14.0	0.1299	0.0000	OK
15 minute winter	63	10	5.494	0.074	13.8	0.0842	0.0000	OK
15 minute winter	64	11	5.353	0.130	57.6	0.2643	0.0000	OK
60 minute winter	65	44	5.164	0.239	37.5	0.5258	0.0000	OK
60 minute winter	BASIN 2	44	5.164	0.369	77.1	54.7993	0.0000	OK
60 minute winter	67	44	4.862	0.154	38.2	0.2589	0.0000	OK
60 minute winter	68	40	4.792	0.148	40.0	0.2739	0.0000	OK
15 minute winter	69	10	5.451	0.111	31.2	0.3232	0.0000	OK
15 minute winter	70	10	5.405	0.205	48.2	0.4323	0.0000	OK
15 minute winter	71	10	5.352	0.192	64.3	0.3982	0.0000	OK
15 minute winter	72	11	5.113	0.213	76.0	0.3939	0.0000	OK
15 minute winter	73	11	4.749	0.173	99.9	0.3070	0.0000	OK
180 minute winter	BASIN 3	176	4.678	0.514	62.5	124.9172	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	50	13.001	51	16.0	0.723	0.150	0.1931	
15 minute winter	51	13.002	52	26.6	0.735	0.372	1.0936	
15 minute winter	52	12.001	53	43.9	0.874	0.613	1.1856	
15 minute winter	53	12.002	54	56.8	1.135	0.794	0.8368	
15 minute winter	54	12.003	55	65.1	1.089	0.575	1.0518	
15 minute winter	55	12.004	57	64.6	0.927	0.315	2.1431	
15 minute winter	56	14.000	57	9.1	0.689	0.122	0.1012	
15 minute winter	57	12.005	58	72.9	0.955	0.446	1.4824	
15 minute winter	58	12.006	BASIN 2	73.2	1.034	0.442	5.6888	
15 minute winter	59	15.000	60	20.6	0.864	0.289	0.2533	
15 minute winter	60	15.001	61	25.9	1.021	0.245	0.5500	
15 minute winter	61	15.002	64	33.5	1.237	0.328	0.3269	
15 minute winter	62	16.000	63	13.8	1.087	0.107	0.2469	
15 minute winter	63	16.001	64	13.6	1.047	0.121	0.1559	
15 minute winter	64	15.003	65	57.9	1.296	0.235	0.8919	
60 minute winter	65	15.004	BASIN 2	35.6	1.179	0.227	1.9445	
60 minute winter	BASIN 2	12.007	67	37.2	0.785	0.229	1.6116	
60 minute winter	67	12.008	68	38.2	0.824	0.231	1.1306	
60 minute winter	68	12.009	73	40.0	1.078	0.235	0.9934	
15 minute winter	69	17.000	70	30.9	0.818	0.293	0.5834	
15 minute winter	70	17.001	71	47.3	0.956	0.656	0.4662	
15 minute winter	71	17.002	72	64.0	1.271	0.681	1.8269	
15 minute winter	72	17.003	73	76.6	1.513	0.757	1.0618	
15 minute winter	73	12.010	BASIN 3	100.0	2.657	0.246	1.3141	
180 minute winter	BASIN 3	12.011	75	54.2	0.440	0.091	2.8992	



Results for 10 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	75	224	4.703	1.156	59.4	2.0418	0.0000	SURCHARGED
720 minute winter	76	600	4.010	0.506	17.9	0.7240	0.0000	SURCHARGED
720 minute winter	77	600	4.010	0.622	28.2	1.2030	0.0000	SURCHARGED
720 minute winter	78	600	4.010	0.659	28.8	1.6443	0.0000	SURCHARGED
720 minute winter	TANK	600	4.009	0.708	9.1	162.7367	0.0000	SURCHARGED
720 minute winter	80	600	4.009	0.721	28.2	1.2745	0.0000	SURCHARGED
720 minute winter	BASIN 4	600	4.009	0.760	19.4	90.8390	0.0000	SURCHARGED
720 minute winter	82	600	4.009	0.794	14.5	1.4026	0.0000	SURCHARGED
15 minute winter	83	10	4.419	0.087	22.2	0.2472	0.0000	OK
15 minute winter	84	10	4.977	0.102	18.0	0.2436	0.0000	OK
15 minute winter	85	10	4.838	0.076	35.3	0.1766	0.0000	OK
15 minute winter	86	11	4.414	0.221	80.6	0.5785	0.0000	OK
15 minute winter	87	11	4.342	0.226	79.3	0.3996	0.0000	OK
15 minute winter	88	10	5.050	0.100	17.0	0.1963	0.0000	OK
15 minute winter	89	10	4.887	0.055	16.7	0.0624	0.0000	OK
15 minute winter	90	11	4.306	0.277	119.6	0.7155	0.0000	OK
15 minute winter	91	10	5.731	0.051	6.6	0.0952	0.0000	OK
15 minute winter	92	10	4.859	0.061	6.5	0.0688	0.0000	OK
15 minute winter	93	12	4.211	0.312	129.4	0.6355	0.0000	OK
15 minute winter	94	12	4.155	0.299	157.9	0.9457	0.0000	OK
15 minute winter	95	11	3.918	0.190	160.0	0.3359	0.0000	OK
960 minute winter	BASIN 5	945	3.853	0.753	15.6	276.7964	0.0000	SURCHARGED
960 minute winter	66	945	3.853	1.064	9.0	1.8799	0.0000	SURCHARGED
960 minute winter	98	1035	2.477	0.094	15.8	0.1662	0.0000	OK
960 minute winter	—	1035	2.439	0.081	15.8	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)
240 minute winter	75	12.012	76	17.9	0.517	0.113	2.0702	
720 minute winter	76	12.013	77	17.8	0.580	0.190	7.5246	
720 minute winter	77	1.017	78	27.5	0.616	0.113	3.1480	
720 minute winter	78	1.018	80	28.2	0.530	0.124	6.0915	
720 minute winter	TANK	18.000	80	-9.1	-0.273	-0.035	0.9471	
720 minute winter	80	1.019	BASIN 4	18.6	0.393	0.094	4.9411	
720 minute winter	BASIN 4	1.020	82	14.5	0.162	0.064	3.2859	
720 minute winter	82	1.021	98	14.4	0.764	0.025	1.1173	
15 minute winter	83	19.000	86	21.8	0.420	0.062	1.4595	
15 minute winter	84	20.000	85	17.6	0.890	0.155	0.7017	
15 minute winter	85	20.001	86	34.8	2.339	0.075	0.1178	
15 minute winter	86	19.001	87	79.3	0.926	0.331	2.7407	
15 minute winter	87	19.002	90	77.7	0.761	0.305	3.1909	
15 minute winter	88	21.000	89	16.7	1.164	0.217	0.3552	
15 minute winter	89	21.001	90	16.6	1.938	0.067	0.1015	
15 minute winter	90	19.003	93	116.3	0.940	0.497	6.8551	
15 minute winter	91	22.000	92	6.5	1.001	0.102	0.0551	
15 minute winter	92	22.001	93	6.4	0.765	0.150	0.1177	
15 minute winter	93	19.004	94	130.0	0.998	0.530	2.1703	
15 minute winter	94	19.005	95	160.0	1.640	0.681	5.3010	
15 minute winter	95	19.006	BASIN 5	162.6	3.081	0.238	2.2583	
960 minute winter	BASIN 5	19.007	66	9.0	0.167	0.013	3.3399	
960 minute winter	66	Hydro-Brake®	98	1.4				
960 minute winter	98	1.022	—	15.8	0.670	0.068	0.2509	873.9



Results for 30 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	5.546	0.077	13.3	0.1221	0.0000	OK
15 minute winter	2	10	5.513	0.128	37.0	0.3754	0.0000	OK
15 minute winter	3	11	5.498	0.244	49.1	0.4598	0.0000	OK
15 minute winter	4	11	5.484	0.278	74.5	0.5461	0.0000	OK
15 minute winter	5	11	5.446	0.290	114.7	0.8429	0.0000	OK
15 minute winter	6	10	5.417	0.086	23.8	0.1930	0.0000	OK
15 minute winter	7	12	5.310	0.200	30.1	0.3352	0.0000	OK
15 minute winter	8	11	5.320	0.408	179.6	1.0286	0.0000	OK
15 minute winter	9	12	5.199	0.362	189.6	0.8227	0.0000	OK
15 minute winter	10	11	5.064	0.363	234.7	1.2672	0.0000	OK
1440 minute winter	11	1410	5.030	0.298	1.3	0.6105	0.0000	OK
1440 minute winter	12	1410	5.030	0.595	15.7	1.0520	0.0000	OK
15 minute winter	13	10	5.910	0.110	47.2	0.4035	0.0000	OK
15 minute winter	14	11	5.547	0.261	53.6	0.4261	0.0000	OK
15 minute winter	15	11	5.531	0.283	93.2	0.7921	0.0000	OK
15 minute winter	16	11	5.427	0.316	102.5	0.5753	0.0000	OK
15 minute winter	17	10	5.614	0.114	23.1	0.2359	0.0000	OK
15 minute winter	18	10	5.424	0.124	28.5	0.1687	0.0000	OK
15 minute winter	19	10	5.363	0.113	34.3	0.1570	0.0000	OK
15 minute winter	20	11	5.349	0.374	157.8	0.8357	0.0000	OK
15 minute winter	21	11	5.243	0.336	177.8	0.7759	0.0000	OK
15 minute winter	22	10	5.578	0.103	30.7	0.2885	0.0000	OK
15 minute winter	23	10	5.124	0.079	36.8	0.1406	0.0000	OK
15 minute winter	24	11	5.045	0.334	219.2	0.7032	0.0000	OK
1440 minute winter	25	1410	5.030	0.469	12.6	1.2218	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	1	1.000	4	13.1	0.618	0.148	0.9591	
15 minute winter	2	2.000	3	36.5	0.746	0.259	1.4221	
15 minute winter	3	2.001	4	46.7	0.599	0.415	1.2269	
15 minute winter	4	1.001	5	73.6	0.840	0.656	1.4076	
15 minute winter	5	1.002	8	115.0	1.208	0.825	3.3744	
15 minute winter	6	3.000	7	23.6	1.081	0.118	0.8606	
15 minute winter	7	3.001	8	34.5	0.787	0.145	0.7129	
15 minute winter	8	1.003	9	168.6	1.176	1.027	4.1308	
15 minute winter	9	1.004	10	187.8	1.381	0.823	3.7202	
15 minute winter	10	1.005	12	232.6	1.832	0.852	2.0586	
1440 minute winter	11	4.000	12	1.5	0.337	0.014	2.2984	
1440 minute winter	12	1.006	BASIN 1	12.9	0.524	0.041	30.6094	
15 minute winter	13	5.000	14	46.6	0.942	0.191	1.8602	
15 minute winter	14	5.001	15	51.4	0.609	0.458	1.0224	
15 minute winter	15	5.002	16	92.0	0.995	0.818	4.0491	
15 minute winter	16	5.003	20	100.9	1.083	0.894	1.8385	
15 minute winter	17	6.000	18	22.6	0.871	0.298	1.1081	
15 minute winter	18	6.001	19	28.4	1.118	0.285	0.1601	
15 minute winter	19	6.002	20	34.5	1.309	0.222	0.2571	
15 minute winter	20	5.004	21	156.1	1.164	0.952	3.4946	
15 minute winter	21	5.005	24	175.4	1.485	0.816	3.2201	
15 minute winter	22	7.000	23	29.8	1.258	0.156	0.9291	
15 minute winter	23	7.001	24	36.6	1.253	0.070	0.5553	
15 minute winter	24	5.006	25	217.3	1.485	0.575	3.6190	
1440 minute winter	25	5.007	27	22.6	0.681	0.053	4.5529	



Results for 30 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	26	1410	5.030	0.208	0.5	0.3224	0.0000	SURCHARGED
1440 minute winter	27	1410	5.030	0.640	23.3	1.1847	0.0000	SURCHARGED
1440 minute winter	28	1410	5.030	0.303	1.9	0.9214	0.0000	SURCHARGED
1440 minute winter	29	1410	5.030	0.700	15.6	1.5324	0.0000	SURCHARGED
15 minute winter	30	10	5.271	0.069	14.7	0.1146	0.0000	OK
15 minute winter	31	10	5.227	0.203	70.5	0.6656	0.0000	OK
15 minute winter	32	11	5.158	0.250	93.1	0.5222	0.0000	OK
15 minute winter	33	11	5.089	0.288	109.9	0.5747	0.0000	OK
1440 minute winter	34	1410	5.030	0.329	6.9	0.7273	0.0000	OK
1440 minute winter	35	1410	5.030	0.380	7.2	0.6147	0.0000	OK
1440 minute winter	36	1410	5.030	0.433	7.8	0.7996	0.0000	OK
1440 minute winter	BASIN 1	1410	5.030	0.829	46.6	1098.5170	0.0000	SURCHARGED
720 minute winter	74	720	4.266	0.101	4.1	0.1448	0.0000	OK
720 minute winter	38	720	4.266	0.133	4.1	0.1901	0.0000	OK
720 minute winter	39	720	4.266	0.147	4.1	0.2098	0.0000	OK
720 minute winter	37	720	4.265	0.181	4.1	0.2597	0.0000	OK
720 minute winter	40	720	4.265	0.256	5.6	0.4681	0.0000	OK
720 minute winter	41	720	4.265	0.293	6.8	0.5159	0.0000	OK
720 minute winter	42	720	4.265	0.317	6.8	0.4540	0.0000	OK
720 minute winter	43	720	4.265	0.347	8.9	0.7229	0.0000	OK
15 minute winter	44	10	4.857	0.127	34.9	0.3795	0.0000	OK
720 minute winter	45	720	4.265	0.440	3.7	0.5894	0.0000	SURCHARGED
720 minute winter	46	720	4.265	0.639	12.6	0.9147	0.0000	SURCHARGED
15 minute winter	48	10	5.902	0.097	20.6	0.2029	0.0000	OK
15 minute winter	49	10	5.915	0.070	13.3	0.1147	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)
1440 minute winter	26	8.000	27	1.3	0.408	0.078	0.1223	
1440 minute winter	27	5.008	29	13.4	0.531	0.043	3.0860	
1440 minute winter	28	9.000	29	3.8	0.521	0.091	0.6018	
1440 minute winter	29	5.009	BASIN 1	22.0	0.718	0.060	4.8944	
15 minute winter	30	10.000	31	14.6	0.746	0.075	0.2593	
15 minute winter	31	10.001	32	68.7	0.875	0.377	2.8709	
15 minute winter	32	10.002	33	91.8	0.944	0.505	3.3089	
15 minute winter	33	10.003	34	108.4	0.948	0.597	3.5869	
1440 minute winter	34	10.004	35	6.9	0.539	0.038	2.1567	
1440 minute winter	35	10.005	36	7.2	0.591	0.040	2.5072	
1440 minute winter	36	10.006	BASIN 1	7.5	0.577	0.030	6.0685	
1440 minute winter	BASIN 1	1.007	74	4.1	0.392	0.035	0.2791	
720 minute winter	74	1.008	38	4.1	0.443	0.021	0.2794	
720 minute winter	38	1.009	39	4.1	0.430	0.025	0.2215	
720 minute winter	39	1.010	37	4.1	0.445	0.023	0.5973	
720 minute winter	37	1.011	40	4.1	0.413	0.026	2.3617	
720 minute winter	40	1.012	41	5.6	0.430	0.034	1.4318	
720 minute winter	41	1.013	42	6.8	0.480	0.042	1.0674	
720 minute winter	42	1.014	43	6.8	0.571	0.045	1.6712	
720 minute winter	43	1.015	46	8.9	0.598	0.028	4.3677	
15 minute winter	44	11.000	45	34.1	1.259	0.341	0.7545	
720 minute winter	45	11.001	46	3.7	0.674	0.036	0.3968	
720 minute winter	46	1.016	77	12.5	0.577	0.079	10.4666	
15 minute winter	48	12.000	52	20.4	0.997	0.390	0.5577	
15 minute winter	49	13.000	50	13.2	0.741	0.114	0.2086	



Results for 30 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	50	10	5.830	0.110	24.0	0.1704	0.0000	OK
15 minute winter	51	11	5.817	0.177	40.0	0.3108	0.0000	OK
15 minute winter	52	11	5.787	0.271	64.4	0.3709	0.0000	OK
15 minute winter	53	11	5.709	0.292	81.3	0.6088	0.0000	OK
15 minute winter	54	11	5.541	0.269	93.7	0.5455	0.0000	OK
15 minute winter	55	11	5.374	0.234	93.4	0.3351	0.0000	OK
15 minute winter	56	12	5.305	0.105	13.6	0.2100	0.0000	OK
15 minute winter	57	12	5.300	0.284	105.2	0.4070	0.0000	OK
60 minute winter	58	44	5.267	0.301	53.7	0.4314	0.0000	OK
15 minute winter	59	10	5.788	0.148	30.7	0.3427	0.0000	OK
15 minute winter	60	10	5.730	0.134	38.8	0.1934	0.0000	OK
15 minute winter	61	10	5.562	0.162	49.7	0.2553	0.0000	OK
15 minute winter	62	10	5.763	0.083	20.6	0.1594	0.0000	OK
15 minute winter	63	10	5.512	0.092	20.4	0.1043	0.0000	OK
15 minute winter	64	11	5.391	0.168	85.4	0.3425	0.0000	OK
60 minute winter	65	43	5.268	0.343	53.3	0.7548	0.0000	OK
60 minute winter	BASIN 2	44	5.265	0.470	103.2	74.4498	0.0000	SURCHARGED
180 minute winter	67	176	4.923	0.215	43.3	0.3605	0.0000	OK
180 minute winter	68	176	4.922	0.278	45.4	0.5146	0.0000	OK
15 minute winter	69	11	5.542	0.202	46.1	0.5860	0.0000	OK
15 minute winter	70	11	5.517	0.317	69.9	0.6673	0.0000	SURCHARGED
15 minute winter	71	11	5.466	0.306	93.1	0.6354	0.0000	SURCHARGED
15 minute winter	72	11	5.215	0.315	108.8	0.5837	0.0000	SURCHARGED
180 minute winter	73	176	4.922	0.346	70.5	0.6143	0.0000	OK
180 minute winter	BASIN 3	176	4.921	0.757	74.1	203.5325	0.0000	SURCHARGED

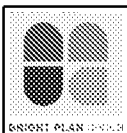
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	50	13.001	51	23.6	0.751	0.221	0.2873	
15 minute winter	51	13.002	52	38.4	0.765	0.536	1.6287	
15 minute winter	52	12.001	53	61.9	0.910	0.864	1.6161	
15 minute winter	53	12.002	54	80.9	1.260	1.131	1.0538	
15 minute winter	54	12.003	55	93.4	1.216	0.825	1.3486	
15 minute winter	55	12.004	57	92.8	0.989	0.452	2.8711	
15 minute winter	56	14.000	57	13.1	0.743	0.177	0.1993	
15 minute winter	57	12.005	58	104.1	1.036	0.637	1.9509	
60 minute winter	58	12.006	BASIN 2	48.5	0.771	0.292	8.7197	
15 minute winter	59	15.000	60	30.4	0.933	0.427	0.3462	
15 minute winter	60	15.001	61	38.2	1.105	0.362	0.7496	
15 minute winter	61	15.002	64	49.4	1.359	0.484	0.4386	
15 minute winter	62	16.000	63	20.4	1.193	0.158	0.3316	
15 minute winter	63	16.001	64	20.1	1.116	0.180	0.2195	
15 minute winter	64	15.003	65	85.3	1.386	0.346	1.2585	
60 minute winter	65	15.004	BASIN 2	50.1	1.293	0.320	2.2836	
60 minute winter	BASIN 2	12.007	67	53.7	0.857	0.330	2.1329	
180 minute winter	67	12.008	68	43.3	0.849	0.263	2.1545	
180 minute winter	68	12.009	73	45.5	1.087	0.267	2.8316	
15 minute winter	69	17.000	70	44.4	0.840	0.421	0.9374	
15 minute winter	70	17.001	71	68.0	1.003	0.943	0.6638	
15 minute winter	71	17.002	72	89.9	1.328	0.957	2.5543	
15 minute winter	72	17.003	73	103.7	1.536	1.026	1.3960	
180 minute winter	73	12.010	BASIN 3	70.5	1.654	0.174	3.7883	
180 minute winter	BASIN 3	12.011	75	50.8	0.429	0.085	2.8992	



Results for 30 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	75	176	4.921	1.374	50.8	2.4274	0.0000	SURCHARGED
720 minute winter	76	720	4.265	0.761	18.0	1.0895	0.0000	SURCHARGED
720 minute winter	77	720	4.265	0.877	29.6	1.6972	0.0000	SURCHARGED
720 minute winter	78	720	4.265	0.914	30.1	2.2821	0.0000	SURCHARGED
720 minute winter	TANK	720	4.265	0.964	9.7	221.4366	0.0000	SURCHARGED
720 minute winter	80	720	4.265	0.977	29.6	1.7259	0.0000	SURCHARGED
720 minute winter	BASIN 4	720	4.265	1.016	20.3	139.8870	0.0000	SURCHARGED
720 minute winter	82	720	4.264	1.049	21.2	1.8542	0.0000	SURCHARGED
15 minute winter	83	11	4.479	0.147	32.8	0.4148	0.0000	OK
15 minute winter	84	10	4.999	0.124	26.5	0.2970	0.0000	OK
15 minute winter	85	10	4.852	0.090	52.2	0.2083	0.0000	OK
15 minute winter	86	11	4.477	0.284	118.3	0.7428	0.0000	OK
15 minute winter	87	12	4.422	0.306	113.7	0.5400	0.0000	OK
15 minute winter	88	10	5.073	0.123	25.1	0.2411	0.0000	OK
15 minute winter	89	9	4.896	0.064	24.8	0.0723	0.0000	OK
15 minute winter	90	12	4.390	0.361	173.0	0.9342	0.0000	OK
15 minute winter	91	10	5.743	0.063	9.8	0.1177	0.0000	OK
15 minute winter	92	10	4.873	0.075	9.7	0.0852	0.0000	OK
15 minute winter	93	12	4.295	0.396	185.5	0.8060	0.0000	OK
15 minute winter	94	12	4.227	0.371	230.2	1.1747	0.0000	OK
960 minute winter	95	945	4.027	0.299	18.3	0.5285	0.0000	OK
960 minute winter	BASIN 5	945	4.027	0.927	20.6	374.1887	0.0000	SURCHARGED
960 minute winter	66	945	4.027	1.238	8.6	2.1877	0.0000	SURCHARGED
1440 minute winter	98	1590	2.477	0.094	15.9	0.1667	0.0000	OK
1440 minute winter	—	1590	2.439	0.081	15.9	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)
180 minute winter	75	12.012	76	17.9	0.517	0.113	2.7106	
720 minute winter	76	12.013	77	17.9	0.582	0.192	7.5246	
720 minute winter	77	1.017	78	28.3	0.612	0.117	3.1480	
720 minute winter	78	1.018	80	29.6	0.527	0.130	6.0915	
720 minute winter	TANK	18.000	80	-9.7	-0.314	-0.037	0.9471	
720 minute winter	80	1.019	BASIN 4	19.3	0.406	0.097	4.9411	
720 minute winter	BASIN 4	1.020	82	21.2	0.162	0.093	3.2859	
720 minute winter	82	1.021	98	14.4	0.763	0.025	1.1141	
15 minute winter	83	19.000	86	30.9	0.445	0.088	2.2452	
15 minute winter	84	20.000	85	26.0	1.019	0.230	0.9096	
15 minute winter	85	20.001	86	52.1	2.362	0.112	0.2140	
15 minute winter	86	19.001	87	113.7	0.980	0.475	3.8980	
15 minute winter	87	19.002	90	111.3	0.773	0.437	4.5119	
15 minute winter	88	21.000	89	24.8	1.332	0.320	0.4591	
15 minute winter	89	21.001	90	24.6	1.975	0.100	0.2477	
15 minute winter	90	19.003	93	166.8	1.001	0.713	9.1933	
15 minute winter	91	22.000	92	9.7	1.111	0.152	0.0737	
15 minute winter	92	22.001	93	9.5	0.851	0.222	0.1575	
15 minute winter	93	19.004	94	187.1	1.110	0.764	2.8139	
15 minute winter	94	19.005	95	231.7	1.822	0.986	6.8452	
960 minute winter	95	19.006	BASIN 5	18.3	1.064	0.027	5.4313	
960 minute winter	BASIN 5	19.007	66	8.6	0.195	0.013	3.3399	
960 minute winter	66	Hydro-Brake®	98	1.5				
1440 minute winter	98	1.022	—	15.9	0.672	0.068	0.2520	1215.7



Results for 100 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	12	6.004	0.535	24.6	0.8469	0.0000	SURCHARGED
15 minute winter	2	12	6.041	0.656	56.2	1.9225	0.0000	SURCHARGED
15 minute winter	3	12	6.021	0.767	65.2	1.4446	0.0000	SURCHARGED
15 minute winter	4	12	5.998	0.792	96.9	1.5567	0.0000	SURCHARGED
15 minute winter	5	12	5.937	0.781	148.7	2.2738	0.0000	SURCHARGED
15 minute winter	6	12	5.705	0.374	36.1	0.8394	0.0000	OK
15 minute winter	7	12	5.698	0.588	42.6	0.9843	0.0000	SURCHARGED
15 minute winter	8	12	5.692	0.780	227.3	1.9646	0.0000	SURCHARGED
15 minute winter	9	12	5.491	0.654	255.3	1.4847	0.0000	SURCHARGED
1440 minute winter	10	1440	5.263	0.562	17.1	1.9596	0.0000	SURCHARGED
1440 minute winter	11	1440	5.263	0.531	1.1	1.0865	0.0000	SURCHARGED
1440 minute winter	12	1440	5.263	0.828	21.4	1.4631	0.0000	SURCHARGED
15 minute winter	13	12	5.974	0.174	71.6	0.6399	0.0000	OK
15 minute winter	14	12	5.953	0.667	81.5	1.0910	0.0000	SURCHARGED
15 minute winter	15	11	5.928	0.680	132.5	1.9020	0.0000	SURCHARGED
15 minute winter	16	12	5.725	0.614	144.8	1.1170	0.0000	SURCHARGED
15 minute winter	17	12	5.652	0.152	35.0	0.3133	0.0000	OK
15 minute winter	18	12	5.623	0.323	44.5	0.4413	0.0000	SURCHARGED
15 minute winter	19	12	5.609	0.359	49.0	0.5002	0.0000	SURCHARGED
15 minute winter	20	12	5.589	0.614	218.4	1.3706	0.0000	SURCHARGED
15 minute winter	21	12	5.428	0.521	247.6	1.2051	0.0000	SURCHARGED
15 minute winter	22	10	5.604	0.129	46.7	0.3621	0.0000	OK
1440 minute winter	23	1440	5.263	0.218	2.5	0.3859	0.0000	OK
1440 minute winter	24	1440	5.263	0.552	15.6	1.1637	0.0000	SURCHARGED
1440 minute winter	25	1440	5.263	0.702	16.3	1.8274	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	1	1.000	4	22.2	0.615	0.252	2.0860	
15 minute winter	2	2.000	3	47.2	0.760	0.335	2.8924	
15 minute winter	3	2.001	4	60.6	0.604	0.538	1.6548	
15 minute winter	4	1.001	5	97.7	0.907	0.871	1.7355	
15 minute winter	5	1.002	8	149.7	1.358	1.075	3.8204	
15 minute winter	6	3.000	7	33.1	1.111	0.166	2.4541	
15 minute winter	7	3.001	8	50.7	0.861	0.214	0.9686	
15 minute winter	8	1.003	9	228.8	1.444	1.393	4.5521	
15 minute winter	9	1.004	10	256.4	1.618	1.124	4.3086	
1440 minute winter	10	1.005	12	19.4	0.899	0.071	2.5688	
1440 minute winter	11	4.000	12	2.0	0.337	0.018	2.4847	
1440 minute winter	12	1.006	BASIN 1	16.1	0.536	0.051	30.6282	
15 minute winter	13	5.000	14	70.9	0.981	0.290	2.7657	
15 minute winter	14	5.001	15	71.3	0.647	0.636	1.3183	
15 minute winter	15	5.002	16	128.9	1.168	1.147	4.7391	
15 minute winter	16	5.003	20	143.1	1.298	1.269	2.0964	
15 minute winter	17	6.000	18	35.5	0.932	0.469	2.2636	
15 minute winter	18	6.001	19	43.5	1.118	0.437	0.4373	
15 minute winter	19	6.002	20	52.0	1.318	0.334	0.4512	
15 minute winter	20	5.004	21	214.6	1.354	1.308	4.1357	
15 minute winter	21	5.005	24	244.0	1.593	1.135	4.2976	
15 minute winter	22	7.000	23	45.5	1.409	0.239	1.2664	
1440 minute winter	23	7.001	24	2.5	0.849	0.005	1.1530	
1440 minute winter	24	5.006	25	15.0	0.801	0.040	5.3103	
1440 minute winter	25	5.007	27	22.8	0.678	0.053	4.6862	



Results for 100 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	26	1440	5.263	0.441	0.8	0.6822	0.0000	SURCHARGED
1440 minute winter	27	1440	5.263	0.873	24.3	1.6151	0.0000	SURCHARGED
1440 minute winter	28	1440	5.263	0.536	2.5	1.6279	0.0000	SURCHARGED
1440 minute winter	29	1440	5.263	0.933	22.8	2.0414	0.0000	SURCHARGED
15 minute winter	30	11	5.302	0.100	22.3	0.1667	0.0000	OK
15 minute winter	31	11	5.310	0.286	106.2	0.9351	0.0000	OK
15 minute winter	32	11	5.278	0.370	139.3	0.7741	0.0000	OK
1440 minute winter	33	1440	5.263	0.462	7.6	0.9226	0.0000	SURCHARGED
1440 minute winter	34	1440	5.263	0.562	9.1	1.2409	0.0000	SURCHARGED
1440 minute winter	35	1440	5.263	0.613	9.0	0.9906	0.0000	SURCHARGED
1440 minute winter	36	1440	5.263	0.666	9.6	1.2288	0.0000	SURCHARGED
1440 minute winter	BASIN 1	1440	5.263	1.062	51.4	1516.1270	0.0000	SURCHARGED
960 minute winter	74	915	4.525	0.360	4.1	0.5151	0.0000	OK
960 minute winter	38	915	4.525	0.392	4.1	0.5608	0.0000	OK
960 minute winter	39	915	4.525	0.406	4.1	0.5808	0.0000	OK
960 minute winter	37	915	4.525	0.441	4.1	0.6309	0.0000	OK
960 minute winter	40	915	4.525	0.516	5.6	0.9419	0.0000	SURCHARGED
960 minute winter	41	915	4.525	0.553	6.8	0.9723	0.0000	SURCHARGED
960 minute winter	42	915	4.525	0.577	6.8	0.8253	0.0000	SURCHARGED
960 minute winter	43	915	4.525	0.607	8.9	1.2632	0.0000	SURCHARGED
15 minute winter	44	10	4.893	0.163	53.0	0.4882	0.0000	OK
960 minute winter	45	915	4.525	0.700	4.0	0.9368	0.0000	SURCHARGED
960 minute winter	46	915	4.525	0.899	12.9	1.2860	0.0000	SURCHARGED
15 minute winter	48	11	6.125	0.320	31.3	0.6691	0.0000	SURCHARGED
15 minute winter	49	12	6.153	0.308	20.2	0.5043	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)
1440 minute winter	26	8.000	27	1.5	0.431	0.091	0.1223	
1440 minute winter	27	5.008	29	17.9	0.525	0.057	3.0860	
1440 minute winter	28	9.000	29	4.2	0.545	0.100	0.6018	
1440 minute winter	29	5.009	BASIN 1	21.9	0.777	0.060	4.8944	
15 minute winter	30	10.000	31	21.3	0.751	0.110	0.4803	
15 minute winter	31	10.001	32	102.2	0.921	0.561	4.4431	
15 minute winter	32	10.002	33	129.0	0.980	0.710	4.9348	
1440 minute winter	33	10.003	34	7.6	0.530	0.042	4.9750	
1440 minute winter	34	10.004	35	8.7	0.568	0.048	2.5571	
1440 minute winter	35	10.005	36	8.8	0.618	0.049	2.6525	
1440 minute winter	36	10.006	BASIN 1	9.2	0.577	0.037	6.1039	
1440 minute winter	BASIN 1	1.007	74	4.1	0.392	0.035	2.2512	
960 minute winter	74	1.008	38	4.1	0.443	0.021	1.2021	
960 minute winter	38	1.009	39	4.1	0.430	0.025	0.7848	
960 minute winter	39	1.010	37	4.1	0.445	0.023	1.7599	
960 minute winter	37	1.011	40	4.1	0.402	0.026	4.8771	
960 minute winter	40	1.012	41	5.6	0.430	0.034	2.2390	
960 minute winter	41	1.013	42	6.8	0.479	0.041	1.4780	
960 minute winter	42	1.014	43	6.7	0.567	0.044	2.1122	
960 minute winter	43	1.015	46	8.9	0.586	0.028	4.7774	
15 minute winter	44	11.000	45	51.9	1.394	0.519	1.0363	
960 minute winter	45	11.001	46	4.0	0.678	0.039	0.3968	
960 minute winter	46	1.016	77	12.0	0.566	0.075	10.4666	
15 minute winter	48	12.000	52	27.5	1.008	0.527	0.8442	
15 minute winter	49	13.000	50	21.2	0.760	0.183	0.8168	



Results for 100 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	50	12	6.147	0.427	37.6	0.6597	0.0000	SURCHARGED
15 minute winter	51	12	6.134	0.494	54.1	0.8690	0.0000	SURCHARGED
15 minute winter	52	12	6.051	0.535	86.2	0.7329	0.0000	SURCHARGED
15 minute winter	53	11	5.866	0.449	114.5	0.9365	0.0000	SURCHARGED
15 minute winter	54	11	5.619	0.347	132.9	0.7045	0.0000	OK
30 minute winter	55	23	5.479	0.339	102.5	0.4855	0.0000	OK
30 minute winter	56	23	5.467	0.267	14.8	0.5345	0.0000	OK
30 minute winter	57	23	5.467	0.451	114.1	0.6454	0.0000	SURCHARGED
30 minute winter	58	28	5.451	0.485	109.6	0.6940	0.0000	SURCHARGED
15 minute winter	59	10	5.836	0.196	46.7	0.4518	0.0000	OK
15 minute winter	60	10	5.771	0.175	58.9	0.2535	0.0000	OK
15 minute winter	61	10	5.615	0.215	75.7	0.3386	0.0000	OK
15 minute winter	62	10	5.784	0.104	31.3	0.2006	0.0000	OK
15 minute winter	63	10	5.541	0.121	31.0	0.1369	0.0000	OK
30 minute winter	64	27	5.453	0.230	95.3	0.4686	0.0000	OK
30 minute winter	65	27	5.452	0.527	119.7	1.1584	0.0000	SURCHARGED
30 minute winter	BASIN 2	27	5.446	0.651	224.2	114.5777	0.0000	SURCHARGED
240 minute winter	67	232	5.155	0.447	53.3	0.7500	0.0000	OK
240 minute winter	68	232	5.155	0.511	55.3	0.9446	0.0000	SURCHARGED
15 minute winter	69	11	6.295	0.955	70.0	2.7713	0.0000	SURCHARGED
15 minute winter	70	11	6.226	1.026	97.3	2.1594	0.0000	SURCHARGED
15 minute winter	71	11	6.110	0.950	129.7	1.9747	0.0000	SURCHARGED
15 minute winter	72	11	5.530	0.630	153.6	1.1658	0.0000	SURCHARGED
240 minute winter	73	232	5.154	0.578	85.6	1.0274	0.0000	SURCHARGED
240 minute winter	BASIN 3	232	5.154	0.990	89.8	290.0284	0.0000	SURCHARGED

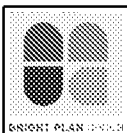
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	50	13.001	51	32.5	0.763	0.305	0.6099	
15 minute winter	51	13.002	52	53.0	0.777	0.741	2.0838	
15 minute winter	52	12.001	53	87.6	1.244	1.223	1.6641	
15 minute winter	53	12.002	54	113.5	1.613	1.587	1.1529	
15 minute winter	54	12.003	55	131.3	1.361	1.158	1.6746	
30 minute winter	55	12.004	57	101.5	0.997	0.494	4.3715	
30 minute winter	56	14.000	57	14.2	0.718	0.191	0.5186	
30 minute winter	57	12.005	58	109.6	1.051	0.671	3.0591	
30 minute winter	58	12.006	BASIN 2	97.0	0.939	0.585	10.1846	
15 minute winter	59	15.000	60	46.2	1.011	0.649	0.4862	
15 minute winter	60	15.001	61	58.2	1.200	0.551	1.0486	
15 minute winter	61	15.002	64	74.9	1.490	0.734	0.6067	
15 minute winter	62	16.000	63	31.0	1.283	0.241	0.4692	
15 minute winter	63	16.001	64	30.6	1.081	0.273	0.3618	
30 minute winter	64	15.003	65	95.4	1.292	0.387	1.7838	
30 minute winter	65	15.004	BASIN 2	114.3	1.610	0.730	2.3320	
30 minute winter	BASIN 2	12.007	67	60.0	0.879	0.369	2.4447	
240 minute winter	67	12.008	68	52.3	0.869	0.317	3.8410	
240 minute winter	68	12.009	73	53.8	1.094	0.316	3.8396	
15 minute winter	69	17.000	70	60.9	0.865	0.577	1.0924	
15 minute winter	70	17.001	71	94.4	1.341	1.310	0.6638	
15 minute winter	71	17.002	72	127.7	1.813	1.359	2.5543	
15 minute winter	72	17.003	73	152.4	2.165	1.508	1.4601	
240 minute winter	73	12.010	BASIN 3	85.2	1.585	0.210	4.1507	
240 minute winter	BASIN 3	12.011	75	55.0	0.428	0.092	2.8992	



Results for 100 year Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	75	232	5.153	1.606	55.0	2.8377	0.0000	SURCHARGED
960 minute winter	76	915	4.525	1.021	18.0	1.4608	0.0000	SURCHARGED
960 minute winter	77	930	4.524	1.136	29.2	2.1991	0.0000	SURCHARGED
960 minute winter	78	930	4.524	1.173	30.2	2.9297	0.0000	SURCHARGED
960 minute winter	TANK	930	4.524	1.223	10.0	281.0130	0.0000	SURCHARGED
960 minute winter	80	930	4.524	1.236	30.1	2.1841	0.0000	SURCHARGED
960 minute winter	BASIN 4	930	4.524	1.275	21.1	199.1668	0.0000	SURCHARGED
960 minute winter	82	930	4.524	1.309	14.5	2.3123	0.0000	SURCHARGED
15 minute winter	83	12	4.668	0.336	49.9	0.9514	0.0000	OK
15 minute winter	84	10	5.030	0.155	40.3	0.3698	0.0000	OK
15 minute winter	85	10	4.876	0.114	79.4	0.2637	0.0000	OK
15 minute winter	86	12	4.657	0.464	175.7	1.2112	0.0000	OK
15 minute winter	87	12	4.618	0.502	160.0	0.8870	0.0000	OK
15 minute winter	88	10	5.104	0.154	38.2	0.3024	0.0000	OK
15 minute winter	89	10	4.911	0.079	37.7	0.0889	0.0000	OK
15 minute winter	90	12	4.576	0.547	238.2	1.4158	0.0000	SURCHARGED
15 minute winter	91	10	5.760	0.080	14.9	0.1486	0.0000	OK
15 minute winter	92	10	4.893	0.095	14.7	0.1079	0.0000	OK
15 minute winter	93	11	4.428	0.529	260.4	1.0778	0.0000	SURCHARGED
15 minute winter	94	11	4.348	0.492	332.8	1.5564	0.0000	OK
960 minute winter	95	945	4.242	0.514	24.6	0.9081	0.0000	OK
960 minute winter	BASIN 5	945	4.242	1.142	26.5	511.5968	0.0000	SURCHARGED
960 minute winter	66	945	4.242	1.453	7.7	2.5673	0.0000	SURCHARGED
2880 minute winter	98	2520	2.478	0.095	16.0	0.1671	0.0000	OK
2880 minute winter	—	2520	2.439	0.081	16.0	0.0000	0.0000	OK

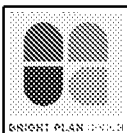
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	75	12.012	76	18.0	0.516	0.113	2.7853	
960 minute winter	76	12.013	77	17.9	0.566	0.192	7.5246	
960 minute winter	77	1.017	78	28.4	0.588	0.117	3.1480	
960 minute winter	78	1.018	80	30.1	0.528	0.132	6.0915	
960 minute winter	TANK	18.000	80	-10.0	-0.314	-0.038	0.9471	
960 minute winter	80	1.019	BASIN 4	20.1	0.421	0.101	4.9411	
960 minute winter	BASIN 4	1.020	82	14.5	0.161	0.064	3.2859	
960 minute winter	82	1.021	98	14.4	0.763	0.025	1.1139	
15 minute winter	83	19.000	86	44.5	0.461	0.127	4.6341	
15 minute winter	84	20.000	85	39.6	1.153	0.350	1.2409	
15 minute winter	85	20.001	86	78.6	2.325	0.169	0.4683	
15 minute winter	86	19.001	87	160.0	1.008	0.669	6.4761	
15 minute winter	87	19.002	90	158.2	0.776	0.621	6.6971	
15 minute winter	88	21.000	89	37.7	1.499	0.488	0.6172	
15 minute winter	89	21.001	90	37.5	1.998	0.152	0.5037	
15 minute winter	90	19.003	93	234.4	1.098	1.003	11.9273	
15 minute winter	91	22.000	92	14.7	1.238	0.231	0.1007	
15 minute winter	92	22.001	93	14.5	0.949	0.338	0.2153	
15 minute winter	93	19.004	94	261.0	1.251	1.065	3.5507	
15 minute winter	94	19.005	95	329.7	1.962	1.402	8.8670	
960 minute winter	95	19.006	BASIN 5	23.5	1.133	0.034	6.8219	
960 minute winter	BASIN 5	19.007	66	7.7	0.193	0.011	3.3399	
960 minute winter	66	Hydro-Brake®	98	1.6				
2880 minute winter	98	1.022	—	16.0	0.673	0.068	0.2531	2091.8



Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	6.398	0.929	28.5	1.4696	0.0000	SURCHARGED
15 minute winter	2	12	6.389	1.004	67.5	5.1229	0.0000	SURCHARGED
15 minute winter	3	11	6.372	1.118	84.9	2.1044	0.0000	SURCHARGED
15 minute winter	4	11	6.366	1.160	120.1	2.2788	0.0000	SURCHARGED
15 minute winter	5	11	6.308	1.152	176.1	3.3526	0.0000	SURCHARGED
15 minute winter	6	11	6.017	0.686	43.3	1.5392	0.0000	SURCHARGED
15 minute winter	7	11	6.001	0.891	48.0	1.4909	0.0000	SURCHARGED
15 minute winter	8	11	5.993	1.081	267.2	2.7239	0.0000	SURCHARGED
15 minute winter	9	11	5.722	0.885	300.6	2.0097	0.0000	SURCHARGED
1440 minute winter	10	1440	5.431	0.730	20.4	2.5472	0.0000	SURCHARGED
1440 minute winter	11	1440	5.431	0.699	1.4	1.4312	0.0000	SURCHARGED
1440 minute winter	12	1440	5.431	0.996	23.0	1.7608	0.0000	SURCHARGED
15 minute winter	13	12	6.412	0.612	85.9	2.5428	0.0000	SURCHARGED
15 minute winter	14	12	6.361	1.075	90.7	1.7573	0.0000	SURCHARGED
15 minute winter	15	12	6.331	1.083	150.5	3.0273	0.0000	SURCHARGED
15 minute winter	16	12	6.087	0.976	157.7	1.7767	0.0000	SURCHARGED
15 minute winter	17	12	6.017	0.517	42.0	1.0678	0.0000	SURCHARGED
15 minute winter	18	12	5.972	0.672	48.2	0.9167	0.0000	SURCHARGED
15 minute winter	19	12	5.952	0.702	53.6	0.9779	0.0000	SURCHARGED
15 minute winter	20	12	5.924	0.949	239.9	2.1181	0.0000	SURCHARGED
15 minute winter	21	12	5.719	0.812	273.3	1.8762	0.0000	SURCHARGED
15 minute winter	22	10	5.618	0.143	56.0	0.4011	0.0000	OK
15 minute winter	23	12	5.452	0.407	68.5	0.7201	0.0000	OK
15 minute winter	24	12	5.446	0.735	341.7	1.5493	0.0000	SURCHARGED
1440 minute winter	25	1440	5.432	0.871	20.1	2.2661	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	1	1.000	4	23.6	0.621	0.267	2.0860	
15 minute winter	2	2.000	3	71.8	0.772	0.509	2.8924	
15 minute winter	3	2.001	4	86.9	0.788	0.772	1.6548	
15 minute winter	4	1.001	5	123.1	1.116	1.098	1.7355	
15 minute winter	5	1.002	8	176.9	1.604	1.269	3.8204	
15 minute winter	6	3.000	7	38.6	1.057	0.194	2.4553	
15 minute winter	7	3.001	8	54.7	0.795	0.231	0.9686	
15 minute winter	8	1.003	9	266.0	1.679	1.620	4.5521	
15 minute winter	9	1.004	10	301.4	1.902	1.322	4.3086	
1440 minute winter	10	1.005	12	21.2	0.895	0.078	2.5688	
1440 minute winter	11	4.000	12	1.9	0.350	0.017	2.4847	
1440 minute winter	12	1.006	BASIN 1	20.1	0.573	0.063	30.6282	
15 minute winter	13	5.000	14	78.7	0.985	0.322	3.8070	
15 minute winter	14	5.001	15	84.1	0.763	0.749	1.3183	
15 minute winter	15	5.002	16	138.6	1.257	1.234	4.7391	
15 minute winter	16	5.003	20	155.3	1.408	1.377	2.0964	
15 minute winter	17	6.000	18	38.0	0.928	0.502	3.0032	
15 minute winter	18	6.001	19	47.4	1.111	0.476	0.4373	
15 minute winter	19	6.002	20	60.6	1.318	0.389	0.4512	
15 minute winter	20	5.004	21	240.5	1.518	1.466	4.1357	
15 minute winter	21	5.005	24	273.6	1.727	1.273	4.3105	
15 minute winter	22	7.000	23	55.8	1.420	0.292	2.6290	
15 minute winter	23	7.001	24	60.3	1.257	0.115	1.5201	
15 minute winter	24	5.006	25	341.8	1.582	0.904	5.3103	
1440 minute winter	25	5.007	27	20.0	0.680	0.047	4.6862	



Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	26	1440	5.432	0.610	0.8	0.9430	0.0000	SURCHARGED
1440 minute winter	27	1440	5.432	1.042	21.0	1.9268	0.0000	SURCHARGED
1440 minute winter	28	1440	5.432	0.705	3.0	2.1396	0.0000	SURCHARGED
1440 minute winter	29	1440	5.432	1.102	24.1	2.4101	0.0000	SURCHARGED
15 minute winter	30	11	5.544	0.342	26.7	0.5689	0.0000	OK
15 minute winter	31	11	5.528	0.504	123.2	1.6498	0.0000	SURCHARGED
15 minute winter	32	11	5.471	0.563	151.7	1.1773	0.0000	SURCHARGED
1440 minute winter	33	1440	5.432	0.631	9.0	1.2591	0.0000	SURCHARGED
1440 minute winter	34	1440	5.432	0.731	10.5	1.6130	0.0000	SURCHARGED
1440 minute winter	35	1440	5.432	0.782	10.5	1.2629	0.0000	SURCHARGED
1440 minute winter	36	1440	5.432	0.835	11.0	1.5397	0.0000	SURCHARGED
1440 minute winter	BASIN 1	1440	5.432	1.231	62.8	1848.6360	0.0000	SURCHARGED
960 minute winter	74	990	4.717	0.552	4.1	0.7905	0.0000	SURCHARGED
960 minute winter	38	990	4.717	0.584	4.1	0.8363	0.0000	SURCHARGED
960 minute winter	39	990	4.717	0.598	4.1	0.8563	0.0000	SURCHARGED
960 minute winter	37	990	4.717	0.633	4.1	0.9063	0.0000	SURCHARGED
960 minute winter	40	990	4.717	0.708	5.8	1.2934	0.0000	SURCHARGED
960 minute winter	41	990	4.717	0.745	7.3	1.3109	0.0000	SURCHARGED
960 minute winter	42	990	4.717	0.769	7.3	1.1008	0.0000	SURCHARGED
960 minute winter	43	990	4.717	0.799	10.0	1.6639	0.0000	SURCHARGED
15 minute winter	44	10	4.913	0.183	63.7	0.5504	0.0000	OK
960 minute winter	45	990	4.717	0.892	4.7	1.1946	0.0000	SURCHARGED
960 minute winter	46	990	4.717	1.091	14.6	1.5614	0.0000	SURCHARGED
15 minute winter	48	12	6.409	0.604	37.6	1.2637	0.0000	SURCHARGED
15 minute winter	49	12	6.454	0.609	24.2	0.9978	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)
1440 minute winter	26	8.000	27	0.8	0.450	0.052	0.1223	
1440 minute winter	27	5.008	29	20.5	0.532	0.065	3.0860	
1440 minute winter	28	9.000	29	3.0	0.552	0.072	0.6018	
1440 minute winter	29	5.009	BASIN 1	25.5	0.839	0.070	4.8944	
15 minute winter	30	10.000	31	24.1	0.751	0.125	1.1861	
15 minute winter	31	10.001	32	111.9	0.929	0.614	5.7304	
15 minute winter	32	10.002	33	149.8	0.982	0.824	5.3136	
1440 minute winter	33	10.003	34	8.7	0.526	0.048	4.9750	
1440 minute winter	34	10.004	35	10.1	0.563	0.055	2.5571	
1440 minute winter	35	10.005	36	10.1	0.610	0.056	2.6525	
1440 minute winter	36	10.006	BASIN 1	10.5	0.543	0.043	6.1039	
1440 minute winter	BASIN 1	1.007	74	4.1	0.392	0.035	4.2071	
960 minute winter	74	1.008	38	4.1	0.443	0.021	1.3487	
960 minute winter	38	1.009	39	4.1	0.430	0.025	0.8372	
960 minute winter	39	1.010	37	4.1	0.445	0.023	1.8096	
960 minute winter	37	1.011	40	4.1	0.400	0.026	4.8892	
960 minute winter	40	1.012	41	5.8	0.432	0.035	2.2390	
960 minute winter	41	1.013	42	7.3	0.489	0.045	1.4780	
960 minute winter	42	1.014	43	7.3	0.574	0.048	2.1122	
960 minute winter	43	1.015	46	10.0	0.589	0.031	4.7774	
15 minute winter	44	11.000	45	62.3	1.453	0.624	1.1953	
960 minute winter	45	11.001	46	4.6	0.697	0.044	0.3968	
960 minute winter	46	1.016	77	13.6	0.560	0.085	10.4666	
15 minute winter	48	12.000	52	32.2	1.021	0.616	0.8442	
15 minute winter	49	13.000	50	20.6	0.776	0.179	0.8168	



Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	50	12	6.448	0.728	38.4	1.1240	0.0000	SURCHARGED
15 minute winter	51	12	6.430	0.790	63.8	1.3895	0.0000	SURCHARGED
15 minute winter	52	12	6.313	0.797	103.1	1.0928	0.0000	SURCHARGED
15 minute winter	53	12	6.053	0.636	136.6	1.3272	0.0000	SURCHARGED
15 minute winter	54	13	5.775	0.503	158.0	1.0209	0.0000	SURCHARGED
15 minute winter	55	13	5.664	0.524	156.9	0.7497	0.0000	SURCHARGED
15 minute winter	56	13	5.598	0.398	24.8	0.7965	0.0000	SURCHARGED
15 minute winter	57	13	5.595	0.579	174.3	0.8292	0.0000	SURCHARGED
30 minute winter	58	25	5.574	0.608	121.2	0.8704	0.0000	SURCHARGED
15 minute winter	59	10	5.864	0.224	56.0	0.5164	0.0000	OK
15 minute winter	60	10	5.795	0.199	70.7	0.2881	0.0000	OK
15 minute winter	61	12	5.709	0.309	90.8	0.4872	0.0000	SURCHARGED
15 minute winter	62	10	5.796	0.116	37.6	0.2232	0.0000	OK
15 minute winter	63	12	5.626	0.206	37.3	0.2327	0.0000	OK
15 minute winter	64	12	5.620	0.397	156.6	0.8109	0.0000	SURCHARGED
60 minute winter	65	47	5.571	0.646	92.1	1.4202	0.0000	SURCHARGED
60 minute winter	BASIN 2	47	5.566	0.771	174.0	144.4151	0.0000	SURCHARGED
240 minute winter	67	236	5.311	0.603	59.4	1.0106	0.0000	SURCHARGED
240 minute winter	68	236	5.310	0.666	61.4	1.2318	0.0000	SURCHARGED
15 minute winter	69	11	6.461	1.121	84.0	3.2543	0.0000	SURCHARGED
15 minute winter	70	12	6.360	1.160	129.2	6.5335	0.0000	SURCHARGED
15 minute winter	71	11	6.243	1.083	133.5	2.2521	0.0000	SURCHARGED
15 minute winter	72	11	5.615	0.715	165.2	1.3235	0.0000	SURCHARGED
240 minute winter	73	236	5.310	0.734	97.9	1.3032	0.0000	SURCHARGED
240 minute winter	BASIN 3	236	5.309	1.145	100.0	354.2121	0.0000	SURCHARGED

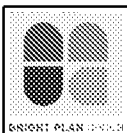
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	50	13.001	51	37.8	0.761	0.354	0.6099	
15 minute winter	51	13.002	52	63.0	0.894	0.879	2.0838	
15 minute winter	52	12.001	53	103.3	1.467	1.442	1.6641	
15 minute winter	53	12.002	54	134.6	1.912	1.882	1.1798	
15 minute winter	54	12.003	55	156.9	1.459	1.385	1.9391	
15 minute winter	55	12.004	57	153.1	1.049	0.745	4.8338	
15 minute winter	56	14.000	57	22.6	0.753	0.306	0.5346	
15 minute winter	57	12.005	58	167.6	1.134	1.025	3.0600	
30 minute winter	58	12.006	BASIN 2	116.2	0.963	0.701	10.1846	
15 minute winter	59	15.000	60	55.4	1.045	0.779	0.5639	
15 minute winter	60	15.001	61	69.8	1.238	0.661	1.2591	
15 minute winter	61	15.002	64	89.2	1.532	0.874	0.8507	
15 minute winter	62	16.000	63	37.3	1.342	0.289	0.6924	
15 minute winter	63	16.001	64	37.5	1.109	0.335	0.7305	
15 minute winter	64	15.003	65	147.5	1.510	0.599	2.1740	
60 minute winter	65	15.004	BASIN 2	90.0	1.469	0.575	2.3320	
60 minute winter	BASIN 2	12.007	67	60.0	0.842	0.369	4.9769	
240 minute winter	67	12.008	68	57.4	0.876	0.348	3.8432	
240 minute winter	68	12.009	73	58.8	1.096	0.345	3.8396	
15 minute winter	69	17.000	70	82.7	1.175	0.784	1.0924	
15 minute winter	70	17.001	71	114.1	1.621	1.583	0.6638	
15 minute winter	71	17.002	72	134.9	1.916	1.436	2.5543	
15 minute winter	72	17.003	73	164.9	2.342	1.631	1.4634	
240 minute winter	73	12.010	BASIN 3	94.5	1.561	0.233	4.1507	
240 minute winter	BASIN 3	12.011	75	56.3	0.431	0.095	2.8992	



Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	75	236	5.308	1.761	56.3	3.1121	0.0000	SURCHARGED
960 minute winter	76	990	4.718	1.214	18.0	1.7366	0.0000	SURCHARGED
960 minute winter	77	990	4.717	1.329	30.9	2.5717	0.0000	SURCHARGED
960 minute winter	78	990	4.717	1.366	32.8	3.4104	0.0000	FLOOD RISK
960 minute winter	TANK	990	4.716	1.415	11.6	325.2339	0.0000	SURCHARGED
960 minute winter	80	990	4.716	1.428	32.7	2.5241	0.0000	SURCHARGED
960 minute winter	BASIN 4	990	4.716	1.467	22.4	249.3625	0.0000	SURCHARGED
960 minute winter	82	990	4.716	1.501	14.5	2.6522	0.0000	FLOOD RISK
15 minute winter	83	12	5.037	0.705	59.8	1.9952	0.0000	SURCHARGED
15 minute winter	84	12	5.076	0.201	48.4	0.4807	0.0000	OK
15 minute winter	85	12	5.045	0.283	95.3	0.6552	0.0000	OK
15 minute winter	86	12	5.039	0.846	190.0	2.2099	0.0000	SURCHARGED
15 minute winter	87	12	4.986	0.870	186.1	1.5366	0.0000	SURCHARGED
15 minute winter	88	10	5.120	0.170	45.8	0.3350	0.0000	OK
15 minute winter	89	10	4.918	0.086	45.3	0.0975	0.0000	OK
15 minute winter	90	12	4.917	0.888	287.9	2.2976	0.0000	SURCHARGED
15 minute winter	91	10	5.769	0.089	17.8	0.1647	0.0000	OK
15 minute winter	92	10	4.904	0.106	17.6	0.1199	0.0000	OK
15 minute winter	93	12	4.685	0.786	313.3	1.6017	0.0000	SURCHARGED
15 minute winter	94	11	4.559	0.703	392.2	2.2237	0.0000	SURCHARGED
1440 minute winter	95	1410	4.398	0.670	20.5	1.1840	0.0000	SURCHARGED
1440 minute winter	BASIN 5	1410	4.398	1.298	22.2	623.3914	0.0000	SURCHARGED
1440 minute winter	66	1410	4.398	1.609	8.2	2.8432	0.0000	SURCHARGED
4320 minute winter	98	3540	2.478	0.095	16.1	0.1676	0.0000	OK
4320 minute winter	—	3540	2.440	0.082	16.1	0.0000	0.0000	OK

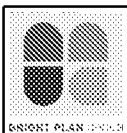
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	75	12.012	76	18.0	0.516	0.113	2.7853	
960 minute winter	76	12.013	77	17.9	0.566	0.192	7.5246	
960 minute winter	77	1.017	78	30.6	0.581	0.126	3.1480	
960 minute winter	78	1.018	80	32.7	0.552	0.144	6.0915	
960 minute winter	TANK	18.000	80	-11.6	-0.348	-0.044	0.9471	
960 minute winter	80	1.019	BASIN 4	21.1	0.419	0.106	4.9411	
960 minute winter	BASIN 4	1.020	82	14.5	0.161	0.064	3.2859	
960 minute winter	82	1.021	98	14.4	0.763	0.025	1.1140	
15 minute winter	83	19.000	86	61.5	0.444	0.176	5.7542	
15 minute winter	84	20.000	85	47.6	1.175	0.421	2.6076	
15 minute winter	85	20.001	86	110.3	2.295	0.237	0.7774	
15 minute winter	86	19.001	87	186.1	1.017	0.777	6.7495	
15 minute winter	87	19.002	90	192.4	0.891	0.756	6.7495	
15 minute winter	88	21.000	89	45.3	1.576	0.586	0.7018	
15 minute winter	89	21.001	90	45.0	2.105	0.183	0.5173	
15 minute winter	90	19.003	93	282.2	1.306	1.207	11.9293	
15 minute winter	91	22.000	92	17.6	1.295	0.276	0.1152	
15 minute winter	92	22.001	93	17.4	0.992	0.405	0.2466	
15 minute winter	93	19.004	94	317.0	1.468	1.294	3.5987	
15 minute winter	94	19.005	95	394.7	2.010	1.679	9.4994	
1440 minute winter	95	19.006	BASIN 5	19.6	1.076	0.029	6.8409	
1440 minute winter	BASIN 5	19.007	66	8.2	0.197	0.012	3.3399	
1440 minute winter	66	Hydro-Brake®	98	1.7				
4320 minute winter	98	1.022	—	16.1	0.674	0.069	0.2541	2980.4



Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	6.470	1.001	28.2	1.5842	0.0000	SURCHARGED
15 minute winter	2	13	6.465	1.080	103.0	15.6826	0.0000	SURCHARGED
15 minute winter	3	12	6.438	1.184	128.2	2.2287	0.0000	SURCHARGED
15 minute winter	4	10	6.446	1.240	152.1	2.4363	0.0000	SURCHARGED
15 minute winter	5	10	6.420	1.264	183.2	3.6783	0.0000	SURCHARGED
15 minute winter	6	11	6.202	0.871	50.5	1.9563	0.0000	SURCHARGED
15 minute winter	7	11	6.184	1.074	64.0	1.7965	0.0000	SURCHARGED
15 minute winter	8	11	6.166	1.254	278.4	3.1608	0.0000	SURCHARGED
15 minute winter	9	11	5.886	1.049	319.3	2.3822	0.0000	SURCHARGED
4320 minute winter	10	4140	5.613	0.912	10.3	3.1816	0.0000	SURCHARGED
4320 minute winter	11	4140	5.613	0.881	1.0	1.8034	0.0000	SURCHARGED
4320 minute winter	12	4140	5.613	1.178	16.8	2.0823	0.0000	SURCHARGED
15 minute winter	13	13	6.473	0.673	100.3	12.0059	0.0000	SURCHARGED
15 minute winter	14	11	6.443	1.157	123.8	1.8924	0.0000	SURCHARGED
15 minute winter	15	11	6.441	1.193	165.1	3.3360	0.0000	SURCHARGED
15 minute winter	16	11	6.283	1.172	170.0	2.1327	0.0000	SURCHARGED
15 minute winter	17	11	6.323	0.823	49.0	1.6990	0.0000	SURCHARGED
15 minute winter	18	11	6.236	0.936	54.1	1.2773	0.0000	SURCHARGED
15 minute winter	19	11	6.205	0.955	65.0	1.3299	0.0000	SURCHARGED
15 minute winter	20	11	6.162	1.187	245.2	2.6496	0.0000	SURCHARGED
15 minute winter	21	11	5.952	1.045	288.6	2.4154	0.0000	SURCHARGED
15 minute winter	22	12	5.688	0.213	65.4	0.5994	0.0000	OK
15 minute winter	23	12	5.656	0.611	79.9	1.0820	0.0000	SURCHARGED
15 minute winter	24	11	5.648	0.937	365.9	1.9749	0.0000	SURCHARGED
4320 minute winter	25	4140	5.613	1.052	10.8	2.7394	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	1	1.000	4	25.1	0.621	0.284	2.0860	
15 minute winter	2	2.000	3	121.0	1.097	0.858	2.8924	
15 minute winter	3	2.001	4	137.9	1.250	1.225	1.6548	
15 minute winter	4	1.001	5	161.3	1.463	1.438	1.7355	
15 minute winter	5	1.002	8	186.3	1.689	1.337	3.8204	
15 minute winter	6	3.000	7	50.7	1.101	0.254	2.4553	
15 minute winter	7	3.001	8	65.6	0.838	0.277	0.9686	
15 minute winter	8	1.003	9	274.6	1.733	1.672	4.5521	
15 minute winter	9	1.004	10	319.2	2.015	1.400	4.3086	
4320 minute winter	10	1.005	12	15.1	0.698	0.055	2.5688	
4320 minute winter	11	4.000	12	1.7	0.286	0.015	2.4847	
4320 minute winter	12	1.006	BASIN 1	9.8	0.404	0.031	30.6282	
15 minute winter	13	5.000	14	119.8	1.086	0.490	3.8070	
15 minute winter	14	5.001	15	126.1	1.144	1.124	1.3183	
15 minute winter	15	5.002	16	155.9	1.414	1.388	4.7391	
15 minute winter	16	5.003	20	165.9	1.504	1.471	2.0964	
15 minute winter	17	6.000	18	42.6	0.952	0.562	3.0032	
15 minute winter	18	6.001	19	54.6	1.053	0.548	0.4373	
15 minute winter	19	6.002	20	66.9	1.288	0.430	0.4512	
15 minute winter	20	5.004	21	242.5	1.531	1.478	4.1357	
15 minute winter	21	5.005	24	286.8	1.811	1.335	4.3105	
15 minute winter	22	7.000	23	65.0	1.479	0.341	3.4162	
15 minute winter	23	7.001	24	73.7	1.271	0.140	1.5578	
15 minute winter	24	5.006	25	366.8	1.698	0.970	5.3103	
4320 minute winter	25	5.007	27	15.7	0.501	0.037	4.6862	



Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
4320 minute winter	26	4140	5.613	0.791	0.4	1.2243	0.0000	SURCHARGED
4320 minute winter	27	4140	5.613	1.223	16.1	2.2633	0.0000	FLOOD RISK
4320 minute winter	28	4140	5.613	0.886	1.9	2.6921	0.0000	FLOOD RISK
4320 minute winter	29	4140	5.613	1.283	11.3	2.8081	0.0000	FLOOD RISK
15 minute winter	30	11	5.887	0.685	31.2	1.1401	0.0000	SURCHARGED
15 minute winter	31	11	5.881	0.857	137.7	2.8047	0.0000	SURCHARGED
15 minute winter	32	11	5.810	0.902	182.6	1.8865	0.0000	SURCHARGED
15 minute winter	33	11	5.672	0.871	215.7	1.7400	0.0000	SURCHARGED
4320 minute winter	34	4140	5.613	0.912	4.7	2.0146	0.0000	SURCHARGED
4320 minute winter	35	4140	5.613	0.963	4.7	1.5569	0.0000	SURCHARGED
4320 minute winter	36	4140	5.613	1.016	5.0	1.8753	0.0000	SURCHARGED
4320 minute winter	BASIN 1	4140	5.613	1.412	32.9	2235.7620	0.0000	FLOOD RISK
960 minute winter	74	1050	4.861	0.696	4.1	0.9955	0.0000	SURCHARGED
960 minute winter	38	1050	4.861	0.728	4.1	1.0413	0.0000	SURCHARGED
960 minute winter	39	1050	4.861	0.742	4.1	1.0613	0.0000	SURCHARGED
960 minute winter	37	1050	4.861	0.777	4.1	1.1113	0.0000	SURCHARGED
960 minute winter	40	1050	4.861	0.852	5.9	1.5549	0.0000	SURCHARGED
960 minute winter	41	1050	4.861	0.889	7.6	1.5629	0.0000	SURCHARGED
960 minute winter	42	1050	4.860	0.912	7.6	1.3058	0.0000	SURCHARGED
960 minute winter	43	1050	4.860	0.942	10.6	1.9622	0.0000	SURCHARGED
15 minute winter	44	10	4.934	0.204	74.3	0.6131	0.0000	OK
960 minute winter	45	1050	4.860	1.035	5.5	1.3864	0.0000	SURCHARGED
960 minute winter	46	1050	4.860	1.234	15.9	1.7664	0.0000	SURCHARGED
15 minute winter	48	12	6.793	0.988	43.8	2.0688	0.0000	FLOOD RISK
15 minute winter	49	12	6.837	0.992	28.2	1.6256	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)
4320 minute winter	26	8.000	27	0.4	0.351	0.024	0.1223	
4320 minute winter	27	5.008	29	9.6	0.397	0.031	3.0860	
4320 minute winter	28	9.000	29	2.2	0.424	0.052	0.6018	
4320 minute winter	29	5.009	BASIN 1	16.5	0.614	0.045	4.8944	
15 minute winter	30	10.000	31	26.9	0.730	0.139	1.2126	
15 minute winter	31	10.001	32	133.7	0.946	0.734	5.7304	
15 minute winter	32	10.002	33	177.3	1.119	0.975	5.3136	
15 minute winter	33	10.003	34	212.7	1.343	1.171	4.9750	
4320 minute winter	34	10.004	35	4.5	0.447	0.025	2.5571	
4320 minute winter	35	10.005	36	4.6	0.469	0.026	2.6525	
4320 minute winter	36	10.006	BASIN 1	5.0	0.415	0.020	6.1039	
4320 minute winter	BASIN 1	1.007	74	4.1	0.395	0.035	2.1672	
960 minute winter	74	1.008	38	4.1	0.443	0.021	1.3487	
960 minute winter	38	1.009	39	4.1	0.430	0.025	0.8372	
960 minute winter	39	1.010	37	4.1	0.445	0.023	1.8096	
960 minute winter	37	1.011	40	4.1	0.403	0.026	4.8892	
960 minute winter	40	1.012	41	5.9	0.433	0.036	2.2390	
960 minute winter	41	1.013	42	7.6	0.494	0.047	1.4780	
960 minute winter	42	1.014	43	7.6	0.577	0.050	2.1122	
960 minute winter	43	1.015	46	10.6	0.586	0.033	4.7774	
15 minute winter	44	11.000	45	72.7	1.500	0.728	1.3508	
960 minute winter	45	11.001	46	5.4	0.701	0.052	0.3968	
960 minute winter	46	1.016	77	14.8	0.564	0.093	10.4666	
15 minute winter	48	12.000	52	36.1	0.992	0.693	0.8442	
15 minute winter	49	13.000	50	22.5	0.763	0.195	0.8168	



Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	50	12	6.830	1.110	44.2	1.7145	0.0000	SURCHARGED
15 minute winter	51	12	6.811	1.171	73.3	2.0590	0.0000	SURCHARGED
15 minute winter	52	12	6.681	1.165	116.3	1.5968	0.0000	FLOOD RISK
15 minute winter	53	12	6.384	0.967	153.4	2.0184	0.0000	FLOOD RISK
15 minute winter	54	12	5.994	0.722	171.9	1.4634	0.0000	SURCHARGED
15 minute winter	55	13	5.829	0.689	167.3	0.9863	0.0000	SURCHARGED
15 minute winter	56	13	5.742	0.542	29.0	1.0842	0.0000	SURCHARGED
15 minute winter	57	13	5.740	0.724	185.1	1.0354	0.0000	SURCHARGED
60 minute winter	58	48	5.694	0.728	98.9	1.0419	0.0000	SURCHARGED
15 minute winter	59	12	6.060	0.420	65.4	0.9693	0.0000	SURCHARGED
15 minute winter	60	12	6.020	0.424	81.2	0.6135	0.0000	SURCHARGED
15 minute winter	61	12	5.911	0.511	96.6	0.8047	0.0000	SURCHARGED
15 minute winter	62	12	5.817	0.137	43.8	0.2638	0.0000	OK
15 minute winter	63	12	5.809	0.389	44.0	0.4396	0.0000	SURCHARGED
15 minute winter	64	12	5.791	0.568	163.4	1.1596	0.0000	SURCHARGED
60 minute winter	65	48	5.695	0.770	101.5	1.6931	0.0000	SURCHARGED
60 minute winter	BASIN 2	48	5.690	0.895	206.6	178.2980	0.0000	SURCHARGED
360 minute winter	67	344	5.467	0.759	51.3	1.2723	0.0000	SURCHARGED
360 minute winter	68	344	5.466	0.822	53.2	1.5205	0.0000	SURCHARGED
15 minute winter	69	11	6.542	1.202	98.0	3.4891	0.0000	FLOOD RISK
15 minute winter	70	13	6.416	1.216	149.3	13.2133	0.0000	FLOOD RISK
15 minute winter	71	11	6.298	1.138	139.1	2.3662	0.0000	SURCHARGED
15 minute winter	72	11	5.661	0.761	171.3	1.4081	0.0000	SURCHARGED
360 minute winter	73	344	5.466	0.890	84.2	1.5805	0.0000	SURCHARGED
360 minute winter	BASIN 3	344	5.465	1.301	86.3	423.7791	0.0000	FLOOD RISK

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	50	13.001	51	40.4	0.767	0.379	0.6099	
15 minute winter	51	13.002	52	69.0	0.980	0.963	2.0838	
15 minute winter	52	12.001	53	112.2	1.593	1.567	1.6641	
15 minute winter	53	12.002	54	144.6	2.053	2.022	1.1798	
15 minute winter	54	12.003	55	167.3	1.544	1.476	1.9391	
15 minute winter	55	12.004	57	162.7	1.075	0.792	4.8338	
15 minute winter	56	14.000	57	25.6	0.785	0.346	0.5346	
15 minute winter	57	12.005	58	182.8	1.182	1.118	3.0600	
60 minute winter	58	12.006	BASIN 2	98.2	0.894	0.592	10.1846	
15 minute winter	59	15.000	60	63.5	1.057	0.892	0.7491	
15 minute winter	60	15.001	61	73.5	1.251	0.696	1.5261	
15 minute winter	61	15.002	64	97.7	1.529	0.957	0.8507	
15 minute winter	62	16.000	63	44.0	1.356	0.342	0.9874	
15 minute winter	63	16.001	64	39.0	1.082	0.348	0.8438	
15 minute winter	64	15.003	65	156.3	1.492	0.635	2.1740	
60 minute winter	65	15.004	BASIN 2	99.4	1.507	0.635	2.3320	
60 minute winter	BASIN 2	12.007	67	60.0	0.820	0.369	5.3822	
360 minute winter	67	12.008	68	49.8	0.824	0.302	3.8432	
360 minute winter	68	12.009	73	50.8	1.029	0.298	3.8396	
15 minute winter	69	17.000	70	95.2	1.351	0.902	1.0924	
15 minute winter	70	17.001	71	120.8	1.715	1.676	0.6638	
15 minute winter	71	17.002	72	137.9	1.958	1.468	2.5543	
15 minute winter	72	17.003	73	171.0	2.428	1.691	1.4634	
360 minute winter	73	12.010	BASIN 3	81.4	1.502	0.200	4.1507	
360 minute winter	BASIN 3	12.011	75	42.0	0.335	0.071	2.8992	



Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.66%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	75	344	5.464	1.917	42.0	3.3880	0.0000	FLOOD RISK
960 minute winter	76	1050	4.861	1.357	18.0	1.9418	0.0000	SURCHARGED
960 minute winter	77	1050	4.860	1.472	32.1	2.8489	0.0000	FLOOD RISK
960 minute winter	78	1050	4.860	1.509	34.4	3.7681	0.0000	FLOOD RISK
960 minute winter	TANK	1050	4.860	1.559	12.5	358.1318	0.0000	SURCHARGED
960 minute winter	80	1050	4.860	1.572	34.2	2.7771	0.0000	SURCHARGED
960 minute winter	BASIN 4	1050	4.859	1.610	23.0	290.1312	0.0000	FLOOD RISK
960 minute winter	82	1050	4.859	1.644	14.7	2.9051	0.0000	FLOOD RISK
15 minute winter	83	12	5.364	1.032	69.8	2.9187	0.0000	SURCHARGED
15 minute winter	84	12	5.398	0.523	56.4	1.2498	0.0000	SURCHARGED
15 minute winter	85	12	5.392	0.630	126.7	1.4595	0.0000	SURCHARGED
15 minute winter	86	12	5.361	1.168	228.3	3.0504	0.0000	SURCHARGED
15 minute winter	87	12	5.279	1.163	210.8	2.0557	0.0000	SURCHARGED
15 minute winter	88	12	5.289	0.339	53.5	0.6662	0.0000	SURCHARGED
15 minute winter	89	12	5.222	0.390	53.0	0.4407	0.0000	SURCHARGED
15 minute winter	90	12	5.187	1.158	322.1	2.9936	0.0000	SURCHARGED
15 minute winter	91	10	5.777	0.097	20.8	0.1805	0.0000	OK
15 minute winter	92	10	4.915	0.117	20.6	0.1318	0.0000	OK
15 minute winter	93	12	4.884	0.985	360.9	2.0083	0.0000	SURCHARGED
15 minute winter	94	12	4.719	0.863	450.5	2.7286	0.0000	SURCHARGED
1440 minute winter	95	1410	4.543	0.815	22.8	1.4399	0.0000	SURCHARGED
1440 minute winter	BASIN 5	1410	4.543	1.443	24.8	736.1243	0.0000	SURCHARGED
1440 minute winter	66	1410	4.543	1.754	8.6	3.0991	0.0000	SURCHARGED
960 minute winter	98	1050	2.479	0.096	16.5	0.1698	0.0000	OK
960 minute winter	—	1050	2.441	0.083	16.5	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)
360 minute winter	75	12.012	76	17.9	0.514	0.113	2.7853	
960 minute winter	76	12.013	77	17.9	0.563	0.192	7.5246	
960 minute winter	77	1.017	78	31.8	0.588	0.131	3.1480	
960 minute winter	78	1.018	80	34.2	0.572	0.150	6.0915	
960 minute winter	TANK	18.000	80	-12.5	-0.385	-0.048	0.9471	
960 minute winter	80	1.019	BASIN 4	21.6	0.420	0.109	4.9411	
960 minute winter	BASIN 4	1.020	82	14.7	0.179	0.065	3.2859	
960 minute winter	82	1.021	98	14.7	0.763	0.025	1.1478	
15 minute winter	83	19.000	86	62.1	0.460	0.178	5.7542	
15 minute winter	84	20.000	85	74.3	1.148	0.656	3.8501	
15 minute winter	85	20.001	86	111.4	2.360	0.239	0.8594	
15 minute winter	86	19.001	87	210.8	1.034	0.881	6.7495	
15 minute winter	87	19.002	90	209.2	0.968	0.822	6.7495	
15 minute winter	88	21.000	89	53.0	1.598	0.686	1.7051	
15 minute winter	89	21.001	90	55.2	1.975	0.224	0.8360	
15 minute winter	90	19.003	93	325.2	1.506	1.391	11.9293	
15 minute winter	91	22.000	92	20.6	1.345	0.323	0.1296	
15 minute winter	92	22.001	93	20.3	1.027	0.473	0.3694	
15 minute winter	93	19.004	94	362.9	1.680	1.481	3.5987	
15 minute winter	94	19.005	95	453.7	2.238	1.930	9.9861	
1440 minute winter	95	19.006	BASIN 5	21.9	1.087	0.032	6.8409	
1440 minute winter	BASIN 5	19.007	66	8.6	0.193	0.012	3.3399	
1440 minute winter	66	Hydro-Brake®	98	1.8				
960 minute winter	98	1.022	—	16.5	0.678	0.071	0.2592	978.4