

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	0.20
Return Period (years)	30	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	1.000
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	999.9		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.200	5.00	50.950	1350	618539.063	246782.422	1.650
2	0.247	5.00	50.900	1350	618518.387	246755.127	1.650
3	0.158	5.00	50.450	1350	618569.550	246716.044	1.650
4	0.188	5.00	51.000	1350	618460.807	246750.959	1.650
5	0.188	5.00	50.700	1350	618505.949	246713.629	1.650
6	0.186	5.00	50.250	1200	618582.664	246660.387	1.500
7			50.450		618558.149	246701.821	2.643
8	0.188	5.00	50.800	1350	618436.005	246721.848	1.575
9	0.188	5.00	50.500	1350	618483.024	246678.568	1.575
10	0.186	5.00	49.950	1350	618556.699	246631.899	1.650
11			49.600		618503.640	246631.194	1.882
12	0.186	5.00	49.900	1350	618612.400	246641.621	1.575
13	0.186	5.00	49.550	1350	618595.631	246608.895	1.574
14			48.900		618574.097	246573.041	1.875
15	0.186	5.00	49.300	1350	618639.714	246595.637	1.575
16			48.500		618649.497	246524.079	1.860
17	0.250	5.00	51.000	1350	618739.932	246832.754	1.650
18	0.250	5.00	50.700	1350	618793.536	246801.003	1.650
19	0.250	5.00	50.450	1500	618830.650	246778.255	1.800
20			50.350	1500	618869.991	246758.643	1.800
21			50.000	1500	618831.526	246685.316	1.800
22	0.250	5.00	50.300	1350	618798.644	246760.992	1.650
23	0.250	5.00	50.150	1350	618794.015	246699.217	1.650
24			49.800	1500	618788.010	246667.320	1.800
25	0.096	5.00	51.000	1200	618660.509	246832.497	1.500
26	0.093	5.00	50.850	1200	618697.839	246800.194	1.500
27	0.094	5.00	50.600	1350	618734.690	246772.921	1.575
28	0.080	5.00	50.300	1350	618737.621	246732.670	1.575
29	0.130	5.00	50.800	1350	618678.422	246774.150	1.575
30	0.140	5.00	50.450	1350	618628.747	246706.291	1.500
31			50.600	1350	618654.166	246739.633	1.664
32	0.140	5.00	50.050	1350	618662.975	246679.569	1.500
33	0.130	5.00	50.550	1350	618714.951	246745.261	1.425
34			50.200	1350	618691.906	246710.960	1.663
35	0.131	5.00	49.950	1200	618652.321	246654.149	1.500
36	0.088	5.00	49.700	1350	618693.961	246666.488	1.575
37			50.000	2175	618714.519	246695.298	2.900
38			49.900	2175	618726.696	246683.669	2.801
39	0.133	5.00	49.700	1350	618724.000	246653.953	1.500
40			49.750	2175	618771.141	246641.226	2.712
41	0.064	5.00	49.550	1350	618672.800	246619.498	1.425
42	0.133	5.00	49.700	1350	618704.648	246631.718	1.581
43	0.133	5.00	49.300	1200	618700.926	246591.525	1.500
44			49.100	1350	618724.898	246567.767	1.516
45			49.400	2175	618736.532	246591.475	2.742
46	0.142	5.00	48.300	1200	618701.298	246529.237	1.011
47			47.874		618744.454	246559.316	1.400
47_OUT			48.000	1800	618762.082	246544.375	3.500

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
12.000	1	2	34.242	0.600	49.300	49.250	0.050	684.8	450	5.74	118.1
12.001	2	3	64.383	0.600	49.250	48.800	0.450	143.1	450	6.37	113.2
12.002	3	7	18.228	0.600	48.800	48.032	0.768	23.7	450	6.45	112.6
13.000	4	5	58.578	0.600	49.350	49.050	0.300	195.3	450	5.67	118.7
13.001	5	7	53.519	0.600	49.050	48.032	1.018	52.6	450	5.99	116.0
14.000	6	7	48.143	0.600	48.750	48.182	0.568	84.8	300	5.47	120.4

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
12.003	7	11	89.215	0.080	47.807	47.718	0.089	1002.4	675	13.62	77.2
15.000	8	9	63.906	0.600	49.225	48.925	0.300	213.0	375	5.86	117.1
15.001	9	11	51.665	0.600	48.925	48.018	0.907	57.0	375	6.22	114.3
16.000	10	11	53.064	0.600	48.300	47.943	0.357	148.6	450	5.53	119.9
12.004	11	14	91.356	0.080	47.718	47.025	0.693	131.8	675	16.29	69.5
17.000	12	13	36.772	0.600	48.325	47.976	0.349	105.4	375	5.35	121.4
17.001	13	14	41.824	0.600	47.976	47.325	0.651	64.2	375	5.66	118.8
12.005	14	16	89.902	0.080	47.025	46.640	0.385	233.5	675	19.77	61.9
18.000	15	16	72.224	0.600	47.725	46.940	0.785	92.0	375	5.64	119.0
12.006	16	47	16.000	0.080	46.640	46.624	0.016	1000.0	675	21.06	59.5
1.000	17	18	62.302	0.600	49.350	49.050	0.300	207.7	450	5.74	118.1
1.001	18	19	43.531	0.600	49.050	48.800	0.250	174.1	450	6.21	114.4
1.002	19	20	43.958	0.600	48.650	48.550	0.100	439.6	600	6.84	109.7
1.003	20	21	82.803	0.600	48.550	48.200	0.350	236.6	600	7.72	103.8
1.004	21	24	47.090	0.600	48.200	48.000	0.200	235.5	600	8.21	100.8
2.000	22	23	61.948	0.600	48.650	48.500	0.150	413.0	450	6.04	115.7
2.001	23	24	32.457	0.600	48.500	48.150	0.350	92.7	450	6.30	113.7
1.005	24	40	31.072	0.600	48.000	47.713	0.287	108.3	600	8.44	99.5
3.000	25	26	49.366	0.600	49.500	49.350	0.150	329.1	300	5.96	116.3
3.001	26	27	45.846	0.600	49.350	49.100	0.250	183.4	300	6.62	111.4
3.002	27	28	40.358	0.600	49.025	48.725	0.300	134.5	375	7.05	108.2
3.003	28	37	43.936	0.600	48.725	48.000	0.725	60.6	375	7.36	106.1
4.000	29	31	42.187	0.600	49.225	49.011	0.214	197.1	375	5.55	119.7
5.000	30	31	41.926	0.600	48.950	48.936	0.014	2994.7	450	6.93	108.8
4.001	31	34	47.397	0.600	48.936	48.537	0.399	118.8	450	7.35	106.0
6.000	32	34	42.690	0.600	48.550	48.537	0.013	3283.8	450	7.06	108.0
7.000	33	34	41.323	0.600	49.125	48.612	0.513	80.6	375	5.34	121.4
4.002	34	37	27.507	0.600	48.537	47.925	0.612	44.9	450	7.51	105.0
8.000	35	36	43.430	0.600	48.450	48.200	0.250	173.7	300	5.61	119.2
8.001	36	37	35.393	0.600	48.125	48.000	0.125	283.1	375	6.16	114.8
3.004	37	38	16.838	0.600	47.100	47.099	0.001	16838.0	1500	8.38	99.6
3.005	38	40	61.455	0.600	47.099	47.038	0.061	1007.5	1275	9.23	95.0
9.000	39	40	48.829	0.600	48.200	47.938	0.262	186.4	375	5.61	119.2
1.006	40	45	60.605	0.600	47.038	46.658	0.380	159.5	1275	9.55	93.3
10.000	41	42	34.112	0.600	48.125	48.119	0.006	5685.3	375	7.46	105.9
10.001	42	45	51.343	0.600	48.119	47.558	0.561	91.5	375	7.92	102.9
11.000	43	44	33.751	0.600	47.800	47.659	0.141	239.4	300	5.56	119.6
11.001	44	45	26.409	0.600	47.584	47.558	0.026	1015.7	375	6.34	113.4
1.007_1	45	47	33.120	0.600	46.658	46.625	0.033	1003.6	1100	10.05	91.0
19.000	46	47	52.604	0.600	47.289	46.999	0.290	181.4	300	5.75	118.0
1.007	47	47_OUT	23.108	0.600	46.474	44.500	1.974	11.7	825	21.10	92.2

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	10080	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

Storm Durations

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

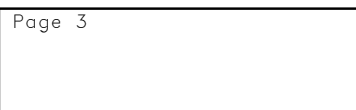
Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
100	45	0	0

Node 47 Online Orifice Control

Flap Valve	x	Invert Level (m)	47.873	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Diameter (m)	0.500		

Node 47 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.39600	Safety Factor	2.0	Invert Level (m)	46.474
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	140



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Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	50.060	0.760	152.8	1.0869	0.0000	SURCHARGED
15 minute summer	2	11	49.968	0.718	337.0	1.0274	0.0000	SURCHARGED
15 minute summer	3	11	49.104	0.304	447.6	0.4347	0.0000	OK
15 minute summer	4	10	49.617	0.267	143.6	0.3815	0.0000	OK
15 minute summer	5	10	49.307	0.257	285.8	0.3679	0.0000	OK
15 minute summer	6	11	49.287	0.537	142.1	0.6071	0.0000	SURCHARGED
15 minute summer	7	12	48.525	0.718	863.1	0.0000	0.0000	SURCHARGED
15 minute summer	8	11	49.565	0.340	143.6	0.4872	0.0000	OK
15 minute summer	9	11	49.271	0.346	283.5	0.4952	0.0000	OK
15 minute summer	10	10	48.536	0.236	142.1	0.3379	0.0000	OK
15 minute summer	11	13	48.281	0.563	1137.9	0.0000	0.0000	OK
15 minute summer	12	11	48.705	0.380	142.1	0.5442	0.0000	SURCHARGED
15 minute summer	13	11	48.496	0.520	270.3	0.7447	0.0000	SURCHARGED
30 minute summer	14	23	47.661	0.636	1076.0	0.0000	0.0000	OK
15 minute summer	15	10	47.951	0.226	142.1	0.3241	0.0000	OK
120 minute winter	16	120	47.475	0.835	501.8	0.0000	0.0000	SURCHARGED
15 minute summer	17	11	50.908	1.558	190.9	2.2301	0.0000	FLOOD RISK
15 minute summer	18	11	50.700	1.650	362.1	2.3612	2.8162	FLOOD
15 minute summer	19	11	50.166	1.516	521.7	2.6782	0.0000	FLOOD RISK
15 minute summer	20	11	49.852	1.302	500.8	2.3007	0.0000	SURCHARGED
15 minute summer	21	11	49.338	1.138	502.0	2.0102	0.0000	SURCHARGED
15 minute summer	22	11	49.813	1.163	190.9	1.6645	0.0000	SURCHARGED
15 minute summer	23	11	49.579	1.079	368.1	1.5446	0.0000	SURCHARGED
15 minute summer	24	11	49.010	1.010	872.4	1.7847	0.0000	SURCHARGED
15 minute summer	25	11	50.657	1.157	73.3	1.3088	0.0000	SURCHARGED
15 minute summer	26	11	50.428	1.078	137.5	1.2189	0.0000	SURCHARGED
15 minute summer	27	11	49.604	0.579	205.7	0.8279	0.0000	SURCHARGED
15 minute summer	28	12	49.119	0.394	262.4	0.5641	0.0000	SURCHARGED
15 minute summer	29	10	49.465	0.240	99.3	0.3435	0.0000	OK
15 minute summer	30	10	49.317	0.367	106.9	0.5251	0.0000	OK
15 minute summer	31	11	49.229	0.293	202.0	0.4190	0.0000	OK
15 minute summer	32	11	48.957	0.407	106.9	0.5829	0.0000	OK
15 minute summer	33	10	49.303	0.178	99.3	0.2545	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	12.000	2	148.3	0.936	1.212	5.4254	
15 minute summer	2	12.001	3	332.5	2.345	1.232	8.7653	
15 minute summer	3	12.002	7	448.2	3.628	0.673	2.4816	
15 minute summer	4	13.000	5	142.2	1.496	0.616	5.6056	
15 minute summer	5	13.001	7	283.6	2.455	0.635	6.6926	
15 minute summer	6	14.000	7	137.0	1.945	1.134	3.3902	
15 minute summer	7	12.003	11	758.4	0.351	1.465	201.9929	
15 minute summer	8	15.000	9	140.0	1.345	1.024	6.7589	
15 minute summer	9	15.001	11	278.6	2.682	1.049	5.5394	
15 minute summer	10	16.000	11	139.8	1.699	0.528	5.0031	
15 minute summer	11	12.004	14	939.7	0.513	0.658	176.5901	
15 minute summer	12	17.000	13	134.8	1.465	0.692	4.0558	
15 minute summer	13	17.001	14	269.1	2.499	1.076	4.5577	
30 minute summer	14	12.005	16	914.5	0.426	0.853	193.6479	
15 minute summer	15	18.000	16	138.8	2.047	0.665	4.9315	
120 minute winter	16	12.006	47	423.1	0.478	0.816	58.9153	
15 minute summer	17	1.000	18	180.1	1.137	0.805	9.8713	
15 minute summer	18	1.001	19	330.9	2.088	1.353	6.8972	
15 minute summer	19	1.002	20	500.8	1.778	1.534	12.3820	
15 minute summer	20	1.003	21	502.0	1.782	1.125	23.3237	
15 minute summer	21	1.004	24	501.8	1.782	1.122	13.2642	
15 minute summer	22	2.000	23	186.0	1.174	1.177	9.8153	
15 minute summer	23	2.001	24	370.7	2.340	1.104	5.1426	
15 minute summer	24	1.005	40	873.0	3.100	1.320	8.6498	
15 minute summer	25	3.000	26	69.7	0.990	1.145	3.4763	
15 minute summer	26	3.001	27	137.2	1.948	1.676	3.2284	
15 minute summer	27	3.002	28	204.1	1.851	1.184	4.4514	
15 minute summer	28	3.003	37	250.9	2.594	0.975	4.4403	
15 minute summer	29	4.000	31	97.3	1.372	0.685	3.0128	
15 minute summer	30	5.000	31	104.7	0.841	1.818	5.1856	
15 minute summer	31	4.001	34	203.5	1.632	0.687	5.8784	
15 minute summer	32	6.000	34	102.6	0.737	1.868	6.1846	
15 minute summer	33	7.000	34	98.4	1.681	0.441	2.9096	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node	Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute	summer	34	11	48.905	0.368	401.7	0.5270	0.0000	OK
15 minute	summer	35	10	49.008	0.558	100.1	0.6306	0.0000	SURCHARGED
15 minute	summer	36	10	48.595	0.470	165.6	0.6728	0.0000	SURCHARGED
15 minute	summer	37	12	47.863	0.763	816.8	2.8347	0.0000	OK
15 minute	summer	38	12	47.834	0.735	804.5	2.7315	0.0000	OK
15 minute	summer	39	10	48.437	0.237	101.6	0.3397	0.0000	OK
15 minute	summer	40	12	47.770	0.732	1719.8	2.7177	0.0000	OK
15 minute	summer	41	10	48.403	0.278	48.9	0.3973	0.0000	OK
15 minute	summer	42	11	48.362	0.243	149.1	0.3473	0.0000	OK
15 minute	summer	43	10	48.229	0.429	101.6	0.4855	0.0000	SURCHARGED
15 minute	summer	44	11	47.918	0.334	100.4	0.4778	0.0000	OK
15 minute	summer	45	12	47.620	0.962	1955.1	3.5751	0.0000	OK
15 minute	summer	46	11	47.712	0.423	108.5	0.4781	0.0000	SURCHARGED
120 minute	winter	47	120	47.474	1.000	1105.1	2031.2490	0.0000	SURCHARGED
15 minute	summer	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK
Link	Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute	summer	34	4.002	37	402.9	3.163	0.834	3.4918	
15 minute	summer	35	8.000	36	98.4	1.397	1.170	3.0583	
15 minute	summer	36	8.001	37	163.4	1.512	1.381	3.6110	
15 minute	summer	37	3.004	38	804.5	1.039	1.422	14.8015	
15 minute	summer	38	3.005	40	801.2	1.084	0.517	46.5649	
15 minute	summer	39	9.000	40	99.4	1.415	0.680	3.4535	
15 minute	summer	40	1.006	45	1731.1	1.928	0.441	54.1281	
15 minute	summer	41	10.000	42	47.6	0.583	1.866	2.7786	
15 minute	summer	42	10.001	45	147.0	2.022	0.703	3.7326	
15 minute	summer	43	11.000	44	100.4	1.434	1.405	2.2791	
15 minute	summer	44	11.001	45	99.4	1.115	1.607	2.3140	
15 minute	summer	45	1.007_1	47	1965.9	2.429	1.862	26.6255	
15 minute	summer	46	19.000	47	105.6	1.512	1.283	3.5096	
120 minute	winter	47	Orifice	47_OUT	0.0				0.0
120 minute	winter	47	Infiltration		171.1				

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	20	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	1.000
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	999.9		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.141	5.00	50.750	1200	618373.834	246723.352	1.382
3	0.198	5.00	51.100	1200	618458.853	246785.565	1.500
4	0.124	5.00	51.100	1500	618425.169	246769.536	2.239
5	0.160	5.00	51.200	1200	618482.461	246837.701	1.500
6	0.160	5.00	50.800	1350	618428.639	246810.153	1.575
7			50.200	1350	618404.398	246790.966	1.400
7_OUT			50.500	1350	618421.146	246818.956	3.500

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	4	69.052	0.600	49.368	49.086	0.282	244.9	300	6.15	106.2
2.000	3	4	37.303	0.600	49.600	49.086	0.514	72.6	300	5.34	112.6
1.001	4	7	29.844	0.600	48.861	48.800	0.061	489.3	525	6.65	102.7
3.000	5	6	60.462	0.600	49.700	49.300	0.400	151.2	300	5.79	109.0
3.001	6	7	30.915	0.600	49.225	48.875	0.350	88.3	375	6.06	106.9
1.004	7	7_OUT	32.618	0.600	48.800	47.000	1.800	18.1	450	6.76	96.3

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	10080	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

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 %)
100	45	0	0

Node 7 Online Orifice Control

Flap Valve	x	Invert Level (m)	50.100	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Diameter (m)	0.500		

Node 7 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.03024	Safety Factor	2.0	Invert Level (m)	48.800
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	1008

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	341.0	1175.0	0.600	542.0	1175.0	0.601	686.0	1175.0	1.400	1042.0	1175.0

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.23%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	18	49.942	0.574	96.5	0.6489	0.0000	SURCHARGED
15 minute summer	3	10	50.166	0.566	151.1	0.6399	0.0000	SURCHARGED
480 minute winter	4	472	49.795	0.934	37.7	1.6500	0.0000	SURCHARGED
15 minute summer	5	10	50.548	0.848	122.1	0.9588	0.0000	SURCHARGED
480 minute winter	6	472	49.795	0.570	26.0	0.8154	0.0000	SURCHARGED
480 minute winter	7	472	49.795	0.995	61.9	571.6663	0.0000	SURCHARGED
15 minute summer	7_OUT	1	47.000	0.000	0.0	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)
30 minute summer	1	1.000	4	93.8	1.332	1.327	4.8626	
15 minute summer	3	2.000	4	150.1	2.131	1.149	2.5920	
480 minute winter	4	1.001	7	37.0	0.760	0.170	6.4473	
15 minute summer	5	3.000	6	119.0	1.690	1.319	4.2577	
480 minute winter	6	3.001	7	24.9	0.834	0.117	3.4098	
480 minute winter	7	Orifice	7_OUT	0.0				0.0
480 minute winter	7	Infiltration		4.9				

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	50	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	1.000
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	999.9		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.157	5.00	51.000	1350	618620.098	246845.505	1.650
2	0.157	5.00	51.100	1350	618582.829	246909.357	1.932
3	0.134	5.00	50.900	1500	618540.598	246952.071	1.955
4	0.157	5.00	51.100	1350	618582.268	246840.464	1.650
5	0.134	5.00	51.100	1350	618527.407	246902.235	1.853
6	0.134	5.00	50.850	1500	618511.217	246967.607	2.048
7	0.157	5.00	50.900	1350	618584.279	246955.455	1.650
8	0.134	5.00	50.600	1350	618549.523	246993.361	1.650
9			50.450	1500	618511.593	247026.374	1.800
10	0.134	5.00	50.350	1350	618570.859	247019.127	1.650
11			50.050	1800	618566.775	247054.901	2.025
12	0.092	5.00	50.950	1350	618635.877	246870.927	1.650
13	0.103	5.00	51.000	1350	618617.514	246918.243	1.825
14	0.096	5.00	50.950	1350	618612.284	246961.670	1.883
15	0.303	5.00	50.450	1350	618602.882	247008.416	1.650
16	0.051	5.00	49.950	1800	618586.744	247062.845	2.025
17	0.181	5.00	51.000	1350	618672.608	246909.422	1.650
18	0.181	5.00	50.800	1350	618659.268	246950.379	1.650
19	0.181	5.00	50.850	1500	618705.242	246959.922	1.966
20			50.680	1500	618739.039	246962.727	1.855
21	0.181	5.00	50.450	1350	618648.395	247004.461	1.650
22	0.181	5.00	51.000	1350	618682.433	247023.048	2.296
23			49.950	1500	618717.040	247033.033	1.800
24	0.181	5.00	49.800	1350	618628.042	247047.246	1.650
25	0.181	5.00	50.200	1350	618660.326	247072.145	2.150
26			48.650	1800	618668.615	247102.988	2.025
27	0.106	5.00	48.950	1350	618610.757	247105.243	1.650
28			48.300	1800	618655.389	247120.149	2.025
29	0.106	5.00	48.150	1350	618586.651	247157.237	1.650
30	0.106	5.00	48.600	1350	618597.966	247129.703	1.650
31			47.800	1800	618634.127	247147.928	2.025
32	0.144	5.00	50.450	1350	618410.512	247079.271	1.650
33	0.144	5.00	50.200	1350	618399.192	247123.369	1.650
34			50.200	1350	618378.429	247134.239	1.708
35	0.144	5.00	49.050	1350	618540.115	247074.422	1.650
36	0.144	5.00	49.450	1350	618522.788	247113.903	2.156
37	0.144	5.00	49.850	1500	618508.794	247143.877	2.713
38	0.144	5.00	50.100	1350	618459.719	247096.817	1.650
39	0.144	5.00	49.700	1350	618453.482	247139.761	1.650
40			49.000	1500	618489.249	247171.022	1.931
41	0.065	5.00	49.500	1350	618579.615	247079.384	1.650
42	0.000	5.00	48.950	1350	618563.253	247125.653	1.650
43	0.133	5.00	48.350	1500	618543.243	247171.747	1.725
44			47.900	1500	618564.386	247183.012	1.725
45	0.192	5.00	49.980	1350	618328.382	247189.999	1.650
46	0.192	5.00	49.490	1350	618373.474	247198.435	1.650
47	0.192	5.00	48.790	1350	618430.706	247215.058	1.650
48	0.192	5.00	47.930	1350	618499.042	247225.949	1.650
49			47.102	1350	618555.570	247231.834	1.650
50			45.646	1800	618593.338	247236.784	1.400
31_OUT			45.600	1800	618643.160	247200.688	1.400
Dummy			45.634	1800	618646.160	247208.688	2.100

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	2	73.933	0.600	49.350	49.168	0.182	406.2	450	6.23	125.1
1.001	2	3	60.066	0.600	49.168	49.020	0.148	405.9	450	7.23	117.4
1.002	3	6	33.236	0.600	48.945	48.877	0.068	488.8	525	7.78	113.6
2.000	4	5	82.616	0.600	49.450	49.247	0.203	407.0	450	6.38	124.0
2.001	5	6	67.347	0.600	49.247	48.952	0.295	228.3	450	7.21	117.5
1.003	6	9	58.768	0.600	48.802	48.650	0.152	386.6	600	8.57	108.5
3.000	7	8	51.428	0.600	49.250	48.950	0.300	171.4	450	5.55	130.8
3.001	8	9	50.285	0.600	48.950	48.800	0.150	335.2	450	6.31	124.5
1.004	9	11	62.120	0.600	48.650	48.250	0.400	155.3	600	9.10	105.4
4.000	10	11	36.006	0.600	48.700	48.400	0.300	120.0	450	5.32	132.8
1.005	11	16	21.491	0.600	48.025	47.925	0.100	214.9	825	9.28	104.4
5.000	12	13	50.754	0.600	49.300	49.175	0.125	406.0	450	5.84	128.3
5.001	13	14	43.741	0.600	49.175	49.067	0.108	405.0	450	6.57	122.4
5.002	14	15	47.682	0.600	49.067	48.800	0.267	178.6	450	7.09	118.4
5.003	15	16	56.771	0.600	48.800	48.300	0.500	113.5	450	7.59	114.9
1.006	16	26	91.183	0.600	47.925	46.625	1.300	70.1	825	9.71	102.1
6.000	17	19	60.127	0.600	49.350	49.034	0.316	190.3	450	5.68	129.7
7.000	18	19	46.954	0.600	49.150	49.034	0.116	404.8	450	5.78	128.8
6.001	19	20	33.913	0.600	48.884	48.825	0.059	574.8	600	6.34	124.2
6.002	20	23	73.667	0.600	48.825	48.150	0.675	109.1	600	6.87	120.1
8.000	21	22	38.782	0.600	48.800	48.704	0.096	404.0	450	5.64	130.0
8.001	22	23	36.019	0.600	48.704	48.300	0.404	89.2	450	5.92	127.6
6.003	23	26	85.080	0.600	48.150	46.850	1.300	65.4	600	7.34	116.7
9.000	24	25	40.770	0.600	48.150	48.050	0.100	407.7	450	5.68	129.7
9.001	25	26	31.937	0.600	48.050	47.000	1.050	30.4	450	5.82	128.5
1.007	26	28	21.666	0.600	46.625	46.275	0.350	61.9	825	9.81	101.5
10.000	27	28	47.055	0.600	47.300	46.650	0.650	72.4	450	5.33	132.8
1.008	28	31	34.982	0.600	46.275	45.775	0.500	70.0	825	9.97	100.7
11.000	29	31	48.380	0.600	46.500	46.150	0.350	138.2	450	5.47	131.6
12.000	30	31	40.494	0.600	46.950	46.150	0.800	50.6	450	5.24	133.6
1.009	31	31_OUT	53.528	0.600	45.775	44.275	1.500	35.7	825	10.15	99.8
13.000	32	33	45.528	0.600	48.800	48.550	0.250	182.1	450	5.50	131.2
13.001	33	34	23.436	0.600	48.550	48.492	0.058	404.1	450	5.89	127.9
13.002	34	40	116.765	0.600	48.492	47.144	1.348	86.6	450	6.78	120.7
14.000	35	36	43.116	0.600	47.400	47.294	0.106	406.8	450	5.72	129.4
14.001	36	37	33.080	0.600	47.294	47.212	0.082	403.4	450	6.27	124.8
14.002	37	40	33.449	0.600	47.137	47.069	0.068	491.9	525	6.82	120.4
15.000	38	39	43.395	0.600	48.450	48.050	0.400	108.5	450	5.37	132.4
15.001	39	40	47.503	0.600	48.050	47.144	0.906	52.4	450	5.65	129.9
13.003	40	43	53.999	0.600	47.069	46.625	0.444	121.6	525	7.26	117.2
16.000	41	42	49.077	0.600	47.850	47.300	0.550	89.2	450	5.38	132.3
16.001	42	43	50.250	0.600	47.300	46.700	0.600	83.7	450	5.76	129.0
13.004	43	44	23.957	0.600	46.625	46.175	0.450	53.2	525	7.39	116.3
13.005	44	31_OUT	80.733	0.600	46.175	44.575	1.600	50.5	525	7.82	113.3
17.000	45	46	45.874	0.600	48.330	47.840	0.490	93.6	450	5.36	132.5
17.001	46	47	59.597	0.600	47.840	47.140	0.700	85.1	450	5.81	128.5
17.002	47	48	69.198	0.600	47.140	46.280	0.860	80.5	450	6.32	124.4
17.003	48	49	56.834	0.600	46.280	45.452	0.828	68.6	450	6.71	121.3
17.004	49	50	38.091	0.600	45.452	44.246	1.206	31.6	450	6.88	119.9
17.005	50	31_OUT	44.000	0.600	44.246	44.200	0.046	956.5	900	7.61	103.3
1.010	31_OUT	Dummy	8.544	0.600	44.200	43.534	0.666	12.8	900	10.16	89.0

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	10080	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

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 %)
100	45	0	0

Node 31_OUT Online Orifice Control

Flap Valve	x	Invert Level (m)	45.500	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Diameter (m)	0.500		

Node 50 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.20160	Safety Factor	2.0	Invert Level (m)	44.246
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	164
Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	90.7	137.0	0.600	286.0	137.0
			0.601	440.0	137.0
			1.400	816.0	137.0

Node 31_OUT Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.20160	Safety Factor	2.0	Invert Level (m)	44.200
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	244
Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	2170.0	3843.0	0.600	2700.0	3843.0
			0.601	3050.0	3843.0
			1.400	3843.0	3843.0

**Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.91%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	12	50.775	1.425	119.8	2.0394	0.0000	FLOOD RISK
15 minute summer	2	12	50.704	1.536	233.8	2.1985	0.0000	SURCHARGED
15 minute summer	3	12	50.405	1.460	315.2	2.5806	0.0000	SURCHARGED
15 minute summer	4	11	50.790	1.340	119.8	1.9180	0.0000	SURCHARGED
15 minute summer	5	11	50.700	1.453	212.9	2.0787	0.0000	SURCHARGED
15 minute summer	6	12	50.231	1.429	597.4	2.5251	0.0000	SURCHARGED
15 minute summer	7	11	50.039	0.789	119.8	1.1285	0.0000	SURCHARGED
15 minute summer	8	11	49.946	0.996	214.3	1.4256	0.0000	SURCHARGED
15 minute summer	9	12	49.717	1.067	776.7	1.8862	0.0000	SURCHARGED
15 minute summer	10	10	48.891	0.191	102.2	0.2739	0.0000	OK
15 minute summer	11	12	48.756	0.731	854.8	1.8608	0.0000	OK
15 minute summer	12	11	50.104	0.804	70.2	1.1511	0.0000	SURCHARGED
15 minute summer	13	11	50.090	0.915	142.8	1.3090	0.0000	SURCHARGED
15 minute summer	14	11	50.045	0.978	203.6	1.3990	0.0000	SURCHARGED
15 minute summer	15	11	49.793	0.993	424.7	1.4216	0.0000	SURCHARGED
15 minute summer	16	12	48.646	0.721	1254.1	1.8358	0.0000	OK
15 minute summer	17	10	49.597	0.247	138.1	0.3532	0.0000	OK
15 minute summer	18	11	49.499	0.349	138.1	0.4996	0.0000	OK
15 minute summer	19	11	49.400	0.516	410.0	0.9114	0.0000	OK
15 minute summer	20	11	49.183	0.358	404.5	0.6322	0.0000	OK
15 minute summer	21	10	49.146	0.346	138.1	0.4952	0.0000	OK
15 minute summer	22	10	49.037	0.333	274.2	0.4763	0.0000	OK
15 minute summer	23	13	48.748	0.598	673.5	1.0568	0.0000	OK
15 minute summer	24	11	48.463	0.313	138.1	0.4476	0.0000	OK
15 minute summer	25	12	48.319	0.269	274.7	0.3846	0.0000	OK
15 minute summer	26	12	48.129	1.504	1995.3	3.8283	0.0000	SURCHARGED
15 minute summer	27	10	47.438	0.138	80.9	0.1979	0.0000	OK
15 minute summer	28	12	47.441	1.166	2062.5	2.9663	0.0000	SURCHARGED
15 minute summer	29	10	46.672	0.172	80.9	0.2456	0.0000	OK
15 minute summer	30	9	47.077	0.127	80.9	0.1820	0.0000	OK
15 minute summer	31	12	46.449	0.674	2193.5	1.7146	0.0000	OK
15 minute summer	32	10	49.009	0.209	109.9	0.2990	0.0000	OK
15 minute summer	33	12	48.948	0.398	218.8	0.5699	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	114.0	0.779	0.715	11.7142	
15 minute summer	2	1.001	3	217.8	1.375	1.366	9.5171	
15 minute summer	3	1.002	6	301.7	1.397	1.385	7.1801	
15 minute summer	4	2.000	5	115.4	0.938	0.725	13.0900	
15 minute summer	5	2.001	6	211.9	1.338	0.994	10.6707	
15 minute summer	6	1.003	9	576.3	2.046	1.654	16.5536	
15 minute summer	7	3.000	8	116.8	1.023	0.474	8.1484	
15 minute summer	8	3.001	9	202.1	1.318	1.150	7.9673	
15 minute summer	9	1.004	11	771.8	2.741	1.399	17.1580	
15 minute summer	10	4.000	11	101.0	1.648	0.343	3.3324	
15 minute summer	11	1.005	16	830.3	2.163	0.769	10.6810	
15 minute summer	12	5.000	13	71.2	0.642	0.447	8.0416	
15 minute summer	13	5.001	14	140.1	1.032	0.877	6.9305	
15 minute summer	14	5.002	15	205.1	1.338	0.849	7.5549	
15 minute summer	15	5.003	16	393.3	2.483	1.297	8.8522	
15 minute summer	16	1.006	26	1211.7	2.406	0.639	46.8410	
15 minute summer	17	6.000	19	138.1	1.242	0.591	6.7512	
15 minute summer	18	7.000	19	133.9	1.048	0.839	6.3385	
15 minute summer	19	6.001	20	404.5	1.897	1.419	7.3419	
15 minute summer	20	6.002	23	408.5	2.075	0.620	16.1827	
15 minute summer	21	8.000	22	136.1	1.061	0.852	4.9747	
15 minute summer	22	8.001	23	269.4	2.287	0.786	4.8066	
15 minute summer	23	6.003	26	623.8	2.544	0.732	23.9462	
15 minute summer	24	9.000	25	136.6	1.417	0.859	4.3216	
15 minute summer	25	9.001	26	260.8	3.114	0.444	4.1072	
15 minute summer	26	1.007	28	1999.8	3.751	0.991	11.5509	
15 minute summer	27	10.000	28	80.3	1.660	0.211	4.6756	
15 minute summer	28	1.008	31	2061.6	3.923	1.086	17.4778	
15 minute summer	29	11.000	31	80.8	1.424	0.294	3.7982	
15 minute summer	30	12.000	31	80.6	2.078	0.177	2.8937	
15 minute summer	31	1.009	31_OUT	2173.3	5.180	0.817	22.4373	
15 minute summer	32	13.000	33	108.9	0.992	0.456	4.9434	
15 minute summer	33	13.001	34	215.2	1.824	1.346	3.2389	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	34	12	48.831	0.339	215.2	0.4847	0.0000	OK
15 minute summer	35	11	48.889	1.489	109.9	2.1302	0.0000	FLOOD RISK
15 minute summer	36	11	48.838	1.544	208.8	2.2095	0.0000	SURCHARGED
15 minute summer	37	12	48.698	1.561	310.6	2.7591	0.0000	SURCHARGED
15 minute summer	38	12	48.779	0.329	109.9	0.4708	0.0000	OK
15 minute summer	39	12	48.767	0.717	219.0	1.0257	0.0000	SURCHARGED
15 minute summer	40	12	48.572	1.503	671.3	2.6562	0.0000	SURCHARGED
15 minute summer	41	10	47.968	0.118	49.6	0.1689	0.0000	OK
15 minute summer	42	13	47.581	0.281	49.2	0.4023	0.0000	OK
15 minute summer	43	13	47.539	0.914	714.1	1.6155	0.0000	SURCHARGED
15 minute summer	44	13	46.839	0.664	711.8	1.1725	0.0000	SURCHARGED
15 minute summer	45	11	49.233	0.903	146.4	1.2916	0.0000	SURCHARGED
15 minute summer	46	11	49.155	1.315	282.0	1.8814	0.0000	SURCHARGED
15 minute summer	47	11	48.714	1.574	412.2	2.2528	0.0000	FLOOD RISK
15 minute summer	48	12	47.543	1.263	521.2	1.8069	0.0000	SURCHARGED
15 minute summer	49	12	45.827	0.375	510.7	0.5368	0.0000	OK
180 minute winter	50	180	45.186	0.939	138.1	291.6638	0.0000	SURCHARGED
180 minute winter	31_OUT	180	45.184	0.984	873.8	2707.8870	0.0000	SURCHARGED
15 minute summer	Dummy	1	43.534	0.000	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	34	13.002	40	203.7	1.456	0.586	16.7242	
15 minute summer	35	14.000	36	103.4	0.652	0.649	6.8314	
15 minute summer	36	14.001	37	205.8	1.299	1.287	5.2413	
15 minute summer	37	14.002	40	305.0	1.412	1.405	7.2261	
15 minute summer	38	15.000	39	109.1	1.522	0.352	6.1327	
15 minute summer	39	15.001	40	200.1	1.746	0.447	7.5265	
15 minute summer	40	13.003	43	605.9	2.805	1.379	11.6656	
15 minute summer	41	16.000	42	49.2	1.558	0.144	3.0658	
15 minute summer	42	16.001	43	72.7	0.642	0.206	6.5982	
15 minute summer	43	13.004	44	711.8	3.295	1.069	5.1755	
15 minute summer	44	13.005	31_OUT	691.7	3.512	1.012	17.2723	
15 minute summer	45	17.000	46	145.1	1.431	0.434	7.2684	
15 minute summer	46	17.001	47	272.4	1.836	0.777	9.4428	
15 minute summer	47	17.002	48	381.5	2.408	1.058	10.9640	
15 minute summer	48	17.003	49	510.7	3.255	1.307	8.5149	
15 minute summer	49	17.004	50	516.0	3.678	0.895	5.5809	
180 minute winter	50	17.005	31_OUT	59.0	0.785	0.092	27.8860	
180 minute winter	50	Infiltration		3.8				
180 minute winter	31_OUT	Orifice	Dummy	0.0				0.0
180 minute winter	31_OUT	Infiltration		107.6				

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	30	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	999.9		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.163	5.00	48.600	1200	618858.309	246496.835	1.500
2	0.000	5.00	48.000	1200	618797.843	246432.591	1.405
3	0.163	5.00	48.050	1200	618863.333	246434.656	1.500
4	0.000	5.00	47.850	1350	618882.506	246396.442	1.781
5	0.163	5.00	48.400	1350	618900.855	246486.922	1.500
6	0.000	5.00	48.150	1350	618960.862	246485.952	1.575
7	0.163	5.00	48.100	1200	618902.411	246458.749	1.500
8	0.000	5.00	47.900	1350	618951.153	246429.470	1.608
4_OUT			47.400	1350	618910.292	246400.509	1.400
DUMMY			47.400	1350	618910.971	246394.876	1.650

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	2	88.224	0.600	47.100	46.595	0.505	174.7	300	6.24	114.2
1.001	2	4	92.057	0.600	46.595	46.219	0.376	244.8	300	7.77	103.5
2.000	3	4	42.754	0.600	46.550	46.219	0.331	129.2	300	5.52	120.0
1.002	4	4_OUT	28.082	0.600	46.069	46.000	0.069	407.0	450	8.24	100.6
3.000	5	6	60.015	0.600	46.900	46.575	0.325	184.7	375	5.75	118.0
3.001	6	8	57.310	0.600	46.575	46.292	0.283	202.5	375	6.50	112.2
4.000	7	8	56.860	0.600	46.600	46.367	0.233	244.0	300	5.95	116.4
3.002	8	4_OUT	50.084	0.600	46.292	46.075	0.217	230.8	375	7.21	107.1
1.003	4_OUT	DUMMY	5.674	0.600	46.000	45.750	0.250	22.7	450	8.26	100.5

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	10080	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

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 %)
100	45	0	0

Node 4_OUT Online Orifice Control

Flap Valve	x	Invert Level (m)	47.300	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Diameter (m)	0.500		

Node 4_OUT Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.12960	Safety Factor	2.0	Invert Level (m)	46.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	672

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	132.7	318.9	0.600	437.9	318.9	0.601	647.6	318.9	1.400	1142.3	318.9

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 98.33%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	48.505	1.405	124.4	1.5889	0.0000	FLOOD RISK
15 minute summer	2	12	47.543	0.948	114.4	1.0720	0.0000	SURCHARGED
15 minute summer	3	11	47.112	0.562	124.4	0.6357	0.0000	SURCHARGED
360 minute winter	4	352	46.925	0.856	32.9	1.2255	0.0000	SURCHARGED
15 minute summer	5	11	47.503	0.603	124.4	0.8634	0.0000	SURCHARGED
15 minute summer	6	11	47.252	0.677	130.5	0.9681	0.0000	SURCHARGED
15 minute summer	7	11	47.773	1.173	124.4	1.3261	0.0000	SURCHARGED
15 minute summer	8	12	47.059	0.767	219.0	1.0971	0.0000	SURCHARGED
360 minute winter	4_OUT	352	46.925	0.925	63.9	415.7066	0.0000	SURCHARGED
15 minute summer	DUMMY	1	45.750	0.000	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	114.4	1.624	1.364	6.2127	
15 minute summer	2	1.001	4	108.9	1.547	1.541	6.4826	
15 minute summer	3	2.000	4	121.6	1.729	1.245	3.0107	
360 minute winter	4	1.002	4_OUT	32.0	0.690	0.201	4.4494	
15 minute summer	5	3.000	6	130.5	1.479	0.888	6.6195	
15 minute summer	6	3.001	8	108.6	1.024	0.774	6.3211	
15 minute summer	7	4.000	8	121.7	1.729	1.719	4.0040	
15 minute summer	8	3.002	4_OUT	214.9	1.949	1.638	5.5241	
360 minute winter	4_OUT	Orifice	DUMMY	0.0				0.0
360 minute winter	4_OUT	Infiltration		5.7				



Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	30	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	999.9		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.110	5.00	47.550	1200	619026.248	246460.520	1.500
2	0.110	5.00	46.900	1350	619107.295	246442.617	1.575
3	0.000	5.00	46.900	1350	619135.884	246450.319	1.667
4	0.110	5.00	47.600	1200	618985.786	246441.839	1.500
5	0.110	5.00	47.050	1350	619047.802	246432.929	1.575
6	0.110	5.00	46.800	1350	619102.824	246424.488	1.650
7	0.000	5.00	46.700	1350	619147.427	246399.215	1.704
8_OUT			46.075	1500	619139.403	246375.745	1.400
DUMMY			46.075	1500	619136.539	246370.895	2.075

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
2.000	1	2	83.001	0.600	46.050	45.400	0.650	127.7	300	6.00	116.0
2.001	2	3	29.608	0.600	45.325	45.233	0.092	321.8	375	6.49	112.3
2.002	3	7	52.391	0.600	45.233	45.071	0.162	323.4	375	7.36	106.2
1.000	4	5	62.653	0.600	46.100	45.550	0.550	113.9	300	5.71	118.4
1.001	5	6	55.666	0.600	45.475	45.225	0.250	222.7	375	6.48	112.4
1.002	6	7	51.266	0.600	45.150	44.996	0.154	332.9	450	7.25	106.9
1.003	7	8_OUT	24.804	0.600	44.996	44.750	0.246	100.8	450	7.56	104.8
1.004	8_OUT	DUMMY	5.632	0.600	44.675	44.000	0.675	8.3	525	7.57	102.9

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	10080	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

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 %)
100	45	0	0

Node 8_OUT Online Orifice Control

Flap Valve	x	Invert Level (m)	46.000	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Diameter (m)	0.500		

Node 8_OUT Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.08640	Safety Factor	2.0	Invert Level (m)	44.675
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	1515

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	171.3	210.0	0.600	381.7	210.0	0.601	531.6	210.0	1.400	898.8	210.0

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.71%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	46.657	0.607	83.9	0.6867	0.0000	SURCHARGED
15 minute summer	2	11	46.180	0.855	158.2	1.2229	0.0000	SURCHARGED
15 minute summer	3	11	45.954	0.721	147.8	1.0312	0.0000	SURCHARGED
15 minute summer	4	11	46.727	0.627	83.9	0.7095	0.0000	SURCHARGED
15 minute summer	5	11	46.373	0.898	158.3	1.2844	0.0000	SURCHARGED
15 minute summer	6	11	45.966	0.816	234.1	1.1676	0.0000	SURCHARGED
720 minute winter	7	705	45.670	0.674	30.2	0.9644	0.0000	SURCHARGED
720 minute winter	8_OUT	705	45.670	0.995	29.2	413.1838	0.0000	SURCHARGED
15 minute summer	DUMMY	1	44.000	0.000	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	2.000	2	75.3	1.202	0.767	5.8449	
15 minute summer	2	2.001	3	147.8	1.340	1.333	3.2657	
15 minute summer	3	2.002	7	149.4	1.354	1.350	5.7786	
15 minute summer	4	1.000	5	78.3	1.337	0.752	4.4120	
15 minute summer	5	1.001	6	154.1	1.397	1.153	6.1398	
15 minute summer	6	1.002	7	229.8	1.450	1.303	8.1228	
720 minute winter	7	1.003	8_OUT	29.2	0.792	0.091	3.9300	
720 minute winter	8_OUT	Orifice	DUMMY	0.0				0.0
720 minute winter	8_OUT	Infiltration		2.5				

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	0.20
Return Period (years)	30	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	1.000
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	999.9		

Circular Default Sewer Type Link Type

Shape	Circular	Auto Increment (mm)	75
Barrels	1	Follow Ground	x

Available Diameters (mm)

100 | 150

Swale Link Type

Shape	Trapezoidal	Side Slope (1:X)	4.0	Velocity	Manning
Barrels	1	Auto Increment (mm)	75	ks (mm) / n	0.080
Width (mm)	1000	Follow Ground	x		

Available Diameters (mm)

75 | 150

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.200	5.00	50.950	1350	618539.063	246782.422	1.650
2	0.247	5.00	50.900	1350	618518.387	246755.127	1.650
3	0.158	5.00	50.450	1350	618569.550	246716.044	1.650
4	0.188	5.00	51.000	1350	618460.807	246750.959	1.650
5	0.188	5.00	50.700	1350	618505.949	246713.629	1.650
6	0.186	5.00	50.250	1200	618582.664	246660.387	1.500
7			50.450		618558.149	246701.821	2.643
8	0.188	5.00	50.800	1350	618436.005	246721.848	1.575
9	0.188	5.00	50.500	1350	618483.024	246678.568	1.575
10	0.186	5.00	49.950	1350	618556.699	246631.899	1.650
11			49.600		618503.640	246631.194	1.882
12	0.186	5.00	49.900	1350	618612.400	246641.621	1.575
13	0.186	5.00	49.550	1350	618595.631	246608.895	1.574
14			48.900		618574.097	246573.041	1.875
15	0.186	5.00	49.300	1350	618639.714	246595.637	1.575
16			48.500		618649.497	246524.079	1.860
17	0.250	5.00	51.000	1350	618739.932	246832.754	1.650
18	0.250	5.00	50.700	1350	618793.536	246801.003	1.650
19	0.250	5.00	50.450	1500	618830.650	246778.255	1.800
20			50.350	1500	618869.991	246758.643	1.800
21			50.000	1500	618831.526	246685.316	1.800
22	0.250	5.00	50.300	1350	618798.644	246760.992	1.650
23	0.250	5.00	50.150	1350	618794.015	246699.217	1.650
24			49.800	1500	618788.010	246667.320	1.800
25	0.096	5.00	51.000	1200	618660.509	246832.497	1.500
26	0.093	5.00	50.850	1200	618697.839	246800.194	1.500
27	0.094	5.00	50.600	1350	618734.690	246772.921	1.575
28	0.080	5.00	50.300	1350	618737.621	246732.670	1.575
29	0.130	5.00	50.800	1350	618678.422	246774.150	1.575
30	0.140	5.00	50.450	1350	618628.747	246706.291	1.500
31			50.600	1350	618654.166	246739.633	1.664
32	0.140	5.00	50.050	1350	618662.975	246679.569	1.500
33	0.130	5.00	50.550	1350	618714.951	246745.261	1.425
34			50.200	1350	618691.906	246710.960	1.663
35	0.131	5.00	49.950	1200	618652.321	246654.149	1.500
36	0.088	5.00	49.700	1350	618693.961	246666.488	1.575
37			50.000	2175	618714.519	246695.298	2.900
38			49.900	2175	618726.696	246683.669	2.801
39	0.133	5.00	49.700	1350	618724.000	246653.953	1.500
40			49.750	2175	618771.141	246641.226	2.712
41	0.064	5.00	49.550	1350	618672.800	246619.498	1.425
42	0.133	5.00	49.700	1350	618704.648	246631.718	1.581

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
43	0.133	5.00	49.300	1200	618700.926	246591.525	1.500
44			49.100	1350	618724.898	246567.767	1.516
45			49.400	2175	618736.532	246591.475	2.742
46			48.300	1200	618701.298	246529.237	1.011
47			47.874		618744.454	246559.316	1.400
47_OUT			48.000	1800	618762.082	246544.375	3.500

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
12.000	1	2	34.242	0.600	49.300	49.250	0.050	684.8	450	5.74	118.1
12.001	2	3	64.383	0.600	49.250	48.800	0.450	143.1	450	6.37	113.2
12.002	3	7	18.228	0.600	48.800	48.032	0.768	23.7	450	6.45	112.6
13.000	4	5	58.578	0.600	49.350	49.050	0.300	195.3	450	5.67	118.7
13.001	5	7	53.519	0.600	49.050	48.032	1.018	52.6	450	5.99	116.0
14.000	6	7	48.143	0.600	48.750	48.182	0.568	84.8	300	5.47	120.4
12.003	7	11	89.215	0.080	47.807	47.718	0.089	1002.4	675	13.62	77.2
15.000	8	9	63.906	0.600	49.225	48.925	0.300	213.0	375	5.86	117.1
15.001	9	11	51.665	0.600	48.925	48.018	0.907	57.0	375	6.22	114.3
16.000	10	11	53.064	0.600	48.300	47.943	0.357	148.6	450	5.53	119.9
12.004	11	14	91.356	0.080	47.718	47.025	0.693	131.8	675	16.29	69.5
17.000	12	13	36.772	0.600	48.325	47.976	0.349	105.4	375	5.35	121.4
17.001	13	14	41.824	0.600	47.976	47.325	0.651	64.2	375	5.66	118.8
12.005	14	16	89.902	0.080	47.025	46.640	0.385	233.5	675	19.77	61.9
18.000	15	16	72.224	0.600	47.725	46.940	0.785	92.0	375	5.64	119.0
12.006	16	47	16.000	0.080	46.640	46.624	0.016	1000.0	675	21.06	59.5
1.000	17	18	62.302	0.600	49.350	49.050	0.300	207.7	450	5.74	118.1
1.001	18	19	43.531	0.600	49.050	48.800	0.250	174.1	450	6.21	114.4
1.002	19	20	43.958	0.600	48.650	48.550	0.100	439.6	600	6.84	109.7
1.003	20	21	82.803	0.600	48.550	48.200	0.350	236.6	600	7.72	103.8
1.004	21	24	47.090	0.600	48.200	48.000	0.200	235.5	600	8.21	100.8
2.000	22	23	61.948	0.600	48.650	48.500	0.150	413.0	450	6.04	115.7
2.001	23	24	32.457	0.600	48.500	48.150	0.350	92.7	450	6.30	113.7
1.005	24	40	31.072	0.600	48.000	47.713	0.287	108.3	600	8.44	99.5
3.000	25	26	49.366	0.600	49.500	49.350	0.150	329.1	300	5.96	116.3
3.001	26	27	45.846	0.600	49.350	49.100	0.250	183.4	300	6.62	111.4
3.002	27	28	40.358	0.600	49.025	48.725	0.300	134.5	375	7.05	108.2
3.003	28	37	43.936	0.600	48.725	48.000	0.725	60.6	375	7.36	106.1
4.000	29	31	42.187	0.600	49.225	49.011	0.214	197.1	375	5.55	119.7
5.000	30	31	41.926	0.600	48.950	48.936	0.014	2994.7	450	6.93	108.8
4.001	31	34	47.397	0.600	48.936	48.537	0.399	118.8	450	7.35	106.0
6.000	32	34	42.690	0.600	48.550	48.537	0.013	3283.8	450	7.06	108.0
7.000	33	34	41.323	0.600	49.125	48.612	0.513	80.6	375	5.34	121.4
4.002	34	37	27.507	0.600	48.537	47.925	0.612	44.9	450	7.51	105.0
8.000	35	36	43.430	0.600	48.450	48.200	0.250	173.7	300	5.61	119.2
8.001	36	37	35.393	0.600	48.125	48.000	0.125	283.1	375	6.16	114.8
3.004	37	38	16.838	0.600	47.100	47.099	0.001	16838.0	1500	8.38	99.6
3.005	38	40	61.455	0.600	47.099	47.038	0.061	1007.5	1275	9.23	95.0
9.000	39	40	48.829	0.600	48.200	47.938	0.262	186.4	375	5.61	119.2
1.006	40	45	60.605	0.600	47.038	46.658	0.380	159.5	1275	9.55	93.3
10.000	41	42	34.112	0.600	48.125	48.119	0.006	5685.3	375	7.46	105.9
10.001	42	45	51.343	0.600	48.119	47.558	0.561	91.5	375	7.92	102.9
11.000	43	44	33.751	0.600	47.800	47.659	0.141	239.4	300	5.56	119.6
11.001	44	45	26.409	0.600	47.584	47.558	0.026	1015.7	375	6.34	113.4
1.007_1	45	47	33.120	0.600	46.658	46.625	0.033	1003.6	1100	10.05	91.0
19.000	46	47	52.604	0.600	47.289	46.999	0.290	181.4	300	5.75	118.0
1.007	47	47_OUT	23.108	0.600	46.474	44.500	1.974	11.7	825	21.10	92.2

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	10080	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

Storm Durations

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

Results for 1 year +45% CC Critical Storm Duration. Lowest mass balance: 99.40%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	49.449	0.149	27.5	0.2125	0.0000	OK
15 minute summer	2	11	49.401	0.151	60.7	0.2155	0.0000	OK
15 minute summer	3	11	48.909	0.109	80.8	0.1558	0.0000	OK
15 minute summer	4	10	49.452	0.102	25.8	0.1455	0.0000	OK
15 minute summer	5	11	49.152	0.102	51.2	0.1459	0.0000	OK
15 minute summer	6	10	48.843	0.093	25.5	0.1053	0.0000	OK
15 minute summer	7	13	48.142	0.335	156.7	0.0000	0.0000	OK
15 minute summer	8	10	49.336	0.111	25.8	0.1583	0.0000	OK
15 minute summer	9	11	49.036	0.111	51.1	0.1588	0.0000	OK
15 minute summer	10	11	48.393	0.093	25.5	0.1326	0.0000	OK
30 minute summer	11	23	47.939	0.221	161.2	0.0000	0.0000	OK
15 minute summer	12	10	48.415	0.090	25.5	0.1294	0.0000	OK
15 minute summer	13	10	48.090	0.114	50.7	0.1638	0.0000	OK
120 minute summer	14	72	47.281	0.256	140.6	0.0000	0.0000	OK
15 minute summer	15	11	47.812	0.087	25.5	0.1243	0.0000	OK
120 minute summer	16	74	46.939	0.299	138.0	0.0000	0.0000	OK
15 minute summer	17	10	49.466	0.116	34.3	0.1658	0.0000	OK
15 minute summer	18	11	49.215	0.165	67.8	0.2366	0.0000	OK
15 minute summer	19	11	48.879	0.229	99.3	0.4054	0.0000	OK
15 minute summer	20	11	48.744	0.194	99.5	0.3427	0.0000	OK
15 minute summer	21	12	48.397	0.197	98.8	0.3489	0.0000	OK
15 minute summer	22	10	48.793	0.143	34.3	0.2053	0.0000	OK
15 minute summer	23	11	48.642	0.142	67.9	0.2033	0.0000	OK
15 minute summer	24	12	48.213	0.213	158.8	0.3765	0.0000	OK
15 minute summer	25	10	49.592	0.092	13.2	0.1045	0.0000	OK
15 minute summer	26	11	49.466	0.116	25.6	0.1307	0.0000	OK
15 minute summer	27	11	49.147	0.122	37.0	0.1739	0.0000	OK
15 minute summer	28	11	48.836	0.111	47.5	0.1585	0.0000	OK
15 minute summer	29	11	49.314	0.089	17.8	0.1279	0.0000	OK
15 minute summer	30	11	49.100	0.150	19.2	0.2151	0.0000	OK
15 minute summer	31	11	49.042	0.106	36.1	0.1512	0.0000	OK
15 minute summer	32	11	48.702	0.152	19.2	0.2178	0.0000	OK
15 minute summer	33	10	49.197	0.072	17.8	0.1026	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	12.000	2	26.9	0.585	0.220	1.5744	
15 minute summer	2	12.001	3	60.1	1.592	0.223	2.4450	
15 minute summer	3	12.002	7	81.3	2.830	0.122	0.5237	
15 minute summer	4	13.000	5	25.4	0.954	0.110	1.5616	
15 minute summer	5	13.001	7	50.5	1.894	0.113	1.4270	
15 minute summer	6	14.000	7	24.9	1.360	0.206	0.8856	
15 minute summer	7	12.003	11	105.7	0.195	0.204	50.8802	
15 minute summer	8	15.000	9	25.4	0.942	0.186	1.7205	
15 minute summer	9	15.001	11	50.5	1.872	0.190	1.3929	
15 minute summer	10	16.000	11	24.9	1.069	0.094	1.2375	
30 minute summer	11	12.004	14	127.1	0.302	0.089	39.3528	
15 minute summer	12	17.000	13	25.3	1.038	0.130	0.8978	
15 minute summer	13	17.001	14	49.9	1.785	0.200	1.1704	
120 minute summer	14	12.005	16	128.7	0.222	0.120	52.7902	
15 minute summer	15	18.000	16	24.8	1.293	0.119	1.3863	
120 minute summer	16	12.006	47	133.0	0.364	0.257	6.4560	
15 minute summer	17	1.000	18	33.5	0.810	0.150	2.6403	
15 minute summer	18	1.001	19	66.6	1.303	0.272	2.2251	
15 minute summer	19	1.002	20	99.5	1.121	0.305	3.9074	
15 minute summer	20	1.003	21	98.8	1.268	0.221	6.5581	
15 minute summer	21	1.004	24	96.6	1.168	0.216	4.0094	
15 minute summer	22	2.000	23	33.7	0.787	0.213	2.6523	
15 minute summer	23	2.001	24	67.3	1.631	0.200	1.3398	
15 minute summer	24	1.005	40	157.7	1.872	0.238	2.6240	
15 minute summer	25	3.000	26	12.8	0.616	0.211	1.0704	
15 minute summer	26	3.001	27	24.7	1.012	0.302	1.1212	
15 minute summer	27	3.002	28	37.0	1.275	0.215	1.1716	
15 minute summer	28	3.003	37	46.7	1.764	0.181	1.1637	
15 minute summer	29	4.000	31	17.4	0.880	0.122	0.8340	
15 minute summer	30	5.000	31	18.7	0.506	0.324	1.5648	
15 minute summer	31	4.001	34	36.2	1.149	0.122	1.4942	
15 minute summer	32	6.000	34	18.5	0.466	0.338	1.7483	
15 minute summer	33	7.000	34	17.4	1.209	0.078	0.5956	

Results for 1 year +45% CC Critical Storm Duration. Lowest mass balance: 99.40%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	34	11	48.659	0.122	72.1	0.1749	0.0000	OK
15 minute summer	35	10	48.544	0.094	18.0	0.1067	0.0000	OK
15 minute summer	36	11	48.256	0.131	29.4	0.1868	0.0000	OK
15 minute summer	37	12	47.387	0.287	147.3	1.0678	0.0000	OK
15 minute summer	38	12	47.363	0.264	144.3	0.9797	0.0000	OK
15 minute summer	39	11	48.289	0.089	18.3	0.1273	0.0000	OK
15 minute summer	40	12	47.283	0.245	318.0	0.9088	0.0000	OK
15 minute summer	41	11	48.239	0.114	8.8	0.1628	0.0000	OK
15 minute summer	42	11	48.209	0.090	26.5	0.1292	0.0000	OK
15 minute summer	43	10	47.905	0.105	18.3	0.1184	0.0000	OK
15 minute summer	44	11	47.716	0.132	17.9	0.1885	0.0000	OK
15 minute summer	45	13	47.039	0.381	353.7	1.4156	0.0000	OK
15 minute summer	46	11	47.387	0.098	19.5	0.1108	0.0000	OK
180 minute summer	47	120	46.625	0.151	303.6	209.9658	0.0000	OK
15 minute summer	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	34	4.002	37	71.2	2.138	0.147	0.9170	
15 minute summer	35	8.000	36	17.6	0.944	0.209	0.8095	
15 minute summer	36	8.001	37	29.4	0.899	0.248	1.1577	
15 minute summer	37	3.004	38	144.3	0.689	0.255	3.7282	
15 minute summer	38	3.005	40	144.0	0.801	0.093	11.0621	
15 minute summer	39	9.000	40	17.8	0.905	0.122	0.9604	
15 minute summer	40	1.006	45	318.1	1.327	0.081	14.7191	
15 minute summer	41	10.000	42	8.5	0.352	0.334	0.8283	
15 minute summer	42	10.001	45	26.0	1.298	0.124	1.0288	
15 minute summer	43	11.000	44	17.9	0.840	0.250	0.7179	
15 minute summer	44	11.001	45	17.8	0.635	0.288	0.7435	
15 minute summer	45	1.007_1	47	356.6	1.358	0.338	8.7054	
15 minute summer	46	19.000	47	19.0	0.959	0.231	1.0429	
180 minute summer	47	Orifice	47_OUT	0.0				0.0
180 minute summer	47	Infiltration		171.1				

Results for 10 year +45% CC Critical Storm Duration. Lowest mass balance: 99.40%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	49.616	0.316	93.9	0.4522	0.0000	OK
15 minute summer	2	10	49.561	0.311	208.2	0.4447	0.0000	OK
15 minute summer	3	10	49.011	0.211	278.6	0.3025	0.0000	OK
15 minute summer	4	10	49.548	0.198	88.2	0.2828	0.0000	OK
15 minute summer	5	10	49.242	0.192	175.6	0.2743	0.0000	OK
15 minute summer	6	10	48.941	0.191	87.3	0.2159	0.0000	OK
15 minute summer	7	12	48.394	0.587	536.6	0.0000	0.0000	OK
15 minute summer	8	10	49.450	0.225	88.2	0.3219	0.0000	OK
15 minute summer	9	10	49.149	0.224	175.4	0.3205	0.0000	OK
15 minute summer	10	10	48.478	0.178	87.3	0.2546	0.0000	OK
15 minute summer	11	14	48.156	0.438	674.9	0.0000	0.0000	OK
15 minute summer	12	10	48.509	0.184	87.3	0.2632	0.0000	OK
15 minute summer	13	10	48.211	0.235	173.9	0.3359	0.0000	OK
30 minute summer	14	23	47.514	0.489	611.9	0.0000	0.0000	OK
15 minute summer	15	10	47.893	0.168	87.3	0.2404	0.0000	OK
120 minute summer	16	102	47.145	0.505	408.6	0.0000	0.0000	OK
15 minute summer	17	10	49.575	0.225	117.4	0.3221	0.0000	OK
15 minute summer	18	11	49.428	0.378	233.2	0.5416	0.0000	OK
15 minute summer	19	11	49.151	0.501	340.8	0.8858	0.0000	OK
15 minute summer	20	11	48.962	0.412	341.5	0.7281	0.0000	OK
15 minute summer	21	12	48.644	0.444	338.3	0.7849	0.0000	OK
15 minute summer	22	10	48.949	0.299	117.4	0.4276	0.0000	OK
15 minute summer	23	11	48.801	0.301	232.5	0.4302	0.0000	OK
15 minute summer	24	12	48.474	0.474	545.9	0.8379	0.0000	OK
15 minute summer	25	11	49.695	0.195	45.0	0.2210	0.0000	OK
15 minute summer	26	11	49.623	0.273	87.5	0.3086	0.0000	OK
15 minute summer	27	11	49.277	0.252	126.1	0.3612	0.0000	OK
15 minute summer	28	11	48.954	0.229	162.2	0.3279	0.0000	OK
15 minute summer	29	10	49.401	0.176	61.0	0.2524	0.0000	OK
15 minute summer	30	10	49.225	0.275	65.7	0.3934	0.0000	OK
15 minute summer	31	11	49.147	0.211	123.9	0.3025	0.0000	OK
15 minute summer	32	11	48.840	0.290	65.7	0.4145	0.0000	OK
15 minute summer	33	10	49.259	0.134	61.0	0.1916	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	12.000	2	92.3	0.784	0.755	4.0358	
15 minute summer	2	12.001	3	205.6	2.176	0.761	6.1138	
15 minute summer	3	12.002	7	278.2	3.486	0.418	1.8404	
15 minute summer	4	13.000	5	87.4	1.333	0.379	3.8459	
15 minute summer	5	13.001	7	173.9	2.342	0.389	5.2047	
15 minute summer	6	14.000	7	86.0	1.854	0.712	2.2458	
15 minute summer	7	12.003	11	444.1	0.301	0.858	138.8701	
15 minute summer	8	15.000	9	87.2	1.268	0.638	4.3979	
15 minute summer	9	15.001	11	173.4	2.574	0.653	3.4815	
15 minute summer	10	16.000	11	85.7	1.510	0.324	3.0325	
15 minute summer	11	12.004	14	536.9	0.442	0.376	114.0148	
15 minute summer	12	17.000	13	86.6	1.369	0.444	2.3220	
15 minute summer	13	17.001	14	171.6	2.440	0.686	2.9540	
30 minute summer	14	12.005	16	513.1	0.359	0.478	130.0372	
15 minute summer	15	18.000	16	85.4	1.821	0.409	3.3988	
120 minute summer	16	12.006	47	410.1	0.499	0.791	25.0268	
15 minute summer	17	1.000	18	115.9	1.074	0.518	6.8587	
15 minute summer	18	1.001	19	229.0	1.687	0.937	5.9873	
15 minute summer	19	1.002	20	341.5	1.487	1.046	10.0640	
15 minute summer	20	1.003	21	338.3	1.611	0.758	17.5930	
15 minute summer	21	1.004	24	337.8	1.510	0.755	10.8922	
15 minute summer	22	2.000	23	115.1	1.031	0.728	6.9219	
15 minute summer	23	2.001	24	228.3	2.164	0.680	3.7488	
15 minute summer	24	1.005	40	550.9	2.491	0.833	6.8519	
15 minute summer	25	3.000	26	43.9	0.798	0.721	2.8598	
15 minute summer	26	3.001	27	84.1	1.349	1.028	2.8493	
15 minute summer	27	3.002	28	126.4	1.691	0.733	3.0152	
15 minute summer	28	3.003	37	162.3	2.406	0.631	2.9635	
15 minute summer	29	4.000	31	59.8	1.226	0.421	2.0719	
15 minute summer	30	5.000	31	64.1	0.738	1.114	3.6445	
15 minute summer	31	4.001	34	125.2	1.516	0.422	3.9143	
15 minute summer	32	6.000	34	63.3	0.663	1.152	4.2665	
15 minute summer	33	7.000	34	60.8	1.562	0.273	1.7669	

Results for 10 year +45% CC Critical Storm Duration. Lowest mass balance: 99.40%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	34	11	48.791	0.254	247.3	0.3630	0.0000	OK
15 minute summer	35	10	48.648	0.198	61.4	0.2241	0.0000	OK
15 minute summer	36	11	48.401	0.276	102.1	0.3951	0.0000	OK
15 minute summer	37	12	47.657	0.557	511.6	2.0697	0.0000	OK
15 minute summer	38	12	47.628	0.529	506.3	1.9649	0.0000	OK
15 minute summer	39	10	48.375	0.175	62.4	0.2499	0.0000	OK
15 minute summer	40	12	47.563	0.525	1099.1	1.9513	0.0000	OK
15 minute summer	41	10	48.334	0.209	30.1	0.2986	0.0000	OK
15 minute summer	42	11	48.297	0.178	91.6	0.2542	0.0000	OK
15 minute summer	43	10	48.025	0.225	62.4	0.2547	0.0000	OK
15 minute summer	44	11	47.832	0.248	61.1	0.3553	0.0000	OK
15 minute summer	45	12	47.388	0.730	1241.9	2.7132	0.0000	OK
15 minute summer	46	10	47.493	0.204	66.6	0.2306	0.0000	OK
120 minute summer	47	102	47.144	0.670	996.9	1153.6760	0.0000	OK
15 minute summer	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	34	4.002	37	248.4	2.903	0.514	2.3530	
15 minute summer	35	8.000	36	60.9	1.232	0.724	2.1461	
15 minute summer	36	8.001	37	100.9	1.265	0.853	2.8168	
15 minute summer	37	3.004	38	506.3	0.935	0.895	9.6779	
15 minute summer	38	3.005	40	493.4	1.007	0.318	30.5131	
15 minute summer	39	9.000	40	61.2	1.263	0.418	2.3735	
15 minute summer	40	1.006	45	1101.7	1.766	0.281	37.8207	
15 minute summer	41	10.000	42	29.2	0.512	1.146	1.9485	
15 minute summer	42	10.001	45	90.4	1.812	0.432	2.5614	
15 minute summer	43	11.000	44	61.1	1.174	0.854	1.7632	
15 minute summer	44	11.001	45	61.6	0.946	0.996	1.7159	
15 minute summer	45	1.007_1	47	1230.6	2.027	1.166	20.1859	
15 minute summer	46	19.000	47	65.3	1.305	0.793	2.6319	
120 minute summer	47	Orifice	47_OUT	0.0				0.0
120 minute summer	47	Infiltration		171.1				

Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 99.40%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	49.693	0.393	122.0	0.5625	0.0000	OK
15 minute summer	2	10	49.633	0.383	270.4	0.5480	0.0000	OK
15 minute summer	3	11	49.054	0.254	361.3	0.3631	0.0000	OK
15 minute summer	4	10	49.581	0.231	114.7	0.3307	0.0000	OK
15 minute summer	5	10	49.273	0.223	228.3	0.3185	0.0000	OK
15 minute summer	6	10	48.984	0.234	113.5	0.2645	0.0000	OK
15 minute summer	7	12	48.463	0.656	695.4	0.0000	0.0000	OK
15 minute summer	8	10	49.497	0.272	114.7	0.3894	0.0000	OK
15 minute summer	9	11	49.195	0.270	227.8	0.3869	0.0000	OK
15 minute summer	10	10	48.507	0.207	113.5	0.2956	0.0000	OK
15 minute summer	11	13	48.219	0.501	894.9	0.0000	0.0000	OK
15 minute summer	12	10	48.544	0.219	113.5	0.3132	0.0000	OK
15 minute summer	13	10	48.262	0.286	226.2	0.4099	0.0000	OK
30 minute summer	14	23	47.591	0.566	835.4	0.0000	0.0000	OK
15 minute summer	15	10	47.921	0.196	113.5	0.2810	0.0000	OK
120 minute winter	16	116	47.309	0.669	405.5	0.0000	0.0000	OK
15 minute summer	17	11	49.904	0.554	152.4	0.7924	0.0000	SURCHARGED
15 minute summer	18	11	49.750	0.700	292.8	1.0020	0.0000	SURCHARGED
15 minute summer	19	11	49.297	0.647	441.3	1.1433	0.0000	SURCHARGED
15 minute summer	20	12	49.083	0.533	441.8	0.9426	0.0000	OK
15 minute summer	21	12	48.823	0.623	421.2	1.1006	0.0000	SURCHARGED
15 minute summer	22	11	49.022	0.372	152.4	0.5319	0.0000	OK
15 minute summer	23	11	48.887	0.387	300.8	0.5536	0.0000	OK
15 minute summer	24	12	48.647	0.647	681.8	1.1436	0.0000	SURCHARGED
15 minute summer	25	11	49.991	0.491	58.5	0.5551	0.0000	SURCHARGED
15 minute summer	26	11	49.841	0.491	112.1	0.5554	0.0000	SURCHARGED
15 minute summer	27	11	49.342	0.317	164.9	0.4535	0.0000	OK
15 minute summer	28	11	49.004	0.279	212.2	0.3986	0.0000	OK
15 minute summer	29	10	49.432	0.207	79.3	0.2962	0.0000	OK
15 minute summer	30	10	49.269	0.319	85.4	0.4567	0.0000	OK
15 minute summer	31	11	49.187	0.251	161.2	0.3596	0.0000	OK
15 minute summer	32	11	48.891	0.341	85.4	0.4886	0.0000	OK
15 minute summer	33	10	49.280	0.155	79.3	0.2215	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	12.000	2	119.7	0.824	0.979	4.9755	
15 minute summer	2	12.001	3	267.2	2.261	0.990	7.5695	
15 minute summer	3	12.002	7	360.7	3.625	0.542	2.2249	
15 minute summer	4	13.000	5	113.7	1.421	0.493	4.6897	
15 minute summer	5	13.001	7	226.1	2.399	0.506	6.1384	
15 minute summer	6	14.000	7	111.4	1.934	0.923	2.9440	
15 minute summer	7	12.003	11	596.4	0.328	1.152	170.0606	
15 minute summer	8	15.000	9	113.2	1.327	0.828	5.4525	
15 minute summer	9	15.001	11	225.3	2.705	0.848	4.3018	
15 minute summer	10	16.000	11	111.6	1.616	0.421	3.9868	
15 minute summer	11	12.004	14	718.4	0.481	0.503	144.0448	
15 minute summer	12	17.000	13	112.8	1.428	0.579	2.8885	
15 minute summer	13	17.001	14	222.7	2.557	0.891	3.6632	
30 minute summer	14	12.005	16	703.1	0.393	0.656	160.9565	
15 minute summer	15	18.000	16	110.9	1.944	0.532	4.1457	
120 minute winter	16	12.006	47	373.6	0.475	0.721	40.1207	
15 minute summer	17	1.000	18	147.4	1.086	0.659	9.8713	
15 minute summer	18	1.001	19	295.9	1.868	1.210	6.8972	
15 minute summer	19	1.002	20	441.8	1.590	1.353	11.9961	
15 minute summer	20	1.003	21	421.2	1.670	0.944	22.6214	
15 minute summer	21	1.004	24	409.1	1.609	0.914	13.2642	
15 minute summer	22	2.000	23	148.4	1.061	0.939	8.8284	
15 minute summer	23	2.001	24	293.1	2.192	0.873	4.9207	
15 minute summer	24	1.005	40	670.1	2.539	1.013	8.4447	
15 minute summer	25	3.000	26	56.6	0.804	0.931	3.4763	
15 minute summer	26	3.001	27	110.3	1.576	1.348	3.0804	
15 minute summer	27	3.002	28	165.6	1.765	0.961	3.7763	
15 minute summer	28	3.003	37	209.5	2.527	0.814	3.6567	
15 minute summer	29	4.000	31	77.8	1.306	0.547	2.5302	
15 minute summer	30	5.000	31	83.5	0.791	1.450	4.4120	
15 minute summer	31	4.001	34	162.6	1.582	0.548	4.8639	
15 minute summer	32	6.000	34	82.0	0.706	1.494	5.1933	
15 minute summer	33	7.000	34	78.8	1.605	0.353	2.3095	

**Results for 30 year +45% CC Critical Storm Duration. Lowest mass balance: 99.40%**

Node	Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute	summer	34	11	48.842	0.305	320.9	0.4360	0.0000	OK
15 minute	summer	35	10	48.697	0.247	79.9	0.2797	0.0000	OK
15 minute	summer	36	11	48.472	0.347	132.4	0.4959	0.0000	OK
15 minute	summer	37	12	47.752	0.652	662.1	2.4229	0.0000	OK
15 minute	summer	38	12	47.722	0.623	654.1	2.3131	0.0000	OK
15 minute	summer	39	10	48.405	0.205	81.1	0.2933	0.0000	OK
15 minute	summer	40	12	47.654	0.616	1387.8	2.2881	0.0000	OK
15 minute	summer	41	10	48.367	0.242	39.1	0.3462	0.0000	OK
15 minute	summer	42	11	48.328	0.209	119.1	0.2989	0.0000	OK
15 minute	summer	43	11	48.092	0.292	81.1	0.3303	0.0000	OK
15 minute	summer	44	11	47.872	0.288	79.0	0.4127	0.0000	OK
15 minute	summer	45	12	47.492	0.834	1562.4	3.0988	0.0000	OK
15 minute	summer	46	11	47.545	0.256	86.6	0.2891	0.0000	OK
120 minute	winter	47	116	47.308	0.834	936.7	1574.0990	0.0000	SURCHARGED
15 minute	summer	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK
Link	Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute	summer	34	4.002	37	322.2	3.057	0.667	2.8962	
15 minute	summer	35	8.000	36	78.8	1.265	0.937	2.7760	
15 minute	summer	36	8.001	37	130.4	1.352	1.102	3.3668	
15 minute	summer	37	3.004	38	654.1	0.989	1.156	11.9994	
15 minute	summer	38	3.005	40	646.7	1.055	0.417	37.6708	
15 minute	summer	39	9.000	40	79.5	1.346	0.544	2.9005	
15 minute	summer	40	1.006	45	1380.3	1.852	0.352	45.1792	
15 minute	summer	41	10.000	42	38.0	0.550	1.491	2.3556	
15 minute	summer	42	10.001	45	117.6	1.928	0.562	3.1305	
15 minute	summer	43	11.000	44	79.0	1.235	1.105	2.1122	
15 minute	summer	44	11.001	45	79.4	1.030	1.284	2.0206	
15 minute	summer	45	1.007_1	47	1557.6	2.205	1.476	23.3332	
15 minute	summer	46	19.000	47	84.6	1.393	1.028	3.1862	
120 minute	winter	47	Orifice	47_OUT	0.0				0.0
120 minute	winter	47	Infiltration		171.1				

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.40%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	50.060	0.760	152.8	1.0869	0.0000	SURCHARGED
15 minute summer	2	11	49.968	0.718	337.0	1.0274	0.0000	SURCHARGED
15 minute summer	3	11	49.104	0.304	447.6	0.4347	0.0000	OK
15 minute summer	4	10	49.617	0.267	143.6	0.3815	0.0000	OK
15 minute summer	5	10	49.307	0.257	285.8	0.3679	0.0000	OK
15 minute summer	6	11	49.287	0.537	142.1	0.6071	0.0000	SURCHARGED
15 minute summer	7	12	48.525	0.718	863.1	0.0000	0.0000	SURCHARGED
15 minute summer	8	11	49.565	0.340	143.6	0.4872	0.0000	OK
15 minute summer	9	11	49.271	0.346	283.5	0.4952	0.0000	OK
15 minute summer	10	10	48.536	0.236	142.1	0.3379	0.0000	OK
15 minute summer	11	13	48.281	0.563	1137.9	0.0000	0.0000	OK
15 minute summer	12	11	48.705	0.380	142.1	0.5442	0.0000	SURCHARGED
15 minute summer	13	11	48.496	0.520	270.3	0.7447	0.0000	SURCHARGED
30 minute summer	14	23	47.661	0.636	1076.0	0.0000	0.0000	OK
15 minute summer	15	10	47.951	0.226	142.1	0.3241	0.0000	OK
120 minute winter	16	120	47.475	0.835	501.8	0.0000	0.0000	SURCHARGED
15 minute summer	17	11	50.908	1.558	190.9	2.2301	0.0000	FLOOD RISK
15 minute summer	18	11	50.700	1.650	362.1	2.3612	2.8162	FLOOD
15 minute summer	19	11	50.166	1.516	521.7	2.6782	0.0000	FLOOD RISK
15 minute summer	20	11	49.852	1.302	500.8	2.3007	0.0000	SURCHARGED
15 minute summer	21	11	49.338	1.138	502.0	2.0102	0.0000	SURCHARGED
15 minute summer	22	11	49.813	1.163	190.9	1.6645	0.0000	SURCHARGED
15 minute summer	23	11	49.579	1.079	368.1	1.5446	0.0000	SURCHARGED
15 minute summer	24	11	49.010	1.010	872.4	1.7847	0.0000	SURCHARGED
15 minute summer	25	11	50.657	1.157	73.3	1.3088	0.0000	SURCHARGED
15 minute summer	26	11	50.428	1.078	137.5	1.2189	0.0000	SURCHARGED
15 minute summer	27	11	49.604	0.579	205.7	0.8279	0.0000	SURCHARGED
15 minute summer	28	12	49.119	0.394	262.4	0.5641	0.0000	SURCHARGED
15 minute summer	29	10	49.465	0.240	99.3	0.3435	0.0000	OK
15 minute summer	30	10	49.317	0.367	106.9	0.5251	0.0000	OK
15 minute summer	31	11	49.229	0.293	202.0	0.4190	0.0000	OK
15 minute summer	32	11	48.957	0.407	106.9	0.5829	0.0000	OK
15 minute summer	33	10	49.303	0.178	99.3	0.2545	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	12.000	2	148.3	0.936	1.212	5.4254	
15 minute summer	2	12.001	3	332.5	2.345	1.232	8.7653	
15 minute summer	3	12.002	7	448.2	3.628	0.673	2.4816	
15 minute summer	4	13.000	5	142.2	1.496	0.616	5.6056	
15 minute summer	5	13.001	7	283.6	2.455	0.635	6.6926	
15 minute summer	6	14.000	7	137.0	1.945	1.134	3.3902	
15 minute summer	7	12.003	11	758.4	0.351	1.465	201.9929	
15 minute summer	8	15.000	9	140.0	1.345	1.024	6.7589	
15 minute summer	9	15.001	11	278.6	2.682	1.049	5.5394	
15 minute summer	10	16.000	11	139.8	1.699	0.528	5.0031	
15 minute summer	11	12.004	14	939.7	0.513	0.658	176.5901	
15 minute summer	12	17.000	13	134.8	1.465	0.692	4.0558	
15 minute summer	13	17.001	14	269.1	2.499	1.076	4.5577	
30 minute summer	14	12.005	16	914.5	0.426	0.853	193.6479	
15 minute summer	15	18.000	16	138.8	2.047	0.665	4.9315	
120 minute winter	16	12.006	47	423.1	0.478	0.816	58.9153	
15 minute summer	17	1.000	18	180.1	1.137	0.805	9.8713	
15 minute summer	18	1.001	19	330.9	2.088	1.353	6.8972	
15 minute summer	19	1.002	20	500.8	1.778	1.534	12.3820	
15 minute summer	20	1.003	21	502.0	1.782	1.125	23.3237	
15 minute summer	21	1.004	24	501.8	1.782	1.122	13.2642	
15 minute summer	22	2.000	23	186.0	1.174	1.177	9.8153	
15 minute summer	23	2.001	24	370.7	2.340	1.104	5.1426	
15 minute summer	24	1.005	40	873.0	3.100	1.320	8.6498	
15 minute summer	25	3.000	26	69.7	0.990	1.145	3.4763	
15 minute summer	26	3.001	27	137.2	1.948	1.676	3.2284	
15 minute summer	27	3.002	28	204.1	1.851	1.184	4.4514	
15 minute summer	28	3.003	37	250.9	2.594	0.975	4.4403	
15 minute summer	29	4.000	31	97.3	1.372	0.685	3.0128	
15 minute summer	30	5.000	31	104.7	0.841	1.818	5.1856	
15 minute summer	31	4.001	34	203.5	1.632	0.687	5.8784	
15 minute summer	32	6.000	34	102.6	0.737	1.868	6.1846	
15 minute summer	33	7.000	34	98.4	1.681	0.441	2.9096	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.40%

Node	Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute	summer	34	11	48.905	0.368	401.7	0.5270	0.0000	OK
15 minute	summer	35	10	49.008	0.558	100.1	0.6306	0.0000	SURCHARGED
15 minute	summer	36	10	48.595	0.470	165.6	0.6728	0.0000	SURCHARGED
15 minute	summer	37	12	47.863	0.763	816.8	2.8347	0.0000	OK
15 minute	summer	38	12	47.834	0.735	804.5	2.7315	0.0000	OK
15 minute	summer	39	10	48.437	0.237	101.6	0.3397	0.0000	OK
15 minute	summer	40	12	47.770	0.732	1719.8	2.7177	0.0000	OK
15 minute	summer	41	10	48.403	0.278	48.9	0.3973	0.0000	OK
15 minute	summer	42	11	48.362	0.243	149.1	0.3473	0.0000	OK
15 minute	summer	43	10	48.229	0.429	101.6	0.4855	0.0000	SURCHARGED
15 minute	summer	44	11	47.918	0.334	100.4	0.4778	0.0000	OK
15 minute	summer	45	12	47.620	0.962	1955.1	3.5751	0.0000	OK
15 minute	summer	46	11	47.712	0.423	108.5	0.4781	0.0000	SURCHARGED
120 minute	winter	47	120	47.474	1.000	1105.1	2031.2490	0.0000	SURCHARGED
15 minute	summer	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK
Link	Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute	summer	34	4.002	37	402.9	3.163	0.834	3.4918	
15 minute	summer	35	8.000	36	98.4	1.397	1.170	3.0583	
15 minute	summer	36	8.001	37	163.4	1.512	1.381	3.6110	
15 minute	summer	37	3.004	38	804.5	1.039	1.422	14.8015	
15 minute	summer	38	3.005	40	801.2	1.084	0.517	46.5649	
15 minute	summer	39	9.000	40	99.4	1.415	0.680	3.4535	
15 minute	summer	40	1.006	45	1731.1	1.928	0.441	54.1281	
15 minute	summer	41	10.000	42	47.6	0.583	1.866	2.7786	
15 minute	summer	42	10.001	45	147.0	2.022	0.703	3.7326	
15 minute	summer	43	11.000	44	100.4	1.434	1.405	2.2791	
15 minute	summer	44	11.001	45	99.4	1.115	1.607	2.3140	
15 minute	summer	45	1.007_1	47	1965.9	2.429	1.862	26.6255	
15 minute	summer	46	19.000	47	105.6	1.512	1.283	3.5096	
120 minute	winter	47	Orifice	47_OUT	0.0				0.0
120 minute	winter	47	Infiltration		171.1				

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	0.20
Return Period (years)	30	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	1.000
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	999.9		

Circular Default Sewer Type Link Type

Shape	Circular	Auto Increment (mm)	75
Barrels	1	Follow Ground	x

Available Diameters (mm)

100 | 150

Swale Link Type

Shape	Trapezoidal	Side Slope (1:X)	4.0	Velocity	Manning
Barrels	1	Auto Increment (mm)	75	ks (mm) / n	0.080
Width (mm)	1000	Follow Ground	x		

Available Diameters (mm)

75 | 150

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.200	5.00	50.950	1350	618539.063	246782.422	1.650
2	0.247	5.00	50.900	1350	618518.387	246755.127	1.650
3	0.158	5.00	50.450	1350	618569.550	246716.044	1.650
4	0.188	5.00	51.000	1350	618460.807	246750.959	1.650
5	0.188	5.00	50.700	1350	618505.949	246713.629	1.650
6	0.186	5.00	50.250	1200	618582.664	246660.387	1.500
7			50.450		618558.149	246701.821	2.643
8	0.188	5.00	50.800	1350	618436.005	246721.848	1.575
9	0.188	5.00	50.500	1350	618483.024	246678.568	1.575
10	0.186	5.00	49.950	1350	618556.699	246631.899	1.650
11			49.600		618503.640	246631.194	1.882
12	0.186	5.00	49.900	1350	618612.400	246641.621	1.575
13	0.186	5.00	49.550	1350	618595.631	246608.895	1.574
14			48.900		618574.097	246573.041	1.875
15	0.186	5.00	49.300	1350	618639.714	246595.637	1.575
16			48.500		618649.497	246524.079	1.860
17	0.250	5.00	51.000	1350	618739.932	246832.754	1.650
18	0.250	5.00	50.700	1350	618793.536	246801.003	1.650
19	0.250	5.00	50.450	1500	618830.650	246778.255	1.800
20			50.350	1500	618869.991	246758.643	1.800
21			50.000	1500	618831.526	246685.316	1.800
22	0.250	5.00	50.300	1350	618798.644	246760.992	1.650
23	0.250	5.00	50.150	1350	618794.015	246699.217	1.650
24			49.800	1500	618788.010	246667.320	1.800
25	0.096	5.00	51.000	1200	618660.509	246832.497	1.500
26	0.093	5.00	50.850	1200	618697.839	246800.194	1.500
27	0.094	5.00	50.600	1350	618734.690	246772.921	1.575
28	0.080	5.00	50.300	1350	618737.621	246732.670	1.575
29	0.130	5.00	50.800	1350	618678.422	246774.150	1.575
30	0.140	5.00	50.450	1350	618628.747	246706.291	1.500
31			50.600	1350	618654.166	246739.633	1.664
32	0.140	5.00	50.050	1350	618662.975	246679.569	1.500
33	0.130	5.00	50.550	1350	618714.951	246745.261	1.425
34			50.200	1350	618691.906	246710.960	1.663
35	0.131	5.00	49.950	1200	618652.321	246654.149	1.500
36	0.088	5.00	49.700	1350	618693.961	246666.488	1.575
37			50.000	2175	618714.519	246695.298	2.900
38			49.900	2175	618726.696	246683.669	2.801
39	0.133	5.00	49.700	1350	618724.000	246653.953	1.500
40			49.750	2175	618771.141	246641.226	2.712
41	0.064	5.00	49.550	1350	618672.800	246619.498	1.425
42	0.133	5.00	49.700	1350	618704.648	246631.718	1.581

Nodes														
	Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)						
	43	0.133	5.00	49.300	1200	618700.926	246591.525	1.500						
	44			49.100	1350	618724.898	246567.767	1.516						
	45			49.400	2175	618736.532	246591.475	2.742						
	46			0.142	5.00	48.300	1200	618701.298	246529.237	1.011				
	47			47.874		618744.454	246559.316	1.400						
	47_OUT			48.000	1800	618762.082	246544.375	3.500						
Links (Input)														
	Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)		
	12.000	1	2	34.242	0.600	49.300	49.250	0.050	684.8	450	5.74	118.1		
	12.001	2	3	64.383	0.600	49.250	48.800	0.450	143.1	450	6.37	113.2		
	12.002	3	7	18.228	0.600	48.800	48.032	0.768	23.7	450	6.45	112.6		
	13.000	4	5	58.578	0.600	49.350	49.050	0.300	195.3	450	5.67	118.7		
	13.001	5	7	53.519	0.600	49.050	48.032	1.018	52.6	450	5.99	116.0		
	14.000	6	7	48.143	0.600	48.750	48.182	0.568	84.8	300	5.47	120.4		
	12.003	7	11	89.215	0.080	47.807	47.718	0.089	1002.4	675	13.62	77.2		
	15.000	8	9	63.906	0.600	49.225	48.925	0.300	213.0	375	5.86	117.1		
	15.001	9	11	51.665	0.600	48.925	48.018	0.907	57.0	375	6.22	114.3		
	16.000	10	11	53.064	0.600	48.300	47.943	0.357	148.6	450	5.53	119.9		
	12.004	11	14	91.356	0.080	47.718	47.025	0.693	131.8	675	16.29	69.5		
	17.000	12	13	36.772	0.600	48.325	47.976	0.349	105.4	375	5.35	121.4		
	17.001	13	14	41.824	0.600	47.976	47.325	0.651	64.2	375	5.66	118.8		
	12.005	14	16	89.902	0.080	47.025	46.640	0.385	233.5	675	19.77	61.9		
	18.000	15	16	72.224	0.600	47.725	46.940	0.785	92.0	375	5.64	119.0		
	12.006	16	47	16.000	0.080	46.640	46.624	0.016	1000.0	675	21.06	59.5		
	1.000	17	18	62.302	0.600	49.350	49.050	0.300	207.7	450	5.74	118.1		
	1.001	18	19	43.531	0.600	49.050	48.800	0.250	174.1	450	6.21	114.4		
	1.002	19	20	43.958	0.600	48.650	48.550	0.100	439.6	600	6.84	109.7		
	1.003	20	21	82.803	0.600	48.550	48.200	0.350	236.6	600	7.72	103.8		
	1.004	21	24	47.090	0.600	48.200	48.000	0.200	235.5	600	8.21	100.8		
	2.000	22	23	61.948	0.600	48.650	48.500	0.150	413.0	450	6.04	115.7		
	2.001	23	24	32.457	0.600	48.500	48.150	0.350	92.7	450	6.30	113.7		
	1.005	24	40	31.072	0.600	48.000	47.713	0.287	108.3	600	8.44	99.5		
	3.000	25	26	49.366	0.600	49.500	49.350	0.150	329.1	300	5.96	116.3		
	3.001	26	27	45.846	0.600	49.350	49.100	0.250	183.4	300	6.62	111.4		
	3.002	27	28	40.358	0.600	49.025	48.725	0.300	134.5	375	7.05	108.2		
	3.003	28	37	43.936	0.600	48.725	48.000	0.725	60.6	375	7.36	106.1		
	4.000	29	31	42.187	0.600	49.225	49.011	0.214	197.1	375	5.55	119.7		
	5.000	30	31	41.926	0.600	48.950	48.936	0.014	2994.7	450	6.93	108.8		
	4.001	31	34	47.397	0.600	48.936	48.537	0.399	118.8	450	7.35	106.0		
	6.000	32	34	42.690	0.600	48.550	48.537	0.013	3283.8	450	7.06	108.0		
	7.000	33	34	41.323	0.600	49.125	48.612	0.513	80.6	375	5.34	121.4		
	4.002	34	37	27.507	0.600	48.537	47.925	0.612	44.9	450	7.51	105.0		
	8.000	35	36	43.430	0.600	48.450	48.200	0.250	173.7	300	5.61	119.2		
	8.001	36	37	35.393	0.600	48.125	48.000	0.125	283.1	375	6.16	114.8		
	3.004	37	38	16.838	0.600	47.100	47.099	0.001	16838.0	1500	8.38	99.6		
	3.005	38	40	61.455	0.600	47.099	47.038	0.061	1007.5	1275	9.23	95.0		
	9.000	39	40	48.829	0.600	48.200	47.938	0.262	186.4	375	5.61	119.2		
	1.006	40	45	60.605	0.600	47.038	46.658	0.380	159.5	1275	9.55	93.3		
	10.000	41	42	34.112	0.600	48.125	48.119	0.006	5685.3	375	7.46	105.9		
	10.001	42	45	51.343	0.600	48.119	47.558	0.561	91.5	375	7.92	102.9		
	11.000	43	44	33.751	0.600	47.800	47.659	0.141	239.4	300	5.56	119.6		
	11.001	44	45	26.409	0.600	47.584	47.558	0.026	1015.7	375	6.34	113.4		
	1.007_1	45	47	33.120	0.600	46.658	46.625	0.033	1003.6	1100	10.05	91.0		
	19.000	46	47	52.604	0.600	47.289	46.999	0.290	181.4	300	5.75	118.0		
	1.007	47	47_OUT	23.108	0.600	46.474	44.500	1.974	11.7	825	21.10	92.2		
Simulation Settings														
Rainfall Methodology				FEH-22	Analysis Speed				Normal	Starting Level (m)				
Rainfall Events				Singular	Skip Steady State				x	Check Discharge Rate(s)				x
Summer CV				1.000	Drain Down Time (mins)				10080	Check Discharge Volume				x
Winter CV				1.000	Additional Storage (m³/ha)				0.0					
Storm Durations														
15 30														

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
1	45	0	0

Node 47 Online Orifice Control

Flap Valve	x	Invert Level (m)	47.873	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Diameter (m)	0.500		

Node 47 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.39600	Safety Factor	2.0	Invert Level (m)	46.474
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	15

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	1304.2	3110.0	0.600	1979.9	3110.0	0.601	2375.4	3110.0	1.400	3328.0	3110.0

Results for 1 year 15 minute summer, 10095 minute analysis at 1 minute timestep. Mass balance: 99.91 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	49.421	0.121	18.9	0.1732	0.0000	OK
15 minute summer	2	11	49.374	0.124	41.9	0.1777	0.0000	OK
15 minute summer	3	11	48.890	0.090	55.7	0.1285	0.0000	OK
15 minute summer	4	10	49.434	0.084	17.8	0.1207	0.0000	OK
15 minute summer	5	11	49.135	0.085	35.3	0.1211	0.0000	OK
15 minute summer	6	10	48.827	0.077	17.6	0.0867	0.0000	OK
15 minute summer	7	13	48.083	0.276	107.9	0.0000	0.0000	OK
15 minute summer	8	10	49.316	0.091	17.8	0.1306	0.0000	OK
15 minute summer	9	11	49.017	0.092	35.2	0.1310	0.0000	OK
15 minute summer	10	11	48.377	0.077	17.6	0.1103	0.0000	OK
15 minute summer	11	16	47.886	0.168	103.4	0.0000	0.0000	OK
15 minute summer	12	10	48.400	0.075	17.6	0.1071	0.0000	OK
15 minute summer	13	11	48.070	0.094	35.0	0.1346	0.0000	OK
15 minute summer	14	21	47.199	0.174	75.8	0.0000	0.0000	OK
15 minute summer	15	11	47.797	0.072	17.6	0.1030	0.0000	OK
15 minute summer	16	26	46.842	0.202	60.1	0.0000	0.0000	OK
15 minute summer	17	10	49.446	0.096	23.7	0.1375	0.0000	OK
15 minute summer	18	11	49.185	0.135	46.7	0.1929	0.0000	OK
15 minute summer	19	11	48.838	0.188	68.2	0.3321	0.0000	OK
15 minute summer	20	12	48.708	0.158	68.1	0.2795	0.0000	OK
15 minute summer	21	12	48.359	0.159	68.0	0.2801	0.0000	OK
15 minute summer	22	10	48.768	0.118	23.7	0.1690	0.0000	OK
15 minute summer	23	11	48.616	0.116	46.8	0.1665	0.0000	OK
15 minute summer	24	12	48.171	0.171	107.3	0.3015	0.0000	OK
15 minute summer	25	11	49.576	0.076	9.1	0.0863	0.0000	OK
15 minute summer	26	11	49.444	0.094	17.6	0.1061	0.0000	OK
15 minute summer	27	11	49.124	0.099	25.3	0.1421	0.0000	OK
15 minute summer	28	11	48.815	0.090	32.3	0.1291	0.0000	OK
15 minute summer	29	11	49.299	0.074	12.3	0.1058	0.0000	OK
15 minute summer	30	11	49.078	0.128	13.3	0.1828	0.0000	OK
15 minute summer	31	11	49.023	0.087	24.9	0.1247	0.0000	OK
15 minute summer	32	11	48.678	0.128	13.3	0.1834	0.0000	OK
15 minute summer	33	10	49.184	0.059	12.3	0.0851	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	12.000	2	18.5	0.532	0.151	1.1911	
15 minute summer	2	12.001	3	41.4	1.439	0.153	1.8660	
15 minute summer	3	12.002	7	56.0	2.552	0.084	0.4000	
15 minute summer	4	13.000	5	17.5	0.861	0.076	1.1928	
15 minute summer	5	13.001	7	34.8	1.699	0.078	1.0950	
15 minute summer	6	14.000	7	17.2	1.224	0.142	0.6756	
15 minute summer	7	12.003	11	67.0	0.168	0.129	37.2502	
15 minute summer	8	15.000	9	17.5	0.853	0.128	1.3142	
15 minute summer	9	15.001	11	34.7	1.684	0.131	1.0646	
15 minute summer	10	16.000	11	17.1	0.957	0.065	0.9497	
15 minute summer	11	12.004	14	70.2	0.259	0.049	25.1079	
15 minute summer	12	17.000	13	17.4	0.939	0.089	0.6838	
15 minute summer	13	17.001	14	34.4	1.608	0.138	0.8953	
15 minute summer	14	12.005	16	59.1	0.198	0.055	28.6709	
15 minute summer	15	18.000	16	17.0	1.159	0.082	1.0614	
15 minute summer	16	12.006	47	49.9	0.253	0.096	3.4929	
15 minute summer	17	1.000	18	23.1	0.739	0.103	2.0082	
15 minute summer	18	1.001	19	45.6	1.177	0.187	1.6875	
15 minute summer	19	1.002	20	68.1	1.014	0.209	2.9583	
15 minute summer	20	1.003	21	68.0	1.164	0.152	4.9135	
15 minute summer	21	1.004	24	66.0	1.065	0.148	2.9502	
15 minute summer	22	2.000	23	23.3	0.716	0.147	2.0156	
15 minute summer	23	2.001	24	46.4	1.475	0.138	1.0203	
15 minute summer	24	1.005	40	105.1	1.694	0.159	1.9435	
15 minute summer	25	3.000	26	8.8	0.560	0.145	0.8115	
15 minute summer	26	3.001	27	16.8	0.912	0.205	0.8447	
15 minute summer	27	3.002	28	25.1	1.153	0.146	0.8808	
15 minute summer	28	3.003	37	31.5	1.587	0.122	0.8748	
15 minute summer	29	4.000	31	12.0	0.791	0.084	0.6379	
15 minute summer	30	5.000	31	12.9	0.447	0.224	1.2255	
15 minute summer	31	4.001	34	24.8	1.043	0.084	1.1262	
15 minute summer	32	6.000	34	12.9	0.419	0.234	1.3484	
15 minute summer	33	7.000	34	12.0	1.087	0.054	0.4551	

Results for 1 year 15 minute summer. 10095 minute analysis at 1 minute timestep. Mass balance: 99.91 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	34	11	48.637	0.100	49.6	0.1426	0.0000	OK
15 minute summer	35	11	48.527	0.077	12.4	0.0876	0.0000	OK
15 minute summer	36	11	48.232	0.107	20.1	0.1525	0.0000	OK
15 minute summer	37	12	47.338	0.238	99.9	0.8857	0.0000	OK
15 minute summer	38	12	47.316	0.217	98.9	0.8052	0.0000	OK
15 minute summer	39	11	48.274	0.074	12.6	0.1052	0.0000	OK
15 minute summer	40	12	47.234	0.196	212.9	0.7273	0.0000	OK
15 minute summer	41	11	48.221	0.096	6.1	0.1375	0.0000	OK
15 minute summer	42	11	48.193	0.074	18.2	0.1063	0.0000	OK
15 minute summer	43	10	47.885	0.085	12.6	0.0967	0.0000	OK
15 minute summer	44	11	47.694	0.110	12.3	0.1573	0.0000	OK
15 minute summer	45	13	46.972	0.313	240.1	1.1646	0.0000	OK
15 minute summer	46	11	47.369	0.080	13.4	0.0910	0.0000	OK
15 minute summer	47	18	46.515	0.041	253.1	53.8138	0.0000	OK
15 minute summer	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	34	4.002	37	48.4	1.933	0.100	0.6915	
15 minute summer	35	8.000	36	12.1	0.850	0.143	0.6167	
15 minute summer	36	8.001	37	20.0	0.809	0.169	0.8775	
15 minute summer	37	3.004	38	98.9	0.623	0.175	2.8278	
15 minute summer	38	3.005	40	96.6	0.730	0.062	8.1821	
15 minute summer	39	9.000	40	12.2	0.813	0.084	0.7336	
15 minute summer	40	1.006	45	216.0	1.200	0.055	11.0792	
15 minute summer	41	10.000	42	5.9	0.312	0.230	0.6426	
15 minute summer	42	10.001	45	17.7	1.164	0.085	0.7816	
15 minute summer	43	11.000	44	12.3	0.759	0.172	0.5468	
15 minute summer	44	11.001	45	12.1	0.564	0.195	0.5714	
15 minute summer	45	1.007_1	47	236.2	1.209	0.224	6.5533	
15 minute summer	46	19.000	47	13.0	0.862	0.158	0.7941	
15 minute summer	47	Orifice	47_OUT	0.0				0.0
15 minute summer	47	Infiltration		138.7				

Results for 1 year 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.92 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	49.417	0.117	17.8	0.1672	0.0000	OK
15 minute winter	2	11	49.370	0.120	39.1	0.1715	0.0000	OK
15 minute winter	3	11	48.887	0.087	51.8	0.1239	0.0000	OK
15 minute winter	4	10	49.431	0.081	16.7	0.1166	0.0000	OK
15 minute winter	5	11	49.132	0.082	32.9	0.1169	0.0000	OK
15 minute winter	6	10	48.824	0.074	16.5	0.0837	0.0000	OK
15 minute winter	7	14	48.079	0.272	100.5	0.0000	0.0000	OK
15 minute winter	8	10	49.313	0.088	16.7	0.1258	0.0000	OK
15 minute winter	9	11	49.013	0.088	32.8	0.1263	0.0000	OK
15 minute winter	10	11	48.374	0.074	16.5	0.1065	0.0000	OK
15 minute winter	11	16	47.886	0.168	98.7	0.0000	0.0000	OK
15 minute winter	12	10	48.397	0.072	16.5	0.1037	0.0000	OK
15 minute winter	13	11	48.067	0.091	32.7	0.1299	0.0000	OK
15 minute winter	14	21	47.199	0.174	75.8	0.0000	0.0000	OK
15 minute winter	15	11	47.795	0.070	16.5	0.0996	0.0000	OK
15 minute winter	16	26	46.842	0.202	59.9	0.0000	0.0000	OK
15 minute winter	17	10	49.443	0.093	22.2	0.1328	0.0000	OK
15 minute winter	18	11	49.180	0.130	43.7	0.1857	0.0000	OK
15 minute winter	19	11	48.831	0.181	63.4	0.3198	0.0000	OK
15 minute winter	20	11	48.702	0.152	63.5	0.2692	0.0000	OK
15 minute winter	21	12	48.353	0.153	63.2	0.2700	0.0000	OK
15 minute winter	22	10	48.764	0.114	22.2	0.1627	0.0000	OK
15 minute winter	23	11	48.612	0.112	43.6	0.1603	0.0000	OK
15 minute winter	24	12	48.165	0.165	100.3	0.2910	0.0000	OK
15 minute winter	25	11	49.573	0.073	8.5	0.0830	0.0000	OK
15 minute winter	26	11	49.440	0.090	16.4	0.1022	0.0000	OK
15 minute winter	27	11	49.121	0.096	23.6	0.1372	0.0000	OK
15 minute winter	28	11	48.812	0.087	30.2	0.1248	0.0000	OK
15 minute winter	29	11	49.296	0.071	11.5	0.1022	0.0000	OK
15 minute winter	30	11	49.074	0.124	12.4	0.1773	0.0000	OK
15 minute winter	31	11	49.020	0.084	23.2	0.1203	0.0000	OK
15 minute winter	32	11	48.674	0.124	12.4	0.1777	0.0000	OK
15 minute winter	33	10	49.182	0.057	11.5	0.0822	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	12.000	2	17.2	0.522	0.141	1.1315	
15 minute winter	2	12.001	3	38.6	1.412	0.143	1.7739	
15 minute winter	3	12.002	7	52.1	2.499	0.078	0.3801	
15 minute winter	4	13.000	5	16.3	0.842	0.070	1.1324	
15 minute winter	5	13.001	7	32.4	1.664	0.072	1.0408	
15 minute winter	6	14.000	7	16.0	1.200	0.132	0.6428	
15 minute winter	7	12.003	11	64.8	0.165	0.125	36.4754	
15 minute winter	8	15.000	9	16.2	0.834	0.119	1.2470	
15 minute winter	9	15.001	11	32.3	1.650	0.122	1.0114	
15 minute winter	10	16.000	11	16.0	0.938	0.060	0.9040	
15 minute winter	11	12.004	14	70.4	0.259	0.049	25.1024	
15 minute winter	12	17.000	13	16.3	0.923	0.084	0.6508	
15 minute winter	13	17.001	14	32.1	1.577	0.128	0.8517	
15 minute winter	14	12.005	16	59.0	0.198	0.055	28.6693	
15 minute winter	15	18.000	16	15.9	1.135	0.076	1.0109	
15 minute winter	16	12.006	47	49.9	0.253	0.096	3.4936	
15 minute winter	17	1.000	18	21.5	0.721	0.096	1.9049	
15 minute winter	18	1.001	19	42.5	1.156	0.174	1.6021	
15 minute winter	19	1.002	20	63.5	0.996	0.194	2.8077	
15 minute winter	20	1.003	21	63.2	1.136	0.142	4.6618	
15 minute winter	21	1.004	24	61.5	1.043	0.137	2.8055	
15 minute winter	22	2.000	23	21.7	0.703	0.137	1.9113	
15 minute winter	23	2.001	24	43.1	1.446	0.128	0.9678	
15 minute winter	24	1.005	40	98.6	1.664	0.149	1.8546	
15 minute winter	25	3.000	26	8.2	0.540	0.134	0.7696	
15 minute winter	26	3.001	27	15.7	0.895	0.191	0.8035	
15 minute winter	27	3.002	28	23.5	1.132	0.136	0.8392	
15 minute winter	28	3.003	37	29.5	1.557	0.115	0.8355	
15 minute winter	29	4.000	31	11.2	0.775	0.079	0.6075	
15 minute winter	30	5.000	31	12.0	0.435	0.209	1.1708	
15 minute winter	31	4.001	34	23.1	1.024	0.078	1.0691	
15 minute winter	32	6.000	34	12.0	0.406	0.218	1.2854	
15 minute winter	33	7.000	34	11.2	1.065	0.050	0.4330	

Results for 1 year 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.92 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	34	11	48.633	0.096	46.2	0.1374	0.0000	OK
15 minute winter	35	11	48.525	0.075	11.6	0.0846	0.0000	OK
15 minute winter	36	11	48.228	0.103	18.8	0.1473	0.0000	OK
15 minute winter	37	12	47.331	0.231	93.4	0.8578	0.0000	OK
15 minute winter	38	12	47.309	0.210	92.4	0.7796	0.0000	OK
15 minute winter	39	11	48.271	0.071	11.8	0.1015	0.0000	OK
15 minute winter	40	13	47.227	0.189	199.6	0.7010	0.0000	OK
15 minute winter	41	11	48.218	0.093	5.7	0.1333	0.0000	OK
15 minute winter	42	11	48.191	0.072	17.0	0.1027	0.0000	OK
15 minute winter	43	10	47.882	0.082	11.8	0.0931	0.0000	OK
15 minute winter	44	11	47.690	0.106	11.4	0.1521	0.0000	OK
15 minute winter	45	13	46.961	0.303	223.6	1.1268	0.0000	OK
15 minute winter	46	11	47.367	0.078	12.6	0.0879	0.0000	OK
15 minute winter	47	18	46.514	0.040	238.1	53.3624	0.0000	OK
15 minute winter	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	34	4.002	37	45.1	1.895	0.093	0.6568	
15 minute winter	35	8.000	36	11.3	0.834	0.134	0.5870	
15 minute winter	36	8.001	37	18.8	0.794	0.158	0.8358	
15 minute winter	37	3.004	38	92.4	0.601	0.163	2.6973	
15 minute winter	38	3.005	40	90.5	0.720	0.058	7.7824	
15 minute winter	39	9.000	40	11.4	0.796	0.078	0.6973	
15 minute winter	40	1.006	45	200.4	1.179	0.051	10.5572	
15 minute winter	41	10.000	42	5.5	0.305	0.214	0.6136	
15 minute winter	42	10.001	45	16.5	1.141	0.079	0.7442	
15 minute winter	43	11.000	44	11.4	0.744	0.160	0.5191	
15 minute winter	44	11.001	45	11.2	0.551	0.182	0.5439	
15 minute winter	45	1.007_1	47	221.5	1.184	0.210	6.2602	
15 minute winter	46	19.000	47	12.2	0.846	0.148	0.7568	
15 minute winter	47	Orifice	47_OUT	0.0				0.0
15 minute winter	47	Infiltration		137.6				



Results for 1 year 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 99.96 %

Node	Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute	summer	1	18	49.414	0.114	16.7	0.1635	0.0000	OK
30 minute	summer	2	18	49.368	0.118	37.2	0.1682	0.0000	OK
30 minute	summer	3	18	48.885	0.085	50.1	0.1211	0.0000	OK
30 minute	summer	4	18	49.430	0.080	15.7	0.1139	0.0000	OK
30 minute	summer	5	18	49.130	0.080	31.4	0.1144	0.0000	OK
30 minute	summer	6	18	48.823	0.073	15.5	0.0821	0.0000	OK
30 minute	summer	7	21	48.084	0.277	95.8	0.0000	0.0000	OK
30 minute	summer	8	18	49.311	0.086	15.7	0.1231	0.0000	OK
30 minute	summer	9	18	49.011	0.086	31.4	0.1234	0.0000	OK
30 minute	summer	10	18	48.373	0.073	15.5	0.1045	0.0000	OK
30 minute	summer	11	23	47.895	0.177	105.1	0.0000	0.0000	OK
30 minute	summer	12	18	48.396	0.071	15.5	0.1011	0.0000	OK
30 minute	summer	13	18	48.065	0.089	31.0	0.1276	0.0000	OK
30 minute	summer	14	28	47.216	0.191	89.9	0.0000	0.0000	OK
30 minute	summer	15	18	47.793	0.068	15.5	0.0975	0.0000	OK
30 minute	summer	16	33	46.864	0.224	73.6	0.0000	0.0000	OK
30 minute	summer	17	18	49.441	0.091	20.8	0.1302	0.0000	OK
30 minute	summer	18	18	49.176	0.126	41.5	0.1806	0.0000	OK
30 minute	summer	19	18	48.826	0.176	60.7	0.3112	0.0000	OK
30 minute	summer	20	19	48.700	0.150	60.4	0.2650	0.0000	OK
30 minute	summer	21	20	48.351	0.151	60.2	0.2662	0.0000	OK
30 minute	summer	22	18	48.761	0.111	20.8	0.1589	0.0000	OK
30 minute	summer	23	18	48.609	0.109	41.6	0.1563	0.0000	OK
30 minute	summer	24	20	48.162	0.162	95.9	0.2865	0.0000	OK
30 minute	summer	25	18	49.572	0.072	8.0	0.0817	0.0000	OK
30 minute	summer	26	19	49.438	0.088	15.7	0.1000	0.0000	OK
30 minute	summer	27	19	49.118	0.093	22.4	0.1334	0.0000	OK
30 minute	summer	28	19	48.811	0.086	28.8	0.1227	0.0000	OK
30 minute	summer	29	18	49.295	0.070	10.8	0.1002	0.0000	OK
30 minute	summer	30	18	49.072	0.122	11.7	0.1750	0.0000	OK
30 minute	summer	31	19	49.018	0.082	22.2	0.1173	0.0000	OK
30 minute	summer	32	18	48.672	0.122	11.7	0.1749	0.0000	OK
30 minute	summer	33	18	49.181	0.056	10.8	0.0806	0.0000	OK

Link	Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute	summer	1	12.000	2	16.7	0.517	0.136	1.1045	
30 minute	summer	2	12.001	3	36.9	1.389	0.137	1.7225	
30 minute	summer	3	12.002	7	49.6	2.462	0.075	0.3675	
30 minute	summer	4	13.000	5	15.7	0.832	0.068	1.1075	
30 minute	summer	5	13.001	7	30.8	1.637	0.069	1.0061	
30 minute	summer	6	14.000	7	15.4	1.185	0.128	0.6267	
30 minute	summer	7	12.003	11	68.6	0.165	0.133	38.5310	
30 minute	summer	8	15.000	9	15.7	0.825	0.115	1.2174	
30 minute	summer	9	15.001	11	30.7	1.626	0.115	0.9765	
30 minute	summer	10	16.000	11	15.3	0.924	0.058	0.8772	
30 minute	summer	11	12.004	14	80.9	0.269	0.057	28.0191	
30 minute	summer	12	17.000	13	15.5	0.907	0.080	0.6323	
30 minute	summer	13	17.001	14	30.8	1.555	0.123	0.8288	
30 minute	summer	14	12.005	16	71.0	0.207	0.066	33.5153	
30 minute	summer	15	18.000	16	15.1	1.117	0.073	0.9785	
30 minute	summer	16	12.006	47	64.8	0.279	0.125	4.1056	
30 minute	summer	17	1.000	18	20.7	0.710	0.093	1.8447	
30 minute	summer	18	1.001	19	40.4	1.143	0.165	1.5391	
30 minute	summer	19	1.002	20	60.4	0.984	0.185	2.7150	
30 minute	summer	20	1.003	21	60.2	1.116	0.135	4.4922	
30 minute	summer	21	1.004	24	59.4	1.033	0.133	2.7473	
30 minute	summer	22	2.000	23	20.8	0.694	0.132	1.8587	
30 minute	summer	23	2.001	24	40.8	1.425	0.121	0.9319	
30 minute	summer	24	1.005	40	96.7	1.650	0.146	1.8215	
30 minute	summer	25	3.000	26	7.9	0.532	0.130	0.7436	
30 minute	summer	26	3.001	27	15.1	0.888	0.185	0.7816	
30 minute	summer	27	3.002	28	22.5	1.117	0.130	0.8124	
30 minute	summer	28	3.003	37	28.7	1.545	0.112	0.8170	
30 minute	summer	29	4.000	31	10.6	0.762	0.075	0.5891	
30 minute	summer	30	5.000	31	11.6	0.430	0.201	1.1382	
30 minute	summer	31	4.001	34	22.1	1.012	0.075	1.0373	
30 minute	summer	32	6.000	34	11.5	0.398	0.209	1.2407	
30 minute	summer	33	7.000	34	10.7	1.052	0.048	0.4224	

Results for 1 year 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 99.96 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	34	19	48.631	0.094	43.7	0.1350	0.0000	OK
30 minute summer	35	18	48.523	0.073	10.9	0.0829	0.0000	OK
30 minute summer	36	18	48.225	0.100	18.0	0.1431	0.0000	OK
30 minute summer	37	19	47.326	0.226	90.3	0.8396	0.0000	OK
30 minute summer	38	20	47.305	0.206	89.5	0.7642	0.0000	OK
30 minute summer	39	18	48.270	0.070	11.1	0.0996	0.0000	OK
30 minute summer	40	20	47.223	0.185	194.5	0.6888	0.0000	OK
30 minute summer	41	18	48.216	0.091	5.3	0.1301	0.0000	OK
30 minute summer	42	18	48.189	0.070	16.2	0.1000	0.0000	OK
30 minute summer	43	18	47.881	0.081	11.1	0.0916	0.0000	OK
30 minute summer	44	19	47.688	0.104	11.0	0.1492	0.0000	OK
30 minute summer	45	21	46.955	0.297	217.6	1.1035	0.0000	OK
30 minute summer	46	18	47.365	0.076	11.8	0.0860	0.0000	OK
30 minute summer	47	26	46.519	0.045	238.8	59.3004	0.0000	OK
30 minute summer	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	34	4.002	37	43.9	1.878	0.091	0.6426	
30 minute summer	35	8.000	36	10.8	0.821	0.128	0.5693	
30 minute summer	36	8.001	37	17.7	0.786	0.150	0.7993	
30 minute summer	37	3.004	38	89.5	0.587	0.158	2.6112	
30 minute summer	38	3.005	40	88.3	0.718	0.057	7.5788	
30 minute summer	39	9.000	40	10.9	0.784	0.074	0.6769	
30 minute summer	40	1.006	45	192.9	1.165	0.049	10.2135	
30 minute summer	41	10.000	42	5.1	0.298	0.202	0.5920	
30 minute summer	42	10.001	45	15.7	1.126	0.075	0.7173	
30 minute summer	43	11.000	44	11.0	0.734	0.154	0.5068	
30 minute summer	44	11.001	45	10.9	0.546	0.176	0.5303	
30 minute summer	45	1.007_1	47	215.7	1.171	0.204	6.1100	
30 minute summer	46	19.000	47	11.6	0.832	0.140	0.7314	
30 minute summer	47	Orifice	47_OUT	0.0				0.0
30 minute summer	47	Infiltration		152.6				

**Results for 1 year 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 99.97 %**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	18	49.402	0.102	13.5	0.1461	0.0000	OK
30 minute winter	2	18	49.356	0.106	30.1	0.1510	0.0000	OK
30 minute winter	3	18	48.876	0.076	40.4	0.1088	0.0000	OK
30 minute winter	4	18	49.422	0.072	12.7	0.1024	0.0000	OK
30 minute winter	5	18	49.122	0.072	25.4	0.1032	0.0000	OK
30 minute winter	6	18	48.815	0.065	12.5	0.0736	0.0000	OK
30 minute winter	7	21	48.069	0.262	77.7	0.0000	0.0000	OK
30 minute winter	8	18	49.302	0.077	12.7	0.1104	0.0000	OK
30 minute winter	9	18	49.003	0.078	25.4	0.1112	0.0000	OK
30 minute winter	10	18	48.366	0.066	12.5	0.0942	0.0000	OK
30 minute winter	11	24	47.889	0.171	92.1	0.0000	0.0000	OK
30 minute winter	12	18	48.389	0.064	12.5	0.0911	0.0000	OK
30 minute winter	13	18	48.056	0.080	25.0	0.1145	0.0000	OK
30 minute winter	14	28	47.214	0.189	87.9	0.0000	0.0000	OK
30 minute winter	15	18	47.787	0.062	12.5	0.0880	0.0000	OK
30 minute winter	16	33	46.864	0.224	72.6	0.0000	0.0000	OK
30 minute winter	17	18	49.432	0.082	16.8	0.1174	0.0000	OK
30 minute winter	18	18	49.163	0.113	33.5	0.1622	0.0000	OK
30 minute winter	19	18	48.809	0.159	49.5	0.2809	0.0000	OK
30 minute winter	20	19	48.685	0.135	49.3	0.2381	0.0000	OK
30 minute winter	21	20	48.336	0.136	49.2	0.2395	0.0000	OK
30 minute winter	22	18	48.749	0.099	16.8	0.1423	0.0000	OK
30 minute winter	23	18	48.598	0.098	33.6	0.1400	0.0000	OK
30 minute winter	24	20	48.147	0.147	80.0	0.2595	0.0000	OK
30 minute winter	25	18	49.565	0.065	6.5	0.0738	0.0000	OK
30 minute winter	26	19	49.430	0.080	12.7	0.0902	0.0000	OK
30 minute winter	27	19	49.110	0.085	18.5	0.1210	0.0000	OK
30 minute winter	28	19	48.803	0.078	23.6	0.1111	0.0000	OK
30 minute winter	29	18	49.288	0.063	8.8	0.0906	0.0000	OK
30 minute winter	30	18	49.062	0.112	9.4	0.1596	0.0000	OK
30 minute winter	31	19	49.010	0.074	18.0	0.1059	0.0000	OK
30 minute winter	32	18	48.661	0.111	9.4	0.1589	0.0000	OK
30 minute winter	33	18	49.176	0.051	8.8	0.0730	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	1	12.000	2	13.5	0.489	0.110	0.9448	
30 minute winter	2	12.001	3	29.8	1.310	0.110	1.4775	
30 minute winter	3	12.002	7	40.1	2.318	0.060	0.3157	
30 minute winter	4	13.000	5	12.7	0.782	0.055	0.9522	
30 minute winter	5	13.001	7	25.0	1.544	0.056	0.8688	
30 minute winter	6	14.000	7	12.5	1.116	0.103	0.5378	
30 minute winter	7	12.003	11	61.6	0.157	0.119	36.1671	
30 minute winter	8	15.000	9	12.7	0.776	0.093	1.0462	
30 minute winter	9	15.001	11	25.0	1.533	0.094	0.8432	
30 minute winter	10	16.000	11	12.4	0.869	0.047	0.7558	
30 minute winter	11	12.004	14	76.4	0.263	0.053	27.4879	
30 minute winter	12	17.000	13	12.5	0.851	0.064	0.5426	
30 minute winter	13	17.001	14	24.9	1.464	0.100	0.7112	
30 minute winter	14	12.005	16	69.7	0.204	0.065	33.3726	
30 minute winter	15	18.000	16	12.3	1.052	0.059	0.8449	
30 minute winter	16	12.006	47	64.4	0.278	0.124	4.0914	
30 minute winter	17	1.000	18	16.7	0.664	0.075	1.5880	
30 minute winter	18	1.001	19	33.0	1.079	0.135	1.3302	
30 minute winter	19	1.002	20	49.3	0.929	0.151	2.3460	
30 minute winter	20	1.003	21	49.2	1.050	0.110	3.8957	
30 minute winter	21	1.004	24	48.7	0.974	0.109	2.3769	
30 minute winter	22	2.000	23	16.8	0.654	0.106	1.5892	
30 minute winter	23	2.001	24	33.1	1.346	0.099	0.8007	
30 minute winter	24	1.005	40	80.2	1.570	0.121	1.5890	
30 minute winter	25	3.000	26	6.5	0.497	0.106	0.6448	
30 minute winter	26	3.001	27	12.4	0.840	0.152	0.6776	
30 minute winter	27	3.002	28	18.5	1.059	0.107	0.7061	
30 minute winter	28	3.003	37	23.6	1.462	0.092	0.7106	
30 minute winter	29	4.000	31	8.7	0.719	0.061	0.5100	
30 minute winter	30	5.000	31	9.3	0.398	0.162	0.9928	
30 minute winter	31	4.001	34	17.9	0.954	0.060	0.8933	
30 minute winter	32	6.000	34	9.3	0.368	0.169	1.0838	
30 minute winter	33	7.000	34	8.8	0.991	0.039	0.3657	

Results for 1 year 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 99.97 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	34	19	48.622	0.085	35.7	0.1215	0.0000	OK
30 minute winter	35	18	48.516	0.066	8.8	0.0744	0.0000	OK
30 minute winter	36	18	48.215	0.090	14.6	0.1286	0.0000	OK
30 minute winter	37	20	47.307	0.207	73.8	0.7686	0.0000	OK
30 minute winter	38	20	47.286	0.187	73.3	0.6964	0.0000	OK
30 minute winter	39	18	48.263	0.063	9.0	0.0900	0.0000	OK
30 minute winter	40	20	47.207	0.169	161.3	0.6294	0.0000	OK
30 minute winter	41	18	48.208	0.083	4.3	0.1191	0.0000	OK
30 minute winter	42	19	48.182	0.063	13.2	0.0908	0.0000	OK
30 minute winter	43	18	47.873	0.073	9.0	0.0822	0.0000	OK
30 minute winter	44	19	47.679	0.095	8.9	0.1361	0.0000	OK
30 minute winter	45	21	46.930	0.272	180.5	1.0123	0.0000	OK
30 minute winter	46	18	47.358	0.069	9.6	0.0776	0.0000	OK
30 minute winter	47	27	46.517	0.043	202.4	57.2604	0.0000	OK
30 minute winter	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	34	4.002	37	35.7	1.772	0.074	0.5544	
30 minute winter	35	8.000	36	8.7	0.774	0.104	0.4891	
30 minute winter	36	8.001	37	14.5	0.742	0.122	0.6898	
30 minute winter	37	3.004	38	73.3	0.544	0.130	2.2946	
30 minute winter	38	3.005	40	72.8	0.675	0.047	6.6282	
30 minute winter	39	9.000	40	8.9	0.739	0.061	0.5854	
30 minute winter	40	1.006	45	159.6	1.094	0.041	9.0397	
30 minute winter	41	10.000	42	4.2	0.278	0.165	0.5190	
30 minute winter	42	10.001	45	13.0	1.064	0.062	0.6251	
30 minute winter	43	11.000	44	8.9	0.693	0.125	0.4359	
30 minute winter	44	11.001	45	8.9	0.509	0.143	0.4636	
30 minute winter	45	1.007_1	47	179.8	1.109	0.170	5.3798	
30 minute winter	46	19.000	47	9.4	0.786	0.115	0.6329	
30 minute winter	47	Orifice	47_OUT	0.0				0.0
30 minute winter	47	Infiltration		147.5				

Results for 1 year +45% CC 15 minute summer. 10095 minute analysis at 1 minute timestep. Mass balance: 99.98%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	49.449	0.149	27.5	0.2125	0.0000	OK
15 minute summer	2	11	49.401	0.151	60.7	0.2155	0.0000	OK
15 minute summer	3	11	48.909	0.109	80.8	0.1558	0.0000	OK
15 minute summer	4	10	49.452	0.102	25.8	0.1455	0.0000	OK
15 minute summer	5	11	49.152	0.102	51.2	0.1459	0.0000	OK
15 minute summer	6	10	48.843	0.093	25.5	0.1053	0.0000	OK
15 minute summer	7	13	48.142	0.335	156.7	0.0000	0.0000	OK
15 minute summer	8	10	49.336	0.111	25.8	0.1583	0.0000	OK
15 minute summer	9	11	49.036	0.111	51.1	0.1588	0.0000	OK
15 minute summer	10	11	48.393	0.093	25.5	0.1326	0.0000	OK
15 minute summer	11	16	47.932	0.214	163.7	0.0000	0.0000	OK
15 minute summer	12	10	48.415	0.090	25.5	0.1294	0.0000	OK
15 minute summer	13	10	48.090	0.114	50.7	0.1638	0.0000	OK
15 minute summer	14	19	47.250	0.225	125.1	0.0000	0.0000	OK
15 minute summer	15	11	47.812	0.087	25.5	0.1243	0.0000	OK
15 minute summer	16	23	46.890	0.250	100.5	0.0000	0.0000	OK
15 minute summer	17	10	49.466	0.116	34.3	0.1658	0.0000	OK
15 minute summer	18	11	49.215	0.165	67.8	0.2366	0.0000	OK
15 minute summer	19	11	48.879	0.229	99.3	0.4054	0.0000	OK
15 minute summer	20	11	48.744	0.194	99.5	0.3427	0.0000	OK
15 minute summer	21	12	48.397	0.197	98.8	0.3489	0.0000	OK
15 minute summer	22	10	48.793	0.143	34.3	0.2053	0.0000	OK
15 minute summer	23	11	48.642	0.142	67.9	0.2033	0.0000	OK
15 minute summer	24	12	48.213	0.213	158.8	0.3765	0.0000	OK
15 minute summer	25	10	49.592	0.092	13.2	0.1045	0.0000	OK
15 minute summer	26	11	49.466	0.116	25.6	0.1307	0.0000	OK
15 minute summer	27	11	49.147	0.122	37.0	0.1739	0.0000	OK
15 minute summer	28	11	48.836	0.111	47.5	0.1585	0.0000	OK
15 minute summer	29	11	49.314	0.089	17.8	0.1279	0.0000	OK
15 minute summer	30	11	49.100	0.150	19.2	0.2151	0.0000	OK
15 minute summer	31	11	49.042	0.106	36.1	0.1512	0.0000	OK
15 minute summer	32	11	48.702	0.152	19.2	0.2178	0.0000	OK
15 minute summer	33	10	49.197	0.072	17.8	0.1026	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	12.000	2	26.9	0.585	0.220	1.5744	
15 minute summer	2	12.001	3	60.1	1.592	0.223	2.4450	
15 minute summer	3	12.002	7	81.3	2.830	0.122	0.5237	
15 minute summer	4	13.000	5	25.4	0.954	0.110	1.5616	
15 minute summer	5	13.001	7	50.5	1.894	0.113	1.4270	
15 minute summer	6	14.000	7	24.9	1.360	0.206	0.8856	
15 minute summer	7	12.003	11	105.7	0.195	0.204	50.8802	
15 minute summer	8	15.000	9	25.4	0.942	0.186	1.7205	
15 minute summer	9	15.001	11	50.5	1.872	0.190	1.3929	
15 minute summer	10	16.000	11	24.9	1.069	0.094	1.2375	
15 minute summer	11	12.004	14	114.2	0.297	0.080	35.9121	
15 minute summer	12	17.000	13	25.3	1.038	0.130	0.8978	
15 minute summer	13	17.001	14	49.9	1.785	0.200	1.1704	
15 minute summer	14	12.005	16	98.3	0.229	0.092	40.4189	
15 minute summer	15	18.000	16	24.8	1.293	0.119	1.3863	
15 minute summer	16	12.006	47	84.8	0.309	0.164	4.8570	
15 minute summer	17	1.000	18	33.5	0.810	0.150	2.6403	
15 minute summer	18	1.001	19	66.6	1.303	0.272	2.2251	
15 minute summer	19	1.002	20	99.5	1.121	0.305	3.9074	
15 minute summer	20	1.003	21	98.8	1.268	0.221	6.5581	
15 minute summer	21	1.004	24	96.6	1.168	0.216	4.0094	
15 minute summer	22	2.000	23	33.7	0.787	0.213	2.6523	
15 minute summer	23	2.001	24	67.3	1.631	0.200	1.3398	
15 minute summer	24	1.005	40	157.7	1.872	0.238	2.6240	
15 minute summer	25	3.000	26	12.8	0.616	0.211	1.0704	
15 minute summer	26	3.001	27	24.7	1.012	0.302	1.1212	
15 minute summer	27	3.002	28	37.0	1.275	0.215	1.1716	
15 minute summer	28	3.003	37	46.7	1.764	0.181	1.1637	
15 minute summer	29	4.000	31	17.4	0.880	0.122	0.8340	
15 minute summer	30	5.000	31	18.7	0.506	0.324	1.5648	
15 minute summer	31	4.001	34	36.2	1.149	0.122	1.4942	
15 minute summer	32	6.000	34	18.5	0.466	0.338	1.7483	
15 minute summer	33	7.000	34	17.4	1.209	0.078	0.5956	

Results for 1 year +45% CC 15 minute summer. 10095 minute analysis at 1 minute timestep. Mass balance: 99.98%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	34	11	48.659	0.122	72.1	0.1749	0.0000	OK
15 minute summer	35	10	48.544	0.094	18.0	0.1067	0.0000	OK
15 minute summer	36	11	48.256	0.131	29.4	0.1868	0.0000	OK
15 minute summer	37	12	47.387	0.287	147.3	1.0678	0.0000	OK
15 minute summer	38	12	47.363	0.264	144.3	0.9797	0.0000	OK
15 minute summer	39	11	48.289	0.089	18.3	0.1273	0.0000	OK
15 minute summer	40	12	47.283	0.245	318.0	0.9088	0.0000	OK
15 minute summer	41	11	48.239	0.114	8.8	0.1628	0.0000	OK
15 minute summer	42	11	48.209	0.090	26.5	0.1292	0.0000	OK
15 minute summer	43	10	47.905	0.105	18.3	0.1184	0.0000	OK
15 minute summer	44	11	47.716	0.132	17.9	0.1885	0.0000	OK
15 minute summer	45	13	47.039	0.381	353.7	1.4156	0.0000	OK
15 minute summer	46	11	47.387	0.098	19.5	0.1108	0.0000	OK
15 minute summer	47	19	46.540	0.066	386.3	89.2096	0.0000	OK
15 minute summer	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	34	4.002	37	71.2	2.138	0.147	0.9170	
15 minute summer	35	8.000	36	17.6	0.944	0.209	0.8095	
15 minute summer	36	8.001	37	29.4	0.899	0.248	1.1577	
15 minute summer	37	3.004	38	144.3	0.689	0.255	3.7282	
15 minute summer	38	3.005	40	144.0	0.801	0.093	11.0621	
15 minute summer	39	9.000	40	17.8	0.905	0.122	0.9604	
15 minute summer	40	1.006	45	318.1	1.327	0.081	14.7191	
15 minute summer	41	10.000	42	8.5	0.352	0.334	0.8283	
15 minute summer	42	10.001	45	26.0	1.298	0.124	1.0288	
15 minute summer	43	11.000	44	17.9	0.840	0.250	0.7179	
15 minute summer	44	11.001	45	17.8	0.635	0.288	0.7435	
15 minute summer	45	1.007_1	47	356.6	1.358	0.338	8.7054	
15 minute summer	46	19.000	47	19.0	0.959	0.231	1.0429	
15 minute summer	47	Orifice	47_OUT	0.0				0.0
15 minute summer	47	Infiltration		171.1				

Results for 1 year +45% CC 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	49.443	0.143	25.8	0.2046	0.0000	OK
15 minute winter	2	11	49.395	0.145	56.8	0.2076	0.0000	OK
15 minute winter	3	11	48.905	0.105	75.2	0.1501	0.0000	OK
15 minute winter	4	10	49.448	0.098	24.2	0.1406	0.0000	OK
15 minute winter	5	11	49.148	0.098	47.8	0.1408	0.0000	OK
15 minute winter	6	10	48.840	0.090	24.0	0.1017	0.0000	OK
15 minute winter	7	13	48.135	0.328	146.1	0.0000	0.0000	OK
15 minute winter	8	10	49.332	0.107	24.2	0.1527	0.0000	OK
15 minute winter	9	11	49.032	0.107	47.8	0.1530	0.0000	OK
15 minute winter	10	10	48.390	0.090	24.0	0.1281	0.0000	OK
15 minute winter	11	16	47.931	0.213	154.9	0.0000	0.0000	OK
15 minute winter	12	10	48.413	0.088	24.0	0.1252	0.0000	OK
15 minute winter	13	10	48.086	0.110	47.7	0.1580	0.0000	OK
15 minute winter	14	19	47.249	0.224	125.5	0.0000	0.0000	OK
15 minute winter	15	11	47.809	0.084	24.0	0.1200	0.0000	OK
15 minute winter	16	23	46.890	0.250	100.2	0.0000	0.0000	OK
15 minute winter	17	10	49.462	0.112	32.2	0.1602	0.0000	OK
15 minute winter	18	11	49.209	0.159	63.5	0.2277	0.0000	OK
15 minute winter	19	11	48.871	0.221	92.4	0.3900	0.0000	OK
15 minute winter	20	11	48.737	0.187	92.8	0.3298	0.0000	OK
15 minute winter	21	12	48.390	0.190	92.0	0.3354	0.0000	OK
15 minute winter	22	10	48.788	0.138	32.2	0.1977	0.0000	OK
15 minute winter	23	11	48.637	0.137	63.4	0.1956	0.0000	OK
15 minute winter	24	12	48.205	0.205	148.1	0.3624	0.0000	OK
15 minute winter	25	10	49.589	0.089	12.4	0.1006	0.0000	OK
15 minute winter	26	11	49.461	0.111	23.9	0.1257	0.0000	OK
15 minute winter	27	11	49.142	0.117	34.4	0.1674	0.0000	OK
15 minute winter	28	11	48.832	0.107	44.2	0.1528	0.0000	OK
15 minute winter	29	11	49.311	0.086	16.7	0.1234	0.0000	OK
15 minute winter	30	10	49.096	0.146	18.0	0.2087	0.0000	OK
15 minute winter	31	11	49.038	0.102	33.7	0.1460	0.0000	OK
15 minute winter	32	11	48.697	0.147	18.0	0.2110	0.0000	OK
15 minute winter	33	10	49.194	0.069	16.7	0.0992	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	12.000	2	25.1	0.574	0.205	1.4941	
15 minute winter	2	12.001	3	56.1	1.563	0.208	2.3223	
15 minute winter	3	12.002	7	75.8	2.777	0.114	0.4977	
15 minute winter	4	13.000	5	23.7	0.935	0.103	1.4842	
15 minute winter	5	13.001	7	47.1	1.857	0.105	1.3572	
15 minute winter	6	14.000	7	23.3	1.334	0.193	0.8435	
15 minute winter	7	12.003	11	101.5	0.192	0.196	49.8842	
15 minute winter	8	15.000	9	23.6	0.923	0.173	1.6344	
15 minute winter	9	15.001	11	47.1	1.837	0.177	1.3241	
15 minute winter	10	16.000	11	23.3	1.049	0.088	1.1777	
15 minute winter	11	12.004	14	113.6	0.296	0.080	35.8147	
15 minute winter	12	17.000	13	23.7	1.022	0.122	0.8555	
15 minute winter	13	17.001	14	46.6	1.753	0.187	1.1130	
15 minute winter	14	12.005	16	98.0	0.229	0.091	40.3925	
15 minute winter	15	18.000	16	23.2	1.269	0.111	1.3191	
15 minute winter	16	12.006	47	84.7	0.308	0.163	4.8532	
15 minute winter	17	1.000	18	31.3	0.793	0.140	2.5066	
15 minute winter	18	1.001	19	62.2	1.280	0.254	2.1142	
15 minute winter	19	1.002	20	92.8	1.102	0.284	3.7068	
15 minute winter	20	1.003	21	92.0	1.241	0.206	6.2142	
15 minute winter	21	1.004	24	90.2	1.145	0.201	3.8015	
15 minute winter	22	2.000	23	31.4	0.775	0.199	2.5149	
15 minute winter	23	2.001	24	62.7	1.601	0.187	1.2721	
15 minute winter	24	1.005	40	147.5	1.839	0.223	2.4955	
15 minute winter	25	3.000	26	11.9	0.595	0.196	1.0148	
15 minute winter	26	3.001	27	23.1	0.993	0.282	1.0646	
15 minute winter	27	3.002	28	34.5	1.252	0.200	1.1115	
15 minute winter	28	3.003	37	43.6	1.731	0.169	1.1064	
15 minute winter	29	4.000	31	16.2	0.863	0.114	0.7935	
15 minute winter	30	5.000	31	17.5	0.495	0.303	1.4954	
15 minute winter	31	4.001	34	33.8	1.130	0.114	1.4197	
15 minute winter	32	6.000	34	17.4	0.454	0.316	1.6672	
15 minute winter	33	7.000	34	16.2	1.185	0.073	0.5676	

Results for 1 year +45% CC 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	34	11	48.655	0.118	67.3	0.1685	0.0000	OK
15 minute winter	35	10	48.541	0.091	16.9	0.1028	0.0000	OK
15 minute winter	36	11	48.251	0.126	27.4	0.1799	0.0000	OK
15 minute winter	37	12	47.378	0.278	137.5	1.0325	0.0000	OK
15 minute winter	38	12	47.354	0.255	134.9	0.9464	0.0000	OK
15 minute winter	39	11	48.286	0.086	17.1	0.1226	0.0000	OK
15 minute winter	40	12	47.273	0.235	297.4	0.8725	0.0000	OK
15 minute winter	41	11	48.235	0.110	8.2	0.1576	0.0000	OK
15 minute winter	42	11	48.206	0.087	24.8	0.1244	0.0000	OK
15 minute winter	43	10	47.901	0.101	17.1	0.1138	0.0000	OK
15 minute winter	44	11	47.711	0.127	16.6	0.1820	0.0000	OK
15 minute winter	45	13	47.026	0.368	331.2	1.3687	0.0000	OK
15 minute winter	46	11	47.383	0.094	18.3	0.1067	0.0000	OK
15 minute winter	47	19	46.540	0.066	362.7	88.3172	0.0000	OK
15 minute winter	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	34	4.002	37	66.5	2.098	0.138	0.8718	
15 minute winter	35	8.000	36	16.4	0.926	0.195	0.7684	
15 minute winter	36	8.001	37	27.4	0.881	0.232	1.1007	
15 minute winter	37	3.004	38	134.9	0.674	0.238	3.5510	
15 minute winter	38	3.005	40	134.7	0.790	0.087	10.4797	
15 minute winter	39	9.000	40	16.6	0.887	0.113	0.9111	
15 minute winter	40	1.006	45	297.2	1.303	0.076	13.9967	
15 minute winter	41	10.000	42	7.9	0.344	0.311	0.7890	
15 minute winter	42	10.001	45	24.2	1.273	0.116	0.9766	
15 minute winter	43	11.000	44	16.6	0.824	0.232	0.6804	
15 minute winter	44	11.001	45	16.5	0.621	0.267	0.7070	
15 minute winter	45	1.007_1	47	333.5	1.333	0.316	8.2996	
15 minute winter	46	19.000	47	17.7	0.941	0.215	0.9903	
15 minute winter	47	Orifice	47_OUT	0.0				0.0
15 minute winter	47	Infiltration		171.1				

Results for 1 year +45% CC 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	18	49.440	0.140	24.2	0.1999	0.0000	OK
30 minute summer	2	18	49.393	0.143	54.0	0.2041	0.0000	OK
30 minute summer	3	18	48.903	0.103	72.8	0.1469	0.0000	OK
30 minute summer	4	18	49.446	0.096	22.7	0.1368	0.0000	OK
30 minute summer	5	18	49.146	0.096	45.4	0.1378	0.0000	OK
30 minute summer	6	18	48.838	0.088	22.5	0.0994	0.0000	OK
30 minute summer	7	21	48.137	0.330	139.7	0.0000	0.0000	OK
30 minute summer	8	18	49.329	0.104	22.7	0.1487	0.0000	OK
30 minute summer	9	18	49.030	0.105	45.4	0.1496	0.0000	OK
30 minute summer	10	18	48.388	0.088	22.5	0.1259	0.0000	OK
30 minute summer	11	23	47.939	0.221	161.2	0.0000	0.0000	OK
30 minute summer	12	18	48.410	0.085	22.5	0.1216	0.0000	OK
30 minute summer	13	18	48.084	0.108	45.0	0.1548	0.0000	OK
30 minute summer	14	26	47.267	0.242	143.7	0.0000	0.0000	OK
30 minute summer	15	18	47.807	0.082	22.5	0.1177	0.0000	OK
30 minute summer	16	30	46.914	0.274	118.6	0.0000	0.0000	OK
30 minute summer	17	18	49.460	0.110	30.2	0.1570	0.0000	OK
30 minute summer	18	18	49.205	0.155	60.3	0.2218	0.0000	OK
30 minute summer	19	18	48.865	0.215	88.8	0.3801	0.0000	OK
30 minute summer	20	19	48.733	0.183	87.8	0.3230	0.0000	OK
30 minute summer	21	20	48.385	0.185	88.5	0.3275	0.0000	OK
30 minute summer	22	18	48.785	0.135	30.2	0.1928	0.0000	OK
30 minute summer	23	18	48.634	0.134	60.5	0.1911	0.0000	OK
30 minute summer	24	20	48.200	0.200	142.1	0.3535	0.0000	OK
30 minute summer	25	18	49.587	0.087	11.6	0.0988	0.0000	OK
30 minute summer	26	19	49.458	0.108	22.7	0.1220	0.0000	OK
30 minute summer	27	18	49.139	0.114	32.9	0.1630	0.0000	OK
30 minute summer	28	19	48.829	0.104	42.2	0.1494	0.0000	OK
30 minute summer	29	18	49.310	0.085	15.7	0.1213	0.0000	OK
30 minute summer	30	18	49.094	0.144	16.9	0.2056	0.0000	OK
30 minute summer	31	18	49.035	0.099	32.3	0.1417	0.0000	OK
30 minute summer	32	18	48.695	0.145	16.9	0.2074	0.0000	OK
30 minute summer	33	18	49.193	0.068	15.7	0.0972	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	12.000	2	24.2	0.569	0.198	1.4544	
30 minute summer	2	12.001	3	53.7	1.539	0.199	2.2611	
30 minute summer	3	12.002	7	72.4	2.738	0.109	0.4817	
30 minute summer	4	13.000	5	22.8	0.923	0.099	1.4452	
30 minute summer	5	13.001	7	44.9	1.828	0.100	1.3174	
30 minute summer	6	14.000	7	22.5	1.319	0.186	0.8198	
30 minute summer	7	12.003	11	105.9	0.189	0.205	51.7416	
30 minute summer	8	15.000	9	22.8	0.912	0.167	1.5941	
30 minute summer	9	15.001	11	44.7	1.807	0.168	1.2795	
30 minute summer	10	16.000	11	22.3	1.032	0.084	1.1466	
30 minute summer	11	12.004	14	127.1	0.302	0.089	39.3528	
30 minute summer	12	17.000	13	22.5	1.004	0.115	0.8268	
30 minute summer	13	17.001	14	44.9	1.730	0.180	1.0854	
30 minute summer	14	12.005	16	113.9	0.238	0.106	46.1816	
30 minute summer	15	18.000	16	22.1	1.249	0.106	1.2800	
30 minute summer	16	12.006	47	105.9	0.335	0.204	5.5887	
30 minute summer	17	1.000	18	30.1	0.781	0.135	2.4345	
30 minute summer	18	1.001	19	58.7	1.265	0.240	2.0337	
30 minute summer	19	1.002	20	87.8	1.090	0.269	3.5657	
30 minute summer	20	1.003	21	88.5	1.222	0.198	6.0011	
30 minute summer	21	1.004	24	87.5	1.132	0.196	3.6756	
30 minute summer	22	2.000	23	30.3	0.765	0.192	2.4523	
30 minute summer	23	2.001	24	59.6	1.577	0.178	1.2293	
30 minute summer	24	1.005	40	142.4	1.827	0.215	2.4212	
30 minute summer	25	3.000	26	11.5	0.587	0.189	0.9803	
30 minute summer	26	3.001	27	22.0	0.984	0.269	1.0259	
30 minute summer	27	3.002	28	32.7	1.235	0.190	1.0696	
30 minute summer	28	3.003	37	42.0	1.718	0.163	1.0754	
30 minute summer	29	4.000	31	15.6	0.850	0.109	0.7718	
30 minute summer	30	5.000	31	16.8	0.488	0.291	1.4532	
30 minute summer	31	4.001	34	32.1	1.116	0.108	1.3657	
30 minute summer	32	6.000	34	16.7	0.445	0.304	1.6091	
30 minute summer	33	7.000	34	15.7	1.172	0.070	0.5523	

Results for 1 year +45% CC 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	34	19	48.652	0.115	64.0	0.1645	0.0000	OK
30 minute summer	35	18	48.539	0.089	15.8	0.1008	0.0000	OK
30 minute summer	36	18	48.247	0.122	26.3	0.1751	0.0000	OK
30 minute summer	37	19	47.372	0.272	131.7	1.0116	0.0000	OK
30 minute summer	38	20	47.347	0.248	131.0	0.9210	0.0000	OK
30 minute summer	39	18	48.284	0.084	16.1	0.1205	0.0000	OK
30 minute summer	40	20	47.268	0.230	284.9	0.8536	0.0000	OK
30 minute summer	41	18	48.233	0.108	7.7	0.1544	0.0000	OK
30 minute summer	42	18	48.204	0.085	23.6	0.1214	0.0000	OK
30 minute summer	43	18	47.899	0.099	16.1	0.1117	0.0000	OK
30 minute summer	44	19	47.708	0.124	16.0	0.1777	0.0000	OK
30 minute summer	45	20	47.018	0.360	322.9	1.3376	0.0000	OK
30 minute summer	46	18	47.382	0.093	17.2	0.1048	0.0000	OK
30 minute summer	47	31	46.557	0.083	364.2	111.4416	0.0000	OK
30 minute summer	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	34	4.002	37	63.9	2.080	0.132	0.8452	
30 minute summer	35	8.000	36	15.7	0.912	0.186	0.7466	
30 minute summer	36	8.001	37	25.8	0.869	0.218	1.0576	
30 minute summer	37	3.004	38	131.0	0.654	0.232	3.4271	
30 minute summer	38	3.005	40	128.9	0.783	0.083	10.1136	
30 minute summer	39	9.000	40	15.9	0.874	0.108	0.8863	
30 minute summer	40	1.006	45	287.5	1.293	0.073	13.6453	
30 minute summer	41	10.000	42	7.5	0.337	0.296	0.7649	
30 minute summer	42	10.001	45	22.9	1.256	0.110	0.9414	
30 minute summer	43	11.000	44	16.0	0.814	0.224	0.6655	
30 minute summer	44	11.001	45	15.8	0.615	0.256	0.6846	
30 minute summer	45	1.007_1	47	319.7	1.322	0.303	8.0244	
30 minute summer	46	19.000	47	17.0	0.926	0.206	0.9627	
30 minute summer	47	Orifice	47_OUT	0.0				0.0
30 minute summer	47	Infiltration		171.1				

Results for 1 year +45% CC 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance e: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	18	49.424	0.124	19.5	0.1777	0.0000	OK
30 minute winter	2	18	49.378	0.128	43.6	0.1825	0.0000	OK
30 minute winter	3	18	48.892	0.092	58.8	0.1316	0.0000	OK
30 minute winter	4	18	49.436	0.086	18.4	0.1230	0.0000	OK
30 minute winter	5	18	49.137	0.087	36.8	0.1242	0.0000	OK
30 minute winter	6	18	48.829	0.079	18.2	0.0891	0.0000	OK
30 minute winter	7	21	48.120	0.313	113.2	0.0000	0.0000	OK
30 minute winter	8	18	49.318	0.093	18.4	0.1333	0.0000	OK
30 minute winter	9	18	49.019	0.094	36.8	0.1344	0.0000	OK
30 minute winter	10	18	48.379	0.079	18.2	0.1135	0.0000	OK
30 minute winter	11	23	47.931	0.213	140.7	0.0000	0.0000	OK
30 minute winter	12	18	48.401	0.076	18.2	0.1094	0.0000	OK
30 minute winter	13	18	48.073	0.097	36.4	0.1387	0.0000	OK
30 minute winter	14	27	47.264	0.239	137.8	0.0000	0.0000	OK
30 minute winter	15	18	47.799	0.074	18.2	0.1061	0.0000	OK
30 minute winter	16	31	46.913	0.273	116.0	0.0000	0.0000	OK
30 minute winter	17	18	49.449	0.099	24.4	0.1411	0.0000	OK
30 minute winter	18	18	49.189	0.138	48.7	0.1982	0.0000	OK
30 minute winter	19	18	48.843	0.193	72.2	0.3414	0.0000	OK
30 minute winter	20	19	48.714	0.164	71.8	0.2893	0.0000	OK
30 minute winter	21	20	48.366	0.166	72.0	0.2934	0.0000	OK
30 minute winter	22	18	48.770	0.120	24.4	0.1722	0.0000	OK
30 minute winter	23	18	48.619	0.119	48.8	0.1706	0.0000	OK
30 minute winter	24	20	48.180	0.180	117.4	0.3186	0.0000	OK
30 minute winter	25	18	49.579	0.079	9.4	0.0889	0.0000	OK
30 minute winter	26	19	49.447	0.097	18.4	0.1099	0.0000	OK
30 minute winter	27	18	49.128	0.103	27.0	0.1469	0.0000	OK
30 minute winter	28	19	48.819	0.094	34.6	0.1349	0.0000	OK
30 minute winter	29	18	49.301	0.076	12.7	0.1090	0.0000	OK
30 minute winter	30	18	49.081	0.131	13.7	0.1878	0.0000	OK
30 minute winter	31	19	49.025	0.089	26.2	0.1275	0.0000	OK
30 minute winter	32	18	48.682	0.132	13.7	0.1888	0.0000	OK
30 minute winter	33	18	49.186	0.061	12.7	0.0874	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	1	12.000	2	19.5	0.538	0.159	1.2401	
30 minute winter	2	12.001	3	43.4	1.454	0.161	1.9345	
30 minute winter	3	12.002	7	58.5	2.582	0.088	0.4132	
30 minute winter	4	13.000	5	18.4	0.868	0.080	1.2431	
30 minute winter	5	13.001	7	36.5	1.722	0.082	1.1337	
30 minute winter	6	14.000	7	18.2	1.242	0.150	0.7041	
30 minute winter	7	12.003	11	93.5	0.179	0.181	48.2012	
30 minute winter	8	15.000	9	18.4	0.860	0.135	1.3694	
30 minute winter	9	15.001	11	36.4	1.705	0.137	1.1030	
30 minute winter	10	16.000	11	18.1	0.971	0.068	0.9878	
30 minute winter	11	12.004	14	117.5	0.295	0.082	38.3264	
30 minute winter	12	17.000	13	18.2	0.947	0.093	0.7099	
30 minute winter	13	17.001	14	36.3	1.630	0.145	0.9318	
30 minute winter	14	12.005	16	111.2	0.233	0.104	45.7953	
30 minute winter	15	18.000	16	18.0	1.177	0.086	1.1043	
30 minute winter	16	12.006	47	104.9	0.334	0.202	5.5561	
30 minute winter	17	1.000	18	24.3	0.734	0.109	2.0873	
30 minute winter	18	1.001	19	48.0	1.197	0.196	1.7485	
30 minute winter	19	1.002	20	71.8	1.030	0.220	3.0783	
30 minute winter	20	1.003	21	72.0	1.155	0.161	5.1651	
30 minute winter	21	1.004	24	71.5	1.069	0.160	3.1691	
30 minute winter	22	2.000	23	24.4	0.723	0.154	2.0930	
30 minute winter	23	2.001	24	48.4	1.491	0.144	1.0536	
30 minute winter	24	1.005	40	117.7	1.739	0.178	2.1042	
30 minute winter	25	3.000	26	9.4	0.549	0.154	0.8471	
30 minute winter	26	3.001	27	18.1	0.932	0.221	0.8895	
30 minute winter	27	3.002	28	27.0	1.172	0.156	0.9288	
30 minute winter	28	3.003	37	34.5	1.626	0.134	0.9335	
30 minute winter	29	4.000	31	12.6	0.802	0.089	0.6639	
30 minute winter	30	5.000	31	13.6	0.454	0.237	1.2694	
30 minute winter	31	4.001	34	26.1	1.056	0.088	1.1745	
30 minute winter	32	6.000	34	13.6	0.414	0.247	1.4022	
30 minute winter	33	7.000	34	12.7	1.103	0.057	0.4748	

Results for 1 year +45% CC 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	34	19	48.640	0.103	52.1	0.1477	0.0000	OK
30 minute winter	35	18	48.530	0.080	12.8	0.0903	0.0000	OK
30 minute winter	36	18	48.235	0.110	21.3	0.1568	0.0000	OK
30 minute winter	37	19	47.348	0.248	107.7	0.9210	0.0000	OK
30 minute winter	38	20	47.324	0.225	107.2	0.8371	0.0000	OK
30 minute winter	39	18	48.276	0.076	13.0	0.1083	0.0000	OK
30 minute winter	40	20	47.243	0.205	236.0	0.7620	0.0000	OK
30 minute winter	41	18	48.223	0.098	6.2	0.1405	0.0000	OK
30 minute winter	42	18	48.196	0.077	19.1	0.1095	0.0000	OK
30 minute winter	43	18	47.888	0.088	13.0	0.0996	0.0000	OK
30 minute winter	44	19	47.697	0.113	13.0	0.1613	0.0000	OK
30 minute winter	45	20	46.986	0.328	266.8	1.2180	0.0000	OK
30 minute winter	46	18	47.372	0.083	13.9	0.0939	0.0000	OK
30 minute winter	47	32	46.554	0.080	308.5	108.1756	0.0000	OK
30 minute winter	47_OUT	1	44.500	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	34	4.002	37	52.1	1.969	0.108	0.7279	
30 minute winter	35	8.000	36	12.7	0.861	0.151	0.6419	
30 minute winter	36	8.001	37	21.1	0.823	0.178	0.9096	
30 minute winter	37	3.004	38	107.2	0.610	0.190	2.9858	
30 minute winter	38	3.005	40	106.4	0.751	0.069	8.7015	
30 minute winter	39	9.000	40	12.9	0.824	0.088	0.7627	
30 minute winter	40	1.006	45	236.6	1.229	0.060	11.8314	
30 minute winter	41	10.000	42	6.1	0.314	0.240	0.6656	
30 minute winter	42	10.001	45	18.8	1.185	0.090	0.8144	
30 minute winter	43	11.000	44	13.0	0.768	0.181	0.5694	
30 minute winter	44	11.001	45	12.9	0.575	0.208	0.5951	
30 minute winter	45	1.007_1	47	264.9	1.247	0.251	7.0482	
30 minute winter	46	19.000	47	13.8	0.874	0.167	0.8278	
30 minute winter	47	Orifice	47_OUT	0.0				0.0
30 minute winter	47	Infiltration		171.1				

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	20	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	1.000
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	999.9		

Circular Default Sewer Type Link Type

Shape	Circular	Auto Increment (mm)	75
Barrels	1	Follow Ground	x

Available Diameters (mm)

100 | 150

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.141	5.00	50.750	1200	618373.834	246723.352	1.382
3	0.198	5.00	51.100	1200	618458.853	246785.565	1.500
4	0.124	5.00	51.100	1500	618425.169	246769.536	2.239
5	0.160	5.00	51.200	1200	618482.461	246837.701	1.500
6	0.160	5.00	50.800	1350	618428.639	246810.153	1.575
7			50.200	1350	618404.398	246790.966	1.400
7_OUT			50.500	1350	618421.146	246818.956	3.500

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	4	69.052	0.600	49.368	49.086	0.282	244.9	300	6.15	106.2
2.000	3	4	37.303	0.600	49.600	49.086	0.514	72.6	300	5.34	112.6
1.001	4	7	29.844	0.600	48.861	48.800	0.061	489.3	525	6.65	102.7
3.000	5	6	60.462	0.600	49.700	49.300	0.400	151.2	300	5.79	109.0
3.001	6	7	30.915	0.600	49.225	48.875	0.350	88.3	375	6.06	106.9
1.004	7	7_OUT	32.618	0.600	48.800	47.000	1.800	18.1	450	6.76	96.3

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	10080	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

Storm Durations

15 | 30

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
1	45	0	0

Node 7 Online Orifice Control

Flap Valve	x	Invert Level (m)	50.100	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Diameter (m)	0.500		

Node 7 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.03024	Safety Factor	2.0	Invert Level (m)	48.800
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	94

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	341.0	1175.0	0.600	542.0	1175.0	0.601	686.0	1175.0	1.400	1042.0	1175.0

Results for 1 year 15 minute summer. 10095 minute analysis at 1 minute timestep. Mass balance: 100.0 0%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	49.454	0.086	13.3	0.0972	0.0000	OK
15 minute summer	3	10	49.678	0.078	18.7	0.0877	0.0000	OK
15 minute summer	4	7	49.029	0.168	41.9	0.2966	0.0000	OK
15 minute summer	5	11	49.782	0.082	15.1	0.0929	0.0000	OK
15 minute summer	6	11	49.321	0.096	29.1	0.1376	0.0000	OK
15 minute summer	7	20	48.878	0.078	72.1	27.8264	0.0000	OK
15 minute summer	7_OUT	1	47.000	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	4	12.5	0.761	0.177	1.1325	
15 minute summer	3	2.000	4	18.4	1.302	0.141	0.5269	
15 minute summer	4	1.001	7	42.9	1.555	0.197	0.9176	
15 minute summer	5	3.000	6	14.6	0.946	0.162	0.9341	
15 minute summer	6	3.001	7	29.2	1.345	0.137	0.6711	
15 minute summer	7	Orifice	7_OUT	0.0				0.0
15 minute summer	7	Infiltration		4.9				

Results for 1 year 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 100.0 0%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	49.451	0.083	12.5	0.0939	0.0000	OK
15 minute winter	3	10	49.675	0.075	17.6	0.0848	0.0000	OK
15 minute winter	4	7	49.049	0.188	39.1	0.3326	0.0000	OK
15 minute winter	5	11	49.779	0.079	14.2	0.0897	0.0000	OK
15 minute winter	6	11	49.318	0.093	27.3	0.1329	0.0000	OK
15 minute winter	7	20	48.878	0.078	67.4	27.8809	0.0000	OK
15 minute winter	7_OUT	1	47.000	0.000	0.0	0.0000	0.0000	OK
Link Event	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	11.7	0.747	0.165	1.0811	
15 minute winter	3	2.000	4	17.2	1.277	0.132	0.5024	
15 minute winter	4	1.001	7	40.0	1.516	0.184	1.0456	
15 minute winter	5	3.000	6	13.7	0.928	0.151	0.8901	
15 minute winter	6	3.001	7	27.3	1.321	0.128	0.6392	
15 minute winter	7	Orifice	7_OUT	0.0				0.0
15 minute winter	7	Infiltration		4.9				

Results for 1 year 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 100.0 0%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	19	49.449	0.081	11.8	0.0916	0.0000	OK
30 minute summer	3	18	49.673	0.073	16.5	0.0827	0.0000	OK
30 minute summer	4	18	49.006	0.145	37.8	0.2557	0.0000	OK
30 minute summer	5	18	49.778	0.078	13.3	0.0877	0.0000	OK
30 minute summer	6	18	49.316	0.091	26.2	0.1300	0.0000	OK
30 minute summer	7	33	48.895	0.095	64.0	34.1398	0.0000	OK
30 minute summer	7_OUT	1	47.000	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	4	11.3	0.741	0.159	1.0485	
30 minute summer	3	2.000	4	16.5	1.264	0.126	0.4866	
30 minute summer	4	1.001	7	37.9	1.417	0.174	0.8824	
30 minute summer	5	3.000	6	13.0	0.913	0.144	0.8592	
30 minute summer	6	3.001	7	26.0	1.301	0.122	0.6184	
30 minute summer	7	Orifice	7_OUT	0.0				0.0
30 minute summer	7	Infiltration		4.9				

Results for 1 year 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 100.0 0%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	19	49.441	0.073	9.5	0.0829	0.0000	OK
30 minute winter	3	18	49.665	0.065	13.3	0.0741	0.0000	OK
30 minute winter	4	18	48.991	0.130	30.7	0.2298	0.0000	OK
30 minute winter	5	18	49.770	0.070	10.8	0.0790	0.0000	OK
30 minute winter	6	18	49.307	0.082	21.4	0.1170	0.0000	OK
30 minute winter	7	33	48.896	0.096	52.0	34.2598	0.0000	OK
30 minute winter	7_OUT	1	47.000	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	1	1.000	4	9.2	0.702	0.130	0.9070	
30 minute winter	3	2.000	4	13.3	1.190	0.102	0.4165	
30 minute winter	4	1.001	7	30.7	1.302	0.141	0.7950	
30 minute winter	5	3.000	6	10.6	0.864	0.118	0.7436	
30 minute winter	6	3.001	7	21.3	1.231	0.100	0.5342	
30 minute winter	7	Orifice	7_OUT	0.0				0.0
30 minute winter	7	Infiltration		4.9				

Results for 1 year +45% CC 15 minute summer. 10095 minute analysis at 1 minute timestep. Mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	49.474	0.106	19.4	0.1194	0.0000	OK
15 minute summer	3	10	49.695	0.095	27.2	0.1069	0.0000	OK
15 minute summer	4	10	49.048	0.187	61.0	0.3305	0.0000	OK
15 minute summer	5	11	49.800	0.100	22.0	0.1134	0.0000	OK
15 minute summer	6	11	49.343	0.118	42.6	0.1683	0.0000	OK
15 minute summer	7	20	48.915	0.115	104.7	41.6012	0.0000	OK
15 minute summer	7_OUT	1	47.000	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	4	18.5	0.848	0.261	1.5037	
15 minute summer	3	2.000	4	26.7	1.442	0.205	0.6919	
15 minute summer	4	1.001	7	62.1	1.708	0.285	1.2064	
15 minute summer	5	3.000	6	21.4	1.051	0.237	1.2293	
15 minute summer	6	3.001	7	42.6	1.491	0.200	0.8843	
15 minute summer	7	Orifice	7_OUT	0.0				0.0
15 minute summer	7	Infiltration		4.9				

Results for 1 year +45% CC 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	49.470	0.102	18.2	0.1150	0.0000	OK
15 minute winter	3	10	49.691	0.091	25.5	0.1031	0.0000	OK
15 minute winter	4	7	49.054	0.193	57.0	0.3411	0.0000	OK
15 minute winter	5	11	49.797	0.097	20.6	0.1092	0.0000	OK
15 minute winter	6	11	49.338	0.113	39.8	0.1619	0.0000	OK
15 minute winter	7	20	48.915	0.115	97.6	41.6051	0.0000	OK
15 minute winter	7_OUT	1	47.000	0.000	0.0	0.0000	0.0000	OK
Link Event	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	17.2	0.832	0.244	1.4285	
15 minute winter	3	2.000	4	25.0	1.415	0.191	0.6581	
15 minute winter	4	1.001	7	57.9	1.657	0.266	1.1560	
15 minute winter	5	3.000	6	19.9	1.031	0.221	1.1679	
15 minute winter	6	3.001	7	39.7	1.464	0.187	0.8394	
15 minute winter	7	Orifice	7_OUT	0.0				0.0
15 minute winter	7	Infiltration		4.9				

Results for 1 year +45% CC 30 minute summer, 10110 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	18	49.467	0.099	17.0	0.1118	0.0000	OK
30 minute summer	3	18	49.689	0.089	23.9	0.1004	0.0000	OK
30 minute summer	4	18	49.031	0.170	55.1	0.3010	0.0000	OK
30 minute summer	5	18	49.795	0.095	19.3	0.1069	0.0000	OK
30 minute summer	6	18	49.336	0.111	38.3	0.1587	0.0000	OK
30 minute summer	7	34	48.941	0.141	93.2	51.4381	0.0000	OK
30 minute summer	7_OUT	1	47.000	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	4	16.4	0.823	0.231	1.3718	
30 minute summer	3	2.000	4	23.9	1.402	0.183	0.6362	
30 minute summer	4	1.001	7	55.2	1.524	0.253	1.2080	
30 minute summer	5	3.000	6	19.0	1.015	0.210	1.1305	
30 minute summer	6	3.001	7	38.0	1.443	0.179	0.8148	
30 minute summer	7	Orifice	7_OUT	0.0				0.0
30 minute summer	7	Infiltration		4.9				

Results for 1 year +45% CC 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	18	49.457	0.089	13.8	0.1007	0.0000	OK
30 minute winter	3	18	49.679	0.079	19.3	0.0897	0.0000	OK
30 minute winter	4	18	49.014	0.153	44.7	0.2712	0.0000	OK
30 minute winter	5	18	49.785	0.085	15.6	0.0957	0.0000	OK
30 minute winter	6	18	49.324	0.099	31.0	0.1420	0.0000	OK
30 minute winter	7	33	48.941	0.141	75.6	51.4736	0.0000	OK
30 minute winter	7_OUT	1	47.000	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	1	1.000	4	13.4	0.779	0.190	1.1914	
30 minute winter	3	2.000	4	19.3	1.321	0.148	0.5449	
30 minute winter	4	1.001	7	44.8	1.400	0.206	1.1245	
30 minute winter	5	3.000	6	15.4	0.959	0.171	0.9723	
30 minute winter	6	3.001	7	30.9	1.364	0.145	0.6998	
30 minute winter	7	Orifice	7_OUT	0.0				0.0
30 minute winter	7	Infiltration		4.9				

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	50	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	1.000
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	999.9		

Circular Link Type

Shape	Circular	Auto Increment (mm)	75
Barrels	1	Follow Ground	x

Available Diameters (mm)

450 | 525

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.157	5.00	51.000	1350	618620.098	246845.505	1.650
2	0.157	5.00	51.100	1350	618582.829	246909.357	1.932
3	0.134	5.00	50.900	1500	618540.598	246952.071	1.955
4	0.157	5.00	51.100	1350	618582.268	246840.464	1.650
5	0.134	5.00	51.100	1350	618527.407	246902.235	1.853
6	0.134	5.00	50.850	1500	618511.217	246967.607	2.048
7	0.157	5.00	50.900	1350	618584.279	246955.455	1.650
8	0.134	5.00	50.600	1350	618549.523	246993.361	1.650
9			50.450	1500	618511.593	247026.374	1.800
10	0.134	5.00	50.350	1350	618570.859	247019.127	1.650
11			50.050	1800	618566.775	247054.901	2.025
12	0.092	5.00	50.950	1350	618635.877	246870.927	1.650
13	0.103	5.00	51.000	1350	618617.514	246918.243	1.825
14	0.096	5.00	50.950	1350	618612.284	246961.670	1.883
15	0.303	5.00	50.450	1350	618602.882	247008.416	1.650
16	0.051	5.00	49.950	1800	618586.744	247062.845	2.025
17	0.181	5.00	51.000	1350	618672.608	246909.422	1.650
18	0.181	5.00	50.800	1350	618659.268	246950.379	1.650
19	0.181	5.00	50.850	1500	618705.242	246959.922	1.966
20			50.680	1500	618739.039	246962.727	1.855
21	0.181	5.00	50.450	1350	618648.395	247004.461	1.650
22	0.181	5.00	51.000	1350	618682.433	247023.048	2.296
23			49.950	1500	618717.040	247033.033	1.800
24	0.181	5.00	49.800	1350	618628.042	247047.246	1.650
25	0.181	5.00	50.200	1350	618660.326	247072.145	2.150
26			48.650	1800	618668.615	247102.988	2.025
27	0.106	5.00	48.950	1350	618610.757	247105.243	1.650
28			48.300	1800	618655.389	247120.149	2.025
29	0.106	5.00	48.150	1350	618586.651	247157.237	1.650
30	0.106	5.00	48.600	1350	618597.966	247129.703	1.650
31			47.800	1800	618634.127	247147.928	2.025
32	0.144	5.00	50.450	1350	618410.512	247079.271	1.650
33	0.144	5.00	50.200	1350	618399.192	247123.369	1.650
34			50.200	1350	618378.429	247134.239	1.708
35	0.144	5.00	49.050	1350	618540.115	247074.422	1.650
36	0.144	5.00	49.450	1350	618522.788	247113.903	2.156
37	0.144	5.00	49.850	1500	618508.794	247143.877	2.713
38	0.144	5.00	50.100	1350	618459.719	247096.817	1.650
39	0.144	5.00	49.700	1350	618453.482	247139.761	1.650
40			49.000	1500	618489.249	247171.022	1.931
41	0.065	5.00	49.500	1350	618579.615	247079.384	1.650
42	0.000	5.00	48.950	1350	618563.253	247125.653	1.650
43	0.133	5.00	48.350	1500	618543.243	247171.747	1.725
44			47.900	1500	618564.386	247183.012	1.725
45	0.192	5.00	49.980	1350	618328.382	247189.999	1.650
46	0.192	5.00	49.490	1350	618373.474	247198.435	1.650
47	0.192	5.00	48.790	1350	618430.706	247215.058	1.650
48	0.192	5.00	47.930	1350	618499.042	247225.949	1.650
49			47.102	1350	618555.570	247231.834	1.650
50			45.646	1800	618593.338	247236.784	1.400
31_OUT			45.600	1800	618643.160	247200.688	1.400

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
Dummy			45.634	1800	618646.160	247208.688	2.100

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	2	73.933	0.600	49.350	49.168	0.182	406.2	450	6.23	125.1
1.001	2	3	60.066	0.600	49.168	49.020	0.148	405.9	450	7.23	117.4
1.002	3	6	33.236	0.600	48.945	48.877	0.068	488.8	525	7.78	113.6
2.000	4	5	82.616	0.600	49.450	49.247	0.203	407.0	450	6.38	124.0
2.001	5	6	67.347	0.600	49.247	48.952	0.295	228.3	450	7.21	117.5
1.003	6	9	58.768	0.600	48.802	48.650	0.152	386.6	600	8.57	108.5
3.000	7	8	51.428	0.600	49.250	48.950	0.300	171.4	450	5.55	130.8
3.001	8	9	50.285	0.600	48.950	48.800	0.150	335.2	450	6.31	124.5
1.004	9	11	62.120	0.600	48.650	48.250	0.400	155.3	600	9.10	105.4
4.000	10	11	36.006	0.600	48.700	48.400	0.300	120.0	450	5.32	132.8
1.005	11	16	21.491	0.600	48.025	47.925	0.100	214.9	825	9.28	104.4
5.000	12	13	50.754	0.600	49.300	49.175	0.125	406.0	450	5.84	128.3
5.001	13	14	43.741	0.600	49.175	49.067	0.108	405.0	450	6.57	122.4
5.002	14	15	47.682	0.600	49.067	48.800	0.267	178.6	450	7.09	118.4
5.003	15	16	56.771	0.600	48.800	48.300	0.500	113.5	450	7.59	114.9
1.006	16	26	91.183	0.600	47.925	46.625	1.300	70.1	825	9.71	102.1
6.000	17	19	60.127	0.600	49.350	49.034	0.316	190.3	450	5.68	129.7
7.000	18	19	46.954	0.600	49.150	49.034	0.116	404.8	450	5.78	128.8
6.001	19	20	33.913	0.600	48.884	48.825	0.059	574.8	600	6.34	124.2
6.002	20	23	73.667	0.600	48.825	48.150	0.675	109.1	600	6.87	120.1
8.000	21	22	38.782	0.600	48.800	48.704	0.096	404.0	450	5.64	130.0
8.001	22	23	36.019	0.600	48.704	48.300	0.404	89.2	450	5.92	127.6
6.003	23	26	85.080	0.600	48.150	46.850	1.300	65.4	600	7.34	116.7
9.000	24	25	40.770	0.600	48.150	48.050	0.100	407.7	450	5.68	129.7
9.001	25	26	31.937	0.600	48.050	47.000	1.050	30.4	450	5.82	128.5
1.007	26	28	21.666	0.600	46.625	46.275	0.350	61.9	825	9.81	101.5
10.000	27	28	47.055	0.600	47.300	46.650	0.650	72.4	450	5.33	132.8
1.008	28	31	34.982	0.600	46.275	45.775	0.500	70.0	825	9.97	100.7
11.000	29	31	48.380	0.600	46.500	46.150	0.350	138.2	450	5.47	131.6
12.000	30	31	40.494	0.600	46.950	46.150	0.800	50.6	450	5.24	133.6
1.009	31	31_OUT	53.528	0.600	45.775	44.275	1.500	35.7	825	10.15	99.8
13.000	32	33	45.528	0.600	48.800	48.550	0.250	182.1	450	5.50	131.2
13.001	33	34	23.436	0.600	48.550	48.492	0.058	404.1	450	5.89	127.9
13.002	34	40	116.765	0.600	48.492	47.144	1.348	86.6	450	6.78	120.7
14.000	35	36	43.116	0.600	47.400	47.294	0.106	406.8	450	5.72	129.4
14.001	36	37	33.080	0.600	47.294	47.212	0.082	403.4	450	6.27	124.8
14.002	37	40	33.449	0.600	47.137	47.069	0.068	491.9	525	6.82	120.4
15.000	38	39	43.395	0.600	48.450	48.050	0.400	108.5	450	5.37	132.4
15.001	39	40	47.503	0.600	48.050	47.144	0.906	52.4	450	5.65	129.9
13.003	40	43	53.999	0.600	47.069	46.625	0.444	121.6	525	7.26	117.2
16.000	41	42	49.077	0.600	47.850	47.300	0.550	89.2	450	5.38	132.3
16.001	42	43	50.250	0.600	47.300	46.700	0.600	83.7	450	5.76	129.0
13.004	43	44	23.957	0.600	46.625	46.175	0.450	53.2	525	7.39	116.3
13.005	44	31_OUT	80.733	0.600	46.175	44.575	1.600	50.5	525	7.82	113.3
17.000	45	46	45.874	0.600	48.330	47.840	0.490	93.6	450	5.36	132.5
17.001	46	47	59.597	0.600	47.840	47.140	0.700	85.1	450	5.81	128.5
17.002	47	48	69.198	0.600	47.140	46.280	0.860	80.5	450	6.32	124.4
17.003	48	49	56.834	0.600	46.280	45.452	0.828	68.6	450	6.71	121.3
17.004	49	50	38.091	0.600	45.452	44.246	1.206	31.6	450	6.88	119.9
17.005	50	31_OUT	44.000	0.600	44.246	44.200	0.046	956.5	900	7.61	103.3
1.010	31_OUT	Dummy	8.544	0.600	44.200	43.534	0.666	12.8	900	10.16	89.0

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	10080	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

Storm Durations

15 | 30

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
1	45	0	0

Node 31_OUT Online Orifice Control

Flap Valve	x	Invert Level (m)	45.500	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Diameter (m)	0.500		

Node 50 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.20160	Safety Factor	2.0	Invert Level (m)	44.246
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	14

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	90.7	137.0	0.600	286.0	137.0	0.601	440.0	137.0	1.400	816.0	137.0

Node 31_OUT Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.20160	Safety Factor	2.0	Invert Level (m)	44.200
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	27

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	2170.0	3843.0	0.600	2700.0	3843.0	0.601	3050.0	3843.0	1.400	3843.0	3843.0

**Results for 1 year 15 minute summer, 10095 minute analysis at 1 minute timestep. Mass balance: 99.97 %**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	49.440	0.090	14.9	0.1282	0.0000	OK
15 minute summer	2	12	49.293	0.125	28.7	0.1788	0.0000	OK
15 minute summer	3	12	49.092	0.147	36.3	0.2600	0.0000	OK
15 minute summer	4	10	49.541	0.091	14.9	0.1298	0.0000	OK
15 minute summer	5	12	49.350	0.103	26.9	0.1472	0.0000	OK
15 minute summer	6	12	48.989	0.187	70.5	0.3305	0.0000	OK
15 minute summer	7	10	49.323	0.073	14.9	0.1047	0.0000	OK
15 minute summer	8	11	49.068	0.118	27.2	0.1688	0.0000	OK
15 minute summer	9	13	48.820	0.170	96.3	0.2999	0.0000	OK
15 minute summer	10	10	48.763	0.063	12.7	0.0907	0.0000	OK
15 minute summer	11	13	48.204	0.179	102.1	0.4551	0.0000	OK
15 minute summer	12	11	49.369	0.069	8.7	0.0989	0.0000	OK
15 minute summer	13	11	49.277	0.102	17.9	0.1463	0.0000	OK
15 minute summer	14	11	49.164	0.097	26.1	0.1382	0.0000	OK
15 minute summer	15	11	48.927	0.127	52.5	0.1814	0.0000	OK
15 minute summer	16	13	48.079	0.154	154.6	0.3917	0.0000	OK
15 minute summer	17	11	49.431	0.081	17.1	0.1160	0.0000	OK
15 minute summer	18	11	49.250	0.100	17.1	0.1426	0.0000	OK
15 minute summer	19	11	49.044	0.160	49.3	0.2820	0.0000	OK
15 minute summer	20	11	48.934	0.109	49.5	0.1933	0.0000	OK
15 minute summer	21	10	48.901	0.101	17.1	0.1440	0.0000	OK
15 minute summer	22	11	48.801	0.097	33.9	0.1385	0.0000	OK
15 minute summer	23	12	48.275	0.125	82.5	0.2204	0.0000	OK
15 minute summer	24	10	48.250	0.100	17.1	0.1424	0.0000	OK
15 minute summer	25	10	48.124	0.074	33.9	0.1059	0.0000	OK
15 minute summer	26	12	46.844	0.219	261.5	0.5577	0.0000	OK
15 minute summer	27	11	47.350	0.050	10.0	0.0712	0.0000	OK
15 minute summer	28	12	46.499	0.224	265.6	0.5693	0.0000	OK
15 minute summer	29	11	46.558	0.058	10.0	0.0829	0.0000	OK
15 minute summer	30	10	46.996	0.046	10.0	0.0656	0.0000	OK
15 minute summer	31	13	45.962	0.187	281.2	0.4763	0.0000	OK
15 minute summer	32	10	48.871	0.071	13.6	0.1018	0.0000	OK
15 minute summer	33	11	48.671	0.121	26.9	0.1730	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	14.3	0.533	0.090	2.1178	
15 minute summer	2	1.001	3	25.9	0.792	0.162	1.9648	
15 minute summer	3	1.002	6	36.3	0.823	0.167	1.4685	
15 minute summer	4	2.000	5	14.6	0.615	0.092	2.0344	
15 minute summer	5	2.001	6	24.3	0.906	0.114	1.8105	
15 minute summer	6	1.003	9	71.0	1.016	0.204	4.1095	
15 minute summer	7	3.000	8	14.6	0.641	0.059	1.2760	
15 minute summer	8	3.001	9	25.3	0.824	0.144	1.5612	
15 minute summer	9	1.004	11	94.0	1.472	0.170	3.9661	
15 minute summer	10	4.000	11	12.4	0.930	0.042	0.4797	
15 minute summer	11	1.005	16	103.2	1.348	0.096	1.6480	
15 minute summer	12	5.000	13	8.4	0.408	0.053	1.0748	
15 minute summer	13	5.001	14	17.4	0.671	0.109	1.1350	
15 minute summer	14	5.002	15	25.1	0.829	0.104	1.4658	
15 minute summer	15	5.003	16	50.6	1.428	0.167	2.0252	
15 minute summer	16	1.006	26	152.5	1.705	0.080	8.2757	
15 minute summer	17	6.000	19	16.5	0.862	0.070	1.1497	
15 minute summer	18	7.000	19	16.5	0.699	0.103	1.1108	
15 minute summer	19	6.001	20	49.5	1.051	0.174	1.6109	
15 minute summer	20	6.002	23	49.0	1.293	0.074	2.8174	
15 minute summer	21	8.000	22	16.8	0.660	0.105	0.9909	
15 minute summer	22	8.001	23	33.5	1.373	0.098	0.8794	
15 minute summer	23	6.003	26	80.5	1.931	0.094	3.5455	
15 minute summer	24	9.000	25	16.8	0.790	0.106	0.8758	
15 minute summer	25	9.001	26	33.4	2.010	0.057	0.5312	
15 minute summer	26	1.007	28	257.8	2.260	0.128	2.4895	
15 minute summer	27	10.000	28	9.8	1.038	0.026	0.4426	
15 minute summer	28	1.008	31	267.8	2.593	0.141	3.6201	
15 minute summer	29	11.000	31	9.7	0.826	0.035	0.5696	
15 minute summer	30	12.000	31	9.8	1.174	0.021	0.3373	
15 minute summer	31	1.009	31_OUT	284.8	3.266	0.107	4.6715	
15 minute summer	32	13.000	33	13.3	0.543	0.056	1.1408	
15 minute summer	33	13.001	34	26.6	1.046	0.166	0.6329	



Results for 1 year 15 minute summer. 10095 minute analysis at 1 minute timestep. Mass balance: 99.97 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	34	11	48.574	0.082	26.6	0.1177	0.0000	OK
15 minute summer	35	10	47.486	0.086	13.6	0.1233	0.0000	OK
15 minute summer	36	11	47.419	0.125	26.8	0.1796	0.0000	OK
15 minute summer	37	11	47.292	0.155	38.9	0.2745	0.0000	OK
15 minute summer	38	10	48.513	0.063	13.6	0.0901	0.0000	OK
15 minute summer	39	10	48.124	0.074	27.0	0.1063	0.0000	OK
15 minute summer	40	12	47.234	0.165	91.2	0.2910	0.0000	OK
15 minute summer	41	10	47.893	0.043	6.2	0.0610	0.0000	OK
15 minute summer	42	11	47.340	0.040	6.1	0.0577	0.0000	OK
15 minute summer	43	12	46.775	0.150	104.8	0.2656	0.0000	OK
15 minute summer	44	12	46.314	0.139	105.1	0.2449	0.0000	OK
15 minute summer	45	10	48.400	0.070	18.2	0.1001	0.0000	OK
15 minute summer	46	11	47.935	0.095	36.1	0.1361	0.0000	OK
15 minute summer	47	11	47.255	0.115	53.2	0.1645	0.0000	OK
15 minute summer	48	11	46.414	0.134	70.4	0.1917	0.0000	OK
15 minute summer	49	11	45.566	0.114	70.2	0.1627	0.0000	OK
15 minute summer	50	14	44.376	0.130	71.1	14.8872	0.0000	OK
15 minute summer	31_OUT	20	44.261	0.061	416.1	133.7557	0.0000	OK
15 minute summer	Dummy	1	43.534	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	34	13.002	40	25.8	1.257	0.074	2.4489	
15 minute summer	35	14.000	36	13.2	0.483	0.083	1.2325	
15 minute summer	36	14.001	37	25.9	0.791	0.162	1.0854	
15 minute summer	37	14.002	40	38.7	0.706	0.178	1.8330	
15 minute summer	38	15.000	39	13.4	0.883	0.043	0.6617	
15 minute summer	39	15.001	40	26.8	1.533	0.060	0.9045	
15 minute summer	40	13.003	43	89.2	1.640	0.203	2.9381	
15 minute summer	41	16.000	42	6.1	0.891	0.018	0.3501	
15 minute summer	42	16.001	43	5.9	0.648	0.017	0.6074	
15 minute summer	43	13.004	44	105.1	2.181	0.158	1.1549	
15 minute summer	44	13.005	31_OUT	103.0	2.308	0.151	3.6039	
15 minute summer	45	17.000	46	17.9	0.905	0.054	0.9147	
15 minute summer	46	17.001	47	35.4	1.264	0.101	1.6756	
15 minute summer	47	17.002	48	53.2	1.491	0.147	2.4696	
15 minute summer	48	17.003	49	70.2	2.004	0.180	2.0146	
15 minute summer	49	17.004	50	71.1	2.909	0.123	1.1394	
15 minute summer	50	17.005	31_OUT	34.9	1.087	0.055	1.5380	
15 minute summer	50	Infiltration		3.8				
15 minute summer	31_OUT	Orifice	Dummy	0.0				0.0
15 minute summer	31_OUT	Infiltration		107.6				

Results for 1 year 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.94 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	49.436	0.086	13.9	0.1235	0.0000	OK
15 minute winter	2	12	49.289	0.121	26.8	0.1727	0.0000	OK
15 minute winter	3	12	49.087	0.142	34.0	0.2514	0.0000	OK
15 minute winter	4	10	49.537	0.087	13.9	0.1243	0.0000	OK
15 minute winter	5	12	49.346	0.099	25.1	0.1421	0.0000	OK
15 minute winter	6	12	48.983	0.181	66.0	0.3190	0.0000	OK
15 minute winter	7	10	49.321	0.071	13.9	0.1011	0.0000	OK
15 minute winter	8	11	49.064	0.114	25.4	0.1628	0.0000	OK
15 minute winter	9	13	48.814	0.164	90.1	0.2902	0.0000	OK
15 minute winter	10	10	48.761	0.061	11.9	0.0877	0.0000	OK
15 minute winter	11	13	48.199	0.174	96.4	0.4416	0.0000	OK
15 minute winter	12	11	49.367	0.067	8.2	0.0956	0.0000	OK
15 minute winter	13	11	49.274	0.099	16.8	0.1413	0.0000	OK
15 minute winter	14	11	49.160	0.093	24.3	0.1337	0.0000	OK
15 minute winter	15	11	48.922	0.122	48.8	0.1752	0.0000	OK
15 minute winter	16	13	48.075	0.150	145.4	0.3810	0.0000	OK
15 minute winter	17	11	49.428	0.078	16.1	0.1121	0.0000	OK
15 minute winter	18	11	49.246	0.096	16.1	0.1378	0.0000	OK
15 minute winter	19	11	49.038	0.154	45.9	0.2727	0.0000	OK
15 minute winter	20	11	48.931	0.106	46.2	0.1867	0.0000	OK
15 minute winter	21	10	48.897	0.097	16.1	0.1393	0.0000	OK
15 minute winter	22	11	48.797	0.093	31.8	0.1338	0.0000	OK
15 minute winter	23	12	48.270	0.120	77.1	0.2129	0.0000	OK
15 minute winter	24	10	48.246	0.096	16.1	0.1380	0.0000	OK
15 minute winter	25	10	48.122	0.072	31.8	0.1023	0.0000	OK
15 minute winter	26	12	46.837	0.212	245.7	0.5385	0.0000	OK
15 minute winter	27	11	47.348	0.048	9.4	0.0688	0.0000	OK
15 minute winter	28	12	46.491	0.216	250.1	0.5510	0.0000	OK
15 minute winter	29	11	46.556	0.056	9.4	0.0802	0.0000	OK
15 minute winter	30	10	46.994	0.044	9.4	0.0635	0.0000	OK
15 minute winter	31	13	45.956	0.181	265.1	0.4612	0.0000	OK
15 minute winter	32	10	48.869	0.069	12.8	0.0985	0.0000	OK
15 minute winter	33	11	48.667	0.117	25.2	0.1672	0.0000	OK

Link Event	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	2	13.3	0.512	0.083	2.0197	
15 minute winter	2	1.001	3	24.2	0.778	0.152	1.8717	
15 minute winter	3	1.002	6	34.0	0.808	0.156	1.4018	
15 minute winter	4	2.000	5	13.5	0.598	0.085	1.9344	
15 minute winter	5	2.001	6	22.7	0.889	0.107	1.7228	
15 minute winter	6	1.003	9	66.5	0.998	0.191	3.9206	
15 minute winter	7	3.000	8	13.5	0.614	0.055	1.2118	
15 minute winter	8	3.001	9	23.6	0.807	0.134	1.4865	
15 minute winter	9	1.004	11	88.2	1.446	0.160	3.7887	
15 minute winter	10	4.000	11	11.5	0.911	0.039	0.4560	
15 minute winter	11	1.005	16	97.1	1.322	0.090	1.5811	
15 minute winter	12	5.000	13	7.9	0.401	0.049	1.0233	
15 minute winter	13	5.001	14	16.3	0.658	0.102	1.0812	
15 minute winter	14	5.002	15	23.5	0.814	0.097	1.3973	
15 minute winter	15	5.003	16	47.4	1.400	0.156	1.9321	
15 minute winter	16	1.006	26	144.0	1.682	0.076	7.9028	
15 minute winter	17	6.000	19	15.4	0.845	0.066	1.0950	
15 minute winter	18	7.000	19	15.4	0.686	0.097	1.0587	
15 minute winter	19	6.001	20	46.2	1.031	0.162	1.5348	
15 minute winter	20	6.002	23	45.8	1.266	0.069	2.6810	
15 minute winter	21	8.000	22	15.7	0.646	0.098	0.9432	
15 minute winter	22	8.001	23	31.3	1.348	0.091	0.8375	
15 minute winter	23	6.003	26	75.1	1.894	0.088	3.3745	
15 minute winter	24	9.000	25	15.7	0.775	0.099	0.8356	
15 minute winter	25	9.001	26	31.2	1.973	0.053	0.5056	
15 minute winter	26	1.007	28	242.7	2.227	0.120	2.3738	
15 minute winter	27	10.000	28	9.1	1.016	0.024	0.4217	
15 minute winter	28	1.008	31	251.8	2.553	0.133	3.4575	
15 minute winter	29	11.000	31	9.1	0.809	0.033	0.5429	
15 minute winter	30	12.000	31	9.1	1.151	0.020	0.3216	
15 minute winter	31	1.009	31_OUT	267.8	3.210	0.101	4.4656	
15 minute winter	32	13.000	33	12.4	0.532	0.052	1.0858	
15 minute winter	33	13.001	34	24.8	1.007	0.155	0.6023	

**Results for 1 year 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.94 %**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	34	11	48.571	0.079	24.8	0.1137	0.0000	OK
15 minute winter	35	10	47.483	0.083	12.8	0.1193	0.0000	OK
15 minute winter	36	11	47.415	0.121	25.1	0.1733	0.0000	OK
15 minute winter	37	11	47.287	0.150	36.2	0.2644	0.0000	OK
15 minute winter	38	10	48.511	0.061	12.8	0.0873	0.0000	OK
15 minute winter	39	10	48.122	0.072	25.3	0.1026	0.0000	OK
15 minute winter	40	12	47.227	0.158	84.8	0.2800	0.0000	OK
15 minute winter	41	10	47.891	0.041	5.8	0.0587	0.0000	OK
15 minute winter	42	11	47.339	0.039	5.7	0.0556	0.0000	OK
15 minute winter	43	12	46.769	0.144	97.5	0.2550	0.0000	OK
15 minute winter	44	12	46.309	0.134	97.7	0.2363	0.0000	OK
15 minute winter	45	10	48.398	0.068	17.1	0.0970	0.0000	OK
15 minute winter	46	11	47.932	0.092	33.9	0.1316	0.0000	OK
15 minute winter	47	11	47.251	0.111	49.8	0.1589	0.0000	OK
15 minute winter	48	11	46.409	0.129	65.7	0.1850	0.0000	OK
15 minute winter	49	11	45.561	0.109	65.5	0.1556	0.0000	OK
15 minute winter	50	15	44.375	0.129	66.2	14.7056	0.0000	OK
15 minute winter	31_OUT	20	44.261	0.061	390.9	133.5401	0.0000	OK
15 minute winter	Dummy	1	43.534	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	34	13.002	40	24.0	1.247	0.069	2.2662	
15 minute winter	35	14.000	36	12.3	0.470	0.077	1.1719	
15 minute winter	36	14.001	37	24.2	0.775	0.151	1.0330	
15 minute winter	37	14.002	40	36.1	0.694	0.166	1.7415	
15 minute winter	38	15.000	39	12.5	0.866	0.040	0.6298	
15 minute winter	39	15.001	40	25.0	1.501	0.056	0.8376	
15 minute winter	40	13.003	43	82.9	1.611	0.189	2.7813	
15 minute winter	41	16.000	42	5.7	0.855	0.017	0.3310	
15 minute winter	42	16.001	43	5.5	0.636	0.016	0.5489	
15 minute winter	43	13.004	44	97.7	2.140	0.147	1.0947	
15 minute winter	44	13.005	31_OUT	96.1	2.262	0.141	3.4318	
15 minute winter	45	17.000	46	16.8	0.890	0.050	0.8725	
15 minute winter	46	17.001	47	33.1	1.242	0.094	1.5965	
15 minute winter	47	17.002	48	49.6	1.462	0.138	2.3514	
15 minute winter	48	17.003	49	65.5	1.972	0.168	1.9054	
15 minute winter	49	17.004	50	66.2	2.857	0.115	1.1022	
15 minute winter	50	17.005	31_OUT	33.9	1.069	0.053	1.5167	
15 minute winter	50	Infiltration		3.8				
15 minute winter	31_OUT	Orifice	Dummy	0.0				0.0
15 minute winter	31_OUT	Infiltration		107.6				



Results for 1 year 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 99.98 %

Node	Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute	summer	1	18	49.435	0.085	13.1	0.1211	0.0000	OK
30 minute	summer	2	19	49.287	0.119	25.8	0.1706	0.0000	OK
30 minute	summer	3	19	49.086	0.141	33.6	0.2489	0.0000	OK
30 minute	summer	4	18	49.535	0.085	13.1	0.1213	0.0000	OK
30 minute	summer	5	19	49.345	0.098	24.0	0.1401	0.0000	OK
30 minute	summer	6	19	48.980	0.178	65.0	0.3148	0.0000	OK
30 minute	summer	7	18	49.319	0.069	13.1	0.0993	0.0000	OK
30 minute	summer	8	19	49.062	0.112	24.2	0.1600	0.0000	OK
30 minute	summer	9	20	48.813	0.163	87.2	0.2885	0.0000	OK
30 minute	summer	10	18	48.760	0.060	11.2	0.0862	0.0000	OK
30 minute	summer	11	20	48.198	0.173	95.5	0.4399	0.0000	OK
30 minute	summer	12	18	49.366	0.066	7.7	0.0940	0.0000	OK
30 minute	summer	13	19	49.271	0.096	16.2	0.1379	0.0000	OK
30 minute	summer	14	19	49.159	0.092	23.2	0.1322	0.0000	OK
30 minute	summer	15	19	48.921	0.121	47.2	0.1726	0.0000	OK
30 minute	summer	16	20	48.074	0.149	142.7	0.3797	0.0000	OK
30 minute	summer	17	18	49.427	0.077	15.1	0.1096	0.0000	OK
30 minute	summer	18	18	49.244	0.094	15.1	0.1348	0.0000	OK
30 minute	summer	19	18	49.035	0.151	44.3	0.2673	0.0000	OK
30 minute	summer	20	19	48.928	0.103	43.9	0.1823	0.0000	OK
30 minute	summer	21	18	48.895	0.095	15.1	0.1357	0.0000	OK
30 minute	summer	22	18	48.796	0.092	30.2	0.1311	0.0000	OK
30 minute	summer	23	19	48.268	0.118	73.4	0.2082	0.0000	OK
30 minute	summer	24	18	48.244	0.094	15.1	0.1347	0.0000	OK
30 minute	summer	25	18	48.120	0.070	30.2	0.1007	0.0000	OK
30 minute	summer	26	20	46.835	0.210	239.1	0.5339	0.0000	OK
30 minute	summer	27	18	47.347	0.047	8.8	0.0675	0.0000	OK
30 minute	summer	28	20	46.490	0.215	247.6	0.5481	0.0000	OK
30 minute	summer	29	18	46.555	0.055	8.8	0.0784	0.0000	OK
30 minute	summer	30	18	46.993	0.043	8.8	0.0622	0.0000	OK
30 minute	summer	31	20	45.954	0.179	262.4	0.4566	0.0000	OK
30 minute	summer	32	18	48.867	0.067	12.0	0.0966	0.0000	OK
30 minute	summer	33	18	48.665	0.115	24.0	0.1641	0.0000	OK

Link	Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute	summer	1	1.000	2	12.8	0.495	0.080	1.9904	
30 minute	summer	2	1.001	3	23.4	0.773	0.146	1.8330	
30 minute	summer	3	1.002	6	33.0	0.803	0.151	1.3774	
30 minute	summer	4	2.000	5	12.8	0.575	0.080	1.8883	
30 minute	summer	5	2.001	6	21.9	0.880	0.103	1.6824	
30 minute	summer	6	1.003	9	64.5	0.990	0.185	3.8504	
30 minute	summer	7	3.000	8	13.1	0.597	0.053	1.1701	
30 minute	summer	8	3.001	9	23.1	0.799	0.132	1.4571	
30 minute	summer	9	1.004	11	86.3	1.433	0.156	3.7436	
30 minute	summer	10	4.000	11	11.2	0.900	0.038	0.4460	
30 minute	summer	11	1.005	16	95.5	1.311	0.088	1.5730	
30 minute	summer	12	5.000	13	7.6	0.393	0.048	0.9885	
30 minute	summer	13	5.001	14	15.7	0.652	0.098	1.0538	
30 minute	summer	14	5.002	15	23.0	0.805	0.095	1.3701	
30 minute	summer	15	5.003	16	46.4	1.390	0.153	1.8978	
30 minute	summer	16	1.006	26	142.7	1.673	0.075	7.8410	
30 minute	summer	17	6.000	19	14.6	0.834	0.062	1.0581	
30 minute	summer	18	7.000	19	14.6	0.677	0.091	1.0231	
30 minute	summer	19	6.001	20	43.9	1.015	0.154	1.4808	
30 minute	summer	20	6.002	23	44.1	1.242	0.067	2.6212	
30 minute	summer	21	8.000	22	15.2	0.640	0.095	0.9183	
30 minute	summer	22	8.001	23	29.9	1.327	0.087	0.8116	
30 minute	summer	23	6.003	26	71.3	1.870	0.084	3.2607	
30 minute	summer	24	9.000	25	15.1	0.765	0.095	0.8106	
30 minute	summer	25	9.001	26	30.1	1.951	0.051	0.4933	
30 minute	summer	26	1.007	28	240.3	2.215	0.119	2.3511	
30 minute	summer	27	10.000	28	8.7	1.001	0.023	0.4093	
30 minute	summer	28	1.008	31	247.8	2.537	0.131	3.4247	
30 minute	summer	29	11.000	31	8.6	0.795	0.031	0.5245	
30 minute	summer	30	12.000	31	8.8	1.137	0.019	0.3123	
30 minute	summer	31	1.009	31_OUT	261.1	3.181	0.098	4.3942	
30 minute	summer	32	13.000	33	12.0	0.523	0.050	1.0611	
30 minute	summer	33	13.001	34	23.7	0.992	0.148	0.5798	

Results for 1 year 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 99.98 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	34	19	48.570	0.078	23.7	0.1121	0.0000	OK
30 minute summer	35	18	47.482	0.082	12.0	0.1172	0.0000	OK
30 minute summer	36	19	47.412	0.118	23.9	0.1687	0.0000	OK
30 minute summer	37	19	47.283	0.146	34.6	0.2573	0.0000	OK
30 minute summer	38	18	48.510	0.060	12.0	0.0854	0.0000	OK
30 minute summer	39	18	48.121	0.071	24.0	0.1013	0.0000	OK
30 minute summer	40	19	47.224	0.155	80.9	0.2742	0.0000	OK
30 minute summer	41	18	47.890	0.040	5.4	0.0570	0.0000	OK
30 minute summer	42	19	47.338	0.038	5.4	0.0544	0.0000	OK
30 minute summer	43	19	46.766	0.141	94.3	0.2488	0.0000	OK
30 minute summer	44	20	46.307	0.132	93.6	0.2337	0.0000	OK
30 minute summer	45	18	48.396	0.066	16.0	0.0946	0.0000	OK
30 minute summer	46	18	47.930	0.090	32.0	0.1291	0.0000	OK
30 minute summer	47	18	47.248	0.108	47.8	0.1547	0.0000	OK
30 minute summer	48	19	46.406	0.126	62.9	0.1809	0.0000	OK
30 minute summer	49	18	45.554	0.102	62.1	0.1456	0.0000	OK
30 minute summer	50	22	44.380	0.134	63.3	15.3978	0.0000	OK
30 minute summer	31_OUT	29	44.271	0.071	383.9	156.7340	0.0000	OK
30 minute summer	Dummy	1	43.534	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	34	13.002	40	23.3	1.246	0.067	2.1881	
30 minute summer	35	14.000	36	11.9	0.461	0.075	1.1341	
30 minute summer	36	14.001	37	23.2	0.769	0.145	0.9992	
30 minute summer	37	14.002	40	34.6	0.684	0.159	1.7063	
30 minute summer	38	15.000	39	12.0	0.851	0.039	0.6140	
30 minute summer	39	15.001	40	24.1	1.471	0.054	0.8113	
30 minute summer	40	13.003	43	78.9	1.595	0.180	2.6941	
30 minute summer	41	16.000	42	5.4	0.836	0.016	0.3212	
30 minute summer	42	16.001	43	5.3	0.661	0.015	0.5198	
30 minute summer	43	13.004	44	93.6	2.115	0.141	1.0644	
30 minute summer	44	13.005	31_OUT	93.7	2.240	0.137	3.3767	
30 minute summer	45	17.000	46	16.0	0.873	0.048	0.8485	
30 minute summer	46	17.001	47	31.8	1.229	0.091	1.5437	
30 minute summer	47	17.002	48	46.9	1.435	0.130	2.2661	
30 minute summer	48	17.003	49	62.1	1.982	0.159	1.7930	
30 minute summer	49	17.004	50	63.3	2.425	0.110	1.1540	
30 minute summer	50	17.005	31_OUT	37.1	1.074	0.058	1.6509	
30 minute summer	50	Infiltration		3.8				
30 minute summer	31_OUT	Orifice	Dummy	0.0				0.0
30 minute summer	31_OUT	Infiltration		107.6				

**Results for 1 year 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 99.96 %**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	18	49.427	0.077	10.6	0.1097	0.0000	OK
30 minute winter	2	19	49.277	0.109	21.0	0.1559	0.0000	OK
30 minute winter	3	19	49.074	0.129	28.1	0.2277	0.0000	OK
30 minute winter	4	18	49.527	0.077	10.6	0.1095	0.0000	OK
30 minute winter	5	19	49.336	0.089	19.4	0.1276	0.0000	OK
30 minute winter	6	19	48.964	0.162	54.4	0.2869	0.0000	OK
30 minute winter	7	18	49.313	0.063	10.6	0.0897	0.0000	OK
30 minute winter	8	19	49.051	0.101	19.6	0.1447	0.0000	OK
30 minute winter	9	20	48.799	0.149	72.9	0.2629	0.0000	OK
30 minute winter	10	18	48.754	0.054	9.0	0.0775	0.0000	OK
30 minute winter	11	20	48.183	0.158	80.3	0.4025	0.0000	OK
30 minute winter	12	18	49.359	0.059	6.2	0.0850	0.0000	OK
30 minute winter	13	19	49.262	0.087	13.0	0.1246	0.0000	OK
30 minute winter	14	19	49.151	0.084	19.1	0.1201	0.0000	OK
30 minute winter	15	19	48.909	0.109	38.8	0.1564	0.0000	OK
30 minute winter	16	20	48.062	0.137	120.6	0.3492	0.0000	OK
30 minute winter	17	18	49.419	0.069	12.2	0.0990	0.0000	OK
30 minute winter	18	18	49.235	0.085	12.2	0.1219	0.0000	OK
30 minute winter	19	18	49.021	0.137	36.0	0.2422	0.0000	OK
30 minute winter	20	19	48.918	0.093	35.8	0.1647	0.0000	OK
30 minute winter	21	18	48.885	0.085	12.2	0.1219	0.0000	OK
30 minute winter	22	18	48.786	0.082	24.4	0.1177	0.0000	OK
30 minute winter	23	19	48.257	0.107	59.8	0.1885	0.0000	OK
30 minute winter	24	18	48.235	0.085	12.2	0.1215	0.0000	OK
30 minute winter	25	18	48.113	0.063	24.4	0.0905	0.0000	OK
30 minute winter	26	20	46.815	0.190	201.1	0.4831	0.0000	OK
30 minute winter	27	18	47.343	0.043	7.1	0.0610	0.0000	OK
30 minute winter	28	20	46.471	0.196	207.5	0.4982	0.0000	OK
30 minute winter	29	18	46.550	0.050	7.1	0.0710	0.0000	OK
30 minute winter	30	18	46.989	0.039	7.1	0.0562	0.0000	OK
30 minute winter	31	20	45.939	0.164	220.3	0.4165	0.0000	OK
30 minute winter	32	18	48.861	0.061	9.7	0.0872	0.0000	OK
30 minute winter	33	18	48.654	0.104	19.4	0.1483	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	1	1.000	2	10.4	0.455	0.065	1.7463	
30 minute winter	2	1.001	3	19.7	0.735	0.124	1.6133	
30 minute winter	3	1.002	6	27.9	0.766	0.128	1.2126	
30 minute winter	4	2.000	5	10.4	0.531	0.065	1.6487	
30 minute winter	5	2.001	6	18.3	0.835	0.086	1.4744	
30 minute winter	6	1.003	9	54.4	0.943	0.156	3.3990	
30 minute winter	7	3.000	8	10.6	0.551	0.043	1.0181	
30 minute winter	8	3.001	9	19.0	0.757	0.108	1.2608	
30 minute winter	9	1.004	11	72.3	1.368	0.131	3.2918	
30 minute winter	10	4.000	11	9.0	0.843	0.030	0.3829	
30 minute winter	11	1.005	16	80.3	1.250	0.074	1.3890	
30 minute winter	12	5.000	13	6.1	0.368	0.038	0.8539	
30 minute winter	13	5.001	14	12.8	0.613	0.080	0.9149	
30 minute winter	14	5.002	15	18.9	0.760	0.078	1.1926	
30 minute winter	15	5.003	16	38.4	1.317	0.127	1.6535	
30 minute winter	16	1.006	26	120.2	1.613	0.063	6.8611	
30 minute winter	17	6.000	19	11.9	0.786	0.051	0.9142	
30 minute winter	18	7.000	19	11.9	0.640	0.075	0.8813	
30 minute winter	19	6.001	20	35.8	0.955	0.126	1.2841	
30 minute winter	20	6.002	23	35.8	1.169	0.054	2.2669	
30 minute winter	21	8.000	22	12.2	0.602	0.076	0.7870	
30 minute winter	22	8.001	23	24.2	1.249	0.071	0.6978	
30 minute winter	23	6.003	26	58.8	1.766	0.069	2.8337	
30 minute winter	24	9.000	25	12.2	0.718	0.077	0.6975	
30 minute winter	25	9.001	26	24.3	1.833	0.041	0.4239	
30 minute winter	26	1.007	28	201.1	2.128	0.100	2.0476	
30 minute winter	27	10.000	28	7.1	0.941	0.019	0.3528	
30 minute winter	28	1.008	31	207.3	2.426	0.109	2.9968	
30 minute winter	29	11.000	31	7.0	0.748	0.025	0.4527	
30 minute winter	30	12.000	31	7.1	1.069	0.016	0.2683	
30 minute winter	31	1.009	31_OUT	219.2	3.037	0.082	3.8685	
30 minute winter	32	13.000	33	9.7	0.489	0.041	0.9180	
30 minute winter	33	13.001	34	19.2	0.915	0.120	0.5024	

Results for 1 year 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 99.96 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	34	20	48.562	0.070	19.2	0.1003	0.0000	OK
30 minute winter	35	18	47.474	0.074	9.7	0.1057	0.0000	OK
30 minute winter	36	19	47.401	0.107	19.4	0.1527	0.0000	OK
30 minute winter	37	19	47.268	0.131	28.4	0.2316	0.0000	OK
30 minute winter	38	18	48.504	0.054	9.7	0.0772	0.0000	OK
30 minute winter	39	18	48.114	0.064	19.4	0.0914	0.0000	OK
30 minute winter	40	19	47.209	0.140	65.8	0.2478	0.0000	OK
30 minute winter	41	18	47.886	0.036	4.4	0.0515	0.0000	OK
30 minute winter	42	19	47.335	0.035	4.4	0.0496	0.0000	OK
30 minute winter	43	19	46.753	0.128	78.2	0.2257	0.0000	OK
30 minute winter	44	20	46.295	0.120	77.8	0.2124	0.0000	OK
30 minute winter	45	18	48.390	0.060	12.9	0.0853	0.0000	OK
30 minute winter	46	18	47.921	0.081	25.8	0.1163	0.0000	OK
30 minute winter	47	18	47.237	0.097	38.5	0.1392	0.0000	OK
30 minute winter	48	19	46.394	0.114	50.9	0.1633	0.0000	OK
30 minute winter	49	18	45.542	0.090	50.5	0.1285	0.0000	OK
30 minute winter	50	23	44.373	0.127	50.8	14.4543	0.0000	OK
30 minute winter	31_OUT	30	44.270	0.070	324.7	153.7567	0.0000	OK
30 minute winter	Dummy	1	43.534	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	34	13.002	40	18.5	1.186	0.053	1.8213	
30 minute winter	35	14.000	36	9.7	0.430	0.061	0.9813	
30 minute winter	36	14.001	37	19.0	0.728	0.119	0.8651	
30 minute winter	37	14.002	40	28.4	0.644	0.131	1.4764	
30 minute winter	38	15.000	39	9.7	0.798	0.031	0.5299	
30 minute winter	39	15.001	40	19.2	1.416	0.043	0.6544	
30 minute winter	40	13.003	43	65.4	1.513	0.149	2.3417	
30 minute winter	41	16.000	42	4.4	0.774	0.013	0.2799	
30 minute winter	42	16.001	43	4.3	0.658	0.012	0.4000	
30 minute winter	43	13.004	44	77.8	2.017	0.117	0.9270	
30 minute winter	44	13.005	31_OUT	77.9	2.129	0.114	2.9544	
30 minute winter	45	17.000	46	12.9	0.817	0.039	0.7301	
30 minute winter	46	17.001	47	25.7	1.153	0.073	1.3290	
30 minute winter	47	17.002	48	38.0	1.349	0.105	1.9597	
30 minute winter	48	17.003	49	50.5	1.890	0.129	1.5277	
30 minute winter	49	17.004	50	50.8	2.232	0.088	1.0620	
30 minute winter	50	17.005	31_OUT	33.2	1.015	0.052	1.5611	
30 minute winter	50	Infiltration		3.8				
30 minute winter	31_OUT	Orifice	Dummy	0.0				0.0
30 minute winter	31_OUT	Infiltration		107.6				

Results for 1 year +45% CC 15 minute summer. 10095 minute analysis at 1 minute timestep. Mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	49.458	0.108	21.5	0.1543	0.0000	OK
15 minute summer	2	12	49.321	0.153	41.8	0.2193	0.0000	OK
15 minute summer	3	11	49.127	0.182	54.2	0.3211	0.0000	OK
15 minute summer	4	10	49.559	0.109	21.5	0.1563	0.0000	OK
15 minute summer	5	12	49.373	0.126	39.3	0.1800	0.0000	OK
15 minute summer	6	12	49.034	0.232	105.3	0.4105	0.0000	OK
15 minute summer	7	10	49.338	0.088	21.5	0.1256	0.0000	OK
15 minute summer	8	11	49.095	0.145	39.5	0.2068	0.0000	OK
15 minute summer	9	12	48.862	0.212	143.1	0.3738	0.0000	OK
15 minute summer	10	10	48.776	0.076	18.4	0.1094	0.0000	OK
15 minute summer	11	12	48.247	0.222	153.7	0.5649	0.0000	OK
15 minute summer	12	11	49.383	0.083	12.6	0.1184	0.0000	OK
15 minute summer	13	11	49.300	0.125	26.2	0.1783	0.0000	OK
15 minute summer	14	11	49.185	0.118	38.2	0.1686	0.0000	OK
15 minute summer	15	11	48.957	0.157	77.0	0.2244	0.0000	OK
15 minute summer	16	12	48.114	0.189	232.3	0.4801	0.0000	OK
15 minute summer	17	11	49.448	0.098	24.8	0.1402	0.0000	OK
15 minute summer	18	11	49.271	0.121	24.8	0.1725	0.0000	OK
15 minute summer	19	11	49.076	0.192	71.9	0.3388	0.0000	OK
15 minute summer	20	11	48.958	0.133	72.4	0.2346	0.0000	OK
15 minute summer	21	10	48.922	0.122	24.8	0.1746	0.0000	OK
15 minute summer	22	11	48.822	0.118	49.3	0.1683	0.0000	OK
15 minute summer	23	12	48.302	0.152	121.1	0.2686	0.0000	OK
15 minute summer	24	10	48.270	0.120	24.8	0.1712	0.0000	OK
15 minute summer	25	10	48.140	0.090	49.3	0.1283	0.0000	OK
15 minute summer	26	12	46.904	0.279	391.4	0.7089	0.0000	OK
15 minute summer	27	10	47.360	0.060	14.5	0.0852	0.0000	OK
15 minute summer	28	12	46.556	0.281	401.0	0.7155	0.0000	OK
15 minute summer	29	11	46.570	0.070	14.5	0.0995	0.0000	OK
15 minute summer	30	10	47.005	0.055	14.5	0.0786	0.0000	OK
15 minute summer	31	12	46.006	0.231	424.0	0.5889	0.0000	OK
15 minute summer	32	10	48.886	0.086	19.8	0.1224	0.0000	OK
15 minute summer	33	11	48.695	0.145	39.2	0.2080	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	20.8	0.584	0.131	2.8166	
15 minute summer	2	1.001	3	38.5	0.885	0.242	2.6170	
15 minute summer	3	1.002	6	53.8	0.902	0.247	1.9926	
15 minute summer	4	2.000	5	21.1	0.676	0.132	2.6991	
15 minute summer	5	2.001	6	36.1	1.013	0.169	2.4011	
15 minute summer	6	1.003	9	106.2	1.122	0.305	5.5660	
15 minute summer	7	3.000	8	21.1	0.701	0.086	1.6814	
15 minute summer	8	3.001	9	37.4	0.914	0.213	2.0766	
15 minute summer	9	1.004	11	139.7	1.640	0.253	5.3011	
15 minute summer	10	4.000	11	17.9	1.034	0.061	0.6268	
15 minute summer	11	1.005	16	153.2	1.509	0.142	2.2237	
15 minute summer	12	5.000	13	12.2	0.450	0.077	1.4130	
15 minute summer	13	5.001	14	25.6	0.746	0.161	1.5032	
15 minute summer	14	5.002	15	37.4	0.917	0.155	1.9577	
15 minute summer	15	5.003	16	75.2	1.585	0.248	2.7072	
15 minute summer	16	1.006	26	229.5	1.870	0.121	11.3865	
15 minute summer	17	6.000	19	24.1	0.963	0.103	1.5061	
15 minute summer	18	7.000	19	24.2	0.778	0.151	1.4616	
15 minute summer	19	6.001	20	72.4	1.179	0.254	2.0975	
15 minute summer	20	6.002	23	72.4	1.429	0.110	3.7333	
15 minute summer	21	8.000	22	24.5	0.727	0.153	1.3079	
15 minute summer	22	8.001	23	48.7	1.522	0.142	1.1528	
15 minute summer	23	6.003	26	118.6	2.156	0.139	4.6831	
15 minute summer	24	9.000	25	24.5	0.879	0.154	1.1435	
15 minute summer	25	9.001	26	48.5	2.234	0.083	0.6951	
15 minute summer	26	1.007	28	388.3	2.456	0.192	3.4478	
15 minute summer	27	10.000	28	14.2	1.160	0.037	0.5743	
15 minute summer	28	1.008	31	398.7	2.847	0.210	4.9396	
15 minute summer	29	11.000	31	14.1	0.923	0.051	0.7414	
15 minute summer	30	12.000	31	14.2	1.311	0.031	0.4395	
15 minute summer	31	1.009	31_OUT	422.5	3.629	0.159	6.2330	
15 minute summer	32	13.000	33	19.5	0.608	0.081	1.4802	
15 minute summer	33	13.001	34	38.7	1.123	0.242	0.8213	

Results for 1 year +45% CC 15 minute summer. 10095 minute analysis at 1 minute timestep. Mass balance: 99.99%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	34	11	48.591	0.099	38.7	0.1419	0.0000	OK
15 minute summer	35	10	47.504	0.104	19.8	0.1488	0.0000	OK
15 minute summer	36	11	47.447	0.153	39.1	0.2195	0.0000	OK
15 minute summer	37	11	47.331	0.194	57.0	0.3426	0.0000	OK
15 minute summer	38	10	48.526	0.076	19.8	0.1082	0.0000	OK
15 minute summer	39	10	48.139	0.089	39.3	0.1271	0.0000	OK
15 minute summer	40	11	47.275	0.206	133.0	0.3633	0.0000	OK
15 minute summer	41	10	47.900	0.050	8.9	0.0722	0.0000	OK
15 minute summer	42	11	47.348	0.048	8.8	0.0688	0.0000	OK
15 minute summer	43	12	46.812	0.187	157.8	0.3307	0.0000	OK
15 minute summer	44	12	46.349	0.174	157.1	0.3075	0.0000	OK
15 minute summer	45	10	48.414	0.084	26.4	0.1201	0.0000	OK
15 minute summer	46	10	47.955	0.115	52.5	0.1643	0.0000	OK
15 minute summer	47	11	47.280	0.140	77.8	0.1999	0.0000	OK
15 minute summer	48	11	46.445	0.165	102.8	0.2361	0.0000	OK
15 minute summer	49	11	45.588	0.136	102.8	0.1939	0.0000	OK
15 minute summer	50	14	44.412	0.166	104.4	20.0290	0.0000	OK
15 minute summer	31_OUT	21	44.299	0.099	627.4	219.3191	0.0000	OK
15 minute summer	Dummy	1	43.534	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	34	13.002	40	38.1	1.252	0.110	3.7357	
15 minute summer	35	14.000	36	19.3	0.532	0.121	1.6201	
15 minute summer	36	14.001	37	38.2	0.879	0.239	1.4375	
15 minute summer	37	14.002	40	56.4	0.767	0.260	2.5210	
15 minute summer	38	15.000	39	19.6	0.990	0.063	0.8587	
15 minute summer	39	15.001	40	39.2	1.637	0.088	1.4235	
15 minute summer	40	13.003	43	131.8	1.801	0.300	3.9770	
15 minute summer	41	16.000	42	8.8	0.968	0.026	0.4526	
15 minute summer	42	16.001	43	8.6	0.646	0.024	0.9996	
15 minute summer	43	13.004	44	157.1	2.405	0.236	1.5743	
15 minute summer	44	13.005	31_OUT	157.0	2.578	0.230	4.9193	
15 minute summer	45	17.000	46	26.1	1.006	0.078	1.1972	
15 minute summer	46	17.001	47	51.4	1.403	0.147	2.1931	
15 minute summer	47	17.002	48	77.7	1.647	0.216	3.2695	
15 minute summer	48	17.003	49	102.8	2.238	0.263	2.6363	
15 minute summer	49	17.004	50	104.4	3.041	0.181	1.5819	
15 minute summer	50	17.005	31_OUT	60.7	1.268	0.095	2.2954	
15 minute summer	50	Infiltration		3.8				
15 minute summer	31_OUT	Orifice	Dummy	0.0				0.0
15 minute summer	31_OUT	Infiltration		107.6				

Results for 1 year +45% CC 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	49.454	0.104	20.2	0.1488	0.0000	OK
15 minute winter	2	12	49.316	0.148	39.1	0.2114	0.0000	OK
15 minute winter	3	11	49.120	0.175	50.8	0.3084	0.0000	OK
15 minute winter	4	10	49.555	0.105	20.2	0.1496	0.0000	OK
15 minute winter	5	12	49.368	0.121	36.7	0.1735	0.0000	OK
15 minute winter	6	12	49.026	0.224	98.1	0.3952	0.0000	OK
15 minute winter	7	10	49.335	0.085	20.2	0.1214	0.0000	OK
15 minute winter	8	11	49.089	0.139	37.0	0.1994	0.0000	OK
15 minute winter	9	12	48.854	0.204	133.6	0.3610	0.0000	OK
15 minute winter	10	10	48.774	0.074	17.3	0.1057	0.0000	OK
15 minute winter	11	12	48.240	0.215	144.6	0.5468	0.0000	OK
15 minute winter	12	11	49.380	0.080	11.9	0.1148	0.0000	OK
15 minute winter	13	11	49.295	0.120	24.6	0.1723	0.0000	OK
15 minute winter	14	11	49.181	0.114	35.6	0.1630	0.0000	OK
15 minute winter	15	11	48.951	0.151	71.6	0.2163	0.0000	OK
15 minute winter	16	12	48.108	0.183	218.1	0.4658	0.0000	OK
15 minute winter	17	11	49.444	0.094	23.3	0.1352	0.0000	OK
15 minute winter	18	11	49.266	0.116	23.3	0.1663	0.0000	OK
15 minute winter	19	11	49.069	0.185	66.9	0.3269	0.0000	OK
15 minute winter	20	11	48.953	0.128	67.4	0.2261	0.0000	OK
15 minute winter	21	10	48.918	0.118	23.3	0.1687	0.0000	OK
15 minute winter	22	11	48.817	0.113	46.1	0.1622	0.0000	OK
15 minute winter	23	12	48.296	0.146	112.8	0.2588	0.0000	OK
15 minute winter	24	10	48.266	0.116	23.3	0.1657	0.0000	OK
15 minute winter	25	10	48.136	0.086	46.1	0.1237	0.0000	OK
15 minute winter	26	12	46.893	0.268	366.6	0.6821	0.0000	OK
15 minute winter	27	10	47.358	0.058	13.7	0.0825	0.0000	OK
15 minute winter	28	12	46.546	0.271	376.3	0.6902	0.0000	OK
15 minute winter	29	11	46.567	0.067	13.7	0.0963	0.0000	OK
15 minute winter	30	10	47.003	0.053	13.7	0.0763	0.0000	OK
15 minute winter	31	12	45.999	0.224	398.2	0.5694	0.0000	OK
15 minute winter	32	10	48.883	0.083	18.5	0.1183	0.0000	OK
15 minute winter	33	11	48.690	0.140	36.6	0.2006	0.0000	OK

Link Event	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	2	19.4	0.561	0.122	2.6850	
15 minute winter	2	1.001	3	36.0	0.870	0.226	2.4881	
15 minute winter	3	1.002	6	50.5	0.900	0.232	1.8671	
15 minute winter	4	2.000	5	19.5	0.658	0.123	2.5658	
15 minute winter	5	2.001	6	33.7	0.994	0.158	2.2826	
15 minute winter	6	1.003	9	99.2	1.101	0.285	5.2973	
15 minute winter	7	3.000	8	19.7	0.672	0.080	1.5974	
15 minute winter	8	3.001	9	35.0	0.896	0.199	1.9756	
15 minute winter	9	1.004	11	130.8	1.611	0.237	5.0655	
15 minute winter	10	4.000	11	16.7	1.015	0.057	0.5968	
15 minute winter	11	1.005	16	144.0	1.479	0.133	2.1261	
15 minute winter	12	5.000	13	11.5	0.442	0.072	1.3478	
15 minute winter	13	5.001	14	24.0	0.734	0.150	1.4327	
15 minute winter	14	5.002	15	35.0	0.901	0.145	1.8638	
15 minute winter	15	5.003	16	70.5	1.555	0.232	2.5789	
15 minute winter	16	1.006	26	216.0	1.848	0.114	10.8357	
15 minute winter	17	6.000	19	22.5	0.944	0.096	1.4318	
15 minute winter	18	7.000	19	22.5	0.763	0.141	1.3898	
15 minute winter	19	6.001	20	67.4	1.156	0.237	1.9945	
15 minute winter	20	6.002	23	67.4	1.401	0.102	3.5458	
15 minute winter	21	8.000	22	22.8	0.713	0.143	1.2427	
15 minute winter	22	8.001	23	45.4	1.494	0.133	1.0958	
15 minute winter	23	6.003	26	110.4	2.113	0.130	4.4442	
15 minute winter	24	9.000	25	22.8	0.863	0.144	1.0902	
15 minute winter	25	9.001	26	45.2	2.190	0.077	0.6606	
15 minute winter	26	1.007	28	364.4	2.422	0.181	3.2751	
15 minute winter	27	10.000	28	13.2	1.137	0.035	0.5482	
15 minute winter	28	1.008	31	374.5	2.802	0.197	4.7049	
15 minute winter	29	11.000	31	13.2	0.906	0.048	0.7077	
15 minute winter	30	12.000	31	13.3	1.285	0.029	0.4204	
15 minute winter	31	1.009	31_OUT	396.6	3.568	0.149	5.9519	
15 minute winter	32	13.000	33	18.1	0.595	0.076	1.4085	
15 minute winter	33	13.001	34	36.0	1.095	0.226	0.7813	

Results for 1 year +45% CC 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	34	11	48.588	0.096	36.0	0.1370	0.0000	OK
15 minute winter	35	10	47.500	0.100	18.5	0.1436	0.0000	OK
15 minute winter	36	11	47.442	0.148	36.4	0.2113	0.0000	OK
15 minute winter	37	11	47.323	0.186	53.0	0.3283	0.0000	OK
15 minute winter	38	10	48.523	0.073	18.5	0.1045	0.0000	OK
15 minute winter	39	10	48.136	0.086	36.7	0.1225	0.0000	OK
15 minute winter	40	11	47.266	0.197	123.9	0.3481	0.0000	OK
15 minute winter	41	10	47.899	0.049	8.4	0.0700	0.0000	OK
15 minute winter	42	11	47.347	0.047	8.2	0.0667	0.0000	OK
15 minute winter	43	12	46.805	0.180	146.2	0.3175	0.0000	OK
15 minute winter	44	12	46.342	0.167	146.1	0.2953	0.0000	OK
15 minute winter	45	10	48.411	0.081	24.7	0.1162	0.0000	OK
15 minute winter	46	10	47.951	0.111	49.0	0.1584	0.0000	OK
15 minute winter	47	11	47.274	0.134	72.4	0.1925	0.0000	OK
15 minute winter	48	11	46.439	0.159	95.6	0.2273	0.0000	OK
15 minute winter	49	11	45.581	0.129	95.7	0.1849	0.0000	OK
15 minute winter	50	14	44.409	0.163	96.8	19.5622	0.0000	OK
15 minute winter	31_OUT	21	44.299	0.099	588.6	218.7401	0.0000	OK
15 minute winter	Dummy	1	43.534	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	34	13.002	40	35.5	1.250	0.102	3.4595	
15 minute winter	35	14.000	36	18.0	0.518	0.113	1.5369	
15 minute winter	36	14.001	37	35.5	0.863	0.222	1.3635	
15 minute winter	37	14.002	40	52.6	0.753	0.242	2.3791	
15 minute winter	38	15.000	39	18.2	0.972	0.059	0.8161	
15 minute winter	39	15.001	40	36.4	1.592	0.081	1.3153	
15 minute winter	40	13.003	43	122.0	1.771	0.278	3.7510	
15 minute winter	41	16.000	42	8.2	0.945	0.024	0.4322	
15 minute winter	42	16.001	43	8.1	0.627	0.023	0.9130	
15 minute winter	43	13.004	44	146.1	2.359	0.219	1.4890	
15 minute winter	44	13.005	31_OUT	145.6	2.526	0.213	4.6550	
15 minute winter	45	17.000	46	24.3	0.987	0.073	1.1382	
15 minute winter	46	17.001	47	47.8	1.376	0.136	2.0823	
15 minute winter	47	17.002	48	72.4	1.616	0.201	3.1038	
15 minute winter	48	17.003	49	95.7	2.202	0.245	2.4877	
15 minute winter	49	17.004	50	96.8	2.978	0.168	1.5304	
15 minute winter	50	17.005	31_OUT	57.9	1.243	0.091	2.2572	
15 minute winter	50	Infiltration		3.8				
15 minute winter	31_OUT	Orifice	Dummy	0.0				0.0
15 minute winter	31_OUT	Infiltration		107.6				

Results for 1 year +45% CC 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	18	49.452	0.102	19.0	0.1461	0.0000	OK
30 minute summer	2	19	49.314	0.146	37.6	0.2093	0.0000	OK
30 minute summer	3	19	49.118	0.173	49.5	0.3051	0.0000	OK
30 minute summer	4	18	49.552	0.102	19.0	0.1463	0.0000	OK
30 minute summer	5	19	49.367	0.120	34.9	0.1715	0.0000	OK
30 minute summer	6	19	49.022	0.220	96.4	0.3892	0.0000	OK
30 minute summer	7	18	49.333	0.083	19.0	0.1190	0.0000	OK
30 minute summer	8	19	49.086	0.136	35.2	0.1946	0.0000	OK
30 minute summer	9	20	48.852	0.202	129.5	0.3564	0.0000	OK
30 minute summer	10	18	48.772	0.072	16.2	0.1035	0.0000	OK
30 minute summer	11	20	48.237	0.212	141.7	0.5399	0.0000	OK
30 minute summer	12	18	49.379	0.079	11.1	0.1126	0.0000	OK
30 minute summer	13	18	49.292	0.117	23.5	0.1674	0.0000	OK
30 minute summer	14	19	49.179	0.112	34.1	0.1599	0.0000	OK
30 minute summer	15	19	48.948	0.148	69.2	0.2114	0.0000	OK
30 minute summer	16	20	48.106	0.181	210.6	0.4607	0.0000	OK
30 minute summer	17	18	49.443	0.093	21.9	0.1326	0.0000	OK
30 minute summer	18	18	49.264	0.114	21.9	0.1632	0.0000	OK
30 minute summer	19	18	49.066	0.182	64.8	0.3212	0.0000	OK
30 minute summer	20	19	48.949	0.124	64.4	0.2199	0.0000	OK
30 minute summer	21	18	48.915	0.115	21.9	0.1642	0.0000	OK
30 minute summer	22	18	48.815	0.111	43.9	0.1593	0.0000	OK
30 minute summer	23	19	48.294	0.144	107.1	0.2542	0.0000	OK
30 minute summer	24	18	48.263	0.113	21.9	0.1616	0.0000	OK
30 minute summer	25	18	48.135	0.085	43.9	0.1215	0.0000	OK
30 minute summer	26	20	46.888	0.263	352.4	0.6690	0.0000	OK
30 minute summer	27	18	47.357	0.057	12.8	0.0809	0.0000	OK
30 minute summer	28	20	46.542	0.267	366.0	0.6793	0.0000	OK
30 minute summer	29	18	46.566	0.066	12.8	0.0944	0.0000	OK
30 minute summer	30	18	47.002	0.052	12.8	0.0746	0.0000	OK
30 minute summer	31	20	45.997	0.222	388.7	0.5643	0.0000	OK
30 minute summer	32	18	48.881	0.081	17.4	0.1158	0.0000	OK
30 minute summer	33	18	48.688	0.138	34.8	0.1972	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	18.6	0.546	0.117	2.6247	
30 minute summer	2	1.001	3	34.8	0.862	0.218	2.4431	
30 minute summer	3	1.002	6	49.2	0.896	0.226	1.8341	
30 minute summer	4	2.000	5	18.7	0.637	0.117	2.4880	
30 minute summer	5	2.001	6	32.5	0.981	0.152	2.2352	
30 minute summer	6	1.003	9	95.6	1.094	0.274	5.1393	
30 minute summer	7	3.000	8	19.0	0.657	0.077	1.5450	
30 minute summer	8	3.001	9	33.9	0.888	0.193	1.9198	
30 minute summer	9	1.004	11	128.5	1.596	0.233	5.0014	
30 minute summer	10	4.000	11	16.2	1.003	0.055	0.5806	
30 minute summer	11	1.005	16	142.1	1.463	0.132	2.0907	
30 minute summer	12	5.000	13	11.0	0.433	0.069	1.2994	
30 minute summer	13	5.001	14	22.9	0.724	0.143	1.3818	
30 minute summer	14	5.002	15	33.7	0.893	0.140	1.8085	
30 minute summer	15	5.003	16	68.1	1.543	0.225	2.5072	
30 minute summer	16	1.006	26	211.7	1.836	0.112	10.5935	
30 minute summer	17	6.000	19	21.4	0.930	0.092	1.3889	
30 minute summer	18	7.000	19	21.4	0.751	0.134	1.3481	
30 minute summer	19	6.001	20	64.4	1.139	0.226	1.9327	
30 minute summer	20	6.002	23	64.7	1.379	0.098	3.4616	
30 minute summer	21	8.000	22	22.0	0.706	0.137	1.2074	
30 minute summer	22	8.001	23	43.6	1.473	0.127	1.0654	
30 minute summer	23	6.003	26	105.7	2.082	0.124	4.3214	
30 minute summer	24	9.000	25	22.0	0.853	0.138	1.0558	
30 minute summer	25	9.001	26	43.8	2.167	0.074	0.6454	
30 minute summer	26	1.007	28	355.5	2.410	0.176	3.1966	
30 minute summer	27	10.000	28	12.7	1.121	0.033	0.5343	
30 minute summer	28	1.008	31	367.5	2.787	0.194	4.6216	
30 minute summer	29	11.000	31	12.6	0.891	0.046	0.6861	
30 minute summer	30	12.000	31	12.8	1.271	0.028	0.4072	
30 minute summer	31	1.009	31_OUT	389.2	3.541	0.146	5.8864	
30 minute summer	32	13.000	33	17.4	0.585	0.073	1.3750	
30 minute summer	33	13.001	34	34.5	1.081	0.216	0.7560	

Results for 1 year +45% CC 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	34	19	48.586	0.094	34.5	0.1340	0.0000	OK
30 minute summer	35	18	47.498	0.098	17.4	0.1409	0.0000	OK
30 minute summer	36	18	47.438	0.144	34.7	0.2055	0.0000	OK
30 minute summer	37	19	47.318	0.180	50.7	0.3189	0.0000	OK
30 minute summer	38	18	48.521	0.071	17.4	0.1021	0.0000	OK
30 minute summer	39	18	48.134	0.084	34.8	0.1198	0.0000	OK
30 minute summer	40	19	47.261	0.192	117.5	0.3397	0.0000	OK
30 minute summer	41	18	47.898	0.048	7.9	0.0682	0.0000	OK
30 minute summer	42	19	47.345	0.045	7.9	0.0650	0.0000	OK
30 minute summer	43	19	46.802	0.177	140.9	0.3127	0.0000	OK
30 minute summer	44	20	46.337	0.162	140.6	0.2871	0.0000	OK
30 minute summer	45	18	48.409	0.079	23.2	0.1134	0.0000	OK
30 minute summer	46	18	47.949	0.109	46.4	0.1556	0.0000	OK
30 minute summer	47	18	47.271	0.131	69.4	0.1881	0.0000	OK
30 minute summer	48	18	46.435	0.155	92.0	0.2218	0.0000	OK
30 minute summer	49	18	45.574	0.122	90.4	0.1748	0.0000	OK
30 minute summer	50	21	44.413	0.167	92.2	20.1099	0.0000	OK
30 minute summer	31_OUT	32	44.317	0.117	582.9	261.3221	0.0000	OK
30 minute summer	Dummy	1	43.534	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	34	13.002	40	34.0	1.261	0.098	3.3060	
30 minute summer	35	14.000	36	17.3	0.510	0.109	1.4893	
30 minute summer	36	14.001	37	33.8	0.854	0.211	1.3106	
30 minute summer	37	14.002	40	50.2	0.743	0.231	2.2950	
30 minute summer	38	15.000	39	17.4	0.958	0.056	0.7894	
30 minute summer	39	15.001	40	34.7	1.553	0.078	1.2428	
30 minute summer	40	13.003	43	118.6	1.752	0.270	3.6573	
30 minute summer	41	16.000	42	7.9	0.928	0.023	0.4215	
30 minute summer	42	16.001	43	7.7	0.645	0.022	0.8846	
30 minute summer	43	13.004	44	140.6	2.340	0.211	1.4401	
30 minute summer	44	13.005	31_OUT	139.4	2.505	0.204	4.4942	
30 minute summer	45	17.000	46	23.2	0.969	0.069	1.1048	
30 minute summer	46	17.001	47	46.2	1.362	0.132	2.0240	
30 minute summer	47	17.002	48	68.8	1.587	0.191	3.0036	
30 minute summer	48	17.003	49	90.4	2.209	0.231	2.3602	
30 minute summer	49	17.004	50	92.2	2.533	0.160	1.5743	
30 minute summer	50	17.005	31_OUT	62.0	1.221	0.097	2.4643	
30 minute summer	50	Infiltration		3.8				
30 minute summer	31_OUT	Orifice	Dummy	0.0				0.0
30 minute summer	31_OUT	Infiltration		107.6				

Results for 1 year +45% CC 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance e: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	18	49.442	0.092	15.3	0.1316	0.0000	OK
30 minute winter	2	19	49.301	0.133	30.4	0.1896	0.0000	OK
30 minute winter	3	19	49.102	0.157	41.3	0.2773	0.0000	OK
30 minute winter	4	18	49.542	0.092	15.3	0.1314	0.0000	OK
30 minute winter	5	19	49.356	0.109	28.2	0.1554	0.0000	OK
30 minute winter	6	19	49.002	0.200	80.3	0.3526	0.0000	OK
30 minute winter	7	18	49.325	0.075	15.3	0.1071	0.0000	OK
30 minute winter	8	19	49.073	0.123	28.4	0.1755	0.0000	OK
30 minute winter	9	20	48.833	0.183	107.6	0.3230	0.0000	OK
30 minute winter	10	18	48.765	0.065	13.1	0.0931	0.0000	OK
30 minute winter	11	20	48.218	0.193	118.8	0.4923	0.0000	OK
30 minute winter	12	18	49.371	0.071	9.0	0.1018	0.0000	OK
30 minute winter	13	18	49.280	0.105	19.0	0.1508	0.0000	OK
30 minute winter	14	19	49.168	0.101	27.9	0.1449	0.0000	OK
30 minute winter	15	19	48.933	0.133	56.7	0.1907	0.0000	OK
30 minute winter	16	20	48.091	0.166	177.5	0.4226	0.0000	OK
30 minute winter	17	18	49.433	0.083	17.7	0.1195	0.0000	OK
30 minute winter	18	18	49.253	0.103	17.7	0.1468	0.0000	OK
30 minute winter	19	18	49.048	0.164	52.6	0.2902	0.0000	OK
30 minute winter	20	19	48.937	0.112	52.3	0.1981	0.0000	OK
30 minute winter	21	18	48.903	0.103	17.7	0.1471	0.0000	OK
30 minute winter	22	18	48.804	0.100	35.4	0.1425	0.0000	OK
30 minute winter	23	19	48.280	0.130	87.1	0.2288	0.0000	OK
30 minute winter	24	18	48.252	0.102	17.7	0.1455	0.0000	OK
30 minute winter	25	18	48.126	0.076	35.4	0.1091	0.0000	OK
30 minute winter	26	20	46.862	0.237	295.3	0.6022	0.0000	OK
30 minute winter	27	18	47.351	0.051	10.3	0.0730	0.0000	OK
30 minute winter	28	20	46.516	0.241	306.0	0.6144	0.0000	OK
30 minute winter	29	18	46.559	0.059	10.3	0.0850	0.0000	OK
30 minute winter	30	18	46.997	0.047	10.3	0.0671	0.0000	OK
30 minute winter	31	20	45.976	0.201	325.1	0.5122	0.0000	OK
30 minute winter	32	18	48.873	0.073	14.1	0.1045	0.0000	OK
30 minute winter	33	18	48.674	0.124	28.2	0.1780	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	1	1.000	2	15.1	0.503	0.095	2.2872	
30 minute winter	2	1.001	3	28.9	0.818	0.181	2.1339	
30 minute winter	3	1.002	6	41.0	0.853	0.188	1.6068	
30 minute winter	4	2.000	5	15.1	0.585	0.095	2.1637	
30 minute winter	5	2.001	6	26.9	0.932	0.126	1.9488	
30 minute winter	6	1.003	9	79.9	1.043	0.229	4.5151	
30 minute winter	7	3.000	8	15.3	0.605	0.062	1.3353	
30 minute winter	8	3.001	9	27.7	0.840	0.158	1.6605	
30 minute winter	9	1.004	11	107.1	1.520	0.194	4.3748	
30 minute winter	10	4.000	11	13.1	0.943	0.044	0.4993	
30 minute winter	11	1.005	16	118.9	1.391	0.110	1.8409	
30 minute winter	12	5.000	13	8.9	0.408	0.056	1.1218	
30 minute winter	13	5.001	14	18.7	0.683	0.117	1.1988	
30 minute winter	14	5.002	15	27.7	0.845	0.115	1.5700	
30 minute winter	15	5.003	16	56.2	1.465	0.185	2.1777	
30 minute winter	16	1.006	26	177.8	1.770	0.094	9.2301	
30 minute winter	17	6.000	19	17.4	0.876	0.075	1.1984	
30 minute winter	18	7.000	19	17.4	0.711	0.109	1.1563	
30 minute winter	19	6.001	20	52.3	1.072	0.184	1.6717	
30 minute winter	20	6.002	23	52.4	1.299	0.080	2.9809	
30 minute winter	21	8.000	22	17.7	0.667	0.111	1.0316	
30 minute winter	22	8.001	23	35.2	1.390	0.103	0.9127	
30 minute winter	23	6.003	26	86.3	1.969	0.101	3.7315	
30 minute winter	24	9.000	25	17.7	0.801	0.111	0.9072	
30 minute winter	25	9.001	26	35.4	2.040	0.060	0.5536	
30 minute winter	26	1.007	28	296.6	2.319	0.147	2.7710	
30 minute winter	27	10.000	28	10.3	1.052	0.027	0.4591	
30 minute winter	28	1.008	31	306.4	2.668	0.161	4.0246	
30 minute winter	29	11.000	31	10.2	0.837	0.037	0.5896	
30 minute winter	30	12.000	31	10.3	1.192	0.023	0.3494	
30 minute winter	31	1.009	31_OUT	324.8	3.375	0.122	5.1525	
30 minute winter	32	13.000	33	14.1	0.549	0.059	1.1902	
30 minute winter	33	13.001	34	28.0	1.009	0.175	0.6572	

Results for 1 year +45% CC 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	34	19	48.577	0.085	28.0	0.1214	0.0000	OK
30 minute winter	35	18	47.489	0.089	14.1	0.1270	0.0000	OK
30 minute winter	36	18	47.423	0.129	28.2	0.1850	0.0000	OK
30 minute winter	37	19	47.298	0.161	41.5	0.2851	0.0000	OK
30 minute winter	38	18	48.514	0.064	14.1	0.0922	0.0000	OK
30 minute winter	39	18	48.126	0.076	28.2	0.1081	0.0000	OK
30 minute winter	40	19	47.241	0.172	96.5	0.3043	0.0000	OK
30 minute winter	41	18	47.893	0.043	6.3	0.0610	0.0000	OK
30 minute winter	42	19	47.341	0.041	6.3	0.0589	0.0000	OK
30 minute winter	43	19	46.783	0.158	115.1	0.2785	0.0000	OK
30 minute winter	44	20	46.322	0.147	114.5	0.2591	0.0000	OK
30 minute winter	45	18	48.401	0.071	18.7	0.1020	0.0000	OK
30 minute winter	46	18	47.938	0.098	37.4	0.1397	0.0000	OK
30 minute winter	47	18	47.258	0.117	56.0	0.1681	0.0000	OK
30 minute winter	48	19	46.419	0.139	74.1	0.1987	0.0000	OK
30 minute winter	49	18	45.559	0.107	73.6	0.1533	0.0000	OK
30 minute winter	50	22	44.404	0.158	73.8	18.7846	0.0000	OK
30 minute winter	31_OUT	32	44.317	0.117	486.9	259.4331	0.0000	OK
30 minute winter	Dummy	1	43.534	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	34	13.002	40	27.8	1.247	0.080	2.6744	
30 minute winter	35	14.000	36	14.1	0.477	0.088	1.2857	
30 minute winter	36	14.001	37	27.7	0.808	0.173	1.1350	
30 minute winter	37	14.002	40	41.3	0.706	0.190	1.9694	
30 minute winter	38	15.000	39	14.1	0.901	0.045	0.6810	
30 minute winter	39	15.001	40	28.2	1.501	0.063	1.0034	
30 minute winter	40	13.003	43	96.6	1.666	0.220	3.1314	
30 minute winter	41	16.000	42	6.3	0.863	0.018	0.3605	
30 minute winter	42	16.001	43	6.2	0.656	0.018	0.6800	
30 minute winter	43	13.004	44	114.5	2.223	0.172	1.2349	
30 minute winter	44	13.005	31_OUT	114.5	2.371	0.168	3.9001	
30 minute winter	45	17.000	46	18.7	0.911	0.056	0.9484	
30 minute winter	46	17.001	47	37.3	1.284	0.106	1.7329	
30 minute winter	47	17.002	48	55.4	1.493	0.154	2.5733	
30 minute winter	48	17.003	49	73.6	2.098	0.188	1.9999	
30 minute winter	49	17.004	50	73.8	2.318	0.128	1.4359	
30 minute winter	50	17.005	31_OUT	54.4	1.152	0.085	2.3459	
30 minute winter	50	Infiltration		3.8				
30 minute winter	31_OUT	Orifice	Dummy	0.0				0.0
30 minute winter	31_OUT	Infiltration		107.6				

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	30	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	999.9		

Circular Default Sewer Type Link Type

Shape	Circular	Auto Increment (mm)	75
Barrels	1	Follow Ground	x

Available Diameters (mm)

100 | 150

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.163	5.00	48.600	1200	618858.309	246496.835	1.500
2	0.000	5.00	48.000	1200	618797.843	246432.591	1.405
3	0.163	5.00	48.050	1200	618863.333	246434.656	1.500
4	0.000	5.00	47.850	1350	618882.506	246396.442	1.781
5	0.163	5.00	48.400	1350	618900.855	246486.922	1.500
6	0.000	5.00	48.150	1350	618960.862	246485.952	1.575
7	0.163	5.00	48.100	1200	618902.411	246458.749	1.500
8	0.000	5.00	47.900	1350	618951.153	246429.470	1.608
4_OUT			47.400	1350	618910.292	246400.509	1.400
DUMMY			47.400	1350	618910.971	246394.876	1.650

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	2	88.224	0.600	47.100	46.595	0.505	174.7	300	6.24	114.2
1.001	2	4	92.057	0.600	46.595	46.219	0.376	244.8	300	7.77	103.5
2.000	3	4	42.754	0.600	46.550	46.219	0.331	129.2	300	5.52	120.0
1.002	4	4_OUT	28.082	0.600	46.069	46.000	0.069	407.0	450	8.24	100.6
3.000	5	6	60.015	0.600	46.900	46.575	0.325	184.7	375	5.75	118.0
3.001	6	8	57.310	0.600	46.575	46.292	0.283	202.5	375	6.50	112.2
4.000	7	8	56.860	0.600	46.600	46.367	0.233	244.0	300	5.95	116.4
3.002	8	4_OUT	50.084	0.600	46.292	46.075	0.217	230.8	375	7.21	107.1
1.003	4_OUT	DUMMY	5.674	0.600	46.000	45.750	0.250	22.7	450	8.26	100.5

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	10080	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

Storm Durations

15 | 30

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
1	45	0	0

Node 4_OUT Online Orifice Control

Flap Valve	x	Invert Level (m)	47.300	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Diameter (m)	0.500		

Node 4_OUT Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.12960	Safety Factor	2.0	Invert Level (m)	46.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	65

			RSK Land & Development			File: Catchment 4.pfd Network: Storm Network LDE Coventry1 09/01/2025			Page 2		
Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	132.7	318.9	0.600	437.9	318.9	0.601	647.6	318.9	1.400	1142.3	318.9

Results for 1 year 15 minute summer, 10095 minute analysis at 1 minute timestep. Mass balance: 99.83 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	47.190	0.090	15.4	0.1016	0.0000	OK
15 minute summer	2	12	46.680	0.085	15.4	0.0959	0.0000	OK
15 minute summer	3	10	46.631	0.081	15.4	0.0911	0.0000	OK
15 minute summer	4	11	46.191	0.122	25.6	0.1739	0.0000	OK
15 minute summer	5	10	46.983	0.083	15.4	0.1184	0.0000	OK
15 minute summer	6	11	46.656	0.081	15.2	0.1152	0.0000	OK
15 minute summer	7	11	46.694	0.094	15.4	0.1063	0.0000	OK
15 minute summer	8	12	46.412	0.120	29.4	0.1710	0.0000	OK
15 minute summer	4_OUT	21	46.122	0.122	53.9	20.2062	0.0000	OK
15 minute summer	DUMMY	1	45.750	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	15.4	1.026	0.184	1.4143	
15 minute summer	2	1.001	4	12.4	0.765	0.175	1.4896	
15 minute summer	3	2.000	4	15.0	1.005	0.154	0.6392	
15 minute summer	4	1.002	4_OUT	26.0	1.285	0.163	0.7107	
15 minute summer	5	3.000	6	15.2	0.898	0.104	1.0458	
15 minute summer	6	3.001	8	14.5	0.656	0.104	1.3565	
15 minute summer	7	4.000	8	14.8	0.798	0.209	1.0572	
15 minute summer	8	3.002	4_OUT	27.8	0.949	0.212	1.4766	
15 minute summer	4_OUT	Orifice	DUMMY	0.0				0.0
15 minute summer	4_OUT	Infiltration		5.7				

Results for 1 year 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.84 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	47.186	0.086	14.5	0.0975	0.0000	OK
15 minute winter	2	12	46.677	0.082	14.4	0.0931	0.0000	OK
15 minute winter	3	10	46.628	0.078	14.5	0.0880	0.0000	OK
15 minute winter	4	11	46.187	0.118	24.0	0.1688	0.0000	OK
15 minute winter	5	10	46.980	0.080	14.5	0.1142	0.0000	OK
15 minute winter	6	11	46.653	0.078	14.1	0.1115	0.0000	OK
15 minute winter	7	11	46.691	0.091	14.5	0.1025	0.0000	OK
15 minute winter	8	12	46.407	0.115	27.5	0.1651	0.0000	OK
15 minute winter	4_OUT	21	46.122	0.122	50.5	20.2281	0.0000	OK
15 minute winter	DUMMY	1	45.750	0.000	0.0	0.0000	0.0000	OK
Link Event	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	2	14.4	0.987	0.171	1.3540	
15 minute winter	2	1.001	4	11.7	0.752	0.165	1.4313	
15 minute winter	3	2.000	4	14.0	0.986	0.144	0.6079	
15 minute winter	4	1.002	4_OUT	24.4	1.246	0.153	0.7164	
15 minute winter	5	3.000	6	14.1	0.873	0.096	0.9956	
15 minute winter	6	3.001	8	13.6	0.634	0.097	1.2908	
15 minute winter	7	4.000	8	13.9	0.783	0.196	1.0058	
15 minute winter	8	3.002	4_OUT	26.1	0.931	0.199	1.4074	
15 minute winter	4_OUT	Orifice	DUMMY	0.0				0.0
15 minute winter	4_OUT	Infiltration		5.7				

Results for 1 year 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 99.90 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	18	47.183	0.083	13.6	0.0941	0.0000	OK
30 minute summer	2	20	46.677	0.082	13.7	0.0933	0.0000	OK
30 minute summer	3	18	46.626	0.076	13.6	0.0864	0.0000	OK
30 minute summer	4	19	46.185	0.116	24.0	0.1662	0.0000	OK
30 minute summer	5	18	46.978	0.078	13.6	0.1112	0.0000	OK
30 minute summer	6	19	46.652	0.077	13.7	0.1097	0.0000	OK
30 minute summer	7	18	46.689	0.089	13.6	0.1002	0.0000	OK
30 minute summer	8	20	46.405	0.113	26.3	0.1617	0.0000	OK
30 minute summer	4_OUT	34	46.143	0.143	48.8	24.4804	0.0000	OK
30 minute summer	DUMMY	1	45.750	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	13.7	0.937	0.163	1.3398	
30 minute summer	2	1.001	4	11.7	0.749	0.165	1.4329	
30 minute summer	3	2.000	4	13.5	0.974	0.138	0.5938	
30 minute summer	4	1.002	4_OUT	23.9	1.095	0.150	0.8505	
30 minute summer	5	3.000	6	13.7	0.860	0.093	0.9645	
30 minute summer	6	3.001	8	13.2	0.619	0.094	1.2547	
30 minute summer	7	4.000	8	13.1	0.774	0.185	0.9704	
30 minute summer	8	3.002	4_OUT	25.4	0.926	0.194	1.3744	
30 minute summer	4_OUT	Orifice	DUMMY	0.0				0.0
30 minute summer	4_OUT	Infiltration		5.7				

Results for 1 year 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 99.92 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	18	47.174	0.074	11.0	0.0837	0.0000	OK
30 minute winter	2	20	46.671	0.076	11.0	0.0858	0.0000	OK
30 minute winter	3	18	46.619	0.069	11.0	0.0775	0.0000	OK
30 minute winter	4	19	46.176	0.107	20.1	0.1528	0.0000	OK
30 minute winter	5	18	46.970	0.070	11.0	0.0997	0.0000	OK
30 minute winter	6	19	46.644	0.069	11.0	0.0993	0.0000	OK
30 minute winter	7	18	46.680	0.080	11.0	0.0901	0.0000	OK
30 minute winter	8	20	46.395	0.103	21.5	0.1467	0.0000	OK
30 minute winter	4_OUT	34	46.143	0.143	41.0	24.4471	0.0000	OK
30 minute winter	DUMMY	1	45.750	0.000	0.0	0.0000	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	1	1.000	2	11.0	0.854	0.132	1.1773	
30 minute winter	2	1.001	4	9.9	0.716	0.140	1.2707	
30 minute winter	3	2.000	4	10.9	0.918	0.112	0.5100	
30 minute winter	4	1.002	4_OUT	20.1	1.015	0.126	0.8473	
30 minute winter	5	3.000	6	11.0	0.797	0.075	0.8348	
30 minute winter	6	3.001	8	10.8	0.576	0.077	1.0932	
30 minute winter	7	4.000	8	10.8	0.731	0.152	0.8390	
30 minute winter	8	3.002	4_OUT	21.0	0.878	0.160	1.2005	
30 minute winter	4_OUT	Orifice	DUMMY	0.0				0.0
30 minute winter	4_OUT	Infiltration		5.7				

Results for 1 year +45% CC 15 minute summer. 10095 minute analysis at 1 minute timestep. Mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	47.209	0.109	22.4	0.1230	0.0000	OK
15 minute summer	2	12	46.701	0.106	22.3	0.1197	0.0000	OK
15 minute summer	3	10	46.648	0.098	22.4	0.1114	0.0000	OK
15 minute summer	4	11	46.215	0.146	38.0	0.2085	0.0000	OK
15 minute summer	5	10	47.000	0.100	22.4	0.1431	0.0000	OK
15 minute summer	6	11	46.673	0.098	22.1	0.1400	0.0000	OK
15 minute summer	7	11	46.715	0.115	22.4	0.1305	0.0000	OK
15 minute summer	8	12	46.440	0.148	43.2	0.2121	0.0000	OK
15 minute summer	4_OUT	22	46.173	0.173	80.0	30.7213	0.0000	OK
15 minute summer	DUMMY	1	45.750	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	22.3	1.114	0.266	1.8919	
15 minute summer	2	1.001	4	18.5	0.856	0.262	2.0093	
15 minute summer	3	2.000	4	21.8	1.114	0.223	0.8398	
15 minute summer	4	1.002	4_OUT	38.4	1.382	0.241	1.1681	
15 minute summer	5	3.000	6	22.1	0.988	0.151	1.3707	
15 minute summer	6	3.001	8	21.5	0.717	0.153	1.7990	
15 minute summer	7	4.000	8	21.7	0.887	0.306	1.3913	
15 minute summer	8	3.002	4_OUT	41.6	1.054	0.317	1.9762	
15 minute summer	4_OUT	Orifice	DUMMY	0.0				0.0
15 minute summer	4_OUT	Infiltration		5.7				

Results for 1 year +45% CC 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.84%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	47.204	0.104	21.0	0.1179	0.0000	OK
15 minute winter	2	12	46.698	0.103	20.8	0.1159	0.0000	OK
15 minute winter	3	10	46.645	0.095	21.0	0.1074	0.0000	OK
15 minute winter	4	11	46.211	0.142	35.9	0.2025	0.0000	OK
15 minute winter	5	10	46.996	0.096	21.0	0.1380	0.0000	OK
15 minute winter	6	11	46.670	0.095	20.6	0.1353	0.0000	OK
15 minute winter	7	11	46.711	0.111	21.0	0.1256	0.0000	OK
15 minute winter	8	12	46.435	0.143	40.3	0.2043	0.0000	OK
15 minute winter	4_OUT	22	46.173	0.173	74.9	30.7969	0.0000	OK
15 minute winter	DUMMY	1	45.750	0.000	0.0	0.0000	0.0000	OK
Link Event	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	2	20.8	1.071	0.248	1.8095	
15 minute winter	2	1.001	4	17.5	0.842	0.247	1.9253	
15 minute winter	3	2.000	4	20.4	1.094	0.209	0.7984	
15 minute winter	4	1.002	4_OUT	36.0	1.334	0.226	1.1717	
15 minute winter	5	3.000	6	20.6	0.964	0.140	1.3048	
15 minute winter	6	3.001	8	20.1	0.695	0.143	1.7115	
15 minute winter	7	4.000	8	20.3	0.870	0.286	1.3242	
15 minute winter	8	3.002	4_OUT	38.9	1.036	0.296	1.8810	
15 minute winter	4_OUT	Orifice	DUMMY	0.0				0.0
15 minute winter	4_OUT	Infiltration		5.7				

Results for 1 year +45% CC 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	18	47.201	0.101	19.7	0.1138	0.0000	OK
30 minute summer	2	20	46.696	0.101	19.9	0.1147	0.0000	OK
30 minute summer	3	18	46.643	0.093	19.7	0.1050	0.0000	OK
30 minute summer	4	20	46.211	0.142	35.4	0.2030	0.0000	OK
30 minute summer	5	18	46.994	0.094	19.7	0.1340	0.0000	OK
30 minute summer	6	19	46.667	0.092	19.8	0.1323	0.0000	OK
30 minute summer	7	18	46.708	0.108	19.7	0.1227	0.0000	OK
30 minute summer	8	19	46.431	0.139	38.2	0.1989	0.0000	OK
30 minute summer	4_OUT	35	46.204	0.204	71.9	37.8774	0.0000	OK
30 minute summer	DUMMY	1	45.750	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	19.9	1.023	0.237	1.7721	
30 minute summer	2	1.001	4	17.4	0.838	0.245	1.9071	
30 minute summer	3	2.000	4	19.6	1.080	0.201	0.7775	
30 minute summer	4	1.002	4_OUT	35.2	1.139	0.221	1.5348	
30 minute summer	5	3.000	6	19.8	0.948	0.135	1.2647	
30 minute summer	6	3.001	8	19.2	0.679	0.137	1.6672	
30 minute summer	7	4.000	8	19.2	0.858	0.271	1.2798	
30 minute summer	8	3.002	4_OUT	37.2	1.028	0.283	1.8124	
30 minute summer	4_OUT	Orifice	DUMMY	0.0				0.0
30 minute summer	4_OUT	Infiltration		5.7				

Results for 1 year +45% CC 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	18	47.189	0.089	15.9	0.1007	0.0000	OK
30 minute winter	2	20	46.688	0.093	16.0	0.1050	0.0000	OK
30 minute winter	3	18	46.633	0.083	15.9	0.0938	0.0000	OK
30 minute winter	4	35	46.203	0.134	29.7	0.1919	0.0000	OK
30 minute winter	5	18	46.984	0.084	15.9	0.1198	0.0000	OK
30 minute winter	6	19	46.658	0.083	15.9	0.1194	0.0000	OK
30 minute winter	7	18	46.697	0.097	15.9	0.1096	0.0000	OK
30 minute winter	8	20	46.417	0.125	31.3	0.1791	0.0000	OK
30 minute winter	4_OUT	35	46.204	0.204	59.8	37.8509	0.0000	OK
30 minute winter	DUMMY	1	45.750	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	1	1.000	2	16.0	0.935	0.191	1.5518	
30 minute winter	2	1.001	4	14.6	0.798	0.207	1.6892	
30 minute winter	3	2.000	4	15.9	1.019	0.162	0.6659	
30 minute winter	4	1.002	4_OUT	29.3	1.056	0.184	1.5334	
30 minute winter	5	3.000	6	15.9	0.882	0.109	1.0889	
30 minute winter	6	3.001	8	15.7	0.634	0.112	1.4429	
30 minute winter	7	4.000	8	15.6	0.811	0.221	1.1007	
30 minute winter	8	3.002	4_OUT	30.7	0.975	0.234	1.5797	
30 minute winter	4_OUT	Orifice	DUMMY	0.0				0.0
30 minute winter	4_OUT	Infiltration		5.7				

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	30	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	999.9		

Circular Default Sewer Type Link Type

Shape	Circular	Auto Increment (mm)	75
Barrels	1	Follow Ground	x

Available Diameters (mm)

100 | 150

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.110	5.00	47.550	1200	619026.248	246460.520	1.500
2	0.110	5.00	46.900	1350	619107.295	246442.617	1.575
3	0.000	5.00	46.900	1350	619135.884	246450.319	1.667
4	0.110	5.00	47.600	1200	618985.786	246441.839	1.500
5	0.110	5.00	47.050	1350	619047.802	246432.929	1.575
6	0.110	5.00	46.800	1350	619102.824	246424.488	1.650
7	0.000	5.00	46.700	1350	619147.427	246399.215	1.704
8_OUT			46.075	1500	619139.403	246375.745	1.400
DUMMY			46.075	1500	619136.539	246370.895	2.075

Links (Input)

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
2.000	1	2	83.001	0.600	46.050	45.400	0.650	127.7	300	6.00	116.0
2.001	2	3	29.608	0.600	45.325	45.233	0.092	321.8	375	6.49	112.3
2.002	3	7	52.391	0.600	45.233	45.071	0.162	323.4	375	7.36	106.2
1.000	4	5	62.653	0.600	46.100	45.550	0.550	113.9	300	5.71	118.4
1.001	5	6	55.666	0.600	45.475	45.225	0.250	222.7	375	6.48	112.4
1.002	6	7	51.266	0.600	45.150	44.996	0.154	332.9	450	7.25	106.9
1.003	7	8_OUT	24.804	0.600	44.996	44.750	0.246	100.8	450	7.56	104.8
1.004	8_OUT	DUMMY	5.632	0.600	44.675	44.000	0.675	8.3	525	7.57	102.9

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	10080	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

Storm Durations

15 | 30

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
1	45	0	0

Node 8_OUT Online Orifice Control

Flap Valve	x	Invert Level (m)	46.000	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Diameter (m)	0.500		

Node 8_OUT Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.08640	Safety Factor	2.0	Invert Level (m)	44.675
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	130

Results for 1 year 15 minute summer. 10095 minute analysis at 1 minute timestep. Mass balance: 99.84 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	46.114	0.064	10.4	0.0721	0.0000	OK
15 minute summer	2	11	45.434	0.109	19.6	0.1565	0.0000	OK
15 minute summer	3	12	45.339	0.106	19.6	0.1512	0.0000	OK
15 minute summer	4	11	46.163	0.063	10.4	0.0713	0.0000	OK
15 minute summer	5	11	45.573	0.098	19.9	0.1401	0.0000	OK
15 minute summer	6	11	45.276	0.126	29.4	0.1805	0.0000	OK
15 minute summer	7	12	45.118	0.122	47.2	0.1740	0.0000	OK
15 minute summer	8_OUT	24	44.777	0.102	47.1	19.5528	0.0000	OK
15 minute summer	DUMMY	1	44.000	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	2.000	2	9.7	0.894	0.098	0.8979	
15 minute summer	2	2.001	3	19.6	0.801	0.177	0.7560	
15 minute summer	3	2.002	7	18.5	0.774	0.168	1.2561	
15 minute summer	4	1.000	5	10.0	0.940	0.096	0.6670	
15 minute summer	5	1.001	6	19.5	0.872	0.146	1.2486	
15 minute summer	6	1.002	7	29.1	0.843	0.165	1.7837	
15 minute summer	7	1.003	8_OUT	47.1	1.423	0.146	0.8211	
15 minute summer	8_OUT	Orifice	DUMMY	0.0				0.0
15 minute summer	8_OUT	Infiltration		2.5				

Results for 1 year 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.85 %

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	46.112	0.062	9.8	0.0698	0.0000	OK
15 minute winter	2	11	45.431	0.106	18.3	0.1512	0.0000	OK
15 minute winter	3	12	45.335	0.102	18.4	0.1462	0.0000	OK
15 minute winter	4	11	46.161	0.061	9.8	0.0689	0.0000	OK
15 minute winter	5	11	45.570	0.095	18.7	0.1354	0.0000	OK
15 minute winter	6	11	45.272	0.122	27.5	0.1744	0.0000	OK
15 minute winter	7	12	45.113	0.117	44.1	0.1681	0.0000	OK
15 minute winter	8_OUT	24	44.778	0.103	44.2	19.6091	0.0000	OK
15 minute winter	DUMMY	1	44.000	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	2.000	2	9.1	0.878	0.092	0.8580	
15 minute winter	2	2.001	3	18.4	0.771	0.166	0.7234	
15 minute winter	3	2.002	7	17.4	0.762	0.157	1.1985	
15 minute winter	4	1.000	5	9.4	0.922	0.090	0.6361	
15 minute winter	5	1.001	6	18.3	0.855	0.137	1.1916	
15 minute winter	6	1.002	7	27.3	0.827	0.155	1.6964	
15 minute winter	7	1.003	8_OUT	44.2	1.399	0.137	0.7833	
15 minute winter	8_OUT	Orifice	DUMMY	0.0				0.0
15 minute winter	8_OUT	Infiltration		2.5				

Results for 1 year 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 100.0 0%

Node	Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute	summer	1	19	46.110	0.060	9.2	0.0681	0.0000	OK
30 minute	summer	2	18	45.429	0.104	17.7	0.1482	0.0000	OK
30 minute	summer	3	19	45.333	0.100	17.5	0.1435	0.0000	OK
30 minute	summer	4	18	46.160	0.060	9.2	0.0675	0.0000	OK
30 minute	summer	5	19	45.567	0.092	18.1	0.1322	0.0000	OK
30 minute	summer	6	19	45.269	0.119	26.2	0.1701	0.0000	OK
30 minute	summer	7	20	45.111	0.115	43.0	0.1642	0.0000	OK
30 minute	summer	8_OUT	37	44.801	0.126	42.5	24.6645	0.0000	OK
30 minute	summer	DUMMY	1	44.000	0.000	0.0	0.0000	0.0000	OK
Link	Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute	summer	1	2.000	2	8.7	0.870	0.089	0.8309	
30 minute	summer	2	2.001	3	17.5	0.751	0.158	0.7088	
30 minute	summer	3	2.002	7	16.8	0.758	0.152	1.1624	
30 minute	summer	4	1.000	5	8.9	0.908	0.086	0.6152	
30 minute	summer	5	1.001	6	17.6	0.848	0.132	1.1565	
30 minute	summer	6	1.002	7	26.4	0.814	0.150	1.6705	
30 minute	summer	7	1.003	8_OUT	42.5	1.388	0.132	0.7603	
30 minute	summer	8_OUT	Orifice	DUMMY	0.0				0.0
30 minute	summer	8_OUT	Infiltration		2.5				

Results for 1 year 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 100.0 0%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	19	46.105	0.055	7.4	0.0619	0.0000	OK
30 minute winter	2	18	45.418	0.093	14.5	0.1335	0.0000	OK
30 minute winter	3	20	45.324	0.091	14.4	0.1305	0.0000	OK
30 minute winter	4	18	46.154	0.054	7.4	0.0609	0.0000	OK
30 minute winter	5	19	45.558	0.083	14.6	0.1194	0.0000	OK
30 minute winter	6	19	45.257	0.107	21.5	0.1536	0.0000	OK
30 minute winter	7	20	45.100	0.104	35.4	0.1491	0.0000	OK
30 minute winter	8_OUT	37	44.802	0.127	35.3	24.7600	0.0000	OK
30 minute winter	DUMMY	1	44.000	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	1	2.000	2	7.2	0.820	0.073	0.7244	
30 minute winter	2	2.001	3	14.4	0.698	0.129	0.6184	
30 minute winter	3	2.002	7	14.0	0.718	0.127	1.0232	
30 minute winter	4	1.000	5	7.2	0.855	0.070	0.5315	
30 minute winter	5	1.001	6	14.4	0.801	0.108	1.0013	
30 minute winter	6	1.002	7	21.6	0.766	0.122	1.4489	
30 minute winter	7	1.003	8_OUT	35.3	1.319	0.110	0.6643	
30 minute winter	8_OUT	Orifice	DUMMY	0.0				0.0
30 minute winter	8_OUT	Infiltration		2.5				

Results for 1 year +45% CC 15 minute summer. 10095 minute analysis at 1 minute timestep. Mass balance: 99.85%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	46.128	0.078	15.1	0.0878	0.0000	OK
15 minute summer	2	11	45.459	0.134	28.7	0.1924	0.0000	OK
15 minute summer	3	12	45.363	0.130	28.7	0.1859	0.0000	OK
15 minute summer	4	11	46.176	0.076	15.1	0.0864	0.0000	OK
15 minute summer	5	11	45.595	0.120	29.2	0.1718	0.0000	OK
15 minute summer	6	11	45.305	0.155	43.2	0.2218	0.0000	OK
15 minute summer	7	12	45.147	0.151	69.3	0.2156	0.0000	OK
15 minute summer	8_OUT	24	44.823	0.148	70.0	29.3885	0.0000	OK
15 minute summer	DUMMY	1	44.000	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	2.000	2	14.3	1.000	0.145	1.1860	
15 minute summer	2	2.001	3	28.7	0.873	0.259	1.0150	
15 minute summer	3	2.002	7	27.6	0.866	0.250	1.6732	
15 minute summer	4	1.000	5	14.6	1.047	0.141	0.8752	
15 minute summer	5	1.001	6	28.8	0.969	0.216	1.6558	
15 minute summer	6	1.002	7	43.0	0.923	0.244	2.3899	
15 minute summer	7	1.003	8_OUT	70.0	1.580	0.217	1.0985	
15 minute summer	8_OUT	Orifice	DUMMY	0.0				0.0
15 minute summer	8_OUT	Infiltration		2.5				

Results for 1 year +45% CC 15 minute winter. 10095 minute analysis at 1 minute timestep. Mass balance: 99.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	11	46.125	0.075	14.2	0.0847	0.0000	OK
15 minute winter	2	11	45.454	0.129	26.6	0.1850	0.0000	OK
15 minute winter	3	12	45.358	0.125	26.8	0.1792	0.0000	OK
15 minute winter	4	11	46.174	0.074	14.2	0.0833	0.0000	OK
15 minute winter	5	11	45.591	0.116	27.3	0.1655	0.0000	OK
15 minute winter	6	11	45.299	0.149	40.2	0.2136	0.0000	OK
15 minute winter	7	12	45.141	0.145	64.7	0.2075	0.0000	OK
15 minute winter	8_OUT	24	44.823	0.148	65.3	29.3751	0.0000	OK
15 minute winter	DUMMY	1	44.000	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	2.000	2	13.3	0.981	0.136	1.1291	
15 minute winter	2	2.001	3	26.8	0.841	0.242	0.9664	
15 minute winter	3	2.002	7	25.8	0.849	0.233	1.5935	
15 minute winter	4	1.000	5	13.6	1.027	0.131	0.8318	
15 minute winter	5	1.001	6	26.9	0.951	0.201	1.5737	
15 minute winter	6	1.002	7	40.2	0.906	0.228	2.2741	
15 minute winter	7	1.003	8_OUT	65.3	1.553	0.203	1.0439	
15 minute winter	8_OUT	Orifice	DUMMY	0.0				0.0
15 minute winter	8_OUT	Infiltration		2.5				

Results for 1 year +45% CC 30 minute summer. 10110 minute analysis at 1 minute timestep. Mass balance: 99.91%

Node	Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute	summer	1	18	46.123	0.073	13.3	0.0826	0.0000	OK
30 minute	summer	2	18	45.452	0.127	25.9	0.1814	0.0000	OK
30 minute	summer	3	19	45.356	0.123	25.6	0.1763	0.0000	OK
30 minute	summer	4	18	46.172	0.072	13.3	0.0817	0.0000	OK
30 minute	summer	5	19	45.587	0.112	26.3	0.1608	0.0000	OK
30 minute	summer	6	18	45.295	0.145	38.5	0.2076	0.0000	OK
30 minute	summer	7	19	45.138	0.142	63.3	0.2030	0.0000	OK
30 minute	summer	8_OUT	38	44.856	0.181	62.3	37.1523	0.0000	OK
30 minute	summer	DUMMY	1	44.000	0.000	0.0	0.0000	0.0000	OK
Link	Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute	summer	1	2.000	2	12.7	0.970	0.129	1.0882	
30 minute	summer	2	2.001	3	25.6	0.825	0.231	0.9406	
30 minute	summer	3	2.002	7	24.7	0.842	0.223	1.5497	
30 minute	summer	4	1.000	5	13.0	1.011	0.125	0.8062	
30 minute	summer	5	1.001	6	25.7	0.943	0.193	1.5189	
30 minute	summer	6	1.002	7	38.5	0.894	0.219	2.2263	
30 minute	summer	7	1.003	8_OUT	62.3	1.537	0.194	1.0106	
30 minute	summer	8_OUT	Orifice	DUMMY	0.0				0.0
30 minute	summer	8_OUT	Infiltration		2.5				

Results for 1 year +45% CC 30 minute winter. 10110 minute analysis at 1 minute timestep. Mass balance: 99.92%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	1	19	46.116	0.066	10.7	0.0746	0.0000	OK
30 minute winter	2	18	45.439	0.114	21.0	0.1626	0.0000	OK
30 minute winter	3	19	45.344	0.111	20.9	0.1591	0.0000	OK
30 minute winter	4	18	46.165	0.065	10.7	0.0733	0.0000	OK
30 minute winter	5	19	45.576	0.101	21.2	0.1448	0.0000	OK
30 minute winter	6	19	45.280	0.130	31.4	0.1866	0.0000	OK
30 minute winter	7	19	45.123	0.127	51.9	0.1824	0.0000	OK
30 minute winter	8_OUT	37	44.856	0.181	51.6	37.1161	0.0000	OK
30 minute winter	DUMMY	1	44.000	0.000	0.0	0.0000	0.0000	OK
Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	1	2.000	2	10.4	0.916	0.106	0.9451	
30 minute winter	2	2.001	3	20.9	0.769	0.189	0.8167	
30 minute winter	3	2.002	7	20.5	0.799	0.185	1.3482	
30 minute winter	4	1.000	5	10.6	0.954	0.101	0.6934	
30 minute winter	5	1.001	6	21.0	0.891	0.157	1.3125	
30 minute winter	6	1.002	7	31.5	0.844	0.179	1.9199	
30 minute winter	7	1.003	8_OUT	51.6	1.461	0.160	0.8757	
30 minute winter	8_OUT	Orifice	DUMMY	0.0				0.0
30 minute winter	8_OUT	Infiltration		2.5				