

### Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	45	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)	50.0		

### Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.016	5.00	129.781	1200	420759.225	426741.119	1.026
2	0.024	5.00	130.166	450	420746.948	426777.702	1.351
3	0.057	5.00	129.852	1200	420751.108	426765.422	1.852
4	0.015	5.00	129.237	450	420763.225	426775.555	1.300
5	0.013	5.00	128.336	450	420774.172	426779.104	1.300
6	0.013	5.00	127.947	450	420776.505	426779.860	1.300
7	0.032	5.00	127.151	1800	420789.297	426777.811	2.346
8	0.010	5.00	126.684	450	420797.806	426784.769	1.300
9	0.015	5.00	126.029	450	420807.459	426789.659	1.300
10	0.054	5.00	125.400	450	420834.466	426798.418	1.150
11		5.00	125.325	600	420843.602	426795.429	2.810
12			125.521	450	420825.339	426789.504	3.051
13	0.015	5.00	125.410	1500	420830.907	426788.355	3.190
C1			125.054	600	420831.673	426785.997	2.704
J1			128.900		420765.045	426769.943	1.883
J2			128.111		420775.990	426773.494	1.866
J3			127.943		420778.323	426774.251	1.863
J4			126.449		420799.037	426780.971	1.881
J5			125.715		420809.206	426784.270	1.864
Tank			125.309	1200	420836.222	426793.035	2.846
J6			125.480		420830.038	426791.029	2.743

### Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	3	25.623	0.600	128.755	128.000	0.755	33.9	300	5.16	50.0
2.000	2	3	12.965	0.600	128.815	128.150	0.665	19.5	150	5.09	50.0
1.001	3	J1	14.652	0.600	128.000	127.017	0.983	14.9	300	5.22	50.0
8.000	11	Tank	7.759	0.600	122.815	122.763	0.052	150.0	300	5.10	50.0
1.010	13	C1	2.479	0.600	122.670	122.650	0.020	124.0	300	5.61	50.0
3.000	4	J1	5.900	0.600	127.937	127.367	0.570	10.4	100	5.04	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	2.708	191.4	4.2	0.726	1.552	0.016	0.0	30	1.113
2.000	2.291	40.5	6.3	1.201	1.552	0.024	0.0	40	1.677
1.001	4.092	289.3	25.4	1.552	1.583	0.097	0.0	59	2.549
8.000	1.281	90.6	0.0	2.210	2.246	0.000	0.0	0	0.000
1.010	1.411	99.7	69.2	2.440	2.104	0.264	0.0	184	1.519
3.000	2.416	19.0	3.9	1.200	1.433	0.015	0.0	31	1.906

### Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.002	J1	J2	11.507	0.600	127.017	126.245	0.772	14.9	300	5.26	50.0
1.003	J2	J3	2.453	0.600	126.245	126.080	0.165	14.9	300	5.27	50.0
1.004	J3	7	11.537	0.600	126.080	125.305	0.775	14.9	300	5.32	50.0
1.006	J4	J5	10.691	0.600	124.568	123.851	0.717	14.9	300	5.41	50.0
1.007	J5	12	16.961	0.600	123.851	122.770	1.081	15.7	300	5.48	50.0
4.000	5	J2	5.897	0.600	127.036	126.595	0.441	13.4	100	5.05	50.0
5.000	6	J3	5.896	0.600	126.647	126.547	0.100	59.0	100	5.10	50.0
6.000	8	J4	3.993	0.600	125.384	124.969	0.415	9.6	100	5.03	50.0
7.000	9	J5	5.665	0.600	124.729	124.252	0.477	11.9	100	5.04	50.0
9.000	10	Tank	5.662	0.600	124.250	122.913	1.337	4.2	150	5.02	50.0
8.001	Tank	J6	6.501	0.600	122.763	122.737	0.026	250.0	300	5.21	50.0
1.005	7	J4	10.240	0.600	125.255	124.568	0.687	14.9	300	5.36	50.0
1.008	12	J6	4.940	0.600	122.770	122.737	0.033	149.7	300	5.54	50.0
1.009	J6	13	2.812	0.600	122.737	122.720	0.017	165.4	300	5.58	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.002	4.092	289.3	29.3	1.583	1.566	0.112	0.0	64	2.663
1.003	4.098	289.7	32.8	1.566	1.563	0.125	0.0	68	2.749
1.004	4.095	289.4	36.2	1.563	1.546	0.138	0.0	71	2.826
1.006	4.091	289.2	47.2	1.581	1.564	0.180	0.0	81	3.036
1.007	3.988	281.9	51.1	1.564	2.451	0.195	0.0	86	3.051
4.000	2.124	16.7	3.4	1.200	1.416	0.013	0.0	31	1.675
5.000	1.005	7.9	3.4	1.200	1.296	0.013	0.0	46	0.966
6.000	2.506	19.7	2.6	1.200	1.380	0.010	0.0	25	1.740
7.000	2.254	17.7	3.9	1.200	1.363	0.015	0.0	32	1.803
9.000	4.931	87.1	14.1	1.000	2.246	0.054	0.0	41	3.642
8.001	0.990	69.9	14.1	2.246	2.443	0.054	0.0	91	0.779
1.005	4.092	289.3	44.5	1.596	1.581	0.170	0.0	79	2.988
1.008	1.282	90.7	51.1	2.451	2.443	0.195	0.0	161	1.320
1.009	1.220	86.2	65.2	2.443	2.390	0.249	0.0	195	1.336

### Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	25.623	33.9	300	Circular	129.781	128.755	0.726	129.852	128.000	1.552
2.000	12.965	19.5	150	Circular	130.166	128.815	1.201	129.852	128.150	1.552
1.001	14.652	14.9	300	Circular	129.852	128.000	1.552	128.900	127.017	1.583
8.000	7.759	150.0	300	Circular	125.325	122.815	2.210	125.309	122.763	2.246
1.010	2.479	124.0	300	Circular	125.410	122.670	2.440	125.054	122.650	2.104
3.000	5.900	10.4	100	Circular	129.237	127.937	1.200	128.900	127.367	1.433





Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1	1200	Manhole	Adoptable	3	1200	Manhole	Adoptable
2.000	2	450	Manhole	Adoptable	3	1200	Manhole	Adoptable
1.001	3	1200	Manhole	Adoptable	J1		Junction	
8.000	11	600	Manhole	Adoptable	Tank	1200	Manhole	Adoptable
1.010	13	1500	Manhole	Adoptable	C1	600	Manhole	Adoptable
3.000	4	450	Manhole	Adoptable	J1		Junction	

### Pipeline Schedule



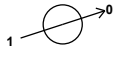




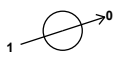


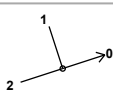
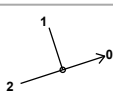
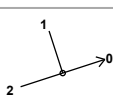
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.002	11.507	14.9	300	Circular	128.900	127.017	1.583	128.111	126.245	1.566
1.003	2.453	14.9	300	Circular	128.111	126.245	1.566	127.943	126.080	1.563
1.004	11.537	14.9	300	Circular	127.943	126.080	1.563	127.151	125.305	1.546
1.006	10.691	14.9	300	Circular	126.449	124.568	1.581	125.715	123.851	1.564
1.007	16.961	15.7	300	Circular	125.715	123.851	1.564	125.521	122.770	2.451
4.000	5.897	13.4	100	Circular	128.336	127.036	1.200	128.111	126.595	1.416
5.000	5.896	59.0	100	Circular	127.947	126.647	1.200	127.943	126.547	1.296
6.000	3.993	9.6	100	Circular	126.684	125.384	1.200	126.449	124.969	1.380
7.000	5.665	11.9	100	Circular	126.029	124.729	1.200	125.715	124.252	1.363
9.000	5.662	4.2	150	Circular	125.400	124.250	1.000	125.309	122.913	2.246
8.001	6.501	250.0	300	Circular	125.309	122.763	2.246	125.480	122.737	2.443
1.005	10.240	14.9	300	Circular	127.151	125.255	1.596	126.449	124.568	1.581
1.008	4.940	149.7	300	Circular	125.521	122.770	2.451	125.480	122.737	2.443
1.009	2.812	165.4	300	Circular	125.480	122.737	2.443	125.410	122.720	2.390

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.002	J1		Junction		J2		Junction	
1.003	J2		Junction		J3		Junction	
1.004	J3		Junction		7	1800	Manhole	Adoptable
1.006	J4		Junction		J5		Junction	
1.007	J5		Junction		12	450	Manhole	Adoptable
4.000	5	450	Manhole	Adoptable	J2		Junction	
5.000	6	450	Manhole	Adoptable	J3		Junction	
6.000	8	450	Manhole	Adoptable	J4		Junction	
7.000	9	450	Manhole	Adoptable	J5		Junction	
9.000	10	450	Manhole	Adoptable	Tank	1200	Manhole	Adoptable
8.001	Tank	1200	Manhole	Adoptable	J6		Junction	
1.005	7	1800	Manhole	Adoptable	J4		Junction	
1.008	12	450	Manhole	Adoptable	J6		Junction	
1.009	J6		Junction		13	1500	Manhole	Adoptable

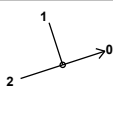
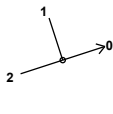
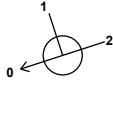
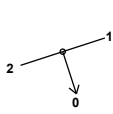
### Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
1	420759.225	426741.119	129.781	1.026	1200				
						0	1.000	128.755	300
2	420746.948	426777.702	130.166	1.351	450				
						0	2.000	128.815	150
3	420751.108	426765.422	129.852	1.852	1200		1	2.000	128.150
						2	1.000	128.000	300
						0	1.001	128.000	300
4	420763.225	426775.555	129.237	1.300	450				
						0	3.000	127.937	100

### Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
5	420774.172	426779.104	128.336	1.300	450		0	4.000	127.036	100
6	420776.505	426779.860	127.947	1.300	450		0	5.000	126.647	100
7	420789.297	426777.811	127.151	2.346	1800		1	1.004	125.305	300
8	420797.806	426784.769	126.684	1.300	450		0	1.005	125.255	300
9	420807.459	426789.659	126.029	1.300	450		0	6.000	125.384	100
10	420834.466	426798.418	125.400	1.150	450		0	7.000	124.729	100
11	420843.602	426795.429	125.325	2.810	600		0	8.000	122.815	300
12	420825.339	426789.504	125.521	3.051	450		1	1.007	122.770	300
13	420830.907	426788.355	125.410	3.190	1500		1	1.008	122.770	300
C1	420831.673	426785.997	125.054	2.704	600		1	1.009	122.720	300
J1	420765.045	426769.943	128.900	1.883			1	3.000	127.367	100
							2	1.001	127.017	300
							0	1.002	127.017	300
J2	420775.990	426773.494	128.111	1.866			1	4.000	126.595	100
							2	1.002	126.245	300
							0	1.003	126.245	300
J3	420778.323	426774.251	127.943	1.863			1	5.000	126.547	100
							2	1.003	126.080	300
							0	1.004	126.080	300

### Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
J4	420799.037	426780.971	126.449	1.881			1 2	6.000 1.005	124.969 124.568	100 300
J5	420809.206	426784.270	125.715	1.864			1 2	7.000 1.006	124.252 123.851	100 300
Tank	420836.222	426793.035	125.309	2.846	1200		1 2	9.000 8.000	122.913 122.763	150 300
J6	420830.038	426791.029	125.480	2.743			1 2	8.001 1.008	122.737 122.737	300 300

### Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m <sup>3</sup> /ha)	20.0		

### Storm Durations

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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
2	0	0	0
30	0	0	0
100	45	0	0

### Node 7 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	125.255	Product Number	CTL-SHE-0199-2200-1600-2200
Design Depth (m)	1.600	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	22.0	Min Node Diameter (mm)	1800

### Node 13 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	122.670	Product Number	CTL-SHE-0076-3500-2000-3500
Design Depth (m)	2.000	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	3.5	Min Node Diameter (mm)	1200

**Node Tank Depth/Area Storage Structure**

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	122.763
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m <sup>2</sup> )	Inf Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf Area (m <sup>2</sup> )
0.000	90.0	90.0	2.000	90.0	157.3	2.001	0.0	157.3

**Node 7 Depth/Area Storage Structure**

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	125.255
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	24

Depth (m)	Area (m <sup>2</sup> )	Inf Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf Area (m <sup>2</sup> )
0.000	63.0	63.0	0.800	63.0	85.5	0.801	0.0	85.5

**Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
15 minute summer	1	10	128.775	0.020	1.7	0.0288	0.0000	OK
15 minute summer	2	10	128.841	0.026	2.5	0.0132	0.0000	OK
15 minute summer	3	10	128.038	0.038	10.2	0.0671	0.0000	OK
15 minute summer	4	10	127.957	0.020	1.6	0.0078	0.0000	OK
15 minute summer	5	10	127.056	0.020	1.4	0.0071	0.0000	OK
15 minute summer	6	10	126.676	0.029	1.4	0.0104	0.0000	OK
120 minute summer	7	72	125.380	0.125	9.7	7.8585	0.0000	OK
15 minute summer	8	10	125.400	0.016	1.1	0.0051	0.0000	OK
15 minute summer	9	10	124.750	0.021	1.6	0.0081	0.0000	OK
15 minute summer	10	10	124.277	0.027	5.7	0.0299	0.0000	OK
360 minute summer	11	248	122.959	0.144	0.1	0.0406	0.0000	OK
360 minute summer	12	248	122.959	0.189	5.8	0.0300	0.0000	OK
360 minute summer	13	248	122.959	0.289	2.7	0.5416	0.0000	OK
360 minute summer	C1	248	122.683	0.033	2.6	0.0000	0.0000	OK
15 minute summer	J1	10	127.058	0.041	11.7	0.0000	0.0000	OK
15 minute summer	J2	10	126.288	0.043	13.1	0.0000	0.0000	OK
15 minute summer	J3	10	126.126	0.046	14.4	0.0000	0.0000	OK
120 minute summer	J4	70	124.599	0.031	6.6	0.0000	0.0000	OK
120 minute summer	J5	70	123.884	0.033	7.2	0.0000	0.0000	OK
360 minute summer	Tank	248	122.959	0.196	5.0	16.9454	0.0000	OK
360 minute summer	J6	248	122.959	0.222	5.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m <sup>3</sup> )	Discharge Vol (m <sup>3</sup> )
15 minute summer	1	1.000	3	1.7	0.475	0.009	0.0924	
15 minute summer	2	2.000	3	2.5	1.254	0.061	0.0257	
15 minute summer	3	1.001	J1	10.1	1.849	0.035	0.0805	
15 minute summer	4	3.000	J1	1.6	1.450	0.084	0.0065	
15 minute summer	5	4.000	J2	1.4	1.272	0.083	0.0064	
15 minute summer	6	5.000	J3	1.4	0.746	0.175	0.0109	
120 minute summer	7	1.005	J4	6.2	1.635	0.022	0.0391	
15 minute summer	8	6.000	J4	1.1	1.327	0.055	0.0033	
15 minute summer	9	7.000	J5	1.6	1.379	0.090	0.0065	
15 minute summer	10	9.000	Tank	5.7	2.707	0.065	0.0119	
360 minute summer	11	8.000	Tank	-0.1	-0.009	-0.001	0.3179	
360 minute summer	12	1.008	J6	5.6	0.390	0.062	0.2530	
360 minute summer	13	1.010	C1	2.6	0.579	0.026	0.0113	50.3
15 minute summer	J1	1.002	J2	11.7	1.953	0.040	0.0689	
15 minute summer	J2	1.003	J3	13.0	1.994	0.045	0.0161	
15 minute summer	J3	1.004	7	14.4	2.125	0.050	0.0780	
120 minute summer	J4	1.006	J5	6.6	1.642	0.023	0.0432	
120 minute summer	J5	1.007	12	7.2	0.901	0.026	0.2928	
360 minute summer	Tank	8.001	J6	-3.4	0.322	-0.049	0.3395	
360 minute summer	J6	1.009	13	2.5	0.391	0.029	0.1629	

**Results for 2 year Critical Storm Duration. Lowest mass balance: 100.00%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
15 minute summer	1	10	128.779	0.024	2.5	0.0345	0.0000	OK
15 minute summer	2	10	128.847	0.032	3.8	0.0163	0.0000	OK
15 minute summer	3	10	128.047	0.047	15.3	0.0818	0.0000	OK
15 minute summer	4	10	127.962	0.025	2.4	0.0096	0.0000	OK
15 minute summer	5	10	127.061	0.024	2.1	0.0088	0.0000	OK
15 minute summer	6	10	126.683	0.036	2.1	0.0129	0.0000	OK
120 minute summer	7	70	125.412	0.157	13.6	9.8769	0.0000	OK
15 minute summer	8	10	125.404	0.020	1.6	0.0062	0.0000	OK
15 minute summer	9	10	124.754	0.025	2.4	0.0099	0.0000	OK
15 minute summer	10	10	124.284	0.034	8.6	0.0371	0.0000	OK
360 minute summer	11	256	123.057	0.241	0.1	0.0683	0.0000	OK
360 minute summer	12	256	123.057	0.286	7.5	0.0455	0.0000	OK
360 minute summer	13	256	123.056	0.386	2.8	0.7253	0.0000	SURCHARGED
240 minute summer	C1	164	122.684	0.034	2.7	0.0000	0.0000	OK
15 minute summer	J1	10	127.067	0.050	17.6	0.0000	0.0000	OK
15 minute summer	J2	10	126.298	0.053	19.6	0.0000	0.0000	OK
15 minute summer	J3	10	126.137	0.057	21.7	0.0000	0.0000	OK
60 minute summer	J4	38	124.606	0.038	9.9	0.0000	0.0000	OK
60 minute summer	J5	37	123.891	0.040	10.8	0.0000	0.0000	OK
360 minute summer	Tank	256	123.056	0.293	7.0	25.4217	0.0000	OK
360 minute summer	J6	256	123.056	0.319	7.2	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m <sup>3</sup> )	Discharge Vol (m <sup>3</sup> )
15 minute summer	1	1.000	3	2.5	0.533	0.013	0.1228	
15 minute summer	2	2.000	3	3.8	1.414	0.093	0.0345	
15 minute summer	3	1.001	J1	15.2	2.079	0.053	0.1073	
15 minute summer	4	3.000	J1	2.4	1.629	0.126	0.0087	
15 minute summer	5	4.000	J2	2.1	1.430	0.125	0.0086	
15 minute summer	6	5.000	J3	2.1	0.835	0.264	0.0147	
120 minute summer	7	1.005	J4	9.3	1.843	0.032	0.0520	
15 minute summer	8	6.000	J4	1.6	1.481	0.081	0.0043	
15 minute summer	9	7.000	J5	2.4	1.549	0.135	0.0087	
15 minute summer	10	9.000	Tank	8.6	3.031	0.098	0.0160	
360 minute summer	11	8.000	Tank	-0.1	-0.009	-0.001	0.5074	
360 minute summer	12	1.008	J6	7.2	0.396	0.079	0.3451	
360 minute summer	13	1.010	C1	2.7	0.581	0.027	0.0114	65.5
15 minute summer	J1	1.002	J2	17.6	2.203	0.061	0.0917	
15 minute summer	J2	1.003	J3	19.6	2.238	0.068	0.0215	
15 minute summer	J3	1.004	7	21.6	2.386	0.075	0.1247	
60 minute summer	J4	1.006	J5	9.9	1.858	0.034	0.0570	
60 minute summer	J5	1.007	12	10.8	0.938	0.038	0.3811	
360 minute summer	Tank	8.001	J6	-4.9	0.353	-0.070	0.4565	
360 minute summer	J6	1.009	13	2.6	0.392	0.030	0.1980	

**Results for 30 year Critical Storm Duration. Lowest mass balance: 99.25%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
15 minute summer	1	10	128.793	0.038	6.7	0.0549	0.0000	OK
15 minute summer	2	10	128.868	0.053	10.0	0.0272	0.0000	OK
15 minute summer	3	10	128.077	0.077	40.4	0.1338	0.0000	OK
15 minute summer	4	10	127.978	0.041	6.3	0.0161	0.0000	OK
15 minute summer	5	10	127.077	0.041	5.4	0.0146	0.0000	OK
15 minute summer	6	10	126.711	0.063	5.4	0.0228	0.0000	OK
30 minute summer	7	23	125.632	0.377	64.6	23.6219	0.0000	SURCHARGED
15 minute summer	8	10	125.417	0.033	4.2	0.0102	0.0000	OK
15 minute summer	9	10	124.772	0.043	6.3	0.0167	0.0000	OK
15 minute summer	10	10	124.308	0.058	22.5	0.0633	0.0000	OK
240 minute winter	11	240	123.648	0.833	0.2	0.2357	0.0000	SURCHARGED
240 minute winter	12	240	123.648	0.878	14.3	0.1396	0.0000	SURCHARGED
240 minute winter	13	240	123.648	0.978	3.0	1.8354	0.0000	SURCHARGED
60 minute winter	C1	36	122.684	0.034	2.7	0.0000	0.0000	OK
15 minute summer	J1	10	127.098	0.081	46.4	0.0000	0.0000	OK
15 minute summer	J2	10	126.330	0.085	51.7	0.0000	0.0000	OK
15 minute summer	J3	10	126.170	0.090	57.0	0.0000	0.0000	OK
30 minute summer	J4	19	124.626	0.058	24.1	0.0000	0.0000	OK
30 minute summer	J5	19	123.916	0.065	29.4	0.0000	0.0000	OK
240 minute winter	Tank	240	123.648	0.885	16.0	76.6564	0.0000	SURCHARGED
240 minute winter	J6	240	123.648	0.911	14.0	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m <sup>3</sup> )	Discharge Vol (m <sup>3</sup> )
15 minute summer	1	1.000	3	6.6	0.708	0.035	0.2477	
15 minute summer	2	2.000	3	9.9	1.844	0.245	0.0699	
15 minute summer	3	1.001	J1	40.2	2.734	0.139	0.2152	
15 minute summer	4	3.000	J1	6.3	2.117	0.331	0.0175	
15 minute summer	5	4.000	J2	5.4	1.850	0.323	0.0172	
15 minute summer	6	5.000	J3	5.4	1.054	0.681	0.0301	
30 minute summer	7	1.005	J4	21.4	2.351	0.074	0.0947	
15 minute summer	8	6.000	J4	4.2	1.938	0.213	0.0086	
15 minute summer	9	7.000	J5	6.3	2.010	0.355	0.0177	
15 minute summer	10	9.000	Tank	22.4	3.872	0.258	0.0499	
240 minute winter	11	8.000	Tank	-0.2	-0.009	-0.002	0.5464	
240 minute winter	12	1.008	J6	14.0	0.403	0.155	0.3479	
240 minute winter	13	1.010	C1	2.7	0.581	0.027	0.0114	62.9
15 minute summer	J1	1.002	J2	46.3	2.928	0.160	0.1820	
15 minute summer	J2	1.003	J3	51.6	3.034	0.178	0.0418	
15 minute summer	J3	1.004	7	56.9	2.861	0.197	0.4517	
30 minute summer	J4	1.006	J5	24.1	2.387	0.083	0.1111	
30 minute summer	J5	1.007	12	29.4	1.131	0.104	0.6778	
240 minute winter	Tank	8.001	J6	-12.0	-0.171	-0.172	0.4578	
240 minute winter	J6	1.009	13	2.5	0.381	0.029	0.1980	

**Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 98.34%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m <sup>3</sup> )	Flood (m <sup>3</sup> )	Status
15 minute summer	1	10	128.806	0.051	12.3	0.0737	0.0000	OK
15 minute summer	2	10	128.891	0.076	18.5	0.0390	0.0000	OK
15 minute summer	3	10	128.107	0.107	74.5	0.1862	0.0000	OK
15 minute summer	4	10	127.997	0.060	11.6	0.0233	0.0000	OK
15 minute summer	5	10	127.095	0.059	10.0	0.0211	0.0000	OK
15 minute summer	6	11	126.819	0.172	10.0	0.0618	0.0000	SURCHARGED
60 minute summer	7	44	126.740	1.485	92.0	52.1889	0.0000	SURCHARGED
15 minute summer	8	10	125.430	0.046	7.7	0.0144	0.0000	OK
15 minute summer	9	10	124.792	0.063	11.6	0.0244	0.0000	OK
360 minute winter	10	352	124.651	0.401	5.7	0.4405	0.0000	SURCHARGED
360 minute winter	11	352	124.651	1.836	0.3	0.5196	0.0000	SURCHARGED
360 minute winter	12	352	124.651	1.881	19.7	0.2991	0.0000	SURCHARGED
360 minute winter	13	352	124.651	1.981	3.6	3.7186	0.0000	SURCHARGED
360 minute winter	C1	352	122.688	0.038	3.5	0.0000	0.0000	OK
15 minute summer	J1	10	127.128	0.111	85.7	0.0000	0.0000	OK
60 minute summer	J2	44	126.744	0.499	67.7	0.0000	0.0000	SURCHARGED
60 minute summer	J3	44	126.743	0.663	74.7	0.0000	0.0000	SURCHARGED
360 minute winter	J4	352	124.651	0.083	18.2	0.0000	0.0000	OK
360 minute winter	J5	352	124.651	0.800	19.7	0.0000	0.0000	SURCHARGED
360 minute winter	Tank	352	124.651	1.888	23.1	163.5665	0.0000	SURCHARGED
360 minute winter	J6	352	124.651	1.914	19.3	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m <sup>3</sup> )	Discharge Vol (m <sup>3</sup> )
15 minute summer	1	1.000	3	12.2	0.829	0.064	0.3889	
15 minute summer	2	2.000	3	18.4	2.150	0.455	0.1110	
15 minute summer	3	1.001	J1	74.2	3.221	0.256	0.3375	
15 minute summer	4	3.000	J1	11.6	2.450	0.609	0.0278	
15 minute summer	5	4.000	J2	10.0	2.147	0.598	0.0274	
15 minute summer	6	5.000	J3	9.7	1.244	1.233	0.0455	
60 minute summer	7	1.005	J4	22.0	2.395	0.076	0.1005	
15 minute summer	8	6.000	J4	7.7	2.266	0.390	0.0135	
15 minute summer	9	7.000	J5	11.6	2.317	0.653	0.0283	
360 minute winter	10	9.000	Tank	5.7	2.034	0.065	0.0997	
360 minute winter	11	8.000	Tank	-0.3	-0.008	-0.003	0.5464	
360 minute winter	12	1.008	J6	19.3	0.411	0.213	0.3479	
360 minute winter	13	1.010	C1	3.5	0.626	0.035	0.0137	103.4
15 minute summer	J1	1.002	J2	85.6	3.471	0.296	0.2838	
60 minute summer	J2	1.003	J3	67.7	3.272	0.234	0.1727	
60 minute summer	J3	1.004	7	74.7	1.873	0.258	0.8124	
360 minute winter	J4	1.006	J5	18.2	2.230	0.063	0.4613	
360 minute winter	J5	1.007	12	19.7	0.828	0.070	1.1944	
360 minute winter	Tank	8.001	J6	-17.4	-0.248	-0.249	0.4578	
360 minute winter	J6	1.009	13	3.5	0.359	0.040	0.1980	