

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	1.000
CV	1.000	Preferred Cover Depth (m)	0.600
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
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)	Invert Level (m)
S1	0.039	5.00	144.138	600	389451.148	412839.267	0.825	143.313
S2	0.010	5.00	144.102	600	389415.560	412828.398	1.161	142.941
S3	0.038	5.00	143.994	600	389409.140	412847.921	1.534	142.460
S4	0.010	5.00	143.753	450	389404.101	412864.049	1.050	142.703
RE1	0.005	5.00	144.300		389456.469	412846.700	0.750	143.550
RG4	0.002	5.00	144.050	450	389452.847	412863.408	0.850	143.200
S5	0.008	5.00	144.050	450	389451.711	412860.910	1.050	143.000
S6	0.013	5.00	144.190	1200	389435.492	412856.155	2.005	142.185
S7	0.012	5.00	144.391	450	389451.043	412890.605	0.750	143.641
S8	0.006	5.00	144.329	450	389457.320	412868.592	0.915	143.414
S9	0.011	5.00	144.376	450	389439.710	412887.567	0.750	143.626
S10	0.010	5.00	144.299	450	389445.887	412865.289	1.004	143.295
S11	0.011	5.00	144.203	1200	389433.734	412861.781	2.103	142.100
S12	0.004	5.00	144.233	600	389431.906	412867.672	3.383	140.850
S14	0.022	5.00	143.500	450	389420.372	412880.802	1.955	141.545
TANK	0.016	5.00	143.700		389429.146	412876.587	2.600	141.100

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	S1	S2	37.211	0.600	143.313	142.941	0.372	100.0	225	5.47	50.0
1.001	S2	S3	20.551	0.600	142.941	142.460	0.481	42.7	225	5.65	50.0
2.000	S4	S3	16.897	0.600	142.703	142.535	0.168	100.6	150	5.28	50.0
1.002	S3	S6	27.608	0.600	142.460	142.185	0.275	100.4	225	6.00	50.0
3.001	S5	S6	16.902	0.600	143.000	142.795	0.205	82.4	150	5.38	50.0
1.003	S6	S11	5.894	0.600	142.185	142.100	0.085	69.3	225	6.06	50.0
5.000	S7	S8	22.890	0.600	143.641	143.414	0.227	100.8	150	5.38	50.0
5.001	S8	S10	11.901	0.600	143.414	143.295	0.119	100.0	150	5.58	50.0
6.000	S9	S10	23.118	0.600	143.626	143.295	0.331	69.8	150	5.32	50.0
5.002	S10	S11	12.649	0.600	143.295	143.100	0.195	64.9	150	5.75	50.0
1.004	S11	S12	6.168	0.600	142.100	141.150	0.950	6.5	225	6.08	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	1.307	52.0	7.0	0.600	0.936	0.039	0.0	56	0.920
1.001	2.007	79.8	8.9	0.936	1.309	0.049	0.0	51	1.336
2.000	1.002	17.7	1.8	0.900	1.309	0.010	0.0	33	0.647
1.002	1.305	51.9	17.6	1.309	1.780	0.097	0.0	90	1.181
3.001	1.108	19.6	2.7	0.900	1.245	0.015	0.0	37	0.775
1.003	1.572	62.5	22.6	1.780	1.878	0.125	0.0	94	1.450
5.000	1.000	17.7	2.1	0.600	0.765	0.012	0.0	35	0.680
5.001	1.005	17.8	3.2	0.765	0.854	0.018	0.0	43	0.763
6.000	1.205	21.3	1.9	0.600	0.854	0.011	0.0	31	0.754
5.002	1.250	22.1	7.0	0.854	0.953	0.039	0.0	58	1.109
1.004	5.168	205.5	31.5	1.878	2.858	0.174	0.0	59	3.772

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)
1.005	S12	TANK	9.315	0.600	141.150	141.100	0.050	186.3	225	6.24	50.0
7.000	S14	TANK	9.734	0.600	141.845	141.300	0.545	17.9	150	5.07	50.0
1.009	CW01	CW02	6.380	0.600	141.100	140.390	0.710	9.0	150	5.03	50.0
3.000	RE1	S5	14.985	0.600	143.550	143.000	0.550	27.2	150	5.13	50.0
4.000	RG4	S5	2.744	0.600	143.200	143.000	0.200	13.7	100	5.02	50.0

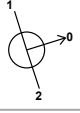
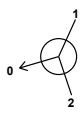
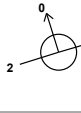
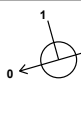
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.005	0.954	37.9	32.3	2.858	2.375	0.179	0.0	160	1.067
7.000	2.394	42.3	4.0	1.505	2.250	0.022	0.0	31	1.503
1.009	3.381	59.7	0.0			0.000	0.0	0	0.000
3.000	1.936	34.2	0.9	0.600	0.900	0.005	0.0	17	0.829
4.000	2.096	16.5	0.4	0.750	0.950	0.002	0.0	11	0.854

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	37.211	100.0	225	Circular	144.138	143.313	0.600	144.102	142.941	0.936
1.001	20.551	42.7	225	Circular	144.102	142.941	0.936	143.994	142.460	1.309
2.000	16.897	100.6	150	Circular	143.753	142.703	0.900	143.994	142.535	1.309
1.002	27.608	100.4	225	Circular	143.994	142.460	1.309	144.190	142.185	1.780
3.001	16.902	82.4	150	Circular	144.050	143.000	0.900	144.190	142.795	1.245
1.003	5.894	69.3	225	Circular	144.190	142.185	1.780	144.203	142.100	1.878
5.000	22.890	100.8	150	Circular	144.391	143.641	0.600	144.329	143.414	0.765
5.001	11.901	100.0	150	Circular	144.329	143.414	0.765	144.299	143.295	0.854
6.000	23.118	69.8	150	Circular	144.376	143.626	0.600	144.299	143.295	0.854
5.002	12.649	64.9	150	Circular	144.299	143.295	0.854	144.203	143.100	0.953
1.004	6.168	6.5	225	Circular	144.203	142.100	1.878	144.233	141.150	2.858
1.005	9.315	186.3	225	Circular	144.233	141.150	2.858	143.700	141.100	2.375
7.000	9.734	17.9	150	Circular	143.500	141.845	1.505	143.700	141.300	2.250
1.009	6.380	9.0	150			141.100			140.390	
3.000	14.985	27.2	150	Circular	144.300	143.550	0.600	144.050	143.000	0.900
4.000	2.744	13.7	100	Circular	144.050	143.200	0.750	144.050	143.000	0.950

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S1	600	Manhole	Plastic Inspection Chamber	S2	600	Manhole	Plastic Inspection Chamber
1.001	S2	600	Manhole	Plastic Inspection Chamber	S3	600	Manhole	Plastic Inspection Chamber
2.000	S4	450	Manhole	Concrete Manhole Chamber	S3	600	Manhole	Plastic Inspection Chamber
1.002	S3	600	Manhole	Plastic Inspection Chamber	S6	1200	Manhole	Plastic Inspection Chamber
3.001	S5	450	Manhole	Plastic Inspection Chamber	S6	1200	Manhole	Plastic Inspection Chamber
1.003	S6	1200	Manhole	Plastic Inspection Chamber	S11	1200	Manhole	Plastic Inspection Chamber
5.000	S7	450	Manhole	Plastic Inspection Chamber	S8	450	Manhole	Plastic Inspection Chamber
5.001	S8	450	Manhole	Plastic Inspection Chamber	S10	450	Manhole	Plastic Inspection Chamber
6.000	S9	450	Manhole	Plastic Inspection Chamber	S10	450	Manhole	Plastic Inspection Chamber
5.002	S10	450	Manhole	Plastic Inspection Chamber	S11	1200	Manhole	Plastic Inspection Chamber
1.004	S11	1200	Manhole	Plastic Inspection Chamber	S12	600	Manhole	Plastic Inspection Chamber
1.005	S12	600	Manhole	Plastic Inspection Chamber	TANK		Junction	
7.000	S14	450	Manhole	Plastic Inspection Chamber	TANK		Junction	
1.009								
3.000	RE1		Junction		S5	450	Manhole	Plastic Inspection Chamber
4.000	RG4	450	Manhole	Concrete Manhole Chamber	S5	450	Manhole	Plastic Inspection Chamber

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S1	389451.148	412839.267	144.138	0.825	600				
						0	1.000	143.313	225
S2	389415.560	412828.398	144.102	1.161	600		1	1.000	142.941
						0	1.001	142.941	225
S3	389409.140	412847.921	143.994	1.534	600		1	2.000	142.535
						2	1.001	142.460	225
						0	1.002	142.460	225
S4	389404.101	412864.049	143.753	1.050	450		0	2.000	142.703
RE1	389456.469	412846.700	144.300	0.750			0	3.000	143.550
RG4	389452.847	412863.408	144.050	0.850	450		0	4.000	143.200
S5	389451.711	412860.910	144.050	1.050	450		1	4.000	143.000
						2	3.000	143.000	150
						0	3.001	143.000	150
S6	389435.492	412856.155	144.190	2.005	1200		1	3.001	142.795
						2	1.002	142.185	225
						0	1.003	142.185	225
S7	389451.043	412890.605	144.391	0.750	450		0	5.000	143.641
S8	389457.320	412868.592	144.329	0.915	450		1	5.000	143.414
						0	5.001	143.414	150
S9	389439.710	412887.567	144.376	0.750	450		0	6.000	143.626
S10	389445.887	412865.289	144.299	1.004	450		1	6.000	143.295
						2	5.001	143.295	150
						0	5.002	143.295	150
S11	389433.734	412861.781	144.203	2.103	1200		1	5.002	143.100
						2	1.003	142.100	225
						0	1.004	142.100	225
S12	389431.906	412867.672	144.233	3.383	600		1	1.004	141.150
						0	1.005	141.150	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S14	389420.372	412880.802	143.500	1.955	450				
							0	7.000	141.845
TANK	389429.146	412876.587	143.700	2.600			1	7.000	141.300
							2	1.005	141.100

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)	240	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 %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0	30	40	0	0
10	0	0	0	100	0	0	0
30	0	0	0	100	25	0	0
30	25	0	0	100	45	0	0

Node TANK Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.17536	Safety Factor	2.0	Invert Level (m)	141.100
Side Inf Coefficient (m/hr)	0.35071	Porosity	0.95	Time to half empty (mins)	83

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	54.0	54.0	0.800	54.0	74.8	0.801	0.0	74.8

Node TANK Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.35071	Invert Level (m)	143.176	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.35071	Time to half empty (mins)	11	Depth (m)	0.300
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		

Node S12 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.35071	Invert Level (m)	143.783	Slope (1:X)	30.0
Side Inf Coefficient (m/hr)	0.35071	Time to half empty (mins)		Depth (m)	0.300
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		

Node S6 Carpark Storage Structure

Base Inf Coefficient (m/hr)	27.28800	Invert Level (m)	143.753	Slope (1:X)	50.0
Side Inf Coefficient (m/hr)	27.28800	Time to half empty (mins)		Depth (m)	0.300
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	17.400		

Node S3 Carpark Storage Structure

Base Inf Coefficient (m/hr)	27.28800	Invert Level (m)	143.419	Slope (1:X)	60.0
Side Inf Coefficient (m/hr)	27.28800	Time to half empty (mins)	0	Depth (m)	0.300
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		

Node S3 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	10.0	Invert Level (m)	143.144
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	84

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)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	45.6	45.6	0.181	38.4	49.9	0.730	45.6	49.9	0.810	156.0	49.9	0.831	0.0	49.9
0.180	45.6	49.9	0.680	38.4	49.9	0.731	45.6	49.9	0.830	156.0	49.9			

Node S4 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.22061	Invert Level (m)	143.303	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.22061	Time to half empty (mins)	56	Depth (m)	0.300
Safety Factor	2.0	Width (m)	5.000	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		

Node S4 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	10.0	Invert Level (m)	142.903
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	206

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)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	24.7	24.7	0.181	20.8	27.9	0.730	24.7	27.9	0.810	84.5	27.9	0.831	0.0	27.9
0.180	24.7	27.9	0.680	20.8	27.9	0.731	24.7	27.9	0.830	84.5	27.9			

Node S5 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	10.0	Invert Level (m)	142.903
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	0

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)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	47.5	47.5	0.181	40.0	51.9	0.730	47.5	51.9	0.810	162.5	51.9	0.831	0.0	51.9
0.180	47.5	51.9	0.680	40.0	51.9	0.731	47.5	51.9	0.830	162.5	51.9			

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 (m³)	Flood (m³)	Status
15 minute summer	S1	10	143.366	0.053	6.0	0.0150	0.0000	OK
15 minute summer	S2	11	142.987	0.046	7.4	0.0131	0.0000	OK
15 minute summer	S3	10	142.543	0.083	14.8	0.0236	0.0000	OK
15 minute summer	S4	10	142.734	0.031	1.6	0.0049	0.0000	OK
15 minute summer	RE1	10	143.566	0.016	0.8	0.0000	0.0000	OK
15 minute summer	RG4	10	143.210	0.010	0.3	0.0015	0.0000	OK
120 minute summer	S5	70	143.021	0.021	1.3	0.9876	0.0000	OK
15 minute summer	S6	11	142.276	0.091	16.9	0.1026	0.0000	OK
15 minute summer	S7	11	143.673	0.032	1.8	0.0051	0.0000	OK
15 minute summer	S8	11	143.454	0.039	2.7	0.0063	0.0000	OK
15 minute summer	S9	10	143.655	0.028	1.7	0.0045	0.0000	OK
15 minute summer	S10	11	143.350	0.055	5.9	0.0087	0.0000	OK
15 minute summer	S11	11	142.152	0.052	24.4	0.0589	0.0000	OK
600 minute summer	S12	390	141.671	0.520	5.7	0.1473	0.0000	SURCHARGED
15 minute summer	S14	10	141.874	0.029	3.4	0.0046	0.0000	OK
600 minute summer	TANK	390	141.670	0.570	6.8	29.2588	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute summer	S1	1.000	S2	5.9	0.923	0.114	0.2401
15 minute summer	S2	1.001	S3	7.4	0.788	0.093	0.1969
15 minute summer	S3	1.002	S6	14.7	1.042	0.284	0.3902
15 minute summer	S3	Infiltration		0.0			
15 minute summer	S4	2.000	S3	1.6	0.614	0.088	0.0429
15 minute summer	S4	Infiltration		0.0			
15 minute summer	RE1	3.000	S5	0.8	0.793	0.023	0.0146
15 minute summer	RG4	4.000	S5	0.3	0.779	0.018	0.0014
120 minute summer	S5	3.001	S6	0.8	0.547	0.042	0.0254
15 minute summer	S6	1.003	S11	16.9	1.568	0.271	0.0646
15 minute summer	S6	Infiltration		0.0			
15 minute summer	S7	5.000	S8	1.8	0.558	0.102	0.0740
15 minute summer	S8	5.001	S10	2.7	0.573	0.152	0.0567
15 minute summer	S9	6.000	S10	1.7	0.425	0.079	0.0937
15 minute summer	S10	5.002	S11	5.9	1.032	0.265	0.0717
15 minute summer	S11	1.004	S12	24.4	1.598	0.119	0.1092
600 minute summer	S12	1.005	TANK	5.6	0.444	0.149	0.3705
600 minute summer	S12	Infiltration		0.0			
15 minute summer	S14	7.000	TANK	3.4	1.422	0.080	0.0231
600 minute summer	TANK	Infiltration		2.0			
600 minute summer	TANK	Infiltration		0.0			

Results for 10 year Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	143.389	0.076	12.0	0.0214	0.0000	OK
360 minute summer	S2	264	143.045	0.104	3.8	0.0293	0.0000	OK
360 minute summer	S3	264	143.045	0.585	7.5	0.1654	0.0000	SURCHARGED
360 minute summer	S4	264	143.045	0.341	3.3	3.5612	0.0000	SURCHARGED
15 minute summer	RE1	10	143.572	0.022	1.5	0.0000	0.0000	OK
15 minute summer	RG4	9	143.213	0.013	0.6	0.0021	0.0000	OK
360 minute summer	S5	264	143.044	0.044	1.2	2.0941	0.0000	OK
360 minute summer	S6	264	143.044	0.859	9.3	0.9719	0.0000	SURCHARGED
15 minute summer	S7	10	143.687	0.046	3.7	0.0073	0.0000	OK
15 minute summer	S8	10	143.471	0.057	5.5	0.0091	0.0000	OK
15 minute summer	S9	10	143.666	0.040	3.3	0.0063	0.0000	OK
15 minute summer	S10	11	143.377	0.082	11.8	0.0131	0.0000	OK
360 minute summer	S11	272	143.044	0.944	13.0	1.0681	0.0000	SURCHARGED
360 minute summer	S12	264	143.044	1.894	13.3	0.5361	0.0000	SURCHARGED
360 minute summer	S14	264	143.044	1.199	4.6	0.1906	0.0000	SURCHARGED
360 minute summer	TANK	264	143.044	1.944	15.9	41.0657	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute summer	S1	1.000	S2	11.9	1.117	0.228	0.3953
360 minute summer	S2	1.001	S3	3.8	0.662	0.047	0.5920
360 minute summer	S3	1.002	S6	7.4	0.846	0.143	1.0980
360 minute summer	S3	Infiltration		0.0			
360 minute summer	S4	2.000	S3	-2.9	0.505	-0.163	0.2975
360 minute summer	S4	Infiltration		0.0			
15 minute summer	RE1	3.000	S5	1.5	0.969	0.044	0.0258
15 minute summer	RG4	4.000	S5	0.6	0.927	0.036	0.0031
360 minute summer	S5	3.001	S6	1.0	0.576	0.050	0.1856
360 minute summer	S6	1.003	S11	9.3	1.343	0.148	0.2344
360 minute summer	S6	Infiltration		0.0			
15 minute summer	S7	5.000	S8	3.7	0.678	0.207	0.1236
15 minute summer	S8	5.001	S10	5.4	0.676	0.305	0.0956
15 minute summer	S9	6.000	S10	3.3	0.491	0.153	0.1570
15 minute summer	S10	5.002	S11	11.6	1.223	0.525	0.1201
360 minute summer	S11	1.004	S12	13.0	0.792	0.063	0.2453
360 minute summer	S12	1.005	TANK	13.0	0.790	0.343	0.3705
360 minute summer	S12	Infiltration		0.0			
360 minute summer	S14	7.000	TANK	-3.4	0.851	-0.080	0.1714
360 minute summer	TANK	Infiltration		2.3			
360 minute summer	TANK	Infiltration		0.0			

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.47%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	143.401	0.088	15.7	0.0248	0.0000	OK
240 minute winter	S2	228	143.226	0.285	4.0	0.0807	0.0000	SURCHARGED
240 minute winter	S3	228	143.226	0.766	12.5	3.9826	0.0000	SURCHARGED
240 minute winter	S4	228	143.226	0.523	8.6	7.5197	0.0000	SURCHARGED
15 minute summer	RE1	10	143.575	0.025	2.0	0.0000	0.0000	OK
240 minute winter	RG4	228	143.226	0.026	0.2	0.0042	0.0000	OK
240 minute winter	S5	228	143.226	0.226	6.5	9.6752	0.0000	SURCHARGED
240 minute winter	S6	228	143.226	1.041	10.1	1.1772	0.0000	SURCHARGED
15 minute summer	S7	10	143.694	0.053	4.8	0.0084	0.0000	OK
15 minute summer	S8	10	143.481	0.067	7.2	0.0106	0.0000	OK
15 minute summer	S9	10	143.672	0.045	4.3	0.0072	0.0000	OK
15 minute summer	S10	11	143.393	0.098	15.4	0.0156	0.0000	OK
240 minute winter	S11	228	143.226	1.126	14.2	1.2732	0.0000	SURCHARGED
240 minute winter	S12	228	143.226	2.076	14.5	0.5874	0.0000	SURCHARGED
240 minute winter	S14	228	143.225	1.380	3.9	0.2195	0.0000	FLOOD RISK
240 minute winter	TANK	228	143.225	2.125	17.3	41.1432	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute summer	S1	1.000	S2	15.5	1.202	0.299	0.4807
240 minute winter	S2	1.001	S3	4.0	0.674	0.050	0.8173
240 minute winter	S3	1.002	S6	7.9	0.858	0.152	1.0980
240 minute winter	S3	Infiltration		0.0			
240 minute winter	S4	2.000	S3	-7.9	0.506	-0.448	0.2975
240 minute winter	S4	Infiltration		0.0			
15 minute summer	RE1	3.000	S5	2.0	1.051	0.058	0.0341
240 minute winter	RG4	4.000	S5	0.2	0.301	0.012	0.0130
240 minute winter	S5	3.001	S6	-5.7	0.608	-0.290	0.2976
240 minute winter	S6	1.003	S11	10.1	1.376	0.162	0.2344
240 minute winter	S6	Infiltration		0.0			
15 minute summer	S7	5.000	S8	4.8	0.726	0.269	0.1504
15 minute summer	S8	5.001	S10	7.1	0.716	0.400	0.1179
15 minute summer	S9	6.000	S10	4.3	0.524	0.200	0.1935
15 minute summer	S10	5.002	S11	15.2	1.294	0.687	0.1482
240 minute winter	S11	1.004	S12	14.2	0.891	0.069	0.2453
240 minute winter	S12	1.005	TANK	14.2	0.796	0.375	0.3705
240 minute winter	S12	Infiltration		0.0			
240 minute winter	S14	7.000	TANK	-2.1	0.944	-0.049	0.1714
240 minute winter	TANK	Infiltration		2.3			
240 minute winter	TANK	Infiltration		0.5			

Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 96.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	143.412	0.099	19.6	0.0281	0.0000	OK
360 minute winter	S2	264	143.373	0.431	3.8	0.1221	0.0000	SURCHARGED
360 minute winter	S3	264	143.372	0.912	8.1	10.3502	0.0000	SURCHARGED
360 minute winter	S4	264	143.372	0.669	8.7	10.7359	0.0000	SURCHARGED
15 minute summer	RE1	10	143.578	0.027	2.5	0.0000	0.0000	OK
360 minute winter	RG4	264	143.372	0.172	0.2	0.0274	0.0000	SURCHARGED
360 minute winter	S5	264	143.372	0.372	8.5	15.5439	0.0000	SURCHARGED
360 minute winter	S6	264	143.372	1.187	8.7	1.3427	0.0000	SURCHARGED
15 minute summer	S7	10	143.701	0.060	6.0	0.0095	0.0000	OK
15 minute summer	S8	10	143.490	0.076	8.9	0.0120	0.0000	OK
15 minute summer	S9	10	143.677	0.051	5.4	0.0081	0.0000	OK
15 minute summer	S10	11	143.413	0.118	19.2	0.0187	0.0000	OK
360 minute winter	S11	264	143.372	1.272	12.2	1.4382	0.0000	SURCHARGED
360 minute winter	S12	264	143.372	2.222	12.5	0.6287	0.0000	SURCHARGED
360 minute winter	S14	264	143.371	1.526	2.6	0.2426	0.0000	FLOOD RISK
360 minute winter	TANK	264	143.371	2.271	14.7	42.2161	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute summer	S1	1.000	S2	19.4	1.275	0.373	0.5667
360 minute winter	S2	1.001	S3	3.7	0.649	0.046	0.8173
360 minute winter	S3	1.002	S6	6.9	0.827	0.132	1.0980
360 minute winter	S3	Infiltration		0.0			
360 minute winter	S4	2.000	S3	-7.9	0.487	-0.447	0.2975
360 minute winter	S4	Infiltration		0.4			
15 minute summer	RE1	3.000	S5	2.5	1.100	0.073	0.0433
360 minute winter	RG4	4.000	S5	0.2	0.271	0.012	0.0215
360 minute winter	S5	3.001	S6	-7.3	0.589	-0.374	0.2976
360 minute winter	S6	1.003	S11	8.7	1.321	0.139	0.2344
360 minute winter	S6	Infiltration		0.0			
15 minute summer	S7	5.000	S8	5.9	0.769	0.336	0.1769
15 minute summer	S8	5.001	S10	8.9	0.742	0.501	0.1410
15 minute summer	S9	6.000	S10	5.3	0.543	0.251	0.2323
15 minute summer	S10	5.002	S11	19.0	1.342	0.860	0.1789
360 minute winter	S11	1.004	S12	12.2	0.827	0.059	0.2453
360 minute winter	S12	1.005	TANK	12.2	0.801	0.322	0.3705
360 minute winter	S12	Infiltration		0.0			
360 minute winter	S14	7.000	TANK	1.6	0.803	0.037	0.1714
360 minute winter	TANK	Infiltration		2.3			
360 minute winter	TANK	Infiltration		2.0			

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 96.10%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	S1	240	143.423	0.110	3.4	0.0311	0.0000	OK
360 minute winter	S2	240	143.423	0.481	4.3	0.1363	0.0000	SURCHARGED
240 minute winter	S3	172	143.422	0.962	12.4	12.2734	0.0000	SURCHARGED
480 minute summer	S4	296	143.422	0.719	8.9	12.0613	0.0000	SURCHARGED
15 minute summer	RE1	10	143.579	0.029	2.8	0.0000	0.0000	OK
360 minute winter	RG4	240	143.423	0.223	0.2	0.0355	0.0000	SURCHARGED
360 minute winter	S5	240	143.423	0.423	9.4	17.6048	0.0000	SURCHARGED
360 minute winter	S6	240	143.422	1.237	8.9	1.3995	0.0000	SURCHARGED
15 minute summer	S7	10	143.705	0.064	6.7	0.0102	0.0000	OK
15 minute summer	S8	10	143.495	0.081	10.0	0.0129	0.0000	OK
15 minute summer	S9	10	143.680	0.054	6.0	0.0086	0.0000	OK
15 minute summer	S10	11	143.429	0.134	21.5	0.0213	0.0000	OK
360 minute winter	S11	240	143.422	1.322	12.4	1.4957	0.0000	SURCHARGED
360 minute winter	S12	240	143.422	2.272	12.7	0.6430	0.0000	SURCHARGED
360 minute winter	S14	240	143.422	1.577	1.9	0.2507	0.0000	FLOOD RISK
360 minute winter	TANK	240	143.422	2.322	15.3	42.8877	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
360 minute winter	S1	1.000	S2	3.4	0.761	0.065	1.0982
360 minute winter	S2	1.001	S3	4.3	0.653	0.054	0.8173
240 minute winter	S3	1.002	S6	10.1	0.915	0.194	1.0980
240 minute winter	S3	Infiltration		3.6			
480 minute summer	S4	2.000	S3	-7.8	0.505	-0.440	0.2975
480 minute summer	S4	Infiltration		0.8			
15 minute summer	RE1	3.000	S5	2.8	1.137	0.082	0.0478
360 minute winter	RG4	4.000	S5	0.2	0.273	0.012	0.0215
360 minute winter	S5	3.001	S6	-8.1	0.588	-0.416	0.2976
360 minute winter	S6	1.003	S11	8.8	1.327	0.141	0.2344
360 minute winter	S6	Infiltration		0.0			
15 minute summer	S7	5.000	S8	6.6	0.790	0.376	0.1925
15 minute summer	S8	5.001	S10	10.0	0.749	0.562	0.1551
15 minute summer	S9	6.000	S10	6.0	0.557	0.280	0.2565
15 minute summer	S10	5.002	S11	21.3	1.351	0.962	0.1989
360 minute winter	S11	1.004	S12	12.4	0.890	0.060	0.2453
360 minute winter	S12	1.005	TANK	12.5	0.811	0.328	0.3705
360 minute winter	S12	Infiltration		0.0			
360 minute winter	S14	7.000	TANK	2.0	0.803	0.047	0.1714
360 minute winter	TANK	Infiltration		2.3			
360 minute winter	TANK	Infiltration		2.6			

Results for 100 year Critical Storm Duration. Lowest mass balance: 96.48%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	10	143.413	0.099	19.7	0.0282	0.0000	OK
480 minute summer	S2	320	143.370	0.429	4.6	0.1214	0.0000	SURCHARGED
480 minute summer	S3	320	143.370	0.910	9.0	10.2545	0.0000	SURCHARGED
480 minute summer	S4	320	143.370	0.667	7.4	10.6724	0.0000	SURCHARGED
15 minute summer	RE1	10	143.578	0.027	2.5	0.0000	0.0000	OK
480 minute summer	RG4	320	143.370	0.170	0.2	0.0270	0.0000	SURCHARGED
480 minute summer	S5	320	143.370	0.370	8.3	15.4469	0.0000	SURCHARGED
480 minute summer	S6	320	143.370	1.185	9.9	1.3401	0.0000	SURCHARGED
15 minute summer	S7	10	143.701	0.060	6.0	0.0095	0.0000	OK
15 minute summer	S8	10	143.490	0.076	8.9	0.0120	0.0000	OK
15 minute summer	S9	10	143.677	0.051	5.4	0.0082	0.0000	OK
15 minute summer	S10	11	143.413	0.118	19.3	0.0188	0.0000	OK
480 minute summer	S11	320	143.369	1.269	13.9	1.4350	0.0000	SURCHARGED
480 minute summer	S12	320	143.369	2.219	14.2	0.6281	0.0000	SURCHARGED
480 minute summer	S14	320	143.368	1.523	2.1	0.2422	0.0000	FLOOD RISK
480 minute summer	TANK	320	143.368	2.268	15.6	42.1874	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
15 minute summer	S1	1.000	S2	19.5	1.276	0.375	0.5693
480 minute summer	S2	1.001	S3	4.5	0.672	0.057	0.8173
480 minute summer	S3	1.002	S6	7.8	0.854	0.151	1.0980
480 minute summer	S3	Infiltration		0.0			
480 minute summer	S4	2.000	S3	-6.4	0.505	-0.360	0.2975
480 minute summer	S4	Infiltration		0.4			
15 minute summer	RE1	3.000	S5	2.5	1.100	0.073	0.0433
480 minute summer	RG4	4.000	S5	0.2	0.268	0.012	0.0215
480 minute summer	S5	3.001	S6	-6.9	0.585	-0.352	0.2976
480 minute summer	S6	1.003	S11	9.9	1.366	0.158	0.2344
480 minute summer	S6	Infiltration		0.0			
15 minute summer	S7	5.000	S8	5.9	0.770	0.336	0.1766
15 minute summer	S8	5.001	S10	8.9	0.740	0.501	0.1414
15 minute summer	S9	6.000	S10	5.4	0.542	0.252	0.2334
15 minute summer	S10	5.002	S11	19.1	1.343	0.864	0.1796
480 minute summer	S11	1.004	S12	13.9	0.780	0.068	0.2453
480 minute summer	S12	1.005	TANK	13.2	0.772	0.347	0.3705
480 minute summer	S12	Infiltration		0.0			
480 minute summer	S14	7.000	TANK	1.9	0.751	0.044	0.1714
480 minute summer	TANK	Infiltration		2.3			
480 minute summer	TANK	Infiltration		2.0			

Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 96.39%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S1	148	143.432	0.118	7.5	0.0335	0.0000	OK
240 minute summer	S2	148	143.430	0.489	9.4	0.1385	0.0000	SURCHARGED
240 minute summer	S3	148	143.429	0.969	20.6	12.5470	0.0000	SURCHARGED
180 minute winter	S4	124	143.429	0.726	13.2	12.2617	0.0000	SURCHARGED
15 minute summer	RE1	10	143.581	0.031	3.2	0.0000	0.0000	OK
240 minute summer	RG4	148	143.435	0.234	0.4	0.0373	0.0000	SURCHARGED
240 minute summer	S5	148	143.434	0.434	14.1	18.0485	0.0000	SURCHARGED
240 minute summer	S6	148	143.433	1.248	16.1	1.4110	0.0000	SURCHARGED
15 minute summer	S7	10	143.709	0.068	7.5	0.0109	0.0000	OK
15 minute summer	S8	11	143.529	0.115	11.3	0.0182	0.0000	OK
15 minute summer	S9	10	143.684	0.058	6.8	0.0092	0.0000	OK
15 minute summer	S10	11	143.490	0.195	23.0	0.0310	0.0000	SURCHARGED
240 minute summer	S11	148	143.432	1.332	22.2	1.5067	0.0000	SURCHARGED
240 minute summer	S12	148	143.433	2.283	22.8	0.6460	0.0000	SURCHARGED
240 minute summer	S14	148	143.434	1.589	4.3	0.2526	0.0000	FLOOD RISK
240 minute summer	TANK	148	143.433	2.333	27.2	43.0580	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
240 minute summer	S1	1.000	S2	7.5	0.923	0.144	1.1339
240 minute summer	S2	1.001	S3	8.8	0.757	0.110	0.8173
240 minute summer	S3	1.002	S6	12.7	0.974	0.245	1.0980
240 minute summer	S3	Infiltration		11.7			
180 minute winter	S4	2.000	S3	-11.6	-0.661	-0.658	0.2975
180 minute winter	S4	Infiltration		0.8			
15 minute summer	RE1	3.000	S5	3.2	1.175	0.093	0.0541
240 minute summer	RG4	4.000	S5	0.4	0.289	0.024	0.0215
240 minute summer	S5	3.001	S6	-11.2	0.683	-0.573	0.2976
240 minute summer	S6	1.003	S11	15.7	1.543	0.252	0.2344
240 minute summer	S6	Infiltration		0.0			
15 minute summer	S7	5.000	S8	7.5	0.794	0.423	0.2517
15 minute summer	S8	5.001	S10	10.9	0.759	0.616	0.1906
15 minute summer	S9	6.000	S10	6.8	0.568	0.317	0.2761
15 minute summer	S10	5.002	S11	22.9	1.362	1.037	0.2172
240 minute summer	S11	1.004	S12	22.2	0.932	0.108	0.2453
240 minute summer	S12	1.005	TANK	22.3	1.036	0.587	0.3705
240 minute summer	S12	Infiltration		0.0			
240 minute summer	S14	7.000	TANK	4.3	0.852	0.101	0.1714
240 minute summer	TANK	Infiltration		2.3			
240 minute summer	TANK	Infiltration		2.6			

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 96.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S1	38	143.473	0.160	22.1	0.0452	0.0000	OK
60 minute summer	S2	38	143.456	0.515	34.2	0.1458	0.0000	SURCHARGED
180 minute summer	S3	108	143.438	0.978	29.7	12.9027	0.0000	SURCHARGED
120 minute summer	S4	74	143.441	0.738	20.1	12.6139	0.0000	SURCHARGED
15 minute summer	RE1	10	143.583	0.033	3.7	0.0000	0.0000	OK
180 minute summer	RG4	112	143.453	0.253	0.5	0.0403	0.0000	SURCHARGED
180 minute summer	S5	112	143.453	0.453	17.2	18.8028	0.0000	SURCHARGED
240 minute summer	S6	140	143.451	1.266	17.0	1.4313	0.0000	SURCHARGED
15 minute summer	S7	10	143.715	0.074	8.7	0.0117	0.0000	OK
15 minute summer	S8	11	143.668	0.254	13.0	0.0404	0.0000	SURCHARGED
15 minute summer	S9	10	143.689	0.063	7.9	0.0100	0.0000	OK
15 minute summer	S10	11	143.594	0.299	26.9	0.0475	0.0000	SURCHARGED
60 minute summer	S11	38	143.465	1.365	71.9	1.5434	0.0000	SURCHARGED
60 minute summer	S12	38	143.467	2.317	71.5	0.6556	0.0000	SURCHARGED
60 minute summer	S14	38	143.484	1.639	26.3	0.2606	0.0000	FLOOD RISK
60 minute summer	TANK	38	143.469	2.369	86.9	43.5925	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
60 minute summer	S1	1.000	S2	22.8	1.289	0.438	1.3001
60 minute summer	S2	1.001	S3	25.6	0.981	0.321	0.8173
180 minute summer	S3	1.002	S6	17.8	1.002	0.342	1.0980
180 minute summer	S3	Infiltration		22.1			
120 minute summer	S4	2.000	S3	-16.8	-0.957	-0.951	0.2975
120 minute summer	S4	Infiltration		0.9			
15 minute summer	RE1	3.000	S5	3.7	1.229	0.108	0.1330
180 minute summer	RG4	4.000	S5	0.5	0.568	0.030	0.0215
180 minute summer	S5	3.001	S6	-13.3	-0.760	-0.680	0.2976
240 minute summer	S6	1.003	S11	15.7	1.541	0.251	0.2344
240 minute summer	S6	Infiltration		0.0			
15 minute summer	S7	5.000	S8	8.6	0.815	0.489	0.3001
15 minute summer	S8	5.001	S10	12.3	0.747	0.694	0.2095
15 minute summer	S9	6.000	S10	7.8	0.586	0.369	0.2845
15 minute summer	S10	5.002	S11	26.7	1.516	1.208	0.2198
60 minute summer	S11	1.004	S12	69.6	1.811	0.339	0.2453
60 minute summer	S12	1.005	TANK	69.0	1.736	1.820	0.3705
60 minute summer	S12	Infiltration		0.0			
60 minute summer	S14	7.000	TANK	-14.5	1.251	-0.343	0.1714
60 minute summer	TANK	Infiltration		2.3			
60 minute summer	TANK	Infiltration		2.7			