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)	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	x
Maximum Rainfall (mm/hr)	500.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Depth (m)
S MH2	0.029	5.00	95.755	1200	1.350
S MH3	0.071	5.00	95.062	1200	1.425
S MH4			94.039	1200	1.500
S MH5	0.024	5.00	94.850	1350	2.822
S MH6			94.850	1350	2.831
S MH7			94.850	1350	2.831
S MH7A	0.023	5.00	94.850		2.831
S MH8			94.850	1350	2.855
S MH9			92.500	1500	1.650
S MH10	0.039	5.00	94.850	1200	1.125
S MH11	0.010	5.00	94.850	1200	1.180
S MH12			94.850	1200	1.294
S IC13	0.038	5.00	94.850		0.825
S IC14	0.038	5.00	94.850		0.825
S IC2	0.005	5.00	94.850	1200	0.868
S IC5			94.850	1200	0.948
S IC6			94.850	1200	1.174
S IC7	0.005	5.00	94.850	1200	1.260
S IC8	0.035	5.00	94.850	1200	1.387
S IC9	0.039	5.00	94.850	1200	0.825
S IC10			94.850	1200	0.906
S IC11	0.041	5.00	94.850	1200	0.825
S IC12			94.850	1200	0.960
S MH9a			92.250	1500	2.271
S MH9b			91.300	1500	2.400
Existing S2.42			90.934	1500	2.203
Existing S2.42a			89.824	1500	1.155
Existing S2.43			90.395	1500	1.738

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)
1.001	S MH2	S MH3	22.280	0.600	94.405	93.712	0.693	32.2	150	5.21	165.7
1.002	S MH3	S MH4	43.189	0.600	93.637	92.614	1.023	42.2	225	5.57	161.8
1.003	S MH4	S MH5	8.236	0.600	92.539	92.028	0.511	16.1	300	5.60	161.4
1.004	S MH5	S MH7A	1.412	0.600	92.028	92.019	0.009	156.9	300	5.62	161.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.001	1.781	31.5	17.4	1.200	1.200	0.029	0.0
1.002	2.019	80.3	58.5	1.200	1.200	0.100	0.0
1.003	3.935	278.1	58.3	1.200	2.522	0.100	0.0
1.004	1.252	88.5	100.7	2.522	2.531	0.173	0.0

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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	S MH7A	S MH8	4.150	0.600	92.019	91.995	0.024	172.9	300	5.68	159.9
1.006	S MH8	S MH9	9.154	0.600	91.995	91.150	0.845	10.8	225	6.21	155.2
1.007	S MH9	S MH9a	35.008	0.600	90.850	89.979	0.871	40.2	525	6.37	153.6
1.008	S MH9a	S MH9b	48.292	0.600	89.979	88.900	1.079	44.8	525	6.61	151.3
1.009	S MH9b	Existing S2.42	15.287	0.600	88.900	88.731	0.169	90.5	525	6.72	150.3
1.010	Existing S2.42	Existing S2.42a	28.138	0.600	88.731	88.669	0.062	453.8	525	7.17	146.1
1.011	Existing S2.42a	Existing S2.43	5.330	0.600	88.669	88.657	0.012	444.2	525	7.25	145.4
2.000	S MH10	S MH11	9.103	0.600	93.725	93.670	0.055	165.5	225	5.15	166.3
2.001	S MH11	S MH12	19.006	0.600	93.670	93.556	0.114	166.7	225	5.46	162.9
2.002	S MH12	S MH5	22.038	0.600	93.556	92.028	1.528	14.4	225	5.57	161.8
3.001	S IC2	S IC5	8.032	0.600	93.982	93.902	0.080	100.4	150	5.13	166.5
3.004	S IC5	S IC6	15.053	0.600	93.902	93.751	0.151	99.7	150	5.38	163.8
3.005	S IC6	S IC7	14.139	0.600	93.676	93.590	0.086	164.4	225	5.64	161.2
3.006	S IC7	S IC8	8.586	0.600	93.590	93.538	0.052	165.1	225	5.78	159.7
3.007	S IC8	S MH8	57.981	0.600	93.463	91.995	1.468	39.5	300	6.17	155.6
4.000	S IC9	S IC10	13.424	0.600	94.025	93.944	0.081	165.7	225	5.22	165.5
4.001	S IC10	S IC12	8.993	0.600	93.944	93.890	0.054	166.5	225	5.37	164.5
4.002	S IC12	S IC6	6.235	0.600	93.890	93.676	0.214	29.1	225	5.41	163.9
5.000	S IC11	S IC12	14.439	0.600	94.025	93.890	0.135	107.0	225	5.19	165.9
6.000	S IC13	S MH6	15.466	0.600	94.025	92.769	1.256	12.3	225	5.07	167.2
6.001	S MH6	S MH7A	4.469	0.600	92.019	92.019	0.000	0.0	300	5.14	166.6
7.000	S IC14	S MH7	16.911	0.600	94.025	92.769	1.256	13.5	225	5.08	167.1
7.001	S MH7	S MH7A	2.845	0.600	92.019	92.019	0.000	0.0	300	5.13	166.7

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.005	1.192	84.3	157.2	2.531	2.555	0.272	0.0
1.006	3.998	159.0	222.7	2.630	1.125	0.397	0.0
1.007	3.540	766.3	220.4	1.125	1.746	0.397	0.0
1.008	3.354	726.1	217.1	1.746	1.875	0.397	0.0
1.009	2.355	509.9	215.6	1.875	1.678	0.397	0.0
1.010	1.045	226.1	209.6	1.678	0.630	0.397	0.0
1.011	1.056	228.6	208.6	0.630	1.213	0.397	0.0
2.000	1.013	40.3	23.4	0.900	0.955	0.039	0.0
2.001	1.010	40.1	28.8	0.955	1.069	0.049	0.0
2.002	3.463	137.7	28.7	1.069	2.597	0.049	0.0
3.001	1.003	17.7	3.0	0.718	0.798	0.005	0.0
3.004	1.006	17.8	3.0	0.798	0.949	0.005	0.0
3.005	1.017	40.4	49.5	0.949	1.035	0.085	0.0
3.006	1.015	40.3	51.9	1.035	1.087	0.090	0.0
3.007	2.509	177.3	70.3	1.087	2.555	0.125	0.0
4.000	1.013	40.3	23.3	0.600	0.681	0.039	0.0
4.001	1.010	40.2	23.2	0.681	0.735	0.039	0.0
4.002	2.433	96.7	47.4	0.735	0.949	0.080	0.0
5.000	1.264	50.2	24.6	0.600	0.735	0.041	0.0
6.000	3.749	149.1	23.0	0.600	1.856	0.038	0.0
6.001	1.000	70.7	22.9	2.531	2.531	0.038	0.0
7.000	3.585	142.5	22.9	0.600	1.856	0.038	0.0
7.001	1.000	70.7	22.9	2.531	2.531	0.038	0.0

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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)
1.001	22.280	32.2	150	Circular	95.755	94.405	1.200	95.062	93.712	1.200
1.002	43.189	42.2	225	Circular	95.062	93.637	1.200	94.039	92.614	1.200
1.003	8.236	16.1	300	Circular	94.039	92.539	1.200	94.850	92.028	2.522
1.004	1.412	156.9	300	Circular	94.850	92.028	2.522	94.850	92.019	2.531
1.005	4.150	172.9	300	Circular	94.850	92.019	2.531	94.850	91.995	2.555
1.006	9.154	10.8	225	Circular	94.850	91.995	2.630	92.500	91.150	1.125
1.007	35.008	40.2	525	Circular	92.500	90.850	1.125	92.250	89.979	1.746
1.008	48.292	44.8	525	Circular	92.250	89.979	1.746	91.300	88.900	1.875
1.009	15.287	90.5	525	Circular	91.300	88.900	1.875	90.934	88.731	1.678
1.010	28.138	453.8	525	Circular	90.934	88.731	1.678	89.824	88.669	0.630
1.011	5.330	444.2	525	Circular	89.824	88.669	0.630	90.395	88.657	1.213
2.000	9.103	165.5	225	Circular	94.850	93.725	0.900	94.850	93.670	0.955
2.001	19.006	166.7	225	Circular	94.850	93.670	0.955	94.850	93.556	1.069
2.002	22.038	14.4	225	Circular	94.850	93.556	1.069	94.850	92.028	2.597
3.001	8.032	100.4	150	Circular	94.850	93.982	0.718	94.850	93.902	0.798
3.004	15.053	99.7	150	Circular	94.850	93.902	0.798	94.850	93.751	0.949
3.005	14.139	164.4	225	Circular	94.850	93.676	0.949	94.850	93.590	1.035
3.006	8.586	165.1	225	Circular	94.850	93.590	1.035	94.850	93.538	1.087
3.007	57.981	39.5	300	Circular	94.850	93.463	1.087	94.850	91.995	2.555
4.000	13.424	165.7	225	Circular	94.850	94.025	0.600	94.850	93.944	0.681
4.001	8.993	166.5	225	Circular	94.850	93.944	0.681	94.850	93.890	0.735
4.002	6.235	29.1	225	Circular	94.850	93.890	0.735	94.850	93.676	0.949
5.000	14.439	107.0	225	Circular	94.850	94.025	0.600	94.850	93.890	0.735
6.000	15.466	12.3	225	Circular	94.850	94.025	0.600	94.850	92.769	1.856

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.001	S MH2	1200	Manhole	Adoptable	S MH3	1200	Manhole	Adoptable
1.002	S MH3	1200	Manhole	Adoptable	S MH4	1200	Manhole	Adoptable
1.003	S MH4	1200	Manhole	Adoptable	S MH5	1350	Manhole	Adoptable
1.004	S MH5	1350	Manhole	Adoptable	S MH7A		Manhole	Adoptable
1.005	S MH7A		Manhole	Adoptable	S MH8	1350	Manhole	Adoptable
1.006	S MH8	1350	Manhole	Adoptable	S MH9	1500	Manhole	Adoptable
1.007	S MH9	1500	Manhole	Adoptable	S MH9a	1500	Manhole	Adoptable
1.008	S MH9a	1500	Manhole	Adoptable	S MH9b	1500	Manhole	Adoptable
1.009	S MH9b	1500	Manhole	Adoptable	Existing S2.42	1500	Manhole	Adoptable
1.010	Existing S2.42	1500	Manhole	Adoptable	Existing S2.42a	1500	Manhole	Adoptable
1.011	Existing S2.42a	1500	Manhole	Adoptable	Existing S2.43	1500	Manhole	Adoptable
2.000	S MH10	1200	Manhole	Adoptable	S MH11	1200	Manhole	Adoptable
2.001	S MH11	1200	Manhole	Adoptable	S MH12	1200	Manhole	Adoptable
2.002	S MH12	1200	Manhole	Adoptable	S MH5	1350	Manhole	Adoptable
3.001	S IC2	1200	Manhole	Adoptable	S IC5	1200	Manhole	Adoptable
3.004	S IC5	1200	Manhole	Adoptable	S IC6	1200	Manhole	Adoptable
3.005	S IC6	1200	Manhole	Adoptable	S IC7	1200	Manhole	Adoptable
3.006	S IC7	1200	Manhole	Adoptable	S IC8	1200	Manhole	Adoptable
3.007	S IC8	1200	Manhole	Adoptable	S MH8	1350	Manhole	Adoptable
4.000	S IC9	1200	Manhole	Adoptable	S IC10	1200	Manhole	Adoptable
4.001	S IC10	1200	Manhole	Adoptable	S IC12	1200	Manhole	Adoptable
4.002	S IC12	1200	Manhole	Adoptable	S IC6	1200	Manhole	Adoptable
5.000	S IC11	1200	Manhole	Adoptable	S IC12	1200	Manhole	Adoptable
6.000	S IC13		Manhole	Adoptable	S MH6	1350	Manhole	Adoptable

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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)
6.001	4.469	0.0	300	Circular	94.850	92.019	2.531	94.850	92.019	2.531
7.000	16.911	13.5	225	Circular	94.850	94.025	0.600	94.850	92.769	1.856
7.001	2.845	0.0	300	Circular	94.850	92.019	2.531	94.850	92.019	2.531

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
6.001	S MH6	1350	Manhole	Adoptable	S MH7A		Manhole	Adoptable
7.000	S IC14		Manhole	Adoptable	S MH7	1350	Manhole	Adoptable
7.001	S MH7	1350	Manhole	Adoptable	S MH7A		Manhole	Adoptable

Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S MH2	95.755	1.350	1200	0	1.001	94.405	150
S MH3	95.062	1.425	1200	1	1.001	93.712	150
				0	1.002	93.637	225
S MH4	94.039	1.500	1200	1	1.002	92.614	225
				0	1.003	92.539	300
S MH5	94.850	2.822	1350	1	2.002	92.028	225
				2	1.003	92.028	300
				0	1.004	92.028	300
S MH6	94.850	2.831	1350	1	6.000	92.769	225
				0	6.001	92.019	300
S MH7	94.850	2.831	1350	1	7.000	92.769	225
				0	7.001	92.019	300
S MH7A	94.850	2.831		1	7.001	92.019	300
				2	6.001	92.019	300
				3	1.004	92.019	300
				0	1.005	92.019	300
S MH8	94.850	2.855	1350	1	3.007	91.995	300
				2	1.005	91.995	300
				0	1.006	91.995	225
S MH9	92.500	1.650	1500	1	1.006	91.150	225
				0	1.007	90.850	525
S MH10	94.850	1.125	1200	0	2.000	93.725	225
S MH11	94.850	1.180	1200	1	2.000	93.670	225
				0	2.001	93.670	225

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Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S MH12	94.850	1.294	1200	1	2.001	93.556	225
				0	2.002	93.556	225
S IC13	94.850	0.825		0	6.000	94.025	225
S IC14	94.850	0.825		0	7.000	94.025	225
S IC2	94.850	0.868	1200	0	3.001	93.982	150
S IC5	94.850	0.948	1200	1	3.001	93.902	150
				0	3.004	93.902	150
S IC6	94.850	1.174	1200	1	4.002	93.676	225
				2	3.004	93.751	150
				0	3.005	93.676	225
S IC7	94.850	1.260	1200	1	3.005	93.590	225
				0	3.006	93.590	225
S IC8	94.850	1.387	1200	1	3.006	93.538	225
				0	3.007	93.463	300
S IC9	94.850	0.825	1200	0	4.000	94.025	225
S IC10	94.850	0.906	1200	1	4.000	93.944	225
				0	4.001	93.944	225
S IC11	94.850	0.825	1200	0	5.000	94.025	225
S IC12	94.850	0.960	1200	1	5.000	93.890	225
				2	4.001	93.890	225
				0	4.002	93.890	225
S MH9a	92.250	2.271	1500	1	1.007	89.979	525
				0	1.008	89.979	525
S MH9b	91.300	2.400	1500	1	1.008	88.900	525
				0	1.009	88.900	525
Existing S2.42	90.934	2.203	1500	1	1.009	88.731	525
				0	1.010	88.731	525

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Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
Existing S2.42a	89.824	1.155	1500	1	1.010	88.669	525
				0	1.011	88.669	525
Existing S2.43	90.395	1.738	1500	1	1.011	88.657	525

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	✓
Summer CV	1.000	Drain Down Time (mins)	10080	Check Discharge Volume	✓
Winter CV	1.000	Additional Storage (m³/ha)	0.0	100 year 360 minute (m³)	

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	35	0	0
10	0	0	0	100	0	0	0
30	0	0	0	100	45	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	SPR	0.10	Betterment (%)	0
Greenfield Method	IH124	Region	1	QBar	
Positively Drained Area (ha)		Growth Factor 1 year	0.85	Q 1 year (l/s)	
SAAR (mm)		Growth Factor 30 year	1.95	Q 30 year (l/s)	
Soil Index	1	Growth Factor 100 year	2.48	Q 100 year (l/s)	

Pre-development Discharge Volume

Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	ReFH2	Storm Duration (mins)	360
Region	England, Wales, NI	Betterment (%)	0
Include Baseflow	x	Runoff Volume (m³)	
Positively Drained Area (ha)			

Node S MH8 Online Orifice Control

Flap Valve	x	Design Depth (m)	1.819	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	90.0		
Invert Level (m)	91.995	Diameter (m)	0.178		

Node S MH7 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	92.019
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	16

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	66.0	0.0	1.200	66.0	0.0	1.201	0.0	0.0

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Results for 2 year Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S MH2	10	94.445	0.040	4.7	0.0449	0.0000	OK
15 minute summer	S MH3	10	93.706	0.069	16.0	0.0776	0.0000	OK
15 minute summer	S MH4	11	92.587	0.048	15.7	0.0544	0.0000	OK
30 minute summer	S MH5	23	92.211	0.183	24.3	0.2614	0.0000	OK
30 minute summer	S MH6	23	92.210	0.191	5.4	0.2731	0.0000	OK
30 minute summer	S MH7	23	92.210	0.191	30.8	12.2703	0.0000	OK
30 minute summer	S MH7A	23	92.210	0.191	30.9	0.0000	0.0000	OK
30 minute summer	S MH8	23	92.207	0.212	24.1	0.3038	0.0000	OK
30 minute summer	S MH9	23	90.913	0.063	23.2	0.1113	0.0000	OK
15 minute summer	S MH10	10	93.789	0.064	6.3	0.0720	0.0000	OK
15 minute summer	S MH11	10	93.742	0.072	7.8	0.0813	0.0000	OK
15 minute summer	S MH12	11	93.592	0.036	7.7	0.0409	0.0000	OK
15 minute summer	S IC13	10	94.057	0.032	6.1	0.0000	0.0000	OK
15 minute summer	S IC14	10	94.057	0.032	6.1	0.0000	0.0000	OK
15 minute summer	S IC2	10	94.004	0.022	0.8	0.0253	0.0000	OK
15 minute summer	S IC5	11	93.924	0.022	0.8	0.0246	0.0000	OK
15 minute summer	S IC6	11	93.771	0.095	13.4	0.1076	0.0000	OK
15 minute summer	S IC7	11	93.690	0.100	14.3	0.1127	0.0000	OK
15 minute summer	S IC8	11	93.530	0.067	19.7	0.0756	0.0000	OK
15 minute summer	S IC9	10	94.087	0.062	6.3	0.0703	0.0000	OK
15 minute summer	S IC10	10	94.006	0.062	6.2	0.0706	0.0000	OK
15 minute summer	S IC11	10	94.082	0.057	6.6	0.0641	0.0000	OK
15 minute summer	S IC12	10	93.946	0.056	12.7	0.0638	0.0000	OK
30 minute summer	S MH9a	23	90.043	0.063	23.3	0.1122	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	S MH2	1.001	S MH3	4.6	1.262	0.147	0.0818	
15 minute summer	S MH3	1.002	S MH4	15.7	1.562	0.196	0.4349	
15 minute summer	S MH4	1.003	S MH5	15.7	0.718	0.057	0.1966	
30 minute summer	S MH5	1.004	S MH7A	23.2	0.685	0.262	0.0651	
30 minute summer	S MH6	6.001	S MH7A	4.8	0.157	0.068	0.2113	
30 minute summer	S MH7	7.001	S MH7A	-25.4	-1.057	-0.360	0.1347	
30 minute summer	S MH7A	1.005	S MH8	16.2	0.532	0.193	0.2087	
30 minute summer	S MH8	Orifice	S MH9	23.2				
30 minute summer	S MH9	1.007	S MH9a	23.3	1.584	0.030	0.5141	
15 minute summer	S MH10	2.000	S MH11	6.2	0.621	0.155	0.0916	
15 minute summer	S MH11	2.001	S MH12	7.7	1.060	0.192	0.1423	
15 minute summer	S MH12	2.002	S MH5	7.7	0.448	0.056	0.3948	
15 minute summer	S IC13	6.000	S MH6	6.1	1.823	0.041	0.0514	
15 minute summer	S IC14	7.000	S MH7	6.1	1.768	0.042	0.0579	
15 minute summer	S IC2	3.001	S IC5	0.8	0.525	0.045	0.0128	
15 minute summer	S IC5	3.004	S IC6	0.8	0.504	0.044	0.0235	
15 minute summer	S IC6	3.005	S IC7	13.5	0.821	0.334	0.2326	
15 minute summer	S IC7	3.006	S IC8	14.3	0.890	0.354	0.1380	
15 minute summer	S IC8	3.007	S MH8	19.6	0.703	0.111	1.6882	
15 minute summer	S IC9	4.000	S IC10	6.2	0.698	0.155	0.1199	
15 minute summer	S IC10	4.001	S IC12	6.2	0.739	0.153	0.0753	
15 minute summer	S IC11	5.000	S IC12	6.5	0.839	0.130	0.1126	
15 minute summer	S IC12	4.002	S IC6	12.6	1.084	0.130	0.0739	
30 minute summer	S MH9a	1.008	S MH9b	23.2	1.343	0.032	0.8393	

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Results for 2 year Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S MH9b	23	88.978	0.078	23.2	0.1380	0.0000	OK
30 minute summer	Existing S2.42	24	88.848	0.117	23.2	0.2060	0.0000	OK
30 minute summer	Existing S2.42a	24	88.784	0.115	23.2	0.2027	0.0000	OK
30 minute summer	Existing S2.43	24	88.756	0.099	23.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S MH9b	1.009	Existing S2.42	23.2	0.845	0.045	0.4247	
30 minute summer	Existing S2.42	1.010	Existing S2.42a	23.2	0.660	0.103	0.9898	
30 minute summer	Existing S2.42a	1.011	Existing S2.43	23.1	0.739	0.101	0.1673	35.3

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Results for 10 year Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S MH2	10	94.465	0.060	10.0	0.0673	0.0000	OK
15 minute summer	S MH3	10	93.742	0.105	34.4	0.1184	0.0000	OK
15 minute summer	S MH4	10	92.609	0.070	33.8	0.0792	0.0000	OK
30 minute summer	S MH5	23	92.508	0.480	52.4	0.6863	0.0000	SURCHARGED
30 minute summer	S MH6	23	92.506	0.487	11.5	0.6964	0.0000	SURCHARGED
30 minute summer	S MH7	23	92.506	0.487	74.1	31.2552	0.0000	SURCHARGED
30 minute summer	S MH7A	23	92.506	0.487	66.3	0.0000	0.0000	SURCHARGED
30 minute summer	S MH8	23	92.499	0.504	43.5	0.7212	0.0000	SURCHARGED
30 minute summer	S MH9	23	90.935	0.085	42.6	0.1502	0.0000	OK
15 minute summer	S MH10	10	93.824	0.099	13.4	0.1120	0.0000	OK
15 minute summer	S MH11	10	93.777	0.107	16.7	0.1212	0.0000	OK
15 minute summer	S MH12	11	93.608	0.052	16.5	0.0592	0.0000	OK
15 minute summer	S IC13	10	94.071	0.046	13.1	0.0000	0.0000	OK
15 minute summer	S IC14	10	94.072	0.047	13.1	0.0000	0.0000	OK
15 minute summer	S IC2	10	94.014	0.032	1.7	0.0365	0.0000	OK
15 minute summer	S IC5	11	93.933	0.031	1.7	0.0349	0.0000	OK
15 minute summer	S IC6	11	93.833	0.157	28.5	0.1772	0.0000	OK
15 minute summer	S IC7	11	93.752	0.162	30.3	0.1835	0.0000	OK
15 minute summer	S IC8	11	93.561	0.098	41.9	0.1112	0.0000	OK
15 minute summer	S IC9	10	94.120	0.095	13.4	0.1073	0.0000	OK
15 minute summer	S IC10	10	94.040	0.096	13.3	0.1085	0.0000	OK
15 minute summer	S IC11	10	94.111	0.086	14.1	0.0968	0.0000	OK
15 minute summer	S IC12	10	93.982	0.092	27.1	0.1040	0.0000	OK
30 minute summer	S MH9a	23	90.064	0.085	42.6	0.1500	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	S MH2	1.001	S MH3	9.9	1.550	0.314	0.1420	
15 minute summer	S MH3	1.002	S MH4	33.8	1.911	0.421	0.7643	
15 minute summer	S MH4	1.003	S MH5	33.7	0.835	0.121	0.3412	
30 minute summer	S MH5	1.004	S MH7A	49.2	0.717	0.556	0.0994	
30 minute summer	S MH6	6.001	S MH7A	10.1	0.163	0.143	0.3147	
30 minute summer	S MH7	7.001	S MH7A	-62.6	-0.937	-0.886	0.2003	
30 minute summer	S MH7A	1.005	S MH8	31.8	0.615	0.377	0.2922	
30 minute summer	S MH8	Orifice	S MH9	42.6				
30 minute summer	S MH9	1.007	S MH9a	42.6	1.888	0.056	0.7905	
15 minute summer	S MH10	2.000	S MH11	13.3	0.750	0.330	0.1614	
15 minute summer	S MH11	2.001	S MH12	16.5	1.315	0.412	0.2435	
15 minute summer	S MH12	2.002	S MH5	16.5	0.585	0.120	0.5153	
15 minute summer	S IC13	6.000	S MH6	13.0	2.271	0.087	0.0888	
15 minute summer	S IC14	7.000	S MH7	13.0	2.202	0.091	0.1000	
15 minute summer	S IC2	3.001	S IC5	1.7	0.626	0.095	0.0215	
15 minute summer	S IC5	3.004	S IC6	1.7	0.509	0.093	0.0934	
15 minute summer	S IC6	3.005	S IC7	28.7	0.957	0.711	0.4254	
15 minute summer	S IC7	3.006	S IC8	30.4	1.055	0.753	0.2467	
15 minute summer	S IC8	3.007	S MH8	41.8	0.834	0.236	2.6234	
15 minute summer	S IC9	4.000	S IC10	13.3	0.830	0.330	0.2150	
15 minute summer	S IC10	4.001	S IC12	13.1	0.838	0.327	0.1411	
15 minute summer	S IC11	5.000	S IC12	14.0	0.969	0.279	0.2101	
15 minute summer	S IC12	4.002	S IC6	26.9	1.224	0.278	0.1394	
30 minute summer	S MH9a	1.008	S MH9b	42.6	1.541	0.059	1.3405	

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Results for 10 year Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S MH9b	24	89.010	0.110	42.6	0.1952	0.0000	OK
30 minute summer	Existing S2.42	24	88.892	0.161	42.6	0.2846	0.0000	OK
30 minute summer	Existing S2.42a	24	88.826	0.157	42.6	0.2772	0.0000	OK
30 minute summer	Existing S2.43	24	88.792	0.135	42.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S MH9b	1.009	Existing S2.42	42.6	0.965	0.084	0.6807	
30 minute summer	Existing S2.42	1.010	Existing S2.42a	42.6	0.773	0.188	1.5502	
30 minute summer	Existing S2.42a	1.011	Existing S2.43	42.5	0.870	0.186	0.2608	75.9

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Results for 30 year Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S MH2	10	94.475	0.070	13.2	0.0790	0.0000	OK
15 minute summer	S MH3	10	93.761	0.124	45.4	0.1406	0.0000	OK
30 minute summer	S MH4	23	92.711	0.172	40.6	0.1942	0.0000	OK
30 minute summer	S MH5	23	92.711	0.683	70.2	0.9780	0.0000	SURCHARGED
30 minute summer	S MH6	23	92.708	0.689	15.4	0.9866	0.0000	SURCHARGED
30 minute summer	S MH7	23	92.709	0.690	100.4	44.2725	0.0000	SURCHARGED
30 minute summer	S MH7A	23	92.708	0.689	87.8	0.0000	0.0000	SURCHARGED
30 minute summer	S MH8	23	92.699	0.704	53.5	1.0078	0.0000	SURCHARGED
30 minute summer	S MH9	23	90.944	0.094	51.9	0.1660	0.0000	OK
15 minute summer	S MH10	10	93.844	0.119	17.8	0.1341	0.0000	OK
15 minute summer	S MH11	10	93.796	0.126	22.3	0.1425	0.0000	OK
15 minute summer	S MH12	10	93.617	0.061	22.0	0.0684	0.0000	OK
15 minute summer	S IC13	10	94.079	0.054	17.4	0.0000	0.0000	OK
15 minute summer	S IC14	10	94.080	0.055	17.4	0.0000	0.0000	OK
15 minute summer	S IC2	10	94.020	0.038	2.3	0.0428	0.0000	OK
15 minute summer	S IC5	11	93.938	0.036	2.3	0.0407	0.0000	OK
15 minute summer	S IC6	11	93.885	0.209	38.1	0.2364	0.0000	OK
15 minute summer	S IC7	11	93.795	0.205	40.3	0.2318	0.0000	OK
15 minute summer	S IC8	11	93.577	0.114	55.5	0.1290	0.0000	OK
15 minute summer	S IC9	10	94.138	0.113	17.8	0.1278	0.0000	OK
15 minute summer	S IC10	10	94.060	0.116	17.7	0.1309	0.0000	OK
15 minute summer	S IC11	10	94.127	0.102	18.7	0.1150	0.0000	OK
15 minute summer	S IC12	10	94.005	0.115	36.0	0.1304	0.0000	OK
30 minute summer	S MH9a	24	90.072	0.093	51.9	0.1652	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	S MH2	1.001	S MH3	13.1	1.664	0.415	0.1748	
15 minute summer	S MH3	1.002	S MH4	44.8	2.044	0.558	0.9467	
30 minute summer	S MH4	1.003	S MH5	40.6	0.798	0.146	0.4616	
30 minute summer	S MH5	1.004	S MH7A	65.3	0.928	0.738	0.0994	
30 minute summer	S MH6	6.001	S MH7A	13.2	0.187	0.187	0.3147	
30 minute summer	S MH7	7.001	S MH7A	-85.0	-1.207	-1.202	0.2003	
30 minute summer	S MH7A	1.005	S MH8	39.0	0.648	0.463	0.2922	
30 minute summer	S MH8	Orifice	S MH9	51.9				
30 minute summer	S MH9	1.007	S MH9a	51.9	1.995	0.068	0.9106	
15 minute summer	S MH10	2.000	S MH11	17.7	0.802	0.439	0.2005	
15 minute summer	S MH11	2.001	S MH12	22.0	1.420	0.549	0.2987	
15 minute summer	S MH12	2.002	S MH5	21.9	0.756	0.159	0.5328	
15 minute summer	S IC13	6.000	S MH6	17.3	2.456	0.116	0.1090	
15 minute summer	S IC14	7.000	S MH7	17.3	2.383	0.121	0.1228	
15 minute summer	S IC2	3.001	S IC5	2.3	0.681	0.129	0.0269	
15 minute summer	S IC5	3.004	S IC6	2.3	0.497	0.127	0.1494	
15 minute summer	S IC6	3.005	S IC7	38.2	0.998	0.944	0.5406	
15 minute summer	S IC7	3.006	S IC8	40.2	1.142	0.996	0.2997	
15 minute summer	S IC8	3.007	S MH8	55.4	0.990	0.312	2.7539	
15 minute summer	S IC9	4.000	S IC10	17.7	0.871	0.438	0.2719	
15 minute summer	S IC10	4.001	S IC12	17.4	0.857	0.433	0.1845	
15 minute summer	S IC11	5.000	S IC12	18.6	1.003	0.369	0.2735	
15 minute summer	S IC12	4.002	S IC6	35.9	1.254	0.371	0.1830	
30 minute summer	S MH9a	1.008	S MH9b	51.8	1.614	0.071	1.5589	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S MH9b	24	89.024	0.124	51.8	0.2183	0.0000	OK
30 minute summer	Existing S2.42	24	88.910	0.179	51.9	0.3170	0.0000	OK
30 minute summer	Existing S2.42a	25	88.843	0.174	51.9	0.3071	0.0000	OK
30 minute summer	Existing S2.43	25	88.806	0.149	51.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S MH9b	1.009	Existing S2.42	51.9	1.007	0.102	0.7931	
30 minute summer	Existing S2.42	1.010	Existing S2.42a	51.9	0.814	0.229	1.7928	
30 minute summer	Existing S2.42a	1.011	Existing S2.43	51.8	0.921	0.227	0.3004	101.7

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Results for 30 year +35% CC Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S MH2	10	94.489	0.084	17.9	0.0953	0.0000	OK
15 minute summer	S MH3	10	93.790	0.153	61.5	0.1729	0.0000	OK
30 minute summer	S MH4	23	92.999	0.460	55.4	0.5206	0.0000	SURCHARGED
30 minute summer	S MH5	24	92.997	0.969	88.9	1.3873	0.0000	SURCHARGED
30 minute summer	S MH6	24	92.994	0.975	20.8	1.3950	0.0000	SURCHARGED
30 minute summer	S MH7	24	92.995	0.976	133.5	62.5893	0.0000	SURCHARGED
30 minute summer	S MH7A	24	92.994	0.975	114.4	0.0000	0.0000	SURCHARGED
30 minute summer	S MH8	23	92.979	0.984	65.7	1.4086	0.0000	SURCHARGED
30 minute summer	S MH9	23	90.953	0.103	62.6	0.1826	0.0000	OK
15 minute summer	S MH10	10	93.871	0.146	24.1	0.1650	0.0000	OK
15 minute summer	S MH11	10	93.821	0.151	30.1	0.1707	0.0000	OK
15 minute summer	S MH12	10	93.627	0.071	29.8	0.0799	0.0000	OK
15 minute summer	S IC13	10	94.088	0.063	23.4	0.0000	0.0000	OK
15 minute summer	S IC14	10	94.089	0.064	23.4	0.0000	0.0000	OK
15 minute summer	S IC2	10	94.024	0.042	3.1	0.0480	0.0000	OK
15 minute summer	S IC5	12	94.022	0.120	3.5	0.1360	0.0000	OK
15 minute summer	S IC6	11	94.019	0.343	47.9	0.3878	0.0000	SURCHARGED
15 minute summer	S IC7	11	93.857	0.267	50.7	0.3016	0.0000	SURCHARGED
15 minute summer	S IC8	11	93.594	0.131	71.2	0.1481	0.0000	OK
15 minute summer	S IC9	10	94.163	0.138	24.1	0.1566	0.0000	OK
15 minute summer	S IC10	11	94.103	0.159	23.8	0.1802	0.0000	OK
15 minute summer	S IC11	10	94.148	0.123	25.3	0.1388	0.0000	OK
15 minute summer	S IC12	11	94.085	0.195	48.4	0.2201	0.0000	OK
30 minute summer	S MH9a	24	90.081	0.102	62.6	0.1810	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	S MH2	1.001	S MH3	17.7	1.789	0.563	0.2207	
15 minute summer	S MH3	1.002	S MH4	60.6	2.175	0.755	1.3637	
30 minute summer	S MH4	1.003	S MH5	50.0	0.927	0.180	0.5800	
30 minute summer	S MH5	1.004	S MH7A	81.6	1.159	0.921	0.0994	
30 minute summer	S MH6	6.001	S MH7A	18.4	0.261	0.260	0.3147	
30 minute summer	S MH7	7.001	S MH7A	-112.7	-1.600	-1.594	0.2003	
30 minute summer	S MH7A	1.005	S MH8	47.4	0.681	0.562	0.2922	
30 minute summer	S MH8	Orifice	S MH9	62.6				
30 minute summer	S MH9	1.007	S MH9a	62.6	2.104	0.082	1.0421	
15 minute summer	S MH10	2.000	S MH11	23.9	0.861	0.594	0.2528	
15 minute summer	S MH11	2.001	S MH12	29.8	1.532	0.742	0.3702	
15 minute summer	S MH12	2.002	S MH5	29.6	0.986	0.215	0.5555	
15 minute summer	S IC13	6.000	S MH6	23.3	2.662	0.156	0.1996	
15 minute summer	S IC14	7.000	S MH7	23.3	2.584	0.163	0.2210	
15 minute summer	S IC2	3.001	S IC5	3.1	0.729	0.176	0.0765	
15 minute summer	S IC5	3.004	S IC6	5.2	0.504	0.294	0.2464	
15 minute summer	S IC6	3.005	S IC7	47.8	1.203	1.183	0.5623	
15 minute summer	S IC7	3.006	S IC8	50.6	1.287	1.255	0.3222	
15 minute summer	S IC8	3.007	S MH8	71.1	1.225	0.401	2.8973	
15 minute summer	S IC9	4.000	S IC10	23.8	0.912	0.592	0.3694	
15 minute summer	S IC10	4.001	S IC12	23.1	0.863	0.576	0.2993	
15 minute summer	S IC11	5.000	S IC12	25.2	1.042	0.502	0.4090	
15 minute summer	S IC12	4.002	S IC6	46.5	1.295	0.481	0.2378	
30 minute summer	S MH9a	1.008	S MH9b	62.6	1.686	0.086	1.8033	

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Results for 30 year +35% CC Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S MH9b	24	89.038	0.138	62.6	0.2434	0.0000	OK
30 minute summer	Existing S2.42	24	88.930	0.199	62.6	0.3519	0.0000	OK
30 minute summer	Existing S2.42a	25	88.861	0.192	62.6	0.3395	0.0000	OK
30 minute summer	Existing S2.43	25	88.822	0.165	62.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S MH9b	1.009	Existing S2.42	62.6	1.049	0.123	0.9184	
30 minute summer	Existing S2.42	1.010	Existing S2.42a	62.6	0.854	0.277	2.0617	
30 minute summer	Existing S2.42a	1.011	Existing S2.43	62.6	0.969	0.274	0.3448	137.9

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Results for 100 year Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S MH2	10	94.486	0.081	16.8	0.0915	0.0000	OK
15 minute summer	S MH3	10	93.783	0.146	57.7	0.1650	0.0000	OK
30 minute summer	S MH4	23	92.940	0.401	52.0	0.4532	0.0000	SURCHARGED
30 minute summer	S MH5	23	92.937	0.909	86.8	1.3012	0.0000	SURCHARGED
30 minute summer	S MH6	24	92.934	0.915	19.7	1.3093	0.0000	SURCHARGED
30 minute summer	S MH7	24	92.935	0.916	127.9	58.7494	0.0000	SURCHARGED
30 minute summer	S MH7A	24	92.934	0.915	110.0	0.0000	0.0000	SURCHARGED
30 minute summer	S MH8	23	92.921	0.926	63.5	1.3252	0.0000	SURCHARGED
30 minute summer	S MH9	23	90.952	0.102	60.5	0.1795	0.0000	OK
15 minute summer	S MH10	10	93.864	0.139	22.6	0.1576	0.0000	OK
15 minute summer	S MH11	10	93.815	0.145	28.2	0.1640	0.0000	OK
15 minute summer	S MH12	10	93.624	0.068	27.9	0.0772	0.0000	OK
15 minute summer	S IC13	10	94.086	0.061	22.0	0.0000	0.0000	OK
15 minute summer	S IC14	10	94.087	0.062	22.0	0.0000	0.0000	OK
15 minute summer	S IC2	10	94.024	0.042	2.9	0.0480	0.0000	OK
15 minute summer	S IC5	11	93.997	0.095	3.0	0.1069	0.0000	OK
15 minute summer	S IC6	11	93.995	0.319	46.2	0.3604	0.0000	SURCHARGED
15 minute summer	S IC7	11	93.845	0.255	48.7	0.2882	0.0000	SURCHARGED
15 minute summer	S IC8	11	93.590	0.127	67.8	0.1439	0.0000	OK
15 minute summer	S IC9	10	94.157	0.132	22.6	0.1495	0.0000	OK
15 minute summer	S IC10	11	94.085	0.141	22.4	0.1591	0.0000	OK
15 minute summer	S IC11	10	94.144	0.119	23.7	0.1342	0.0000	OK
15 minute summer	S IC12	11	94.052	0.162	45.4	0.1832	0.0000	OK
30 minute summer	S MH9a	24	90.080	0.101	60.5	0.1781	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	S MH2	1.001	S MH3	16.6	1.763	0.528	0.2100	
15 minute summer	S MH3	1.002	S MH4	56.8	2.152	0.708	1.2554	
30 minute summer	S MH4	1.003	S MH5	50.0	0.960	0.180	0.5800	
30 minute summer	S MH5	1.004	S MH7A	79.3	1.126	0.896	0.0994	
30 minute summer	S MH6	6.001	S MH7A	17.2	0.244	0.243	0.3147	
30 minute summer	S MH7	7.001	S MH7A	-108.2	-1.536	-1.530	0.2003	
30 minute summer	S MH7A	1.005	S MH8	45.9	0.659	0.544	0.2922	
30 minute summer	S MH8	Orifice	S MH9	60.5				
30 minute summer	S MH9	1.007	S MH9a	60.5	2.083	0.079	1.0170	
15 minute summer	S MH10	2.000	S MH11	22.4	0.849	0.557	0.2406	
15 minute summer	S MH11	2.001	S MH12	27.9	1.508	0.696	0.3535	
15 minute summer	S MH12	2.002	S MH5	27.8	0.931	0.202	0.5502	
15 minute summer	S IC13	6.000	S MH6	21.9	2.619	0.147	0.1294	
15 minute summer	S IC14	7.000	S MH7	21.9	2.541	0.154	0.1457	
15 minute summer	S IC2	3.001	S IC5	3.0	0.722	0.167	0.0623	
15 minute summer	S IC5	3.004	S IC6	3.7	0.524	0.205	0.2205	
15 minute summer	S IC6	3.005	S IC7	45.9	1.153	1.134	0.5623	
15 minute summer	S IC7	3.006	S IC8	48.5	1.237	1.202	0.3195	
15 minute summer	S IC8	3.007	S MH8	67.6	1.173	0.381	2.8655	
15 minute summer	S IC9	4.000	S IC10	22.4	0.904	0.556	0.3334	
15 minute summer	S IC10	4.001	S IC12	21.8	0.924	0.543	0.2550	
15 minute summer	S IC11	5.000	S IC12	23.6	1.034	0.470	0.3647	
15 minute summer	S IC12	4.002	S IC6	44.0	1.287	0.455	0.2194	
30 minute summer	S MH9a	1.008	S MH9b	60.5	1.674	0.083	1.7568	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S MH9b	24	89.035	0.135	60.5	0.2387	0.0000	OK
30 minute summer	Existing S2.42	24	88.926	0.195	60.5	0.3454	0.0000	OK
30 minute summer	Existing S2.42a	25	88.858	0.189	60.5	0.3337	0.0000	OK
30 minute summer	Existing S2.43	25	88.819	0.162	60.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S MH9b	1.009	Existing S2.42	60.5	1.041	0.119	0.8945	
30 minute summer	Existing S2.42	1.010	Existing S2.42a	60.5	0.846	0.267	2.0113	
30 minute summer	Existing S2.42a	1.011	Existing S2.43	60.5	0.959	0.265	0.3368	130.5

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Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S MH2	11	94.528	0.123	24.3	0.1393	0.0000	OK
15 minute summer	S MH3	11	94.199	0.562	83.3	0.6355	0.0000	SURCHARGED
30 minute summer	S MH4	24	93.921	1.382	71.7	1.5631	0.0000	FLOOD RISK
30 minute summer	S MH5	24	93.915	1.887	117.3	2.7003	0.0000	SURCHARGED
30 minute summer	S MH6	24	93.909	1.890	29.6	2.7045	0.0000	SURCHARGED
30 minute summer	S MH7	24	93.907	1.888	180.5	77.9733	0.0000	SURCHARGED
30 minute summer	S MH7A	24	93.907	1.888	153.5	0.0000	0.0000	SURCHARGED
30 minute summer	S MH8	24	93.879	1.884	104.9	2.6965	0.0000	SURCHARGED
30 minute summer	S MH9	24	90.974	0.124	88.6	0.2190	0.0000	OK
30 minute summer	S MH10	23	93.938	0.213	29.4	0.2413	0.0000	OK
30 minute summer	S MH11	23	94.002	0.332	36.9	0.3755	0.0000	SURCHARGED
30 minute summer	S MH12	23	93.938	0.382	36.9	0.4316	0.0000	SURCHARGED
15 minute summer	S IC13	10	94.099	0.074	31.9	0.0000	0.0000	OK
15 minute summer	S IC14	10	94.101	0.076	31.9	0.0000	0.0000	OK
15 minute summer	S IC2	12	94.227	0.245	4.2	0.2772	0.0000	SURCHARGED
15 minute summer	S IC5	12	94.222	0.320	6.8	0.3614	0.0000	SURCHARGED
15 minute summer	S IC6	12	94.210	0.534	60.8	0.6041	0.0000	SURCHARGED
30 minute summer	S IC7	22	93.978	0.388	59.7	0.4391	0.0000	SURCHARGED
30 minute summer	S IC8	23	93.938	0.475	83.5	0.5367	0.0000	SURCHARGED
15 minute summer	S IC9	11	94.431	0.406	32.7	0.4597	0.0000	SURCHARGED
15 minute summer	S IC10	12	94.377	0.433	30.1	0.4901	0.0000	SURCHARGED
15 minute summer	S IC11	11	94.401	0.376	34.4	0.4251	0.0000	SURCHARGED
15 minute summer	S IC12	12	94.339	0.449	60.0	0.5076	0.0000	SURCHARGED
30 minute summer	S MH9a	24	90.101	0.122	88.8	0.2153	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	S MH2	1.001	S MH3	23.8	1.767	0.755	0.3686	
15 minute summer	S MH3	1.002	S MH4	75.1	2.218	0.935	1.7177	
30 minute summer	S MH4	1.003	S MH5	64.5	0.939	0.232	0.5800	
30 minute summer	S MH5	1.004	S MH7A	110.3	1.567	1.246	0.0994	
30 minute summer	S MH6	6.001	S MH7A	20.9	0.297	0.296	0.3147	
30 minute summer	S MH7	7.001	S MH7A	-150.7	-2.140	-2.132	0.2003	
30 minute summer	S MH7A	1.005	S MH8	58.5	0.831	0.694	0.2922	
30 minute summer	S MH8	Orifice	S MH9	88.6				
30 minute summer	S MH9	1.007	S MH9a	88.8	2.315	0.116	1.3430	
30 minute summer	S MH10	2.000	S MH11	29.4	0.902	0.730	0.3584	
30 minute summer	S MH11	2.001	S MH12	36.9	1.592	0.920	0.7559	
30 minute summer	S MH12	2.002	S MH5	36.5	1.170	0.265	0.8765	
15 minute summer	S IC13	6.000	S MH6	31.8	2.888	0.213	0.3868	
15 minute summer	S IC14	7.000	S MH7	31.7	2.803	0.223	0.3928	
15 minute summer	S IC2	3.001	S IC5	4.1	0.760	0.233	0.1414	
15 minute summer	S IC5	3.004	S IC6	6.3	0.549	0.356	0.2650	
15 minute summer	S IC6	3.005	S IC7	61.0	1.533	1.508	0.5623	
30 minute summer	S IC7	3.006	S IC8	59.5	1.498	1.475	0.3415	
30 minute summer	S IC8	3.007	S MH8	81.0	1.332	0.457	4.0830	
15 minute summer	S IC9	4.000	S IC10	30.1	0.938	0.747	0.5339	
15 minute summer	S IC10	4.001	S IC12	28.5	0.869	0.710	0.3577	
15 minute summer	S IC11	5.000	S IC12	32.1	1.061	0.640	0.5743	
15 minute summer	S IC12	4.002	S IC6	58.6	1.475	0.606	0.2480	
30 minute summer	S MH9a	1.008	S MH9b	88.8	1.820	0.122	2.3712	

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Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 98.41%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S MH9b	24	89.070	0.170	88.8	0.2998	0.0000	OK
30 minute summer	Existing S2.42	24	88.974	0.243	88.8	0.4292	0.0000	OK
30 minute summer	Existing S2.42a	25	88.900	0.231	88.6	0.4086	0.0000	OK
30 minute summer	Existing S2.43	25	88.854	0.197	88.7	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	S MH9b	1.009	Existing S2.42	88.8	1.128	0.174	1.2073	
30 minute summer	Existing S2.42	1.010	Existing S2.42a	88.6	0.937	0.392	2.6616	
30 minute summer	Existing S2.42a	1.011	Existing S2.43	88.7	1.073	0.388	0.4411	191.4

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