

MBP- 10491
27 May 2026

STONEY WOOD QUARTER, THE FAIRWAY, LONDON, NW7 3HJ
LPA REFERENCE: 25/2743/FUL
RESPONSE TO GLA WATER MEMO DATED 24 DECEMBER 2025 AND LLFA TECHNICAL RESPONSE DATED 29 JANUARY 2026

We write in response to the comments issued by the Greater London Authority ("GLA") within the Water Memo dated 24 December 2025 and the Lead Local Flood Authority ("LLFA") Technical Response dated 29 January 2026 in relation to the proposed drainage strategy for the above development.

Please find enclosed updated drainage information and supporting calculations addressing the comments raised. A summary response is provided below.

1. Runoff Restriction / Greenfield Runoff Rates

The proposed discharge rates have been set to match the calculated greenfield runoff rates for the 1 in 1, 1 in 30 and 1 in 100 year return period events, including the 1 in 100 year plus 40% climate change event. The strategy has been developed to ensure that post-development runoff does not exceed the corresponding greenfield runoff rates for the equivalent rainfall events.

The drainage strategy has been developed to achieve greenfield-equivalent runoff rates as far as reasonably practicable, having regard to the physical and geological characteristics of the site. The site was historically occupied by buildings and associated hardstanding prior to demolition and clearance. Accordingly, historic brownfield runoff rates associated with the former developed condition would likely have been significantly greater than the equivalent greenfield runoff rates currently proposed as part of the drainage strategy.

The site is now currently undeveloped and drains naturally toward the Deans Brook corridor. Given the underlying London Clay geology, associated poor infiltration characteristics and the apparent absence of surface water sewer infrastructure within the vicinity of the site, it is considered likely that historic surface water runoff from the former development discharged toward the Deans Brook watercourse network.

Infiltration-based drainage techniques have not been proposed due to the underlying London Clay geology, which is recognised as having very low permeability and poor infiltration potential. Typical infiltration rates for London Clay generally range between approximately 1×10^{-6} m/s and 1×10^{-7} m/s, which commonly results in non-compliant BRE365 soakaway performance and excessive drain-down times. Even where infiltration may be achievable at the upper end of this range, soakaway systems typically require substantial plan areas which are not considered appropriate or practical for the proposed development layout.

Accordingly, the proposed drainage strategy represents a controlled and attenuated discharge regime based upon equivalent greenfield runoff rates and will not materially increase downstream flood risk.

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Greenfield runoff calculations prepared using the HR Wallingford UKSuDS greenfield runoff estimation tool are enclosed within the submission.

2. Attenuation Strategy

The proposed attenuation strategy comprises a combination of blue roofs, permeable paving with sub-base attenuation storage and below-ground attenuation tanks. The support noted within the consultee comments is welcomed.

3. SuDS Strategy

The submitted drainage information identifies the proposed SuDS measures, including blue roofs, permeable paving and below-ground attenuation storage. Drawings have been prepared identifying the location and function of the proposed SuDS components within the site.

The green roof build-up includes a drainage and retention layer to provide water retention for the green roof system. The blue roof system includes a proprietary attenuation layer beneath the green roof build-up to provide temporary surface water storage and support passive irrigation of the green roof above.

4. Climate Change Allowances

The hydraulic calculations include the appropriate climate change allowance for the 3.3% AEP event in accordance with current Environment Agency guidance.

5. Watercourse Connection / Wider Connectivity

The proposed surface water discharge is intended to connect to the Deans Brook watercourse network. The site is currently undeveloped following demolition of the former buildings and naturally falls toward the Deans Brook corridor.

The Causeway Flow hydraulic modelling demonstrates that runoff from the site is attenuated and controlled prior to discharge to the receiving watercourse network.

Surface water discharge from the development will be restricted to equivalent greenfield runoff rates, ensuring that post-development runoff rates do not exceed the existing site runoff characteristics and therefore will not materially increase downstream flood risk or adversely impact the existing Deans Brook watercourse network.

The detailed connection arrangement, discharge mechanism and any associated improvement works will be developed and agreed through the separate Ordinary Watercourse Consent ("OWC") process at detailed design stage in consultation with the relevant authority.

At this planning stage, the drainage strategy demonstrates that a viable controlled discharge route is available to the receiving watercourse network. Detailed connection design, final outfall specification and any required localised improvement works will be progressed as part of the detailed drainage design and OWC approval process.

6. Finished Floor Levels, Freeboard and Safe Access / Egress

The submitted Flood Risk Assessment confirms that the proposed development remains safe for its lifetime without increasing flood risk elsewhere.

The hydraulic modelling identifies the 1% AEP plus climate change flood level at 64.7m AOD. Applying the recommended 600mm freeboard results in a target minimum Finished Floor Level ("FFL") of 65.3m AOD. The lowest proposed lower ground floor FFL is 66.149m AOD, providing approximately 1.45m of freeboard above the modelled flood level.

As the lower ground floor remains above the modelled flood level, the development does not constitute a "basement dwelling" for the purposes of flood risk vulnerability classification and is appropriately classified as "More Vulnerable" development.

Residual risk is limited to exceedance of the drainage system during events exceeding the design standard or blockage/maintenance failure. Exceedance routing principles are addressed within the drainage strategy and final proposed levels, exceedance routing and detailed safe access arrangements can be secured through appropriately worded planning conditions at detailed design stage.

7. Exceedance Routing and Drainage Information

Appendix F of the submitted Flood Risk Assessment includes an exceedance routing drawing identifying the proposed overland exceedance flow paths across the site. The submitted strategy demonstrates the exceedance routing principles adopted for the development. Detailed exceedance routing design will be refined and coordinated as part of the detailed drainage design stage.

Drainage drawings and Causeway Flow hydraulic model outputs identifying the proposed drainage layout, including cover levels, invert levels and attenuation features within the network, are enclosed within the submission.

The hydraulic calculations confirm that the proposed attenuation features achieve appropriate drain-down performance, with the maximum recorded half drain-down time being approximately 120 minutes, which is significantly below the 48-hour threshold referenced within the consultee response.

8. Maintenance and Detailed Drainage Design

SuDS maintenance information has been included within the submitted drainage strategy information. It is considered that detailed maintenance arrangements, final proposed levels and detailed drainage coordination can be secured through appropriately worded planning conditions at detailed design stage.

Conclusion

The submitted information demonstrates that the proposed development incorporates an appropriate and sustainable drainage strategy having regard to the physical and geological constraints of the site. The proposed development is considered capable of being safely delivered without increasing flood risk elsewhere and in accordance with the relevant national and local planning policy requirements.

We trust the enclosed information satisfactorily addresses the comments raised by the GLA and LLFA.

Should any further clarification be required, please do not hesitate to contact us.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'S Baker', written in a cursive style.

Simon Baker
Civil Engineer
For MBP

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Project details

Date	03/06/2025
Calculated by	Mint Loader
Reference	10491
Model version	2.0.1

Location

Site name	Stoney Wood Quarter
Site location	Barnet



Site easting	520615
Site northing	193495

Site details

Total site area (ha)	2.191	ha
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Greenfield runoff

Method

Method	FEH statistical
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FEH statistical

	<u>My value</u>		<u>Map value</u>
SAAR (mm)	683	mm	683
BFIHOST	0.175		
QMed-QBar conversion	1.136		1.136
QMed (l/s)	11.8	l/s	
QBar (FEH statistical) (l/s)	13.4	l/s	

Growth curve factors

	<u>My value</u>		<u>Map value</u>
Hydrological region	6		6
1 year growth factor	0.85		
2 year growth factor	0.88		
10 year growth factor	1.62		
30 year growth factor	2.3		
100 year growth factor	3.19		
200 year growth factor	3.74		

Results

Method	FEH statistical	
Flow rate 1 year (l/s)	11.4	l/s
Flow rate 2 year (l/s)	11.8	l/s
Flow rate 10 years (l/s)	21.8	l/s
Flow rate 30 years (l/s)	30.9	l/s
Flow rate 100 years (l/s)	42.8	l/s
Flow rate 200 years (l/s)	50.2	l/s

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.0.1) developed by HR Wallingford and available at uksuds.com (<https://www.uksuds.com/>). The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at [uksuds.com/terms-conditions](https://www.uksuds.com/terms-conditions) (<https://www.uksuds.com/terms-conditions>). The outputs from this tool have been used to estimate Greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	40	Minimum Backdrop Height (m)	3.000
CV	0.750	Preferred Cover Depth (m)	0.750
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)	Add Inflow (l/s)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
ATT 14.1	0.120	5.00		73.307		120.033	22.831	1.650
MH 14.1				73.307	1200	119.913	11.751	1.801
RFO 01				89.357	150	129.947	12.460	16.800
MH 14.0				73.307	1200	119.406	9.460	1.815
RFO 02				89.357	150	106.460	20.774	16.800
MH 13.0				73.307	1200	102.832	11.564	1.914
ATT 12.1	0.080	5.00		73.307		95.600	27.472	1.650
MH 12.1			0.0	73.307	1200	95.865	18.471	1.712
RFO 03				86.199	150	90.594	28.567	12.892
MH 12.0				74.057	1200	91.590	15.831	2.735
ATT 11.1	0.070	5.00		70.399		70.640	28.537	2.050
MH 11.1				70.399	1200	71.126	18.728	2.118
MH 11.0				70.399	1200	71.032	16.746	2.288
RFO 04				86.199	150	60.777	19.702	16.550
MH 10.0				70.399	1200	60.704	16.730	2.331
ATT 09.1	0.080	5.00		70.399		46.359	32.167	2.050
MH 09.1				70.339	1200	49.536	24.834	2.045
MH 09.0				70.399	1350	50.188	15.824	2.450
MH 08.0	0.070	5.00		70.399	1350	24.522	14.985	2.530
ATT 07.0				70.399		18.552	24.174	2.564
MH 07.0				69.972	1350	21.432	35.031	2.172
MH 06.0	0.080	5.00		68.366	1350	15.940	70.760	1.300
MH 05.0				68.366	1350	18.994	75.707	1.315
ATT 04.2	0.100	5.00		70.718		81.072	68.788	1.569
MH 04.2				70.799	1200	69.659	65.305	1.807
MH 04.1				70.277	1200	42.450	62.333	1.447
MH 04.0				70.634	1350	40.606	78.994	3.637
RFO 07				89.834	150	32.709	97.746	19.790
MH 03.0				70.794	1350	37.822	99.993	3.849
ATT 02.0	0.090	5.00		70.634		36.390	112.858	3.796
MH 02.0				70.634	1500	34.544	124.711	3.821
ATT 64.0	0.040	5.00		72.946		142.330	23.617	1.650
MH 64.0				72.910	1200	143.731	35.145	1.694
ATT 63.0	0.050	5.00		72.749		143.383	51.144	1.692
MH 63.0				72.749	1200	144.054	60.925	1.790
ATT 62.0	0.090	5.00		72.241		144.207	93.424	1.680
MH 62.0				72.107	1200	146.765	105.511	1.669
MH 61.0				71.973	1200	146.830	117.247	1.652
MH 60.0				71.923	1200	140.560	123.537	1.691
ATT 41.0	0.080	5.00		72.249		89.365	97.922	1.650
MH 41.0				72.403	1200	92.172	102.290	1.840
MH 40.0				72.403	1200	93.108	107.405	1.892

Nodes

Name	Area (ha)	T of E (mins)	Add Inflow (l/s)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
ATT 51.0	0.090	5.00		73.025		120.887	90.766	2.079
MH 51.0				72.596	1200	119.693	97.161	1.695
RFO 05				91.503	150	128.811	103.994	20.104
MH 50.0				72.149	1200	119.960	106.159	1.338
ATT 30.0	0.070	5.00		70.100		114.188	124.767	1.600
MH 30.0				70.000	1350	89.379	129.701	1.578
RFO 06				90.580	150	77.877	106.059	19.850
ATT 21.0	0.090	5.00		70.477		62.517	99.819	2.050
MH 21.0				71.480	1200	65.287	104.515	3.091
MH 20.0				71.480	1200	66.534	107.279	3.197
MH 01.1	0.090	5.00		69.150	1350	59.786	129.070	1.152
MH 01.0				69.000	1200	41.369	134.093	2.211
HEADWALL				64.500		31.573	147.897	1.275
BGR 01	0.030	5.00		89.357		131.567	22.422	0.200
BGR 02	0.020	5.00		89.357		108.656	25.157	0.200
BR 03	0.020	5.00		86.199		82.971	35.912	0.200
BGR 04	0.030	5.00		86.199		57.350	30.282	0.200
BGR 05	0.060	5.00		91.503		131.925	109.341	0.250
BGR 06	0.020	5.00		90.580		81.843	115.104	0.200
BGR 07	0.060	5.00		89.834		29.591	96.381	0.200

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	BGR 01	RFO 01	10.093	0.600	89.157	89.157	0.000	0.0	150	5.17	50.0
1.002	MH 14.0	MH 13.0	16.707	0.600	71.492	71.393	0.099	168.8	225	5.66	50.0
1.004	MH 12.0	MH 11.0	20.578	0.600	71.322	68.186	3.136	6.6	225	5.93	50.0
1.003	MH 13.0	MH 12.0	12.025	0.600	71.393	71.322	0.071	169.4	225	5.86	50.0
1.005	MH 11.0	MH 10.0	10.328	0.600	68.111	68.068	0.043	240.2	300	6.10	50.0
1.006	MH 10.0	MH 09.0	10.555	0.600	68.068	68.024	0.044	239.9	300	6.28	50.0
1.007	MH 09.0	MH 08.0	25.680	0.600	67.949	67.869	0.080	321.0	375	6.70	50.0
1.008	MH 08.0	ATT 07.0	10.958	0.600	67.869	67.835	0.034	322.3	375	6.88	50.0
1.009	ATT 07.0	MH 07.0	11.232	0.600	67.835	67.800	0.035	320.9	375	7.07	50.0
1.010	MH 07.0	MH 06.0	36.149	0.600	67.800	67.141	0.659	54.9	375	7.32	50.0
1.011	MH 06.0	MH 05.0	5.814	0.600	67.066	67.051	0.015	387.6	450	7.41	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	1.000	17.7	5.7	0.050	0.050	0.030	0.0	0	∞
1.002	1.003	39.9	28.5	1.590	1.689	0.150	0.0	141	1.088
1.004	5.140	204.4	51.2	2.510	1.988	0.270	0.0	77	4.308
1.003	1.002	39.8	32.3	1.689	2.510	0.170	0.0	154	1.112
1.005	1.010	71.4	64.5	1.988	2.031	0.340	0.0	224	1.138
1.006	1.011	71.4	70.2	2.031	2.075	0.370	0.0	243	1.146
1.007	1.006	111.1	85.4	2.075	2.155	0.450	0.0	247	1.105
1.008	1.004	110.8	98.7	2.155	2.189	0.520	0.0	277	1.128
1.009	1.006	111.1	98.7	2.189	1.797	0.520	0.0	276	1.130
1.010	2.450	270.6	98.7	1.797	0.850	0.520	0.0	156	2.265
1.011	1.026	163.2	113.8	0.850	0.865	0.600	0.0	277	1.106

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)
1.012	MH 05.0	MH 04.0	21.861	0.600	67.051	66.997	0.054	404.8	450	7.77	50.0
1.013	MH 04.0	MH 03.0	21.183	0.600	66.997	66.945	0.052	407.4	450	8.13	50.0
1.014	MH 03.0	ATT 02.0	12.944	0.600	66.945	66.913	0.032	404.5	450	8.34	50.0
1.015	ATT 02.0	MH 02.0	11.996	0.600	66.838	66.813	0.025	479.8	525	8.54	50.0
1.016	MH 02.0	MH 01.0	11.602	0.600	66.813	66.789	0.024	483.4	525	8.73	50.0
11.010	MH 01.1	MH 01.0	19.090	0.600	67.998	66.939	1.059	18.0	375	7.48	50.0
1.017	MH 01.0	HEADWALL	16.927	0.600	66.789	63.225	3.564	4.7	525	8.76	50.0
1.001	RFO 01	MH 14.0	10.960	0.600	72.557	72.481	0.076	144.2	150	5.39	50.0
2.000	ATT 14.1	MH 14.1	11.081	0.600	71.657	71.581	0.076	145.8	150	5.22	50.0
2.001	MH 14.1	MH 14.0	2.346	0.600	71.506	71.492	0.014	167.6	225	5.26	50.0
3.000	BGR 02	RFO 02	4.955	0.600	89.157	89.157	0.000	0.0	150	5.08	50.0
3.001	RFO 02	MH 13.0	9.899	0.600	72.557	72.489	0.068	145.6	150	5.28	50.0
5.000	ATT 12.1	MH 12.1	9.005	0.600	71.657	71.595	0.062	145.2	150	5.18	50.0
5.001	MH 12.1	MH 12.0	5.024	0.600	71.595	71.397	0.198	25.4	150	5.22	50.0
4.000	BR 03	RFO 03	10.541	0.600	85.999	85.999	0.000	0.0	150	5.18	50.0
4.001	RFO 03	MH 12.0	12.775	0.600	73.307	73.219	0.088	145.2	150	5.43	50.0
6.000	ATT 11.1	MH 11.1	9.821	0.600	68.349	68.281	0.068	144.4	150	5.20	50.0
6.001	MH 11.1	MH 11.0	1.984	0.600	68.281	68.261	0.020	99.2	150	5.23	50.0
7.000	BGR 04	RFO 04	11.121	0.600	85.999	85.999	0.000	0.0	150	5.19	50.0
7.001	RFO 04	MH 10.0	2.973	0.600	69.649	69.628	0.021	141.6	150	5.24	50.0
8.000	ATT 09.1	MH 09.1	7.992	0.600	68.349	68.294	0.055	145.3	150	5.16	50.0
8.001	MH 09.1	MH 09.0	9.034	0.600	68.294	68.174	0.120	75.3	150	5.29	50.0
9.000	ATT 04.2	MH 04.2	11.933	0.600	69.149	69.067	0.082	145.5	150	5.24	50.0
9.001	MH 04.2	MH 04.1	27.371	0.600	68.992	68.830	0.162	169.0	225	5.69	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)
1.012	1.004	159.7	113.8	0.865	3.187	0.600	0.0	282	1.087
1.013	1.001	159.2	132.8	3.187	3.399	0.700	0.0	316	1.115
1.014	1.004	159.7	144.2	3.399	3.271	0.760	0.0	336	1.130
1.015	1.016	219.9	161.3	3.271	3.296	0.850	0.0	335	1.105
1.016	1.012	219.0	161.3	3.296	1.686	0.850	0.0	336	1.102
11.010	4.284	473.2	129.0	0.777	1.686	0.680	0.0	133	3.666
1.017	10.324	2234.8	290.3	1.686	0.750	1.530	0.0	126	7.230
1.001	0.835	14.7	5.7	16.650	0.676	0.030	0.0	65	0.782
2.000	0.830	14.7	22.8	1.500	1.576	0.120	0.0	150	0.845
2.001	1.007	40.0	22.8	1.576	1.590	0.120	0.0	122	1.039
3.000	1.000	17.7	3.8	0.050	0.050	0.020	0.0	0	∞
3.001	0.831	14.7	3.8	16.650	0.668	0.020	0.0	52	0.697
5.000	0.831	14.7	15.2	1.500	1.562	0.080	0.0	129	0.942
5.001	2.007	35.5	15.2	1.562	2.510	0.080	0.0	68	1.927
4.000	1.000	17.7	3.8	0.050	0.050	0.020	0.0	0	∞
4.001	0.832	14.7	3.8	12.742	0.688	0.020	0.0	52	0.698
6.000	0.834	14.7	13.3	1.900	1.968	0.070	0.0	112	0.942
6.001	1.009	17.8	13.3	1.968	1.988	0.070	0.0	96	1.103
7.000	1.000	17.7	5.7	0.050	0.050	0.030	0.0	0	∞
7.001	0.842	14.9	5.7	16.400	0.621	0.030	0.0	64	0.786
8.000	0.831	14.7	15.2	1.900	1.895	0.080	0.0	129	0.942
8.001	1.160	20.5	15.2	1.895	2.075	0.080	0.0	96	1.268
9.000	0.831	14.7	19.0	1.419	1.582	0.100	0.0	150	0.846
9.001	1.003	39.9	19.0	1.582	1.222	0.100	0.0	109	0.991

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)
9.002	MH 04.1	MH 04.0	16.763	0.600	68.830	67.222	1.608	10.4	225	5.76	50.0
11.000	ATT 64.0	MH 64.0	11.613	0.600	71.296	71.216	0.080	145.2	150	5.23	50.0
11.001	MH 64.0	ATT 63.0	16.003	0.600	71.216	71.057	0.159	100.6	150	5.50	50.0
11.002	ATT 63.0	MH 63.0	9.804	0.600	71.057	70.959	0.098	100.0	150	5.66	50.0
11.003	MH 63.0	ATT 62.0	32.499	0.600	70.959	70.636	0.323	100.6	150	6.20	50.0
11.004	ATT 62.0	MH 62.0	12.355	0.600	70.561	70.438	0.123	100.4	225	6.36	50.0
11.005	MH 62.0	MH 61.0	11.736	0.600	70.438	70.321	0.117	100.3	225	6.51	50.0
11.006	MH 61.0	MH 60.0	8.881	0.600	70.321	70.232	0.089	99.8	225	6.62	50.0
11.007	MH 60.0	ATT 30.0	26.401	0.600	70.232	68.650	1.582	16.7	225	6.76	50.0
11.008	ATT 30.0	MH 30.0	25.295	0.600	68.500	68.422	0.078	324.3	375	7.18	50.0
11.009	MH 30.0	MH 01.1	29.600	0.600	68.422	67.998	0.424	69.8	375	7.41	50.0
13.000	ATT 51.0	MH 51.0	6.506	0.600	70.946	70.901	0.045	144.6	150	5.13	50.0
13.001	MH 51.0	MH 50.0	9.002	0.600	70.901	70.811	0.090	100.0	150	5.28	50.0
13.002	MH 50.0	ATT 30.0	19.483	0.600	70.811	68.725	2.086	9.3	150	5.38	50.0
14.000	BGR 05	RFO 05	6.188	0.600	91.253	91.253	0.000	0.0	150	5.10	50.0
14.001	RFO 05	MH 50.0	9.112	0.600	71.399	71.336	0.063	144.6	150	5.29	50.0
12.000	ATT 41.0	MH 41.0	5.192	0.600	70.599	70.563	0.036	144.2	150	5.10	50.0
12.001	MH 41.0	MH 40.0	5.200	0.600	70.563	70.511	0.052	100.0	150	5.19	50.0
12.002	MH 40.0	ATT 30.0	27.309	0.600	70.511	68.725	1.786	15.3	150	5.37	50.0
16.000	ATT 21.0	MH 21.0	5.452	0.600	68.427	68.389	0.038	143.5	150	5.11	50.0
16.001	MH 21.0	MH 20.0	3.032	0.600	68.389	68.358	0.031	97.8	150	5.16	50.0
15.002	MH 20.0	MH 01.1	22.812	0.600	68.283	68.148	0.135	169.0	225	5.77	50.0
15.000	BGR 06	RFO 06	9.876	0.600	90.380	90.380	0.000	0.0	150	5.16	50.0
15.001	RFO 06	MH 20.0	11.408	0.600	70.730	70.651	0.079	144.4	150	5.39	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)
9.002	4.076	162.0	19.0	1.222	3.187	0.100	0.0	51	2.744
11.000	0.832	14.7	7.6	1.500	1.544	0.040	0.0	76	0.838
11.001	1.001	17.7	7.6	1.544	1.542	0.040	0.0	69	0.965
11.002	1.004	17.7	17.1	1.542	1.640	0.090	0.0	119	1.141
11.003	1.001	17.7	17.1	1.640	1.455	0.090	0.0	119	1.138
11.004	1.304	51.9	34.2	1.455	1.444	0.180	0.0	133	1.389
11.005	1.305	51.9	34.2	1.444	1.427	0.180	0.0	133	1.390
11.006	1.309	52.0	34.2	1.427	1.466	0.180	0.0	133	1.394
11.007	3.218	128.0	34.2	1.466	1.225	0.180	0.0	80	2.743
11.008	1.000	110.5	91.1	1.225	1.203	0.480	0.0	260	1.112
11.009	2.171	239.7	91.1	1.203	0.777	0.480	0.0	160	2.028
13.000	0.833	14.7	17.1	1.929	1.545	0.090	0.0	150	0.849
13.001	1.004	17.8	17.1	1.545	1.188	0.090	0.0	119	1.141
13.002	3.316	58.6	28.5	1.188	1.225	0.150	0.0	74	3.289
14.000	1.000	17.7	11.4	0.100	0.100	0.060	0.0	0	∞
14.001	0.833	14.7	11.4	19.954	0.663	0.060	0.0	99	0.919
12.000	0.834	14.7	15.2	1.500	1.690	0.080	0.0	128	0.946
12.001	1.005	17.8	15.2	1.690	1.742	0.080	0.0	107	1.126
12.002	2.589	45.7	15.2	1.742	1.225	0.080	0.0	59	2.331
16.000	0.837	14.8	17.1	1.900	2.941	0.090	0.0	150	0.852
16.001	1.016	18.0	17.1	2.941	2.972	0.090	0.0	117	1.153
15.002	1.003	39.9	20.9	2.972	0.777	0.110	0.0	116	1.014
15.000	1.000	17.7	3.8	0.050	0.050	0.020	0.0	0	∞
15.001	0.834	14.7	3.8	19.700	0.679	0.020	0.0	52	0.700

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)
10.000	BGR 07	RFO 07	3.404	0.600	89.634	89.634	0.000	0.0	150	5.06	50.0
10.001	RFO 07	MH 03.0	5.585	0.600	70.044	70.005	0.039	143.2	150	5.17	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)
10.000	1.000	17.7	11.4	0.050	0.050	0.060	0.0	0	∞
10.001	0.837	14.8	11.4	19.640	0.639	0.060	0.0	99	0.922

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	10.093	0.0	150	Circular	89.357	89.157	0.050	89.357	89.157	0.050
1.002	16.707	168.8	225	Circular	73.307	71.492	1.590	73.307	71.393	1.689
1.004	20.578	6.6	225	Circular	74.057	71.322	2.510	70.399	68.186	1.988
1.003	12.025	169.4	225	Circular	73.307	71.393	1.689	74.057	71.322	2.510
1.005	10.328	240.2	300	Circular	70.399	68.111	1.988	70.399	68.068	2.031
1.006	10.555	239.9	300	Circular	70.399	68.068	2.031	70.399	68.024	2.075
1.007	25.680	321.0	375	Circular	70.399	67.949	2.075	70.399	67.869	2.155
1.008	10.958	322.3	375	Circular	70.399	67.869	2.155	70.399	67.835	2.189
1.009	11.232	320.9	375	Circular	70.399	67.835	2.189	69.972	67.800	1.797
1.010	36.149	54.9	375	Circular	69.972	67.800	1.797	68.366	67.141	0.850
1.011	5.814	387.6	450	Circular	68.366	67.066	0.850	68.366	67.051	0.865
1.012	21.861	404.8	450	Circular	68.366	67.051	0.865	70.634	66.997	3.187
1.013	21.183	407.4	450	Circular	70.634	66.997	3.187	70.794	66.945	3.399
1.014	12.944	404.5	450	Circular	70.794	66.945	3.399	70.634	66.913	3.271
1.015	11.996	479.8	525	Circular	70.634	66.838	3.271	70.634	66.813	3.296
1.016	11.602	483.4	525	Circular	70.634	66.813	3.296	69.000	66.789	1.686
11.010	19.090	18.0	375	Circular	69.150	67.998	0.777	69.000	66.939	1.686
1.017	16.927	4.7	525	Circular	69.000	66.789	1.686	64.500	63.225	0.750

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	BGR 01		Junction		RFO 01	150	Manhole	Adoptable
1.002	MH 14.0	1200	Manhole	Adoptable	MH 13.0	1200	Manhole	Adoptable
1.004	MH 12.0	1200	Manhole	Adoptable	MH 11.0	1200	Manhole	Adoptable
1.003	MH 13.0	1200	Manhole	Adoptable	MH 12.0	1200	Manhole	Adoptable
1.005	MH 11.0	1200	Manhole	Adoptable	MH 10.0	1200	Manhole	Adoptable
1.006	MH 10.0	1200	Manhole	Adoptable	MH 09.0	1350	Manhole	Adoptable
1.007	MH 09.0	1350	Manhole	Adoptable	MH 08.0	1350	Manhole	Adoptable
1.008	MH 08.0	1350	Manhole	Adoptable	ATT 07.0		Junction	
1.009	ATT 07.0		Junction		MH 07.0	1350	Manhole	Adoptable
1.010	MH 07.0	1350	Manhole	Adoptable	MH 06.0	1350	Manhole	Adoptable
1.011	MH 06.0	1350	Manhole	Adoptable	MH 05.0	1350	Manhole	Adoptable
1.012	MH 05.0	1350	Manhole	Adoptable	MH 04.0	1350	Manhole	Adoptable
1.013	MH 04.0	1350	Manhole	Adoptable	MH 03.0	1350	Manhole	Adoptable
1.014	MH 03.0	1350	Manhole	Adoptable	ATT 02.0		Junction	
1.015	ATT 02.0		Junction		MH 02.0	1500	Manhole	Adoptable
1.016	MH 02.0	1500	Manhole	Adoptable	MH 01.0	1200	Manhole	Adoptable
11.010	MH 01.1	1350	Manhole	Adoptable	MH 01.0	1200	Manhole	Adoptable
1.017	MH 01.0	1200	Manhole	Adoptable	HEADWALL		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)
1.001	10.960	144.2	150	Circular	89.357	72.557	16.650	73.307	72.481	0.676
2.000	11.081	145.8	150	Circular	73.307	71.657	1.500	73.307	71.581	1.576
2.001	2.346	167.6	225	Circular	73.307	71.506	1.576	73.307	71.492	1.590
3.000	4.955	0.0	150	Circular	89.357	89.157	0.050	89.357	89.157	0.050
3.001	9.899	145.6	150	Circular	89.357	72.557	16.650	73.307	72.489	0.668
5.000	9.005	145.2	150	Circular	73.307	71.657	1.500	73.307	71.595	1.562
5.001	5.024	25.4	150	Circular	73.307	71.595	1.562	74.057	71.397	2.510
4.000	10.541	0.0	150	Circular	86.199	85.999	0.050	86.199	85.999	0.050
4.001	12.775	145.2	150	Circular	86.199	73.307	12.742	74.057	73.219	0.688
6.000	9.821	144.4	150	Circular	70.399	68.349	1.900	70.399	68.281	1.968
6.001	1.984	99.2	150	Circular	70.399	68.281	1.968	70.399	68.261	1.988
7.000	11.121	0.0	150	Circular	86.199	85.999	0.050	86.199	85.999	0.050
7.001	2.973	141.6	150	Circular	86.199	69.649	16.400	70.399	69.628	0.621
8.000	7.992	145.3	150	Circular	70.399	68.349	1.900	70.339	68.294	1.895
8.001	9.034	75.3	150	Circular	70.339	68.294	1.895	70.399	68.174	2.075
9.000	11.933	145.5	150	Circular	70.718	69.149	1.419	70.799	69.067	1.582
9.001	27.371	169.0	225	Circular	70.799	68.992	1.582	70.277	68.830	1.222
9.002	16.763	10.4	225	Circular	70.277	68.830	1.222	70.634	67.222	3.187
11.000	11.613	145.2	150	Circular	72.946	71.296	1.500	72.910	71.216	1.544
11.001	16.003	100.6	150	Circular	72.910	71.216	1.544	72.749	71.057	1.542
11.002	9.804	100.0	150	Circular	72.749	71.057	1.542	72.749	70.959	1.640
11.003	32.499	100.6	150	Circular	72.749	70.959	1.640	72.241	70.636	1.455
11.004	12.355	100.4	225	Circular	72.241	70.561	1.455	72.107	70.438	1.444
11.005	11.736	100.3	225	Circular	72.107	70.438	1.444	71.973	70.321	1.427
11.006	8.881	99.8	225	Circular	71.973	70.321	1.427	71.923	70.232	1.466

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.001	RFO 01	150	Manhole	Adoptable	MH 14.0	1200	Manhole	Adoptable
2.000	ATT 14.1		Junction		MH 14.1	1200	Manhole	Adoptable
2.001	MH 14.1	1200	Manhole	Adoptable	MH 14.0	1200	Manhole	Adoptable
3.000	BGR 02		Junction		RFO 02	150	Manhole	Adoptable
3.001	RFO 02	150	Manhole	Adoptable	MH 13.0	1200	Manhole	Adoptable
5.000	ATT 12.1		Junction		MH 12.1	1200	Manhole	Adoptable
5.001	MH 12.1	1200	Manhole	Adoptable	MH 12.0	1200	Manhole	Adoptable
4.000	BR 03		Junction		RFO 03	150	Manhole	Adoptable
4.001	RFO 03	150	Manhole	Adoptable	MH 12.0	1200	Manhole	Adoptable
6.000	ATT 11.1		Junction		MH 11.1	1200	Manhole	Adoptable
6.001	MH 11.1	1200	Manhole	Adoptable	MH 11.0	1200	Manhole	Adoptable
7.000	BGR 04		Junction		RFO 04	150	Manhole	Adoptable
7.001	RFO 04	150	Manhole	Adoptable	MH 10.0	1200	Manhole	Adoptable
8.000	ATT 09.1		Junction		MH 09.1	1200	Manhole	Adoptable
8.001	MH 09.1	1200	Manhole	Adoptable	MH 09.0	1350	Manhole	Adoptable
9.000	ATT 04.2		Junction		MH 04.2	1200	Manhole	Adoptable
9.001	MH 04.2	1200	Manhole	Adoptable	MH 04.1	1200	Manhole	Adoptable
9.002	MH 04.1	1200	Manhole	Adoptable	MH 04.0	1350	Manhole	Adoptable
11.000	ATT 64.0		Junction		MH 64.0	1200	Manhole	Adoptable
11.001	MH 64.0	1200	Manhole	Adoptable	ATT 63.0		Junction	
11.002	ATT 63.0		Junction		MH 63.0	1200	Manhole	Adoptable
11.003	MH 63.0	1200	Manhole	Adoptable	ATT 62.0		Junction	
11.004	ATT 62.0		Junction		MH 62.0	1200	Manhole	Adoptable
11.005	MH 62.0	1200	Manhole	Adoptable	MH 61.0	1200	Manhole	Adoptable
11.006	MH 61.0	1200	Manhole	Adoptable	MH 60.0	1200	Manhole	Adoptable

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)
11.007	26.401	16.7	225	Circular	71.923	70.232	1.466	70.100	68.650	1.225
11.008	25.295	324.3	375	Circular	70.100	68.500	1.225	70.000	68.422	1.203
11.009	29.600	69.8	375	Circular	70.000	68.422	1.203	69.150	67.998	0.777
13.000	6.506	144.6	150	Circular	73.025	70.946	1.929	72.596	70.901	1.545
13.001	9.002	100.0	150	Circular	72.596	70.901	1.545	72.149	70.811	1.188
13.002	19.483	9.3	150	Circular	72.149	70.811	1.188	70.100	68.725	1.225
14.000	6.188	0.0	150	Circular	91.503	91.253	0.100	91.503	91.253	0.100
14.001	9.112	144.6	150	Circular	91.503	71.399	19.954	72.149	71.336	0.663
12.000	5.192	144.2	150	Circular	72.249	70.599	1.500	72.403	70.563	1.690
12.001	5.200	100.0	150	Circular	72.403	70.563	1.690	72.403	70.511	1.742
12.002	27.309	15.3	150	Circular	72.403	70.511	1.742	70.100	68.725	1.225
16.000	5.452	143.5	150	Circular	70.477	68.427	1.900	71.480	68.389	2.941
16.001	3.032	97.8	150	Circular	71.480	68.389	2.941	71.480	68.358	2.972
15.002	22.812	169.0	225	Circular	71.480	68.283	2.972	69.150	68.148	0.777
15.000	9.876	0.0	150	Circular	90.580	90.380	0.050	90.580	90.380	0.050
15.001	11.408	144.4	150	Circular	90.580	70.730	19.700	71.480	70.651	0.679
10.000	3.404	0.0	150	Circular	89.834	89.634	0.050	89.834	89.634	0.050
10.001	5.585	143.2	150	Circular	89.834	70.044	19.640	70.794	70.005	0.639

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
11.007	MH 60.0	1200	Manhole	Adoptable	ATT 30.0		Junction	
11.008	ATT 30.0		Junction		MH 30.0	1350	Manhole	Adoptable
11.009	MH 30.0	1350	Manhole	Adoptable	MH 01.1	1350	Manhole	Adoptable
13.000	ATT 51.0		Junction		MH 51.0	1200	Manhole	Adoptable
13.001	MH 51.0	1200	Manhole	Adoptable	MH 50.0	1200	Manhole	Adoptable
13.002	MH 50.0	1200	Manhole	Adoptable	ATT 30.0		Junction	
14.000	BGR 05		Junction		RFO 05	150	Manhole	Adoptable
14.001	RFO 05	150	Manhole	Adoptable	MH 50.0	1200	Manhole	Adoptable
12.000	ATT 41.0		Junction		MH 41.0	1200	Manhole	Adoptable
12.001	MH 41.0	1200	Manhole	Adoptable	MH 40.0	1200	Manhole	Adoptable
12.002	MH 40.0	1200	Manhole	Adoptable	ATT 30.0		Junction	
16.000	ATT 21.0		Junction		MH 21.0	1200	Manhole	Adoptable
16.001	MH 21.0	1200	Manhole	Adoptable	MH 20.0	1200	Manhole	Adoptable
15.002	MH 20.0	1200	Manhole	Adoptable	MH 01.1	1350	Manhole	Adoptable
15.000	BGR 06		Junction		RFO 06	150	Manhole	Adoptable
15.001	RFO 06	150	Manhole	Adoptable	MH 20.0	1200	Manhole	Adoptable
10.000	BGR 07		Junction		RFO 07	150	Manhole	Adoptable
10.001	RFO 07	150	Manhole	Adoptable	MH 03.0	1350	Manhole	Adoptable

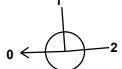
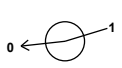
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
ATT 14.1	120.033	22.831	73.307	1.650			0	2.000	71.657	150
MH 14.1	119.913	11.751	73.307	1.801	1200		1	2.000	71.581	150
							0	2.001	71.506	225

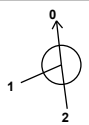
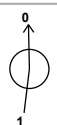
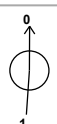
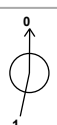
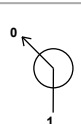
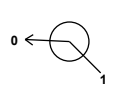
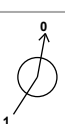
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
RFO 01	129.947	12.460	89.357	16.800	150		1 0	1.000 1.001	89.157 72.557	150 150
MH 14.0	119.406	9.460	73.307	1.815	1200		1 2 0	2.001 1.001 1.002	71.492 72.481 71.492	225 150 225
RFO 02	106.460	20.774	89.357	16.800	150		1 0	3.000 3.001	89.157 72.557	150 150
MH 13.0	102.832	11.564	73.307	1.914	1200		1 2 0	3.001 1.002 1.003	72.489 71.393 71.393	150 225 225
ATT 12.1	95.600	27.472	73.307	1.650			0	5.000	71.657	150
MH 12.1	95.865	18.471	73.307	1.712	1200		1 0	5.000 5.001	71.595 71.595	150 150
RFO 03	90.594	28.567	86.199	12.892	150		1 0	4.000 4.001	85.999 73.307	150 150
MH 12.0	91.590	15.831	74.057	2.735	1200		1 2 3 0	5.001 4.001 1.003 1.004	71.397 73.219 71.322 71.322	150 150 225 225
ATT 11.1	70.640	28.537	70.399	2.050			0	6.000	68.349	150
MH 11.1	71.126	18.728	70.399	2.118	1200		1 0	6.000 6.001	68.281 68.281	150 150
MH 11.0	71.032	16.746	70.399	2.288	1200		1 2 0	6.001 1.004 1.005	68.261 68.186 68.111	150 225 300
RFO 04	60.777	19.702	86.199	16.550	150		1 0	7.000 7.001	85.999 69.649	150 150
MH 10.0	60.704	16.730	70.399	2.331	1200		1 2 0	7.001 1.005 1.006	69.628 68.068 68.068	150 300 300

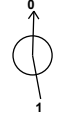
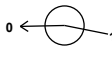
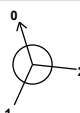
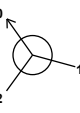
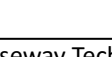
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
ATT 09.1	46.359	32.167	70.399	2.050			0	8.000	68.349	150
MH 09.1	49.536	24.834	70.339	2.045	1200		1	8.000	68.294	150
							0	8.001	68.294	150
MH 09.0	50.188	15.824	70.399	2.450	1350		1	8.001	68.174	150
							2	1.006	68.024	300
							0	1.007	67.949	375
MH 08.0	24.522	14.985	70.399	2.530	1350		1	1.007	67.869	375
							0	1.008	67.869	375
ATT 07.0	18.552	24.174	70.399	2.564			1	1.008	67.835	375
							0	1.009	67.835	375
MH 07.0	21.432	35.031	69.972	2.172	1350		1	1.009	67.800	375
							0	1.010	67.800	375
MH 06.0	15.940	70.760	68.366	1.300	1350		1	1.010	67.141	375
							0	1.011	67.066	450
MH 05.0	18.994	75.707	68.366	1.315	1350		1	1.011	67.051	450
							0	1.012	67.051	450
ATT 04.2	81.072	68.788	70.718	1.569			0	9.000	69.149	150
							1	9.000	69.067	150
MH 04.2	69.659	65.305	70.799	1.807	1200		0	9.001	68.992	225
							1	9.001	68.830	225
MH 04.1	42.450	62.333	70.277	1.447	1200		0	9.002	68.830	225
							1	9.002	67.222	225
MH 04.0	40.606	78.994	70.634	3.637	1350		2	1.012	66.997	450
							0	1.013	66.997	450
RFO 07	32.709	97.746	89.834	19.790	150		1	10.000	89.634	150
							0	10.001	70.044	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
MH 03.0	37.822	99.993	70.794	3.849	1350		1 10.001	70.005	150
							2 1.013	66.945	450
							0 1.014	66.945	450
ATT 02.0	36.390	112.858	70.634	3.796			1 1.014	66.913	450
							0 1.015	66.838	525
MH 02.0	34.544	124.711	70.634	3.821	1500		1 1.015	66.813	525
							0 1.016	66.813	525
ATT 64.0	142.330	23.617	72.946	1.650					
							0 11.000	71.296	150
MH 64.0	143.731	35.145	72.910	1.694	1200		1 11.000	71.216	150
							0 11.001	71.216	150
ATT 63.0	143.383	51.144	72.749	1.692			1 11.001	71.057	150
							0 11.002	71.057	150
MH 63.0	144.054	60.925	72.749	1.790	1200		1 11.002	70.959	150
							0 11.003	70.959	150
ATT 62.0	144.207	93.424	72.241	1.680			1 11.003	70.636	150
							0 11.004	70.561	225
MH 62.0	146.765	105.511	72.107	1.669	1200		1 11.004	70.438	225
							0 11.005	70.438	225
MH 61.0	146.830	117.247	71.973	1.652	1200		1 11.005	70.321	225
							0 11.006	70.321	225
MH 60.0	140.560	123.537	71.923	1.691	1200		1 11.006	70.232	225
							0 11.007	70.232	225
ATT 41.0	89.365	97.922	72.249	1.650					
							0 12.000	70.599	150
MH 41.0	92.172	102.290	72.403	1.840	1200		1 12.000	70.563	150
							0 12.001	70.563	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
MH 40.0	93.108	107.405	72.403	1.892	1200		1 12.001	70.511	150
ATT 51.0	120.887	90.766	73.025	2.079			0 12.002	70.511	150
MH 51.0	119.693	97.161	72.596	1.695	1200		0 13.000	70.946	150
RFO 05	128.811	103.994	91.503	20.104	150		1 13.001	70.901	150
MH 50.0	119.960	106.159	72.149	1.338	1200		1 14.000	91.253	150
ATT 30.0	114.188	124.767	70.100	1.600			0 13.001	70.901	150
MH 30.0	89.379	129.701	70.000	1.578	1350		1 13.002	70.811	150
RFO 06	77.877	106.059	90.580	19.850	150		1 11.007	68.725	150
ATT 21.0	62.517	99.819	70.477	2.050			2 12.002	68.725	150
MH 21.0	65.287	104.515	71.480	3.091	1200		3 11.007	68.650	225
MH 20.0	66.534	107.279	71.480	3.197	1200		0 11.008	68.500	375
MH 01.1	59.786	129.070	69.150	1.152	1350		1 11.008	68.422	375
MH 01.0	41.369	134.093	69.000	2.211	1200		0 11.009	68.422	375
							1 15.000	90.380	150
							0 15.001	70.730	150
							0 16.000	68.427	150
							1 16.000	68.389	150
							0 16.001	68.389	150
							1 16.001	68.358	150
							2 15.001	70.651	150
							0 15.002	68.283	225
							1 15.002	68.148	225
							2 11.009	67.998	375
							0 11.010	67.998	375
							1 11.010	66.939	375
							2 1.016	66.789	525
							0 1.017	66.789	525

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
HEADWALL	31.573	147.897	64.500	1.275		1	1.017	63.225	525
BGR 01	131.567	22.422	89.357	0.200					
BGR 02	108.656	25.157	89.357	0.200		0	1.000	89.157	150
BR 03	82.971	35.912	86.199	0.200		0	3.000	89.157	150
BGR 04	57.350	30.282	86.199	0.200		0	4.000	85.999	150
BGR 05	131.925	109.341	91.503	0.250		0	7.000	85.999	150
BGR 06	81.843	115.104	90.580	0.200		0	14.000	91.253	150
BGR 07	29.591	96.381	89.834	0.200		0	15.000	90.380	150
						0	10.000	89.634	150

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	0.750	Drain Down Time (mins)	240	Check Discharge Volume x
Winter CV	0.840	Additional Storage (m³/ha)	20.0	

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 %)
1	0	0	0
2	0	0	0
30	40	0	0
100	0	0	0
100	40	0	0

Node BGR 01 Online Orifice Control

Flap Valve	x	Invert Level (m)	89.157	Diameter (m)	0.012
Downstream Link	1.000	Design Depth (m)	0.400	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.2		

Node BGR 02 Online Orifice Control

Flap Valve	x	Invert Level (m)	89.157	Diameter (m)	0.012
Downstream Link	3.000	Design Depth (m)	0.400	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.2		

Node BR 03 Online Orifice Control

Flap Valve	x	Invert Level (m)	85.999	Diameter (m)	0.012
Downstream Link	4.000	Design Depth (m)	0.400	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.2		

Node BGR 04 Online Orifice Control

Flap Valve	x	Invert Level (m)	85.999	Diameter (m)	0.012
Downstream Link	7.000	Design Depth (m)	0.400	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.2		

Node BGR 05 Online Orifice Control

Flap Valve	x	Invert Level (m)	91.253	Diameter (m)	0.012
Downstream Link	14.000	Design Depth (m)	0.400	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.2		

Node BGR 06 Online Orifice Control

Flap Valve	x	Invert Level (m)	90.380	Diameter (m)	0.014
Downstream Link	15.000	Design Depth (m)	0.400	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.2		

Node BGR 07 Online Orifice Control

Flap Valve	x	Invert Level (m)	89.634	Diameter (m)	0.012
Downstream Link	10.000	Design Depth (m)	0.400	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	0.2		

Node MH 14.1 Online Orifice Control

Flap Valve	x	Invert Level (m)	71.506	Diameter (m)	0.032
Downstream Link	2.001	Design Depth (m)	0.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.5		

Node MH 12.1 Online Orifice Control

Flap Valve	x	Invert Level (m)	71.595	Diameter (m)	0.019
Downstream Link	5.001	Design Depth (m)	1.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.0		

Node MH 11.1 Online Orifice Control

Flap Valve	x	Invert Level (m)	68.281	Diameter (m)	0.020
Downstream Link	6.001	Design Depth (m)	1.400	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.0		

Node MH 09.1 Online Orifice Control

Flap Valve	x	Invert Level (m)	68.294	Diameter (m)	0.019
Downstream Link	8.001	Design Depth (m)	1.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.0		

Node MH 07.0 Online Orifice Control

Flap Valve	x	Invert Level (m)	67.800	Diameter (m)	0.024
Downstream Link	1.010	Design Depth (m)	1.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.5		

Node MH 04.2 Online Orifice Control

Flap Valve	x	Invert Level (m)	68.992	Diameter (m)	0.019
Downstream Link	9.001	Design Depth (m)	1.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.0		

Node MH 02.0 Online Orifice Control

Flap Valve	x	Invert Level (m)	66.813	Diameter (m)	0.048
Downstream Link	1.016	Design Depth (m)	1.250	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	5.5		

Node MH 64.0 Online Orifice Control

Flap Valve	x	Invert Level (m)	71.216	Diameter (m)	0.019
Downstream Link	11.001	Design Depth (m)	1.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.0		

Node MH 63.0 Online Orifice Control

Flap Valve	x	Invert Level (m)	70.959	Diameter (m)	0.020
Downstream Link	11.003	Design Depth (m)	1.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.0		

Node MH 62.0 Online Orifice Control

Flap Valve	x	Invert Level (m)	70.438	Diameter (m)	0.026
Downstream Link	11.005	Design Depth (m)	1.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.5		

Node MH 51.0 Online Orifice Control

Flap Valve	x	Invert Level (m)	70.901	Diameter (m)	0.049
Downstream Link	13.001	Design Depth (m)	0.500	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	3.5		

Node MH 41.0 Online Orifice Control

Flap Valve	x	Invert Level (m)	70.563	Diameter (m)	0.044
Downstream Link	12.001	Design Depth (m)	0.750	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	3.5		

Node MH 21.0 Online Orifice Control

Flap Valve	x	Invert Level (m)	68.389	Diameter (m)	0.044
Downstream Link	16.001	Design Depth (m)	0.750	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	3.5		

Node MH 30.0 Online Orifice Control

Flap Valve	x	Invert Level (m)	68.422	Diameter (m)	0.042
Downstream Link	11.009	Design Depth (m)	1.750	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	5.0		

Node MH 01.0 Online Head/Flow Control

Flap Valve	x	Replaces Downstream Link	x
Downstream Link	1.017	Invert Level (m)	66.789

Head (m)	Flow (l/s)	Head (m)	Flow (l/s)	Head (m)	Flow (l/s)
0.100	11.000	0.250	30.000	0.275	42.000

Node BGR 01 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	89.157
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	256.0	0.0	0.200	256.0	0.0	0.201	0.0	0.0

Node BGR 02 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	89.157
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	249.4	0.0	0.200	249.4	0.0	0.201	0.0	0.0

Node ATT 14.1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	71.657
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	107.3	0.0	0.800	107.3	0.0	0.801	0.0	0.0

Node ATT 12.1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	71.657
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	81.0	0.0	0.800	81.0	0.0	0.801	0.0	0.0

Node BR 03 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	85.999
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	220.9	0.0	0.200	220.9	0.0	0.201	0.0	0.0

Node ATT 11.1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	68.349
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	64.0	0.0	0.800	64.0	0.0	0.801	0.0	0.0

Node BGR 04 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	85.999
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	261.0	0.0	0.200	261.0	0.0	0.201	0.0	0.0

Node ATT 09.1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	68.349
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	54.0	0.0	1.200	54.0	0.0	1.201	0.0	0.0

Node ATT 07.0 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	67.835
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	185.0	0.0	1.200	185.0	0.0	1.201	0.0	0.0

Node ATT 04.2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	69.149
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	114.0	0.0	0.800	114.0	0.0	0.801	0.0	0.0

Node ATT 02.0 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	66.838
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	66.0	0.0	1.200	66.0	0.0	1.201	0.0	0.0

Node ATT 30.0 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	68.500
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	167.2	0.0	1.200	167.2	0.0	1.201	0.0	0.0

Node ATT 21.0 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	68.427
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	100

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	49.5	0.0	1.200	49.5	0.0	1.201	0.0	0.0

Node BGR 06 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	90.380
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	229.6	0.0	0.200	229.6	0.0	0.201	0.0	0.0

Node ATT 41.0 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	70.599
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	120

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	45.0	0.0	0.800	45.0	0.0	0.801	0.0	0.0

Node ATT 51.0 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	70.946
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	112

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	49.5	0.0	0.800	49.5	0.0	0.801	0.0	0.0

Node BGR 05 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	91.253
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	620.8	0.0	0.200	620.8	0.0	0.201	0.0	0.0

Node ATT 62.0 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	70.561
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	69.0	0.0	1.200	69.0	0.0	1.201	0.0	0.0

Node ATT 63.0 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	71.057
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	30.0	0.0	1.200	30.0	0.0	1.201	0.0	0.0

Node ATT 64.0 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	71.296
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	45.0	0.0	0.800	45.0	0.0	0.801	0.0	0.0

Node BGR 07 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	89.634
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	611.6	0.0	0.200	611.6	0.0	0.201	0.0	0.0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	62.595	17.712
1 year 15 minute winter	43.926	17.712
1 year 30 minute summer	39.581	11.200
1 year 30 minute winter	27.776	11.200
1 year 60 minute summer	26.110	6.900
1 year 60 minute winter	17.347	6.900
1 year 120 minute summer	21.190	5.600
1 year 120 minute winter	14.078	5.600
1 year 180 minute summer	17.947	4.618
1 year 180 minute winter	11.666	4.618
1 year 240 minute summer	14.878	3.932
1 year 240 minute winter	9.885	3.932
1 year 360 minute summer	11.805	3.038
1 year 360 minute winter	7.674	3.038
1 year 480 minute summer	9.395	2.483
1 year 480 minute winter	6.242	2.483
1 year 600 minute summer	7.714	2.110
1 year 600 minute winter	5.271	2.110
1 year 720 minute summer	6.873	1.842
1 year 720 minute winter	4.619	1.842
1 year 960 minute summer	5.630	1.482
1 year 960 minute winter	3.729	1.482
1 year 1440 minute summer	4.078	1.093
1 year 1440 minute winter	2.741	1.093
1 year 2160 minute summer	2.945	0.814
1 year 2160 minute winter	2.029	0.814
1 year 2880 minute summer	2.487	0.666
1 year 2880 minute winter	1.671	0.666
1 year 4320 minute summer	1.964	0.514
1 year 4320 minute winter	1.294	0.514
1 year 5760 minute summer	1.695	0.434
1 year 5760 minute winter	1.097	0.434
1 year 7200 minute summer	1.509	0.385
1 year 7200 minute winter	0.974	0.385
1 year 8640 minute summer	1.379	0.352
1 year 8640 minute winter	0.890	0.352
1 year 10080 minute summer	1.286	0.328
1 year 10080 minute winter	0.830	0.328
2 year 15 minute summer	105.003	29.712
2 year 15 minute winter	73.686	29.712
2 year 30 minute summer	66.439	18.800
2 year 30 minute winter	46.624	18.800
2 year 60 minute summer	43.516	11.500
2 year 60 minute winter	28.911	11.500
2 year 120 minute summer	31.975	8.450
2 year 120 minute winter	21.243	8.450
2 year 180 minute summer	26.077	6.710
2 year 180 minute winter	16.951	6.710
2 year 240 minute summer	21.169	5.594
2 year 240 minute winter	14.064	5.594
2 year 360 minute summer	16.422	4.226
2 year 360 minute winter	10.675	4.226

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
2 year 480 minute summer	12.909	3.412
2 year 480 minute winter	8.577	3.412
2 year 600 minute summer	10.508	2.874
2 year 600 minute winter	7.180	2.874
2 year 720 minute summer	9.299	2.492
2 year 720 minute winter	6.249	2.492
2 year 960 minute summer	7.531	1.983
2 year 960 minute winter	4.989	1.983
2 year 1440 minute summer	5.381	1.442
2 year 1440 minute winter	3.616	1.442
2 year 2160 minute summer	3.826	1.057
2 year 2160 minute winter	2.636	1.057
2 year 2880 minute summer	3.192	0.856
2 year 2880 minute winter	2.145	0.856
2 year 4320 minute summer	2.481	0.649
2 year 4320 minute winter	1.634	0.649
2 year 5760 minute summer	2.115	0.541
2 year 5760 minute winter	1.369	0.541
2 year 7200 minute summer	1.863	0.475
2 year 7200 minute winter	1.202	0.475
2 year 8640 minute summer	1.687	0.430
2 year 8640 minute winter	1.089	0.430
2 year 10080 minute summer	1.561	0.398
2 year 10080 minute winter	1.007	0.398
30 year +40% CC 15 minute summer	432.868	122.487
30 year +40% CC 15 minute winter	303.767	122.487
30 year +40% CC 30 minute summer	277.128	78.418
30 year +40% CC 30 minute winter	194.476	78.418
30 year +40% CC 60 minute summer	181.313	47.916
30 year +40% CC 60 minute winter	120.460	47.916
30 year +40% CC 120 minute summer	114.640	30.296
30 year +40% CC 120 minute winter	76.164	30.296
30 year +40% CC 180 minute summer	88.389	22.746
30 year +40% CC 180 minute winter	57.455	22.746
30 year +40% CC 240 minute summer	69.550	18.380
30 year +40% CC 240 minute winter	46.207	18.380
30 year +40% CC 360 minute summer	52.072	13.400
30 year +40% CC 360 minute winter	33.848	13.400
30 year +40% CC 480 minute summer	40.121	10.603
30 year +40% CC 480 minute winter	26.655	10.603
30 year +40% CC 600 minute summer	32.197	8.807
30 year +40% CC 600 minute winter	21.999	8.807
30 year +40% CC 720 minute summer	28.176	7.552
30 year +40% CC 720 minute winter	18.936	7.552
30 year +40% CC 960 minute summer	22.425	5.905
30 year +40% CC 960 minute winter	14.855	5.905
30 year +40% CC 1440 minute summer	15.600	4.181
30 year +40% CC 1440 minute winter	10.484	4.181
30 year +40% CC 2160 minute summer	10.732	2.966
30 year +40% CC 2160 minute winter	7.395	2.966
30 year +40% CC 2880 minute summer	8.712	2.335
30 year +40% CC 2880 minute winter	5.855	2.335

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year +40% CC 4320 minute summer	6.463	1.690
30 year +40% CC 4320 minute winter	4.256	1.690
30 year +40% CC 5760 minute summer	5.304	1.358
30 year +40% CC 5760 minute winter	3.433	1.358
30 year +40% CC 7200 minute summer	4.530	1.156
30 year +40% CC 7200 minute winter	2.924	1.156
30 year +40% CC 8640 minute summer	3.995	1.019
30 year +40% CC 8640 minute winter	2.578	1.019
30 year +40% CC 10080 minute summer	3.609	0.921
30 year +40% CC 10080 minute winter	2.329	0.921
100 year 15 minute summer	402.514	113.898
100 year 15 minute winter	282.466	113.898
100 year 30 minute summer	259.760	73.503
100 year 30 minute winter	182.287	73.503
100 year 60 minute summer	170.515	45.062
100 year 60 minute winter	113.286	45.062
100 year 120 minute summer	106.976	28.271
100 year 120 minute winter	71.073	28.271
100 year 180 minute summer	82.913	21.336
100 year 180 minute winter	53.896	21.336
100 year 240 minute summer	65.650	17.349
100 year 240 minute winter	43.617	17.349
100 year 360 minute summer	49.650	12.777
100 year 360 minute winter	32.274	12.777
100 year 480 minute summer	38.518	10.179
100 year 480 minute winter	25.590	10.179
100 year 600 minute summer	31.035	8.489
100 year 600 minute winter	21.205	8.489
100 year 720 minute summer	27.222	7.296
100 year 720 minute winter	18.295	7.296
100 year 960 minute summer	21.695	5.713
100 year 960 minute winter	14.371	5.713
100 year 1440 minute summer	15.006	4.022
100 year 1440 minute winter	10.085	4.022
100 year 2160 minute summer	10.172	2.811
100 year 2160 minute winter	7.009	2.811
100 year 2880 minute summer	8.139	2.181
100 year 2880 minute winter	5.470	2.181
100 year 4320 minute summer	5.870	1.535
100 year 4320 minute winter	3.865	1.535
100 year 5760 minute summer	4.703	1.204
100 year 5760 minute winter	3.044	1.204
100 year 7200 minute summer	3.942	1.006
100 year 7200 minute winter	2.544	1.006
100 year 8640 minute summer	3.422	0.873
100 year 8640 minute winter	2.209	0.873
100 year 10080 minute summer	3.052	0.779
100 year 10080 minute winter	1.970	0.779
100 year +40% CC 15 minute summer	563.520	159.457
100 year +40% CC 15 minute winter	395.453	159.457
100 year +40% CC 30 minute summer	363.663	102.904
100 year +40% CC 30 minute winter	255.202	102.904

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 60 minute summer	238.721	63.087
100 year +40% CC 60 minute winter	158.601	63.087
100 year +40% CC 120 minute summer	149.767	39.579
100 year +40% CC 120 minute winter	99.502	39.579
100 year +40% CC 180 minute summer	116.078	29.871
100 year +40% CC 180 minute winter	75.454	29.871
100 year +40% CC 240 minute summer	91.911	24.289
100 year +40% CC 240 minute winter	61.063	24.289
100 year +40% CC 360 minute summer	69.510	17.887
100 year +40% CC 360 minute winter	45.183	17.887
100 year +40% CC 480 minute summer	53.925	14.251
100 year +40% CC 480 minute winter	35.826	14.251
100 year +40% CC 600 minute summer	43.449	11.884
100 year +40% CC 600 minute winter	29.687	11.884
100 year +40% CC 720 minute summer	38.110	10.214
100 year +40% CC 720 minute winter	25.613	10.214
100 year +40% CC 960 minute summer	30.373	7.998
100 year +40% CC 960 minute winter	20.120	7.998
100 year +40% CC 1440 minute summer	21.008	5.630
100 year +40% CC 1440 minute winter	14.119	5.630
100 year +40% CC 2160 minute summer	14.241	3.936
100 year +40% CC 2160 minute winter	9.812	3.936
100 year +40% CC 2880 minute summer	11.395	3.054
100 year +40% CC 2880 minute winter	7.658	3.054
100 year +40% CC 4320 minute summer	8.217	2.148
100 year +40% CC 4320 minute winter	5.412	2.148
100 year +40% CC 5760 minute summer	6.584	1.685
100 year +40% CC 5760 minute winter	4.261	1.685
100 year +40% CC 7200 minute summer	5.519	1.408
100 year +40% CC 7200 minute winter	3.562	1.408
100 year +40% CC 8640 minute summer	4.791	1.222
100 year +40% CC 8640 minute winter	3.092	1.222
100 year +40% CC 10080 minute summer	4.273	1.090
100 year +40% CC 10080 minute winter	2.758	1.090

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	ATT 14.1	172	71.735	0.078	3.2	8.0617	0.0000	OK
240 minute winter	MH 14.1	164	71.736	0.230	2.6	0.2604	0.0000	SURCHARGED
7200 minute winter	RFO 01	4380	72.563	0.006	0.0	0.0001	0.0000	OK
240 minute winter	MH 14.0	180	71.516	0.024	1.0	0.0275	0.0000	OK
2880 minute winter	RFO 02	1860	72.562	0.005	0.0	0.0001	0.0000	OK
240 minute winter	MH 13.0	180	71.419	0.026	1.0	0.0300	0.0000	OK
480 minute winter	ATT 12.1	368	71.757	0.100	1.4	7.7698	0.0000	OK
480 minute winter	MH 12.1	368	71.757	0.162	0.8	0.1829	0.0000	SURCHARGED
2880 minute winter	RFO 03	1860	73.312	0.005	0.0	0.0001	0.0000	OK
360 minute winter	MH 12.0	264	71.335	0.013	1.3	0.0147	0.0000	OK
360 minute winter	ATT 11.1	272	68.448	0.099	1.3	6.1138	0.0000	OK
360 minute winter	MH 11.1	272	68.448	0.167	0.9	0.1893	0.0000	SURCHARGED
360 minute winter	MH 11.0	264	68.143	0.032	1.6	0.0359	0.0000	OK
7200 minute winter	RFO 04	4380	69.655	0.006	0.0	0.0001	0.0000	OK
2160 minute winter	MH 10.0	2040	68.124	0.056	1.1	0.0638	0.0000	OK
480 minute winter	ATT 09.1	352	68.490	0.141	1.3	7.3322	0.0000	OK
480 minute winter	MH 09.1	352	68.490	0.196	0.7	0.2214	0.0000	SURCHARGED
2160 minute winter	MH 09.0	2040	68.124	0.175	1.3	0.2510	0.0000	OK
2160 minute winter	MH 08.0	2040	68.124	0.255	1.6	0.5070	0.0000	OK
2160 minute winter	ATT 07.0	2040	68.124	0.289	1.6	50.8628	0.0000	OK
2160 minute winter	MH 07.0	2040	68.124	0.324	0.7	0.4642	0.0000	OK
15 minute winter	MH 06.0	10	67.130	0.064	6.4	0.1715	0.0000	OK
15 minute winter	MH 05.0	11	67.113	0.062	6.3	0.0881	0.0000	OK
360 minute winter	ATT 04.2	288	69.237	0.088	1.8	9.6390	0.0000	OK
360 minute winter	MH 04.2	288	69.237	0.245	1.0	0.2770	0.0000	SURCHARGED
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	ATT 14.1	2.000	MH 14.1	2.6	0.423	0.177	0.1488	
240 minute winter	MH 14.1	2.001	MH 14.0	1.0	0.408	0.024	0.0056	
7200 minute winter	RFO 01	1.001	MH 14.0	0.0	0.202	0.002	0.0020	
240 minute winter	MH 14.0	1.002	MH 13.0	1.0	0.400	0.025	0.0409	
2880 minute winter	RFO 02	3.001	MH 13.0	0.0	0.198	0.002	0.0012	
240 minute winter	MH 13.0	1.003	MH 12.0	1.0	0.588	0.025	0.0211	
480 minute winter	ATT 12.1	5.000	MH 12.1	0.8	0.131	0.051	0.1352	
480 minute winter	MH 12.1	5.001	MH 12.0	0.3	0.601	0.008	0.0025	
2880 minute winter	RFO 03	4.001	MH 12.0	0.0	0.198	0.002	0.0016	
360 minute winter	MH 12.0	1.004	MH 11.0	1.3	1.430	0.006	0.0185	
360 minute winter	ATT 11.1	6.000	MH 11.1	0.9	0.144	0.060	0.1473	
360 minute winter	MH 11.1	6.001	MH 11.0	0.3	0.378	0.018	0.0017	
360 minute winter	MH 11.0	1.005	MH 10.0	1.6	0.405	0.023	0.0411	
7200 minute winter	RFO 04	7.001	MH 10.0	0.0	0.203	0.002	0.0005	
2160 minute winter	MH 10.0	1.006	MH 09.0	1.1	0.386	0.015	0.1573	
480 minute winter	ATT 09.1	8.000	MH 09.1	0.7	0.151	0.049	0.1389	
480 minute winter	MH 09.1	8.001	MH 09.0	0.3	0.426	0.016	0.0068	
2160 minute winter	MH 09.0	1.007	MH 08.0	1.3	0.265	0.012	1.6755	
2160 minute winter	MH 08.0	1.008	ATT 07.0	1.6	0.378	0.014	0.9382	
2160 minute winter	ATT 07.0	1.009	MH 07.0	0.7	0.080	0.006	1.0818	
2160 minute winter	MH 07.0	1.010	MH 06.0	0.7	0.528	0.002	0.0459	
15 minute winter	MH 06.0	1.011	MH 05.0	6.3	0.469	0.039	0.0780	
15 minute winter	MH 05.0	1.012	MH 04.0	6.3	0.485	0.039	0.2857	
360 minute winter	ATT 04.2	9.000	MH 04.2	1.0	0.309	0.065	0.1691	
360 minute winter	MH 04.2	9.001	MH 04.1	0.4	0.425	0.009	0.0240	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	MH 04.1	296	68.838	0.008	0.4	0.0092	0.0000	OK
15 minute winter	MH 04.0	11	67.059	0.062	6.3	0.0888	0.0000	OK
10080 minute winter	RFO 07	6900	70.050	0.006	0.0	0.0001	0.0000	OK
360 minute winter	MH 03.0	256	67.025	0.080	2.1	0.1148	0.0000	OK
360 minute winter	ATT 02.0	256	67.025	0.187	3.7	11.8184	0.0000	OK
360 minute winter	MH 02.0	256	67.025	0.212	2.0	0.3747	0.0000	OK
240 minute winter	ATT 64.0	180	71.359	0.063	1.1	2.7349	0.0000	OK
240 minute winter	MH 64.0	180	71.361	0.145	0.8	0.1641	0.0000	OK
360 minute winter	ATT 63.0	328	71.226	0.169	1.5	4.9165	0.0000	SURCHARGED
360 minute winter	MH 63.0	328	71.226	0.267	1.1	0.3019	0.0000	SURCHARGED
360 minute winter	ATT 62.0	336	70.695	0.134	3.6	8.9049	0.0000	OK
600 minute winter	MH 62.0	450	70.696	0.258	2.2	0.2913	0.0000	SURCHARGED
360 minute winter	MH 61.0	336	70.341	0.020	0.7	0.0221	0.0000	OK
360 minute winter	MH 60.0	336	70.244	0.012	0.7	0.0136	0.0000	OK
120 minute winter	ATT 41.0	84	70.675	0.076	2.6	3.3314	0.0000	OK
120 minute winter	MH 41.0	82	70.679	0.116	2.6	0.1310	0.0000	OK
120 minute winter	MH 40.0	84	70.528	0.017	1.2	0.0189	0.0000	OK
120 minute winter	ATT 51.0	82	71.018	0.072	3.7	3.4505	0.0000	OK
120 minute summer	MH 51.0	74	71.025	0.124	2.9	0.1399	0.0000	OK
10080 minute winter	RFO 05	6900	71.405	0.006	0.0	0.0001	0.0000	OK
120 minute winter	MH 50.0	82	70.828	0.017	1.4	0.0187	0.0000	OK
360 minute winter	ATT 30.0	312	68.644	0.144	4.1	23.0101	0.0000	OK
360 minute winter	MH 30.0	312	68.644	0.222	1.7	0.3178	0.0000	OK
2880 minute winter	RFO 06	1860	70.735	0.005	0.0	0.0001	0.0000	OK
180 minute winter	ATT 21.0	124	68.512	0.085	3.0	4.0500	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	MH 04.1	9.002	MH 04.0	0.4	0.840	0.002	0.0072	
15 minute winter	MH 04.0	1.013	MH 03.0	6.2	0.495	0.039	0.2689	
10080 minute winter	RFO 07	10.001	MH 03.0	0.0	0.203	0.003	0.0011	
360 minute winter	MH 03.0	1.014	ATT 02.0	2.1	0.396	0.013	0.3224	
360 minute winter	ATT 02.0	1.015	MH 02.0	2.0	0.125	0.009	0.9033	
360 minute winter	MH 02.0	1.016	MH 01.0	2.0	0.230	0.009	0.1614	
240 minute winter	ATT 64.0	11.000	MH 64.0	0.8	0.161	0.054	0.1422	
240 minute winter	MH 64.0	11.001	ATT 63.0	0.3	0.189	0.015	0.1468	
360 minute winter	ATT 63.0	11.002	MH 63.0	1.1	0.166	0.061	0.1726	
360 minute winter	MH 63.0	11.003	ATT 62.0	0.4	0.399	0.024	0.1199	
360 minute winter	ATT 62.0	11.004	MH 62.0	3.1	0.154	0.060	0.3975	
600 minute winter	MH 62.0	11.005	MH 61.0	0.7	0.436	0.013	0.0185	
360 minute winter	MH 61.0	11.006	MH 60.0	0.7	0.571	0.013	0.0109	
360 minute winter	MH 60.0	11.007	ATT 30.0	0.7	0.855	0.005	0.0213	
120 minute winter	ATT 41.0	12.000	MH 41.0	2.6	0.359	0.177	0.0610	
120 minute winter	MH 41.0	12.001	MH 40.0	1.2	0.716	0.066	0.0087	
120 minute winter	MH 40.0	12.002	ATT 30.0	1.2	1.103	0.026	0.0290	
120 minute winter	ATT 51.0	13.000	MH 51.0	3.2	0.360	0.220	0.0749	
120 minute summer	MH 51.0	13.001	MH 50.0	1.4	0.799	0.081	0.0169	
10080 minute winter	RFO 05	14.001	MH 50.0	0.0	0.202	0.003	0.0017	
120 minute winter	MH 50.0	13.002	ATT 30.0	1.5	1.400	0.025	0.0203	
360 minute winter	ATT 30.0	11.008	MH 30.0	1.7	0.140	0.015	1.3520	
360 minute winter	MH 30.0	11.009	MH 01.1	1.6	0.718	0.007	0.0799	
2880 minute winter	RFO 06	15.001	MH 20.0	0.0	0.200	0.002	0.0016	
180 minute winter	ATT 21.0	16.000	MH 21.0	2.8	0.363	0.191	0.0701	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	MH 21.0	120	68.513	0.124	2.8	0.1398	0.0000	OK
180 minute winter	MH 20.0	124	68.310	0.027	1.2	0.0310	0.0000	OK
15 minute winter	MH 01.1	11	68.031	0.033	7.4	0.0987	0.0000	OK
15 minute winter	MH 01.0	12	66.877	0.088	7.4	0.0995	0.0000	OK
15 minute winter	HEADWALL	12	63.247	0.022	7.2	0.0000	0.0000	OK
7200 minute winter	BGR 01	4380	89.185	0.028	0.1	6.9712	0.0000	OK
2880 minute winter	BGR 02	1860	89.173	0.016	0.1	3.8721	0.0000	OK
2880 minute winter	BR 03	1860	86.017	0.018	0.1	3.8516	0.0000	OK
7200 minute winter	BGR 04	4380	86.027	0.028	0.1	7.0191	0.0000	OK
10080 minute winter	BGR 05	6900	91.282	0.029	0.1	17.1914	0.0000	OK
2880 minute winter	BGR 06	1860	90.397	0.017	0.1	3.7977	0.0000	OK
10080 minute winter	BGR 07	6900	89.663	0.029	0.1	16.9170	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	MH 21.0	16.001	MH 20.0	1.2	0.560	0.069	0.0067	
180 minute winter	MH 20.0	15.002	MH 01.1	1.2	0.456	0.031	0.0623	
15 minute winter	MH 01.1	11.010	MH 01.0	7.3	1.579	0.015	0.0883	
15 minute winter	MH 01.0	1.017	HEADWALL	7.2	2.423	0.003	0.0505	31.0
7200 minute winter	BGR 01	1.000	RFO 01	0.0	0.083	0.002	0.0048	
2880 minute winter	BGR 02	3.000	RFO 02	0.0	0.084	0.001	0.0015	
2880 minute winter	BR 03	4.000	RFO 03	0.0	0.071	0.001	0.0039	
7200 minute winter	BGR 04	7.000	RFO 04	0.0	0.081	0.002	0.0054	
10080 minute winter	BGR 05	14.000	RFO 05	0.0	0.093	0.002	0.0027	
2880 minute winter	BGR 06	15.000	RFO 06	0.0	0.076	0.002	0.0040	
10080 minute winter	BGR 07	10.000	RFO 07	0.0	0.105	0.002	0.0013	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	ATT 14.1	180	71.782	0.125	4.4	12.8882	0.0000	OK
240 minute winter	MH 14.1	180	71.781	0.275	2.3	0.3114	0.0000	SURCHARGED
8640 minute winter	RFO 01	5400	72.563	0.006	0.0	0.0001	0.0000	OK
240 minute winter	MH 14.0	184	71.518	0.026	1.1	0.0289	0.0000	OK
2880 minute winter	RFO 02	1980	72.562	0.005	0.0	0.0001	0.0000	OK
240 minute winter	MH 13.0	188	71.421	0.028	1.1	0.0316	0.0000	OK
360 minute winter	ATT 12.1	328	71.807	0.150	2.0	11.7016	0.0000	SURCHARGED
360 minute winter	MH 12.1	328	71.807	0.212	0.8	0.2399	0.0000	SURCHARGED
2880 minute winter	RFO 03	1980	73.312	0.005	0.0	0.0001	0.0000	OK
240 minute winter	MH 12.0	192	71.336	0.014	1.5	0.0156	0.0000	OK
360 minute winter	ATT 11.1	280	68.498	0.149	1.8	9.1820	0.0000	OK
360 minute winter	MH 11.1	280	68.498	0.217	0.8	0.2458	0.0000	SURCHARGED
2880 minute winter	MH 11.0	2580	68.229	0.118	1.2	0.1332	0.0000	OK
8640 minute winter	RFO 04	5400	69.655	0.006	0.0	0.0001	0.0000	OK
2880 minute winter	MH 10.0	2580	68.229	0.161	1.2	0.1818	0.0000	OK
360 minute winter	ATT 09.1	320	68.563	0.214	2.0	11.1551	0.0000	SURCHARGED
360 minute winter	MH 09.1	320	68.563	0.269	0.5	0.3044	0.0000	SURCHARGED
2880 minute winter	MH 09.0	2580	68.229	0.280	1.5	0.4003	0.0000	OK
2880 minute winter	MH 08.0	2580	68.229	0.360	1.8	0.7141	0.0000	OK
2880 minute winter	ATT 07.0	2580	68.229	0.394	1.7	69.2010	0.0000	SURCHARGED
2880 minute winter	MH 07.0	2580	68.229	0.429	0.8	0.6135	0.0000	SURCHARGED
15 minute winter	MH 06.0	10	67.150	0.084	10.8	0.2240	0.0000	OK
15 minute winter	MH 05.0	11	67.131	0.080	10.5	0.1143	0.0000	OK
360 minute winter	ATT 04.2	344	69.284	0.135	2.6	14.7530	0.0000	OK
360 minute winter	MH 04.2	344	69.284	0.292	0.9	0.3298	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	ATT 14.1	2.000	MH 14.1	2.3	0.425	0.156	0.1842	
240 minute winter	MH 14.1	2.001	MH 14.0	1.1	0.415	0.027	0.0060	
8640 minute winter	RFO 01	1.001	MH 14.0	0.0	0.202	0.003	0.0024	
240 minute winter	MH 14.0	1.002	MH 13.0	1.1	0.413	0.027	0.0442	
2880 minute winter	RFO 02	3.001	MH 13.0	0.0	0.200	0.002	0.0015	
240 minute winter	MH 13.0	1.003	MH 12.0	1.1	0.606	0.028	0.0229	
360 minute winter	ATT 12.1	5.000	MH 12.1	0.8	0.158	0.053	0.1585	
360 minute winter	MH 12.1	5.001	MH 12.0	0.3	0.627	0.010	0.0027	
2880 minute winter	RFO 03	4.001	MH 12.0	0.0	0.200	0.002	0.0019	
240 minute winter	MH 12.0	1.004	MH 11.0	1.5	1.485	0.007	0.0202	
360 minute winter	ATT 11.1	6.000	MH 11.1	0.8	0.161	0.052	0.1728	
360 minute winter	MH 11.1	6.001	MH 11.0	0.4	0.393	0.021	0.0019	
2880 minute winter	MH 11.0	1.005	MH 10.0	1.2	0.376	0.016	0.3309	
8640 minute winter	RFO 04	7.001	MH 10.0	0.0	0.203	0.003	0.0006	
2880 minute winter	MH 10.0	1.006	MH 09.0	1.2	0.392	0.017	0.4732	
360 minute winter	ATT 09.1	8.000	MH 09.1	0.5	0.148	0.035	0.1407	
360 minute winter	MH 09.1	8.001	MH 09.0	0.4	0.447	0.019	0.0077	
2880 minute winter	MH 09.0	1.007	MH 08.0	1.4	0.238	0.013	2.5285	
2880 minute winter	MH 08.0	1.008	ATT 07.0	1.7	0.409	0.016	1.2001	
2880 minute winter	ATT 07.0	1.009	MH 07.0	0.8	0.077	0.007	1.2389	
2880 minute winter	MH 07.0	1.010	MH 06.0	0.8	0.551	0.003	0.0508	
15 minute winter	MH 06.0	1.011	MH 05.0	10.5	0.537	0.065	0.1141	
15 minute winter	MH 05.0	1.012	MH 04.0	10.6	0.557	0.066	0.4162	
360 minute winter	ATT 04.2	9.000	MH 04.2	0.9	0.319	0.059	0.2045	
360 minute winter	MH 04.2	9.001	MH 04.1	0.4	0.438	0.010	0.0256	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	MH 04.1	344	68.838	0.008	0.4	0.0095	0.0000	OK
240 minute winter	MH 04.0	184	67.098	0.101	3.3	0.1445	0.0000	OK
7200 minute winter	RFO 07	5280	70.050	0.006	0.0	0.0001	0.0000	OK
240 minute winter	MH 03.0	184	67.098	0.153	3.3	0.2187	0.0000	OK
240 minute winter	ATT 02.0	184	67.098	0.260	5.9	16.4142	0.0000	OK
240 minute winter	MH 02.0	184	67.098	0.285	2.3	0.5033	0.0000	OK
240 minute winter	ATT 64.0	196	71.399	0.103	1.5	4.4483	0.0000	OK
240 minute winter	MH 64.0	196	71.399	0.183	0.7	0.2068	0.0000	SURCHARGED
360 minute winter	ATT 63.0	288	71.290	0.233	1.5	6.7778	0.0000	SURCHARGED
360 minute winter	MH 63.0	288	71.290	0.331	1.2	0.3743	0.0000	SURCHARGED
360 minute winter	ATT 62.0	344	70.759	0.198	4.0	13.1855	0.0000	OK
360 minute winter	MH 62.0	344	70.759	0.321	2.1	0.3629	0.0000	SURCHARGED
360 minute winter	MH 61.0	344	70.342	0.021	0.8	0.0233	0.0000	OK
360 minute winter	MH 60.0	344	70.245	0.013	0.8	0.0143	0.0000	OK
120 minute winter	ATT 41.0	88	70.728	0.129	4.0	5.6405	0.0000	OK
120 minute winter	MH 41.0	88	70.728	0.165	2.4	0.1862	0.0000	SURCHARGED
120 minute winter	MH 40.0	88	70.530	0.019	1.5	0.0210	0.0000	OK
120 minute winter	ATT 51.0	86	71.069	0.123	4.4	5.8771	0.0000	OK
120 minute winter	MH 51.0	86	71.068	0.167	3.4	0.1890	0.0000	SURCHARGED
7200 minute winter	RFO 05	5280	71.405	0.006	0.0	0.0001	0.0000	OK
120 minute winter	MH 50.0	86	70.829	0.018	1.8	0.0208	0.0000	OK
360 minute winter	ATT 30.0	352	68.712	0.212	5.0	33.8395	0.0000	OK
360 minute winter	MH 30.0	352	68.712	0.290	1.9	0.4148	0.0000	OK
720 minute winter	RFO 06	675	70.736	0.006	0.0	0.0001	0.0000	OK
180 minute winter	ATT 21.0	128	68.566	0.139	3.5	6.6440	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	MH 04.1	9.002	MH 04.0	0.4	0.863	0.002	0.0077	
240 minute winter	MH 04.0	1.013	MH 03.0	3.3	0.399	0.021	0.7830	
7200 minute winter	RFO 07	10.001	MH 03.0	0.0	0.203	0.003	0.0012	
240 minute winter	MH 03.0	1.014	ATT 02.0	3.1	0.427	0.019	0.7036	
240 minute winter	ATT 02.0	1.015	MH 02.0	2.3	0.145	0.011	1.3561	
240 minute winter	MH 02.0	1.016	MH 01.0	2.3	0.232	0.011	0.2357	
240 minute winter	ATT 64.0	11.000	MH 64.0	0.7	0.164	0.051	0.1770	
240 minute winter	MH 64.0	11.001	ATT 63.0	0.3	0.173	0.016	0.2083	
360 minute winter	ATT 63.0	11.002	MH 63.0	1.2	0.169	0.066	0.1726	
360 minute winter	MH 63.0	11.003	ATT 62.0	0.5	0.398	0.026	0.2685	
360 minute winter	ATT 62.0	11.004	MH 62.0	2.1	0.161	0.040	0.4743	
360 minute winter	MH 62.0	11.005	MH 61.0	0.8	0.453	0.015	0.0201	
360 minute winter	MH 61.0	11.006	MH 60.0	0.8	0.591	0.015	0.0119	
360 minute winter	MH 60.0	11.007	ATT 30.0	0.8	0.876	0.006	0.1284	
120 minute winter	ATT 41.0	12.000	MH 41.0	2.4	0.260	0.160	0.0875	
120 minute winter	MH 41.0	12.001	MH 40.0	1.5	0.764	0.083	0.0102	
120 minute winter	MH 40.0	12.002	ATT 30.0	1.5	1.182	0.032	0.0341	
120 minute winter	ATT 51.0	13.000	MH 51.0	3.4	0.330	0.228	0.1074	
120 minute winter	MH 51.0	13.001	MH 50.0	1.8	0.849	0.102	0.0198	
7200 minute winter	RFO 05	14.001	MH 50.0	0.0	0.202	0.003	0.0019	
120 minute winter	MH 50.0	13.002	ATT 30.0	1.8	1.498	0.031	0.0238	
360 minute winter	ATT 30.0	11.008	MH 30.0	1.9	0.139	0.017	1.9679	
360 minute winter	MH 30.0	11.009	MH 01.1	1.9	0.751	0.008	0.0892	
720 minute winter	RFO 06	15.001	MH 20.0	0.0	0.202	0.002	0.0021	
180 minute winter	ATT 21.0	16.000	MH 21.0	2.9	0.349	0.197	0.0944	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	MH 21.0	128	68.565	0.176	2.9	0.1993	0.0000	SURCHARGED
180 minute winter	MH 20.0	128	68.314	0.031	1.6	0.0345	0.0000	OK
15 minute winter	MH 01.1	10	68.041	0.043	12.8	0.1283	0.0000	OK
15 minute winter	MH 01.0	12	66.920	0.131	12.6	0.1486	0.0000	OK
15 minute winter	HEADWALL	12	63.252	0.027	11.5	0.0000	0.0000	OK
8640 minute winter	BGR 01	5400	89.194	0.037	0.1	9.0844	0.0000	OK
2880 minute winter	BGR 02	1980	89.178	0.021	0.1	4.9241	0.0000	OK
2880 minute winter	BR 03	1980	86.022	0.023	0.1	4.8904	0.0000	OK
8640 minute winter	BGR 04	5400	86.035	0.036	0.1	9.1560	0.0000	OK
7200 minute winter	BGR 05	5280	91.286	0.033	0.2	19.3615	0.0000	OK
720 minute winter	BGR 06	675	90.402	0.022	0.3	4.7870	0.0000	OK
7200 minute winter	BGR 07	5280	89.667	0.033	0.2	19.1194	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	MH 21.0	16.001	MH 20.0	1.5	0.594	0.086	0.0078	
180 minute winter	MH 20.0	15.002	MH 01.1	1.6	0.487	0.039	0.0726	
15 minute winter	MH 01.1	11.010	MH 01.0	12.6	1.848	0.027	0.1297	
15 minute winter	MH 01.0	1.017	HEADWALL	11.5	2.759	0.005	0.0708	46.0
8640 minute winter	BGR 01	1.000	RFO 01	0.0	0.088	0.003	0.0055	
2880 minute winter	BGR 02	3.000	RFO 02	0.0	0.090	0.002	0.0017	
2880 minute winter	BR 03	4.000	RFO 03	0.0	0.077	0.002	0.0045	
8640 minute winter	BGR 04	7.000	RFO 04	0.0	0.086	0.002	0.0062	
7200 minute winter	BGR 05	14.000	RFO 05	0.0	0.096	0.002	0.0029	
720 minute winter	BGR 06	15.000	RFO 06	0.0	0.083	0.002	0.0047	
7200 minute winter	BGR 07	10.000	RFO 07	0.0	0.108	0.002	0.0014	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	ATT 14.1	232	72.198	0.541	12.9	55.8862	0.0000	SURCHARGED
240 minute winter	MH 14.1	232	72.196	0.690	2.4	0.7807	0.0000	SURCHARGED
4320 minute winter	RFO 01	3960	72.565	0.008	0.1	0.0001	0.0000	OK
240 minute winter	MH 14.0	232	71.525	0.033	1.8	0.0369	0.0000	OK
2160 minute winter	RFO 02	2040	72.564	0.007	0.1	0.0001	0.0000	OK
240 minute winter	MH 13.0	236	71.429	0.036	1.9	0.0403	0.0000	OK
480 minute winter	ATT 12.1	464	72.231	0.574	5.0	44.7204	0.0000	SURCHARGED
480 minute winter	MH 12.1	464	72.231	0.636	0.8	0.7191	0.0000	SURCHARGED
2160 minute winter	RFO 03	2040	73.314	0.007	0.1	0.0001	0.0000	OK
240 minute winter	MH 12.0	232	71.340	0.018	2.5	0.0200	0.0000	OK
360 minute winter	ATT 11.1	352	68.947	0.598	5.5	36.7675	0.0000	SURCHARGED
360 minute winter	MH 11.1	352	68.947	0.666	0.9	0.7531	0.0000	SURCHARGED
2880 minute winter	MH 11.0	2820	68.902	0.791	2.1	0.8948	0.0000	SURCHARGED
4320 minute winter	RFO 04	3960	69.657	0.008	0.1	0.0001	0.0000	OK
2880 minute winter	MH 10.0	2820	68.904	0.836	2.2	0.9450	0.0000	SURCHARGED
360 minute winter	ATT 09.1	352	69.171	0.822	6.3	42.8171	0.0000	SURCHARGED
360 minute winter	MH 09.1	352	69.171	0.877	0.8	0.9919	0.0000	SURCHARGED
2880 minute winter	MH 09.0	2820	68.901	0.952	2.6	1.3625	0.0000	SURCHARGED
2880 minute winter	MH 08.0	2820	68.901	1.032	3.4	2.0480	0.0000	SURCHARGED
2880 minute winter	ATT 07.0	2820	68.900	1.065	3.4	187.1698	0.0000	SURCHARGED
2880 minute winter	MH 07.0	2820	68.900	1.100	1.3	1.5740	0.0000	SURCHARGED
240 minute winter	MH 06.0	228	67.745	0.679	9.1	1.8088	0.0000	SURCHARGED
240 minute winter	MH 05.0	228	67.745	0.694	7.5	0.9938	0.0000	SURCHARGED
480 minute winter	ATT 04.2	464	69.676	0.527	6.2	57.7065	0.0000	SURCHARGED
480 minute winter	MH 04.2	464	69.675	0.683	1.0	0.7730	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	ATT 14.1	2.000	MH 14.1	2.4	0.435	0.164	0.1951	
240 minute winter	MH 14.1	2.001	MH 14.0	1.7	0.470	0.043	0.0086	
4320 minute winter	RFO 01	1.001	MH 14.0	0.1	0.229	0.005	0.0038	
240 minute winter	MH 14.0	1.002	MH 13.0	1.8	0.478	0.045	0.0631	
2160 minute winter	RFO 02	3.001	MH 13.0	0.1	0.212	0.004	0.0030	
240 minute winter	MH 13.0	1.003	MH 12.0	1.9	0.709	0.047	0.0328	
480 minute winter	ATT 12.1	5.000	MH 12.1	0.8	0.190	0.051	0.1585	
480 minute winter	MH 12.1	5.001	MH 12.0	0.6	0.744	0.017	0.0040	
2160 minute winter	RFO 03	4.001	MH 12.0	0.1	0.216	0.005	0.0040	
240 minute winter	MH 12.0	1.004	MH 11.0	2.5	1.752	0.012	0.4223	
360 minute winter	ATT 11.1	6.000	MH 11.1	0.9	0.195	0.059	0.1729	
360 minute winter	MH 11.1	6.001	MH 11.0	0.7	0.463	0.038	0.0349	
2880 minute winter	MH 11.0	1.005	MH 10.0	2.1	0.399	0.030	0.7273	
4320 minute winter	RFO 04	7.001	MH 10.0	0.1	0.228	0.005	0.0010	
2880 minute winter	MH 10.0	1.006	MH 09.0	2.2	0.393	0.031	0.7433	
360 minute winter	ATT 09.1	8.000	MH 09.1	0.8	0.183	0.055	0.1407	
360 minute winter	MH 09.1	8.001	MH 09.0	0.7	0.530	0.034	0.1590	
2880 minute winter	MH 09.0	1.007	MH 08.0	2.5	0.285	0.023	2.8324	
2880 minute winter	MH 08.0	1.008	ATT 07.0	3.4	0.420	0.031	1.2086	
2880 minute winter	ATT 07.0	1.009	MH 07.0	1.3	0.081	0.011	1.2389	
2880 minute winter	MH 07.0	1.010	MH 06.0	1.3	0.629	0.005	0.8311	
240 minute winter	MH 06.0	1.011	MH 05.0	7.5	0.465	0.046	0.9212	
240 minute winter	MH 05.0	1.012	MH 04.0	6.4	0.432	0.040	3.4637	
480 minute winter	ATT 04.2	9.000	MH 04.2	1.0	0.328	0.071	0.2101	
480 minute winter	MH 04.2	9.001	MH 04.1	0.6	0.505	0.015	0.0347	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	MH 04.1	472	68.840	0.010	0.6	0.0116	0.0000	OK
240 minute winter	MH 04.0	228	67.745	0.748	6.8	1.0710	0.0000	SURCHARGED
10080 minute winter	RFO 07	9480	70.052	0.008	0.1	0.0002	0.0000	OK
240 minute winter	MH 03.0	228	67.745	0.800	6.4	1.1454	0.0000	SURCHARGED
240 minute winter	ATT 02.0	228	67.745	0.907	14.5	57.3255	0.0000	SURCHARGED
240 minute winter	MH 02.0	228	67.745	0.932	4.4	1.6476	0.0000	SURCHARGED
600 minute winter	ATT 64.0	585	71.872	0.576	2.1	24.8861	0.0000	SURCHARGED
600 minute winter	MH 64.0	585	71.872	0.656	0.8	0.7415	0.0000	SURCHARGED
360 minute winter	ATT 63.0	344	71.841	0.784	3.9	22.8125	0.0000	SURCHARGED
360 minute winter	MH 63.0	344	71.841	0.882	1.0	0.9976	0.0000	SURCHARGED
480 minute winter	ATT 62.0	464	71.306	0.745	6.2	49.6086	0.0000	SURCHARGED
480 minute winter	MH 62.0	464	71.306	0.868	2.9	0.9812	0.0000	SURCHARGED
480 minute winter	MH 61.0	464	70.347	0.026	1.3	0.0298	0.0000	OK
480 minute winter	MH 60.0	464	70.248	0.016	1.3	0.0182	0.0000	OK
120 minute winter	ATT 41.0	96	71.205	0.606	14.1	26.4853	0.0000	SURCHARGED
120 minute winter	MH 41.0	96	71.203	0.640	3.1	0.7235	0.0000	SURCHARGED
120 minute winter	MH 40.0	96	70.538	0.027	3.1	0.0301	0.0000	OK
120 minute winter	ATT 51.0	94	71.544	0.598	15.9	28.6559	0.0000	SURCHARGED
120 minute winter	MH 51.0	94	71.540	0.639	3.9	0.7233	0.0000	SURCHARGED
10080 minute winter	RFO 05	9480	71.407	0.008	0.1	0.0001	0.0000	OK
120 minute winter	MH 50.0	94	70.837	0.026	3.9	0.0297	0.0000	OK
600 minute winter	ATT 30.0	630	69.273	0.773	9.6	123.4362	0.0000	SURCHARGED
600 minute winter	MH 30.0	630	69.273	0.851	3.3	1.2175	0.0000	SURCHARGED
720 minute winter	RFO 06	705	70.738	0.008	0.1	0.0002	0.0000	OK
180 minute winter	ATT 21.0	136	69.071	0.644	11.9	30.8427	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	MH 04.1	9.002	MH 04.0	0.6	0.886	0.004	0.3386	
240 minute winter	MH 04.0	1.013	MH 03.0	6.3	0.404	0.040	3.3563	
10080 minute winter	RFO 07	10.001	MH 03.0	0.1	0.233	0.006	0.0020	
240 minute winter	MH 03.0	1.014	ATT 02.0	6.2	0.419	0.039	2.0509	
240 minute winter	ATT 02.0	1.015	MH 02.0	4.4	0.208	0.020	2.5915	
240 minute winter	MH 02.0	1.016	MH 01.0	4.4	0.183	0.020	0.7055	
600 minute winter	ATT 64.0	11.000	MH 64.0	0.8	0.135	0.051	0.2044	
600 minute winter	MH 64.0	11.001	ATT 63.0	0.3	0.169	0.017	0.2817	
360 minute winter	ATT 63.0	11.002	MH 63.0	1.0	0.191	0.058	0.1726	
360 minute winter	MH 63.0	11.003	ATT 62.0	0.6	0.400	0.035	0.5721	
480 minute winter	ATT 62.0	11.004	MH 62.0	2.9	0.196	0.055	0.4914	
480 minute winter	MH 62.0	11.005	MH 61.0	1.3	0.526	0.025	0.0289	
480 minute winter	MH 61.0	11.006	MH 60.0	1.3	0.689	0.025	0.0170	
480 minute winter	MH 60.0	11.007	ATT 30.0	1.3	0.885	0.010	0.5414	
120 minute winter	ATT 41.0	12.000	MH 41.0	3.1	0.328	0.213	0.0914	
120 minute winter	MH 41.0	12.001	MH 40.0	3.1	0.948	0.175	0.0174	
120 minute winter	MH 40.0	12.002	ATT 30.0	3.1	1.464	0.068	0.2684	
120 minute winter	ATT 51.0	13.000	MH 51.0	3.9	0.361	0.262	0.1145	
120 minute winter	MH 51.0	13.001	MH 50.0	3.8	1.052	0.216	0.0337	
10080 minute winter	RFO 05	14.001	MH 50.0	0.1	0.232	0.006	0.0033	
120 minute winter	MH 50.0	13.002	ATT 30.0	3.9	1.861	0.066	0.1910	
600 minute winter	ATT 30.0	11.008	MH 30.0	3.3	0.154	0.030	2.7900	
600 minute winter	MH 30.0	11.009	MH 01.1	3.3	0.894	0.014	0.1322	
720 minute winter	RFO 06	15.001	MH 20.0	0.1	0.233	0.006	0.0041	
180 minute winter	ATT 21.0	16.000	MH 21.0	3.2	0.321	0.218	0.0960	

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	MH 21.0	136	69.069	0.680	3.2	0.7685	0.0000	SURCHARGED
180 minute winter	MH 20.0	140	68.327	0.044	3.3	0.0500	0.0000	OK
15 minute winter	MH 01.1	10	68.081	0.083	52.4	0.2486	0.0000	OK
15 minute winter	MH 01.0	12	67.216	0.427	51.9	0.4832	0.0000	OK
15 minute summer	HEADWALL	10	63.274	0.049	42.0	0.0000	0.0000	OK
4320 minute winter	BGR 01	3960	89.247	0.090	0.3	22.1169	0.0000	OK
2160 minute winter	BGR 02	2040	89.217	0.060	0.3	14.3037	0.0000	OK
2160 minute winter	BR 03	2040	86.066	0.067	0.3	14.1034	0.0000	OK
4320 minute winter	BGR 04	3960	86.088	0.089	0.3	22.2676	0.0000	OK
10080 minute winter	BGR 05	9480	91.347	0.094	0.3	56.1811	0.0000	OK
720 minute winter	BGR 06	705	90.442	0.062	0.9	13.5547	0.0000	OK
10080 minute winter	BGR 07	9480	89.729	0.095	0.3	55.5710	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	MH 21.0	16.001	MH 20.0	3.2	0.723	0.179	0.0135	
180 minute winter	MH 20.0	15.002	MH 01.1	3.3	0.606	0.082	0.1236	
15 minute winter	MH 01.1	11.010	MH 01.0	51.9	2.293	0.110	0.9866	
15 minute winter	MH 01.0	1.017	HEADWALL	42.0	4.078	0.019	0.1744	113.7
4320 minute winter	BGR 01	1.000	RFO 01	0.1	0.110	0.005	0.0079	
2160 minute winter	BGR 02	3.000	RFO 02	0.1	0.114	0.004	0.0029	
2160 minute winter	BR 03	4.000	RFO 03	0.1	0.100	0.004	0.0074	
4320 minute winter	BGR 04	7.000	RFO 04	0.1	0.107	0.005	0.0088	
10080 minute winter	BGR 05	14.000	RFO 05	0.1	0.122	0.005	0.0044	
720 minute winter	BGR 06	15.000	RFO 06	0.1	0.112	0.005	0.0079	
10080 minute winter	BGR 07	10.000	RFO 07	0.1	0.136	0.005	0.0022	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	ATT 14.1	232	72.163	0.506	12.2	52.2926	0.0000	SURCHARGED
240 minute winter	MH 14.1	232	72.162	0.656	2.6	0.7415	0.0000	SURCHARGED
2160 minute winter	RFO 01	2100	72.565	0.008	0.1	0.0001	0.0000	OK
240 minute winter	MH 14.0	232	71.524	0.032	1.8	0.0364	0.0000	OK
1440 minute winter	RFO 02	1380	72.564	0.007	0.1	0.0001	0.0000	OK
240 minute winter	MH 13.0	232	71.428	0.035	1.8	0.0397	0.0000	OK
480 minute winter	ATT 12.1	464	72.203	0.546	4.8	42.5255	0.0000	SURCHARGED
480 minute winter	MH 12.1	464	72.203	0.608	0.8	0.6872	0.0000	SURCHARGED
1440 minute winter	RFO 03	1380	73.314	0.007	0.1	0.0001	0.0000	OK
240 minute winter	MH 12.0	236	71.339	0.017	2.4	0.0198	0.0000	OK
360 minute winter	ATT 11.1	344	68.913	0.564	5.3	34.6635	0.0000	SURCHARGED
360 minute winter	MH 11.1	344	68.913	0.632	0.9	0.7144	0.0000	SURCHARGED
2160 minute winter	MH 11.0	2160	68.852	0.741	2.3	0.8376	0.0000	SURCHARGED
2160 minute winter	RFO 04	2100	69.657	0.008	0.1	0.0001	0.0000	OK
2160 minute winter	MH 10.0	2160	68.851	0.783	2.4	0.8856	0.0000	SURCHARGED
360 minute winter	ATT 09.1	352	69.132	0.783	6.0	40.7966	0.0000	SURCHARGED
360 minute winter	MH 09.1	352	69.132	0.838	0.7	0.9480	0.0000	SURCHARGED
2160 minute winter	MH 09.0	2160	68.851	0.902	2.8	1.2909	0.0000	SURCHARGED
2160 minute winter	MH 08.0	2160	68.850	0.981	3.7	1.9482	0.0000	SURCHARGED
2160 minute winter	ATT 07.0	2160	68.848	1.013	3.7	177.9799	0.0000	SURCHARGED
2160 minute winter	MH 07.0	2160	68.848	1.048	1.2	1.4992	0.0000	SURCHARGED
360 minute winter	MH 06.0	280	67.684	0.618	6.6	1.6448	0.0000	SURCHARGED
360 minute winter	MH 05.0	280	67.684	0.633	5.5	0.9057	0.0000	SURCHARGED
480 minute winter	ATT 04.2	464	69.654	0.505	6.0	55.3419	0.0000	SURCHARGED
480 minute winter	MH 04.2	464	69.654	0.662	0.7	0.7486	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	ATT 14.1	2.000	MH 14.1	2.6	0.422	0.174	0.1951	
240 minute winter	MH 14.1	2.001	MH 14.0	1.7	0.467	0.042	0.0085	
2160 minute winter	RFO 01	1.001	MH 14.0	0.1	0.227	0.005	0.0038	
240 minute winter	MH 14.0	1.002	MH 13.0	1.8	0.474	0.044	0.0619	
1440 minute winter	RFO 02	3.001	MH 13.0	0.1	0.210	0.004	0.0029	
240 minute winter	MH 13.0	1.003	MH 12.0	1.8	0.702	0.045	0.0321	
480 minute winter	ATT 12.1	5.000	MH 12.1	0.8	0.190	0.052	0.1585	
480 minute winter	MH 12.1	5.001	MH 12.0	0.6	0.739	0.016	0.0040	
1440 minute winter	RFO 03	4.001	MH 12.0	0.1	0.214	0.004	0.0039	
240 minute winter	MH 12.0	1.004	MH 11.0	2.4	1.737	0.012	0.4110	
360 minute winter	ATT 11.1	6.000	MH 11.1	0.9	0.206	0.061	0.1729	
360 minute winter	MH 11.1	6.001	MH 11.0	0.8	0.460	0.043	0.0349	
2160 minute winter	MH 11.0	1.005	MH 10.0	2.3	0.404	0.032	0.7273	
2160 minute winter	RFO 04	7.001	MH 10.0	0.1	0.226	0.005	0.0010	
2160 minute winter	MH 10.0	1.006	MH 09.0	2.3	0.416	0.032	0.7433	
360 minute winter	ATT 09.1	8.000	MH 09.1	0.7	0.183	0.047	0.1407	
360 minute winter	MH 09.1	8.001	MH 09.0	0.7	0.528	0.033	0.1590	
2160 minute winter	MH 09.0	1.007	MH 08.0	2.8	0.295	0.025	2.8324	
2160 minute winter	MH 08.0	1.008	ATT 07.0	3.7	0.434	0.033	1.2086	
2160 minute winter	ATT 07.0	1.009	MH 07.0	1.2	0.085	0.011	1.2389	
2160 minute winter	MH 07.0	1.010	MH 06.0	1.2	0.625	0.005	1.0570	
360 minute winter	MH 06.0	1.011	MH 05.0	5.5	0.423	0.034	0.9212	
360 minute winter	MH 05.0	1.012	MH 04.0	4.7	0.382	0.030	3.4637	
480 minute winter	ATT 04.2	9.000	MH 04.2	0.7	0.326	0.047	0.2101	
480 minute winter	MH 04.2	9.001	MH 04.1	0.6	0.502	0.015	0.0343	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	MH 04.1	472	68.840	0.010	0.6	0.0115	0.0000	OK
360 minute winter	MH 04.0	280	67.684	0.687	5.2	0.9829	0.0000	SURCHARGED
8640 minute winter	RFO 07	7980	70.052	0.008	0.1	0.0001	0.0000	OK
360 minute winter	MH 03.0	280	67.684	0.739	4.9	1.0573	0.0000	SURCHARGED
360 minute winter	ATT 02.0	280	67.684	0.846	10.4	53.4364	0.0000	SURCHARGED
360 minute winter	MH 02.0	280	67.684	0.871	4.2	1.5388	0.0000	SURCHARGED
600 minute winter	ATT 64.0	585	71.840	0.544	2.0	23.5110	0.0000	SURCHARGED
600 minute winter	MH 64.0	585	71.840	0.624	0.7	0.7055	0.0000	SURCHARGED
360 minute winter	ATT 63.0	344	71.806	0.749	3.8	21.7773	0.0000	SURCHARGED
360 minute winter	MH 63.0	344	71.805	0.846	1.3	0.9573	0.0000	SURCHARGED
480 minute winter	ATT 62.0	464	71.270	0.709	6.0	47.2633	0.0000	SURCHARGED
480 minute winter	MH 62.0	464	71.270	0.832	2.8	0.9414	0.0000	SURCHARGED
480 minute winter	MH 61.0	464	70.347	0.026	1.3	0.0295	0.0000	OK
480 minute winter	MH 60.0	464	70.248	0.016	1.3	0.0180	0.0000	OK
120 minute winter	ATT 41.0	96	71.157	0.558	13.1	24.4116	0.0000	SURCHARGED
120 minute winter	MH 41.0	96	71.155	0.592	3.0	0.6700	0.0000	SURCHARGED
120 minute winter	MH 40.0	96	70.537	0.026	3.0	0.0295	0.0000	OK
120 minute winter	ATT 51.0	94	71.497	0.551	14.8	26.4083	0.0000	SURCHARGED
120 minute winter	MH 51.0	94	71.494	0.593	3.7	0.6705	0.0000	SURCHARGED
8640 minute winter	RFO 05	7980	71.407	0.008	0.1	0.0001	0.0000	OK
120 minute winter	MH 50.0	86	70.837	0.026	3.7	0.0292	0.0000	OK
600 minute winter	ATT 30.0	630	69.243	0.743	9.4	118.7201	0.0000	SURCHARGED
600 minute winter	MH 30.0	630	69.243	0.821	3.3	1.1752	0.0000	SURCHARGED
720 minute winter	RFO 06	705	70.738	0.008	0.1	0.0001	0.0000	OK
180 minute winter	ATT 21.0	136	69.022	0.595	11.2	28.5182	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	MH 04.1	9.002	MH 04.0	0.6	0.883	0.004	0.3385	
360 minute winter	MH 04.0	1.013	MH 03.0	4.8	0.371	0.030	3.3563	
8640 minute winter	RFO 07	10.001	MH 03.0	0.1	0.226	0.005	0.0019	
360 minute winter	MH 03.0	1.014	ATT 02.0	4.7	0.395	0.030	2.0509	
360 minute winter	ATT 02.0	1.015	MH 02.0	4.2	0.168	0.019	2.5915	
360 minute winter	MH 02.0	1.016	MH 01.0	4.2	0.194	0.019	0.5631	
600 minute winter	ATT 64.0	11.000	MH 64.0	0.7	0.135	0.049	0.2044	
600 minute winter	MH 64.0	11.001	ATT 63.0	0.3	0.162	0.016	0.2817	
360 minute winter	ATT 63.0	11.002	MH 63.0	1.3	0.183	0.073	0.1726	
360 minute winter	MH 63.0	11.003	ATT 62.0	0.6	0.399	0.035	0.5721	
480 minute winter	ATT 62.0	11.004	MH 62.0	2.8	0.207	0.054	0.4914	
480 minute winter	MH 62.0	11.005	MH 61.0	1.3	0.523	0.024	0.0285	
480 minute winter	MH 61.0	11.006	MH 60.0	1.3	0.685	0.024	0.0168	
480 minute winter	MH 60.0	11.007	ATT 30.0	1.3	0.880	0.010	0.5412	
120 minute winter	ATT 41.0	12.000	MH 41.0	3.0	0.355	0.204	0.0914	
120 minute winter	MH 41.0	12.001	MH 40.0	3.0	0.937	0.168	0.0169	
120 minute winter	MH 40.0	12.002	ATT 30.0	3.0	1.451	0.065	0.2668	
120 minute winter	ATT 51.0	13.000	MH 51.0	3.7	0.341	0.252	0.1145	
120 minute winter	MH 51.0	13.001	MH 50.0	3.7	1.040	0.208	0.0328	
8640 minute winter	RFO 05	14.001	MH 50.0	0.1	0.225	0.005	0.0031	
120 minute winter	MH 50.0	13.002	ATT 30.0	3.7	1.844	0.064	0.1898	
600 minute winter	ATT 30.0	11.008	MH 30.0	3.3	0.159	0.030	2.7900	
600 minute winter	MH 30.0	11.009	MH 01.1	3.3	0.890	0.014	0.1304	
720 minute winter	RFO 06	15.001	MH 20.0	0.1	0.231	0.006	0.0041	
180 minute winter	ATT 21.0	16.000	MH 21.0	3.1	0.362	0.210	0.0960	

Results for 100 year Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	MH 21.0	136	69.020	0.631	3.1	0.7138	0.0000	SURCHARGED
180 minute winter	MH 20.0	140	68.326	0.043	3.2	0.0490	0.0000	OK
15 minute winter	MH 01.1	10	68.078	0.080	48.7	0.2396	0.0000	OK
15 minute winter	MH 01.0	12	67.162	0.373	48.2	0.4218	0.0000	OK
15 minute winter	HEADWALL	10	63.274	0.049	42.0	0.0000	0.0000	OK
2160 minute winter	BGR 01	2100	89.242	0.085	0.5	20.9860	0.0000	OK
1440 minute winter	BGR 02	1380	89.214	0.057	0.5	13.7361	0.0000	OK
1440 minute winter	BR 03	1380	86.063	0.064	0.5	13.6002	0.0000	OK
2160 minute winter	BGR 04	2100	86.083	0.084	0.5	21.0714	0.0000	OK
8640 minute winter	BGR 05	7980	91.333	0.080	0.3	47.6069	0.0000	OK
720 minute winter	BGR 06	705	90.439	0.059	0.9	13.0672	0.0000	OK
8640 minute winter	BGR 07	7980	89.714	0.080	0.3	47.0947	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	MH 21.0	16.001	MH 20.0	3.1	0.716	0.172	0.0131	
180 minute winter	MH 20.0	15.002	MH 01.1	3.2	0.599	0.079	0.1202	
15 minute winter	MH 01.1	11.010	MH 01.0	48.2	2.245	0.102	0.7969	
15 minute winter	MH 01.0	1.017	HEADWALL	42.0	4.078	0.019	0.1744	108.4
2160 minute winter	BGR 01	1.000	RFO 01	0.1	0.108	0.004	0.0077	
1440 minute winter	BGR 02	3.000	RFO 02	0.1	0.112	0.004	0.0029	
1440 minute winter	BR 03	4.000	RFO 03	0.1	0.099	0.004	0.0073	
2160 minute winter	BGR 04	7.000	RFO 04	0.1	0.106	0.004	0.0086	
8640 minute winter	BGR 05	14.000	RFO 05	0.1	0.117	0.004	0.0042	
720 minute winter	BGR 06	15.000	RFO 06	0.1	0.111	0.005	0.0078	
8640 minute winter	BGR 07	10.000	RFO 07	0.1	0.131	0.004	0.0021	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	ATT 14.1	336	72.408	0.751	12.7	77.6777	0.0000	SURCHARGED
360 minute winter	MH 14.1	336	72.407	0.901	2.0	1.0186	0.0000	SURCHARGED
1440 minute winter	RFO 01	1410	72.566	0.009	0.1	0.0002	0.0000	OK
360 minute winter	MH 14.0	344	71.527	0.035	2.1	0.0396	0.0000	OK
960 minute winter	RFO 02	945	72.565	0.008	0.1	0.0001	0.0000	OK
360 minute winter	MH 13.0	344	71.431	0.038	2.1	0.0431	0.0000	OK
480 minute winter	ATT 12.1	464	72.456	0.799	6.7	62.2865	0.0000	SURCHARGED
480 minute winter	MH 12.1	464	72.456	0.861	0.8	0.9740	0.0000	SURCHARGED
960 minute winter	RFO 03	945	73.315	0.008	0.1	0.0001	0.0000	OK
360 minute winter	MH 12.0	344	71.341	0.019	2.9	0.0213	0.0000	OK
2160 minute winter	ATT 11.1	2100	69.966	1.617	1.6	49.7750	0.0000	SURCHARGED
2160 minute winter	MH 11.1	2100	69.966	1.685	0.8	1.9061	0.0000	SURCHARGED
2160 minute winter	MH 11.0	2280	69.943	1.832	2.8	2.0720	0.0000	SURCHARGED
2160 minute winter	RFO 04	2280	69.943	0.294	0.3	0.0053	0.0000	SURCHARGED
2160 minute winter	MH 10.0	2280	69.943	1.875	2.8	2.1203	0.0000	SURCHARGED
2160 minute winter	ATT 09.1	2280	69.943	1.594	1.8	62.8291	0.0000	SURCHARGED
2160 minute winter	MH 09.1	2280	69.943	1.649	0.6	1.8652	0.0000	SURCHARGED
2160 minute winter	MH 09.0	2280	69.943	1.994	3.3	2.8535	0.0000	SURCHARGED
2160 minute winter	MH 08.0	2280	69.944	2.075	4.6	4.1188	0.0000	SURCHARGED
2160 minute winter	ATT 07.0	2280	69.942	2.107	4.6	210.9879	0.0000	SURCHARGED
2160 minute winter	MH 07.0	2280	69.944	2.144	1.9	3.0681	0.0000	FLOOD RISK
360 minute winter	MH 06.0	272	68.260	1.194	9.0	3.1786	0.0000	FLOOD RISK
360 minute winter	MH 05.0	272	68.260	1.209	7.9	1.7306	0.0000	FLOOD RISK
600 minute winter	ATT 04.2	585	69.886	0.737	6.9	80.7088	0.0000	SURCHARGED
600 minute winter	MH 04.2	585	69.885	0.893	0.8	1.0104	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	ATT 14.1	2.000	MH 14.1	2.0	0.379	0.136	0.1951	
360 minute winter	MH 14.1	2.001	MH 14.0	2.0	0.486	0.050	0.0096	
1440 minute winter	RFO 01	1.001	MH 14.0	0.1	0.242	0.007	0.0043	
360 minute winter	MH 14.0	1.002	MH 13.0	2.1	0.497	0.052	0.0698	
960 minute winter	RFO 02	3.001	MH 13.0	0.1	0.225	0.005	0.0034	
360 minute winter	MH 13.0	1.003	MH 12.0	2.1	0.740	0.054	0.0361	
480 minute winter	ATT 12.1	5.000	MH 12.1	0.8	0.201	0.055	0.1585	
480 minute winter	MH 12.1	5.001	MH 12.0	0.7	0.777	0.020	0.0045	
960 minute winter	RFO 03	4.001	MH 12.0	0.1	0.229	0.005	0.0045	
360 minute winter	MH 12.0	1.004	MH 11.0	2.9	1.785	0.014	0.4254	
2160 minute winter	ATT 11.1	6.000	MH 11.1	0.8	0.111	0.053	0.1729	
2160 minute winter	MH 11.1	6.001	MH 11.0	0.5	0.412	0.029	0.0349	
2160 minute winter	MH 11.0	1.005	MH 10.0	2.7	0.412	0.038	0.7273	
2160 minute winter	RFO 04	7.001	MH 10.0	0.2	0.238	0.012	0.0523	
2160 minute winter	MH 10.0	1.006	MH 09.0	2.8	0.414	0.039	0.7433	
2160 minute winter	ATT 09.1	8.000	MH 09.1	0.6	0.105	0.038	0.1407	
2160 minute winter	MH 09.1	8.001	MH 09.0	-0.5	0.460	-0.026	0.1590	
2160 minute winter	MH 09.0	1.007	MH 08.0	3.3	0.304	0.029	2.8324	
2160 minute winter	MH 08.0	1.008	ATT 07.0	4.6	0.444	0.041	1.2086	
2160 minute winter	ATT 07.0	1.009	MH 07.0	1.9	0.074	0.017	1.2389	
2160 minute winter	MH 07.0	1.010	MH 06.0	1.8	0.542	0.006	2.0297	
360 minute winter	MH 06.0	1.011	MH 05.0	7.9	0.425	0.048	0.9212	
360 minute winter	MH 05.0	1.012	MH 04.0	7.6	0.381	0.047	3.4637	
600 minute winter	ATT 04.2	9.000	MH 04.2	0.8	0.283	0.057	0.2101	
600 minute winter	MH 04.2	9.001	MH 04.1	0.7	0.526	0.018	0.0382	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	MH 04.1	585	68.841	0.011	0.7	0.0123	0.0000	OK
360 minute winter	MH 04.0	272	68.262	1.265	8.1	1.8097	0.0000	SURCHARGED
10080 minute winter	RFO 07	9600	70.053	0.009	0.1	0.0002	0.0000	OK
360 minute winter	MH 03.0	272	68.262	1.317	7.7	1.8849	0.0000	SURCHARGED
360 minute winter	ATT 02.0	272	68.262	1.424	16.9	75.9465	0.0000	SURCHARGED
360 minute winter	MH 02.0	272	68.262	1.449	6.1	2.5612	0.0000	SURCHARGED
600 minute winter	ATT 64.0	570	72.473	1.177	2.9	34.7924	0.0000	SURCHARGED
600 minute winter	MH 64.0	570	72.473	1.257	0.8	1.4221	0.0000	SURCHARGED
600 minute winter	ATT 63.0	585	72.170	1.113	3.5	32.3724	0.0000	SURCHARGED
600 minute winter	MH 63.0	585	72.170	1.211	1.2	1.3692	0.0000	SURCHARGED
480 minute winter	ATT 62.0	464	71.584	1.023	8.0	68.1670	0.0000	SURCHARGED
480 minute winter	MH 62.0	464	71.584	1.146	3.0	1.2962	0.0000	SURCHARGED
480 minute winter	MH 61.0	464	70.349	0.028	1.5	0.0319	0.0000	OK
480 minute winter	MH 60.0	464	70.249	0.017	1.5	0.0194	0.0000	OK
180 minute winter	ATT 41.0	132	71.863	1.264	13.9	35.4472	0.0000	SURCHARGED
180 minute winter	MH 41.0	132	71.858	1.295	5.4	1.4648	0.0000	SURCHARGED
180 minute winter	MH 40.0	132	70.543	0.032	4.5	0.0360	0.0000	OK
180 minute winter	ATT 51.0	132	72.057	1.111	15.6	38.6058	0.0000	SURCHARGED
180 minute winter	MH 51.0	132	72.050	1.149	5.7	1.2994	0.0000	SURCHARGED
10080 minute winter	RFO 05	9600	71.408	0.009	0.1	0.0002	0.0000	OK
180 minute winter	MH 50.0	132	70.842	0.031	5.3	0.0345	0.0000	OK
720 minute winter	ATT 30.0	750	69.585	1.085	11.3	173.2198	0.0000	SURCHARGED
720 minute winter	MH 30.0	750	69.584	1.162	3.9	1.6635	0.0000	SURCHARGED
960 minute winter	RFO 06	915	70.739	0.009	0.1	0.0002	0.0000	OK
180 minute winter	ATT 21.0	140	69.317	0.890	15.6	42.6325	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	MH 04.1	9.002	MH 04.0	0.7	0.884	0.004	0.3391	
360 minute winter	MH 04.0	1.013	MH 03.0	7.7	0.365	0.048	3.3563	
10080 minute winter	RFO 07	10.001	MH 03.0	0.1	0.240	0.006	0.0022	
360 minute winter	MH 03.0	1.014	ATT 02.0	7.4	0.406	0.046	2.0509	
360 minute winter	ATT 02.0	1.015	MH 02.0	6.1	0.204	0.028	2.5915	
360 minute winter	MH 02.0	1.016	MH 01.0	5.5	0.157	0.025	0.7742	
600 minute winter	ATT 64.0	11.000	MH 64.0	0.8	0.132	0.052	0.2044	
600 minute winter	MH 64.0	11.001	ATT 63.0	0.4	0.150	0.023	0.2817	
600 minute winter	ATT 63.0	11.002	MH 63.0	1.2	0.216	0.068	0.1726	
600 minute winter	MH 63.0	11.003	ATT 62.0	0.7	0.398	0.037	0.5721	
480 minute winter	ATT 62.0	11.004	MH 62.0	3.0	0.197	0.058	0.4914	
480 minute winter	MH 62.0	11.005	MH 61.0	1.5	0.547	0.029	0.0320	
480 minute winter	MH 61.0	11.006	MH 60.0	1.5	0.720	0.029	0.0188	
480 minute winter	MH 60.0	11.007	ATT 30.0	1.5	0.882	0.012	0.5431	
180 minute winter	ATT 41.0	12.000	MH 41.0	5.4	0.326	0.364	0.0914	
180 minute winter	MH 41.0	12.001	MH 40.0	4.5	1.052	0.253	0.0226	
180 minute winter	MH 40.0	12.002	ATT 30.0	4.5	1.447	0.098	0.2775	
180 minute winter	ATT 51.0	13.000	MH 51.0	5.7	0.325	0.388	0.1145	
180 minute winter	MH 51.0	13.001	MH 50.0	5.2	1.146	0.294	0.0420	
10080 minute winter	RFO 05	14.001	MH 50.0	0.1	0.239	0.006	0.0035	
180 minute winter	MH 50.0	13.002	ATT 30.0	5.3	1.839	0.090	0.1965	
720 minute winter	ATT 30.0	11.008	MH 30.0	3.9	0.159	0.035	2.7900	
720 minute winter	MH 30.0	11.009	MH 01.1	3.9	0.936	0.016	0.1481	
960 minute winter	RFO 06	15.001	MH 20.0	0.1	0.248	0.007	0.0048	
180 minute winter	ATT 21.0	16.000	MH 21.0	3.8	0.331	0.257	0.0960	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	MH 21.0	140	69.314	0.925	3.8	1.0459	0.0000	SURCHARGED
180 minute winter	MH 20.0	140	68.331	0.048	3.9	0.0542	0.0000	OK
15 minute winter	MH 01.1	10	68.093	0.095	68.1	0.2837	0.0000	OK
15 minute winter	MH 01.0	13	67.974	1.185	67.6	1.3400	0.0000	SURCHARGED
30 minute summer	HEADWALL	16	63.274	0.049	42.0	0.0000	0.0000	OK
1440 minute winter	BGR 01	1410	89.278	0.121	1.0	29.8919	0.0000	OK
960 minute winter	BGR 02	945	89.238	0.081	0.9	19.3271	0.0000	OK
960 minute winter	BR 03	945	86.090	0.091	0.9	19.1989	0.0000	OK
1440 minute winter	BGR 04	1410	86.118	0.119	1.0	29.9590	0.0000	OK
10080 minute winter	BGR 05	9600	91.364	0.111	0.4	65.8904	0.0000	OK
960 minute winter	BGR 06	900	90.464	0.084	0.9	18.5120	0.0000	OK
10080 minute winter	BGR 07	9600	89.745	0.111	0.4	65.2566	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute winter	MH 21.0	16.001	MH 20.0	3.8	0.754	0.210	0.0152	
180 minute winter	MH 20.0	15.002	MH 01.1	3.9	0.635	0.097	0.1387	
15 minute winter	MH 01.1	11.010	MH 01.0	67.6	2.262	0.143	1.2599	
15 minute winter	MH 01.0	1.017	HEADWALL	42.0	4.078	0.019	0.1744	134.7
1440 minute winter	BGR 01	1.000	RFO 01	0.1	0.117	0.005	0.0087	
960 minute winter	BGR 02	3.000	RFO 02	0.1	0.122	0.004	0.0032	
960 minute winter	BR 03	4.000	RFO 03	0.1	0.109	0.005	0.0083	
1440 minute winter	BGR 04	7.000	RFO 04	0.1	0.115	0.005	0.0097	
10080 minute winter	BGR 05	14.000	RFO 05	0.1	0.127	0.005	0.0047	
960 minute winter	BGR 06	15.000	RFO 06	0.1	0.121	0.006	0.0089	
10080 minute winter	BGR 07	10.000	RFO 07	0.1	0.141	0.005	0.0023	