ARDENT
CONSULTING ENGINEERS
AN EMPLOYEE OWNED COMPANY

Our Ref: CC/2205771

Mat Jackson
West Sussex County Council
Ground Floor
Northleigh
County Hall
Chichester
PO19 1RH

13th November 2024

Dear Mat,

F/15/24/RES & F/14/24/RES – Land at Ford Airfield, Ford, West Sussex

Thank you for your comments on the above applications. We held extensive pre-application discussions with the LLFA and the proposals put forward followed the principles of what was agreed through this process as well as according with the approved outline strategy. We would welcome a meeting to discuss the proposals further to assist with overcoming your concerns.

Below we have provided our responses to each of the LLFA's comments, with the comments replicated above for ease.

1. Infiltration testing (in accordance with BRE 365) is required in those locations where groundwater has been found to be sufficiently deep, such that a 1m buffer below the base of infiltration structures is achievable. Where infiltration is found to be viable, it should be used in accordance with the drainage hierarchy. This should then be reflected in updated drainage calculations. Further refined and site-specific groundwater monitoring is required to inform the design in these areas.

Ardent CE Response
Out of the 32 groundwater test locations, 23 (72%) of the locations show groundwater being within 1.5m of ground levels (including min. 500mm typical buildup for permeable paving and 1m buffer). Therefore, this indicates the groundwater across the site is too shallow for effective surface water infiltration. It is considered the minor number of locations which have a deeper groundwater level are outliers. Best practice is to take the worst-case value in terms of groundwater, to reduce the risks of groundwater flooding and buoyancy.

Extensive discussions were undertaken with the LLFA in relation to the groundwater monitoring and infiltration test and the LLFA sent a pre-app response dated 19th July 2024 which stated "*The amount of groundwater monitoring and infiltration testing is satisfactory for this site and demonstrates high groundwater levels and limited infiltration potential.*" This letter is enclosed. The request for further testing is therefore considered to be unwarranted given the LLFA's original pre-application response.

2. The high groundwater levels will also need to be considered in detailed design of attenuation structures. 1m buffer (finished level and water level)

Ardent CE Response
Please refer to response to Point 1. The detailed design will give consideration to the groundwater level and SuDS features will be appropriately lined where required.

3. Qbar rate is 2.42 l/s/ha. Currently discharging over greenfield runoff rate, flood risk could increase elsewhere. Rates must only account for impermeable areas which will drain off-site.

Ardent CE Response
The discharge rates were calculated based on the developable areas of the site which is appropriate for this type of

development. However, the discharge rate from the northern part of the site will be reduced due to the existing outfall pipe size meaning the discharge rate will be below existing greenfield rates (circa 13l/s).

We will update our drawings to the new extents of the basin.

4. Northern pond section is shown to be discharging c20l/s above Qbar at 70l/s? This infers potential flood risk. This must be reduced to actual Qbar.

Ardent CE Response
Please refer to response to Point 3.

5. Details of any additional attenuation features required within parcels should seek to act as source control where feasible.

Ardent CE Response
The design submitted in accordance with the outline site-wide strategy. There is minimal space within developable areas to provide attenuation features, however rainwater butts are proposed to be included within every residential property.

6. Calculations showing 50% AEP rainfall event have shown no surcharge in the drainage network, also the 3.33% AEP rainfall event plus climate change does not flood outside the drainage network. These will require updating as necessary. Any areas which are shown to hold water should be clearly shown on plans.

Ardent CE Response
Please find enclosed Causeway Flow calculations for the 50% and 3.33% AEP events showing no surcharge and no flooding respectively for the northern part of the site. Similar calculations will be provided for the southern part of the site

7. Easements 3m from the top of the bank on both sides of any watercourses and the basins are required for maintenance access. Off road parking for maintenance vehicles is also required. Updated plans should reflect these requirements and be sufficiently and clearly annotated.

Ardent CE Response
This is provided as annotated on applicable plans as hashed lines around each drainage feature - we will ensure this is made clearer by adding a note(s) to the plan. Parking for maintenance vehicles is available within the maintenance strip which is more practical for access and vegetation removal.

8. There is potential for the development to be phased, therefore we suggest consideration is given to the requirement of a SuDS implementation plan to reflect how areas may drain independently in advance of further phases coming forward.

Ardent CE Response
The SuDS basins will be constructed at the outset of the construction phase to manage runoff from the development. Due to the relatively low discharge rates, staged phasing of the discharge rate is not considered to be necessary. However, initially an orifice plate with a rate of 50% of the proposed discharge rate will be installed in prior to final outfall and this will be upgraded to a hydrobrake with the final discharge rate on completion of 50% of the development.

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We trust the above is satisfactory and we look forward to hearing back from you.

Yours sincerely,

Charlie Cooper

Charlie Cooper
Associate Director

Encl Letter - Ford Airfield Pre-app Meeting 2 comments – 19th July 2024
Causeway Flow calculations for Northern part of the development

Ground Floor
Northleigh
County Hall
Chichester
West Sussex
PO19 1RH

Lead Local Flood Authority

Gardiner Hanson
Tor and Co

Date 19th July 2024

Dear Gardiner,

RE: **Ford Airfield Pre-app Meeting 2 comments**

Thank you for using the Flood Risk Management pre-application advise service. Following the second meeting and a review of the documents we have the following comments to make:

1. In the outline planning application, the Qbar rate was calculated to be 1.14 l/s/ha. The proposed discharge rates do not match Qbar. It is noted this is a very low rate, however if discharging at over greenfield runoff rate, flood risk could increase elsewhere, which is against policy.

2. As stated on previous pre-app comments, a Cv value of 1 must be used for summer and winter events. The rainfall being used isn't consistent currently. FEH 2022 rainfall is required (we are aware some software has issues with FEH 2022).

3. The amount of groundwater monitoring and infiltration testing is satisfactory for this site and demonstrates high groundwater levels and limited infiltration potential. The high groundwater levels will need to be considered in detailed design of the basins.

4. Calculations to show 50% AEP rainfall event does not surcharge in the drainage network and 3.33% AEP rainfall event plus climate change does not flood outside the drainage network which is designed to hold water.

5. Calculations for surcharged outfall to watercourses are required. This surcharge level must be the 1% AEP flood event of the receiving watercourse if known or bank full if not already hydraulically modelled.

6. Basins should be designed using Ciria SuDS Manual. 1.8m is too deep for safety reasons. Fencing should be avoided as much as possible to enhance multifunctional benefits of SuDS.

7. While I have reviewed the phasing plan, a phasing plan for the delivery of the drainage basins is required. We need to ensure the site is only discharging for the impermeable area that has been built. This will involve changing flow controls through the construction of the development but is essential to not increase flood risk elsewhere.

8. Evidence of third party agreement for discharge into their land/system is required for the outfalls outside the red line boundary (these don't need to be submitted when the application is submitted, we just need to see them so that there is not issues later on).

9. Easements 3m from top of bank of both sides of watercourses and the basins is required for maintenance access. Off road parking for maintenance vehicles is required.

10. Water quality-is assessment of water quality being submitted as part of later applications?

11. As mentioned previously, open source, above ground SuDS should be prioritised in the design of the development, instead of reliance on underground pipes and end of pipe design, as source control means water is dealt with where it falls. Although swales are included in the indicative drainage layout, it is unclear how these will connect to the wider drainage system. Once the layout is set it is very difficult to make any changes to the drainage layout, therefore we require more detail on where source control SuDS will be used.

12. Urban creep-it is unclear whether 10% urban creep has been included in the volume of SuDS storage required.

13. Cross sections and long sections of the network and structures such as basins and swales will need to be submitted.

For the adoption queries, if it's draining the highway it will need to be in accordance with highways adoption standards Adoptable Highway Drainage and Sustainable Drainage Systems: Guidance for Developers (westsussex.gov.uk) (Lee Moses can cover this in more detail as it's not within our remit of work). We are still awaiting confirmation of Schedule 3 of Flood and Water Management Act, therefore currently do not adopt SuDS which drain anything other than the highway.

Yours sincerely,

Eleanor Read
Flood Risk Management Team
[redacted]

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.600
CV	0.750	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
Spur 15	0.400	5.00	7.173		499164.586	103023.093	2.508
118	0.032	5.00	7.541	1800	499188.752	103024.235	2.975
117	0.032	5.00	7.315	1800	499187.599	103047.409	2.977
Spur 14	0.200	5.00	7.087		499165.533	103045.387	2.107
Spur 13	1.333	5.00	7.117		499193.793	103066.286	3.223
116	0.032	5.00	7.342	1350	499183.155	103058.841	3.475
Spur 12	0.680	5.00	7.284	1500	499174.824	103128.322	2.094
115	0.032	5.00	7.755	1500	499146.892	103107.110	3.991
114	0.032	5.00	8.139		499121.420	103136.922	4.438
Spur 10	0.070	5.00	7.500	1200	499036.026	103232.241	2.210
112	0.092	5.00	7.435	1350	499025.262	103224.277	2.449
111	0.032	5.00	7.769	1500	499066.916	103165.138	3.041
110	0.032	5.00	7.946	1500	499078.887	103155.603	4.230
109	0.032	5.00	8.278	2400	499105.673	103145.808	4.610
108	0.154	5.00	7.716		499120.090	103184.372	4.117
Dummy 3	0.358	5.00	7.634	1350	499093.327	103251.235	1.825
107			7.599	1650	499132.076	103198.867	4.031
106	0.154	5.00	7.432		499187.378	103239.787	3.979
105	0.153	5.00	7.079	1650	499200.526	103258.248	3.914
104			7.104		499204.642	103275.264	3.968
103			7.115		499201.237	103294.206	4.011
Spur 9	0.870	5.00	7.206		499179.282	103319.213	2.976
125			7.152	1650	499190.712	103324.270	4.101
102			7.101		499174.819	103369.669	4.130
101			7.134	1650	499153.806	103402.537	4.301
100			7.112		499127.380	103481.093	4.417
71			7.000	1650	499126.658	103497.388	4.332
Spur Optional		5.00	7.251		498968.816	103274.239	2.841
Spur 8	0.140	5.00	7.586		498993.572	103285.027	1.816
97	0.032	5.00	7.597	1500	498982.590	103284.136	3.465
96	0.032	5.00	7.552	1500	498969.293	103304.802	3.463
95	0.032	5.00	7.624	1500	498953.136	103341.169	3.604
Spur 6	2.880	5.00	7.245		498894.169	103388.913	3.268
28			7.622	1350	498921.794	103398.593	4.294
27	0.032	5.00	7.906	1350	498935.528	103402.365	4.603
26			7.844		498946.292	103405.352	4.559
25			7.691		498972.385	103412.939	4.451
Spur 7	1.170	5.00	7.658		499009.327	103417.714	3.138
24			7.719	1350	499006.799	103424.533	4.540
23			7.524	1350	499027.499	103433.612	4.383
Spur 44	0.185	5.00	7.546		499010.106	103455.721	1.976
Spur 16	0.785	5.00	7.312		499017.003	103466.949	2.847
22			7.353	1350	499019.683	103458.627	4.255
21			7.112	1650	499041.587	103466.614	4.297
Spur 45		5.00	7.086		499074.236	103484.375	1.736
20			7.041	1650	499075.573	103481.414	4.294
Spur 17	1.400	5.00	7.040		499122.909	103508.072	3.725
19			6.916	2550	499125.128	103502.995	4.259
Spur 18	0.200	5.00	6.733		499193.225	103543.287	1.858

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
18			6.758	1650	499196.872	103534.239	4.231
Spur 19	0.130	5.00	6.376		499243.526	103560.773	1.826
17			6.477	1650	499251.889	103558.198	4.040
16			6.169	1650	499267.304	103569.464	3.773
15			6.000	1650	499285.719	103565.600	3.632
14			6.500	1650	499294.729	103600.037	4.197
13			6.500	1650	499343.505	103598.872	4.278
12			6.500	2550	499352.070	103579.988	4.913
11			6.500	1200	499338.247	103550.897	2.211
10			6.587	1200	499336.790	103510.925	2.365
9			6.000		499349.716	103509.298	1.800
Spur 5	0.220	5.00	7.826		498910.933	103428.634	3.336
64	0.032	5.00	8.234	1500	498927.366	103433.036	4.039
Spur 4	0.500	5.00	8.104		498900.916	103492.081	3.934
63	0.032	5.00	8.089	1500	498913.184	103494.634	4.196
62	0.032	5.00	8.057	1500	498908.282	103545.488	4.268
Spur 3	0.500	5.00	7.036		498889.808	103598.946	2.866
61	0.032	5.00	7.397	1800	498907.572	103598.514	4.091
60	0.032	5.00	7.299	1800	498913.758	103660.138	4.096
Spur 1	0.700	5.00	7.133		498908.537	103846.451	3.203
66	0.032	5.00	7.987	1500	498938.961	103841.660	4.377
65	0.032	5.00	7.725	1500	498933.257	103793.220	4.199
Spur 2	0.750	5.00	7.139		498891.533	103725.473	3.189
59	0.032	5.00	7.560	1200	498926.114	103719.980	4.610
Spur 43	0.220	5.00	7.116		498948.935	103749.182	2.266
58	0.026	5.00	7.120	1200	498943.987	103716.688	4.200
Spur 24	0.090	5.00	7.221		498959.039	103705.067	3.377
J58			7.248	1200	498960.608	103713.649	4.356
Spur 42	0.220	5.00	7.296		499001.728	103719.893	2.366
Spur 20	0.240	5.00	7.286		498996.776	103697.869	2.446
57	0.026	5.00	7.306	1200	498999.573	103706.526	4.480
Spur 41	0.130	5.00	7.164		499051.249	103703.706	2.314
56	0.026	5.00	7.267	1200	499046.438	103691.389	4.523
Spur 25	0.130	5.00	7.297		499055.732	103678.368	3.629
J56			7.281	1200	499059.056	103685.542	4.560
Spur 21	0.290	5.00	7.233		499094.722	103655.229	2.713
55	0.026	5.00	7.297	1200	499100.331	103666.418	4.652
Spur 40	0.084	5.00	7.124		499134.834	103667.231	3.398
J55			7.047	1200	499128.537	103653.491	4.447
Spur 26	0.080	5.00	6.926		499132.608	103640.948	1.956
54	0.026	5.00	6.980	1200	499136.771	103649.717	4.394
Spur 22	0.240	5.00	6.282		499183.432	103614.977	1.842
53	0.026	5.00	6.234	1200	499187.411	103625.677	3.741
Spur 23	0.270	5.00	5.827		499234.287	103612.717	1.857
52	0.026	5.00	6.082	1200	499202.428	103621.401	3.615
51			6.121	1200	499214.996	103663.067	3.727
S278 Storage		5.00	6.275		498944.914	103902.661	2.241
S278 S6	0.230	5.00	6.835	1200	498943.518	103896.688	2.920
S278 S7			6.632	1200	498943.736	103885.262	2.784
S278 S8	0.032	5.00	7.512	1200	498942.580	103857.365	3.829
50	0.032	5.00	7.958	1200	498941.003	103834.844	4.557
Spur 35	0.073	5.00	7.276		498958.160	103821.285	1.826
Spur 27	0.200	5.00	7.089		498958.467	103842.641	2.649
49	0.020	5.00	7.249	1500	498959.687	103832.016	4.123
48	0.020	5.00	7.125	1500	498986.755	103827.919	4.067
Spur 36	0.200	5.00	6.961		499032.631	103805.011	2.081
Spur 28	0.250	5.00	6.997		499038.491	103820.252	2.037
47	0.020	5.00	6.968	1800	499036.213	103812.440	4.190
Spur 29	0.080	5.00	6.964		499072.717	103807.019	1.714

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
Spur 37	0.053	5.00	6.965		499064.291	103790.266	1.715
46	0.020	5.00	6.971	1800	499067.863	103797.176	4.281
Spur 38	0.150	5.00	7.072		499081.533	103778.710	2.152
45	0.020	5.00	7.094	1800	499086.445	103787.304	4.447
Spur 30	0.330	5.00	7.156		499100.526	103788.106	2.286
44	0.020	5.00	7.147	1800	499097.272	103781.925	4.525
Spur 31	0.070	5.00	7.097		499131.319	103765.768	1.847
43	0.020	5.00	7.124	1800	499126.809	103760.369	4.565
Spur 32	0.390	5.00	7.028		499160.591	103744.016	2.608
42	0.020	5.00	7.040	1800	499154.758	103737.580	4.543
Spur 39	0.250	5.00	7.033		499157.847	103725.251	2.003
41	0.020	5.00	7.013	1800	499162.698	103730.384	4.534
40	0.020	5.00	6.676	1800	499192.740	103705.167	4.262
Spur 33	0.360	5.00	6.502		499211.270	103699.873	2.392
39			6.493	1800	499208.109	103694.685	4.110
38			6.252	2250	499222.731	103685.776	3.898
37			5.828		499242.291	103680.152	3.508
36			4.915		499273.246	103674.875	2.647
Spur 34	0.270	5.00	4.740		499297.248	103683.454	1.624
35			4.609	1500	499297.060	103673.594	2.381
34			5.686	1500	499295.033	103608.199	3.567
33			5.362	1500	499330.361	103607.573	3.302
32			3.800	1500	499358.186	103685.419	1.878
31			3.800		499367.266	103695.131	1.900
8		5.00	6.000		499358.712	103556.598	1.900
7			6.000	2550	499361.760	103577.090	4.430
6			3.800	1350	499382.829	103647.539	1.860
5			3.800		499386.956	103659.733	1.900
4		5.00	3.800		499438.229	103757.672	2.100
3			3.800	1800	499432.495	103768.320	2.120
2			3.446	1200	499409.929	103808.231	2.036
Ex Outfall			2.140	1200	499411.839	103817.234	0.840
Ex Ditch			2.300		499412.938	103825.150	1.047
126			7.269		499029.034	103461.147	4.181
127			7.991		499131.310	103127.150	4.252

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Detailed	Additional Storage (m³/ha)	35.0
Summer CV	0.750	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	0.840	Drain Down Time (mins)	240	Check Discharge Volume	x

Storm Durations

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

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

Node 3 Online Hydro-Brake® Control

Flap Valve	✓	Objective	(HE) Minimise upstream storage
Downstream Link	51.001	Sump Available	✓
Replaces Downstream Link	✓	Product Number	CTL-SHE-0154-1330-1820-1330
Invert Level (m)	1.680	Min Outlet Diameter (m)	0.225
Design Depth (m)	1.820	Min Node Diameter (mm)	1500
Design Flow (l/s)	13.3		

Node 7 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	49.001	Sump Available	✓
Replaces Downstream Link	✓	Product Number	CTL-SHE-0129-1330-3830-1330
Invert Level (m)	2.170	Min Outlet Diameter (m)	0.150
Design Depth (m)	3.830	Min Node Diameter (mm)	1500
Design Flow (l/s)	13.3		

Node S278 S7 Online Hydro-Brake® Control

Flap Valve	✓	Objective	(HE) Minimise upstream storage
Downstream Link	35.002	Sump Available	✓
Replaces Downstream Link	✓	Product Number	CTL-SHE-0094-4000-1037-4000
Invert Level (m)	3.848	Min Outlet Diameter (m)	0.150
Design Depth (m)	1.037	Min Node Diameter (mm)	1200
Design Flow (l/s)	4.0		

Node 4 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	104.045
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	1.700	Main Channel Slope (1:X)	500.0
Safety Factor	2.0	Time to half empty (mins)		Main Channel n	0.030

Inlets

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Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	615.7	0.0	0.300	6490.6	0.0	1.300	8081.0	0.0	2.100	9337.0	0.0
0.299	620.0	0.0	0.800	7312.0	0.0	1.800	8865.3	0.0			

Node 8 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	63.936
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	4.100	Main Channel Slope (1:X)	500.0
Safety Factor	2.0	Time to half empty (mins)		Main Channel n	0.035

Inlets

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Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	346.7	0.0	0.099	346.7	0.0	0.100	5421.2	0.0	1.900	8141.3	0.0

Node S278 Storage Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	4.034
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	182.0	0.0	0.800	182.0	0.0	0.801	0.0	0.0

Results for 2 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	Spur 15	10	4.866	0.201	59.3	1.1215	0.0000	OK
15 minute winter	118	11	4.724	0.158	62.9	0.4602	0.0000	OK
15 minute winter	117	11	4.512	0.174	67.4	0.5070	0.0000	OK
15 minute winter	Spur 14	10	5.126	0.146	29.7	0.4848	0.0000	OK
10080 minute winter	Spur 13	7320	4.483	0.589	3.6	8.5266	0.0000	SURCHARGED
10080 minute winter	116	7320	4.483	0.616	5.5	1.0805	0.0000	OK
15 minute winter	Spur 12	10	5.334	0.144	100.8	1.8910	0.0000	OK
10080 minute winter	115	7320	4.483	0.719	7.1	1.4723	0.0000	OK
10080 minute winter	114	7320	4.483	0.782	7.0	0.1971	0.0000	OK
15 minute winter	Spur 10	10	5.371	0.081	10.4	0.1824	0.0000	OK
15 minute winter	112	11	5.100	0.114	23.8	0.3136	0.0000	OK
15 minute winter	111	11	4.848	0.120	26.3	0.2564	0.0000	OK
10080 minute winter	110	7320	4.483	0.767	1.8	1.5585	0.0000	OK
10080 minute winter	109	7320	4.483	0.815	7.8	3.8850	0.0000	OK
10080 minute winter	108	7320	4.483	0.884	8.1	1.1572	0.0000	OK
15 minute winter	Dummy 3	11	5.986	0.177	53.1	1.4711	0.0000	OK
10080 minute winter	107	7320	4.483	0.915	10.4	1.9563	0.0000	OK
10080 minute winter	106	7320	4.483	1.030	8.9	1.3956	0.0000	OK
10080 minute winter	105	7320	4.483	1.318	23.2	4.6207	0.0000	OK
10080 minute winter	104	7320	4.483	1.347	22.0	0.0000	0.0000	OK
10080 minute winter	103	7320	4.483	1.379	17.0	0.0000	0.0000	OK
15 minute winter	Spur 9	10	4.515	0.285	128.9	2.9152	0.0000	OK
10080 minute winter	125	7320	4.483	1.432	16.3	3.0615	0.0000	OK
10080 minute winter	102	7320	4.483	1.512	12.2	0.0000	0.0000	OK
10080 minute winter	101	7320	4.483	1.650	9.8	3.5278	0.0000	SURCHARGED
10080 minute winter	100	7320	4.483	1.788	29.0	0.0000	0.0000	SURCHARGED
10080 minute winter	71	7320	4.483	1.815	23.2	3.8806	0.0000	SURCHARGED
10080 minute winter	Spur Optional	7320	4.484	0.074	0.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	Spur 15	1.000	118	58.2	1.327	0.822	1.0580	
15 minute winter	118	1.001	117	62.9	1.015	0.086	1.4389	
15 minute winter	117	1.002	116	67.8	0.890	0.085	0.9362	
15 minute winter	Spur 14	2.000	116	28.8	1.089	0.723	0.5899	
10080 minute winter	Spur 13	3.000	116	3.6	0.368	0.016	2.8050	
10080 minute winter	116	1.003	115	5.2	0.282	0.002	42.4001	
15 minute winter	Spur 12	4.000	115	98.4	1.984	0.117	1.7445	
10080 minute winter	115	1.004	127	6.9	0.348	0.004	20.0277	
10080 minute winter	114	1.006_1	109	7.0	0.374	0.002	17.2276	
15 minute winter	Spur 10	6.000	112	10.2	0.817	0.255	0.1668	
15 minute winter	112	5.001	111	21.8	0.763	0.135	2.0887	
15 minute winter	111	5.002	110	26.0	0.773	0.110	0.5162	
10080 minute winter	110	6.003	109	1.4	0.063	0.000	26.8555	
10080 minute winter	109	1.006	108	7.7	0.376	0.002	42.3479	
10080 minute winter	108	1.007	107	9.5	0.381	0.003	20.7362	
15 minute winter	Dummy 3	6.000_1	107	50.0	0.950	0.314	3.4388	
10080 minute winter	107	1.008	106	8.5	0.447	0.002	89.8428	
10080 minute winter	106	1.009	105	22.8	0.783	0.003	34.1306	
10080 minute winter	105	1.010	104	22.0	0.376	0.006	32.2805	
10080 minute winter	104	1.011	103	17.0	0.380	0.004	36.2350	
10080 minute winter	103	1.012	125	10.0	0.353	0.003	61.5881	
15 minute winter	Spur 9	7.000	125	126.5	1.292	0.791	1.2227	
10080 minute winter	125	1.013	102	12.2	0.416	0.003	96.4406	
10080 minute winter	102	1.014	101	9.8	0.412	0.002	81.4225	
10080 minute winter	101	1.015	100	10.4	0.344	0.003	176.4882	
10080 minute winter	100	1.016	71	23.2	0.275	0.006	34.7454	
10080 minute winter	71	1.018	19	19.0	0.204	0.005	12.3806	
10080 minute winter	Spur Optional	9.000	97	-0.2	-0.010	-0.002	0.4045	

Results for 2 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	Spur 8	10	5.889	0.119	20.8	0.3201	0.0000	OK
10080 minute winter	97	7320	4.483	0.351	0.5	0.7331	0.0000	OK
10080 minute winter	96	7320	4.483	0.394	0.6	0.8232	0.0000	OK
10080 minute winter	95	7320	4.483	0.463	0.7	0.9624	0.0000	OK
10080 minute winter	Spur 6	7320	4.483	0.506	7.9	15.5966	0.0000	OK
10080 minute winter	28	7260	4.483	1.155	7.7	1.6531	0.0000	OK
10080 minute winter	27	7320	4.483	1.180	8.6	1.9769	0.0000	OK
10080 minute winter	26	7320	4.483	1.198	9.0	0.0000	0.0000	OK
10080 minute winter	25	7380	4.483	1.243	9.1	0.0000	0.0000	OK
15 minute winter	Spur 7	10	4.722	0.202	173.4	2.6321	0.0000	OK
10080 minute winter	24	7320	4.483	1.304	10.5	1.8663	0.0000	OK
10080 minute winter	23	7260	4.483	1.342	10.5	1.9206	0.0000	OK
15 minute winter	Spur 44	10	5.712	0.142	27.4	0.4645	0.0000	OK
15 minute winter	Spur 16	10	4.641	0.176	116.4	1.7002	0.0000	OK
10080 minute winter	22	7260	4.483	1.385	13.5	1.9820	0.0000	SURCHARGED
10080 minute winter	21	7260	4.483	1.668	13.5	3.5662	0.0000	SURCHARGED
15 minute summer	Spur 45	1	5.350	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	20	7320	4.483	1.736	13.4	3.7116	0.0000	SURCHARGED
10080 minute winter	Spur 17	7320	4.483	1.168	37.5	15.3651	0.0000	SURCHARGED
10080 minute winter	19	7320	4.483	1.826	53.7	9.3257	0.0000	SURCHARGED
15 minute winter	Spur 18	10	5.024	0.149	29.7	0.5627	0.0000	OK
10080 minute winter	18	7380	4.483	1.956	25.8	4.1826	0.0000	SURCHARGED
15 minute winter	Spur 19	10	4.620	0.070	19.3	0.1735	0.0000	OK
10080 minute winter	17	7380	4.483	2.046	26.1	4.3753	0.0000	SURCHARGED
10080 minute winter	16	7380	4.483	2.087	26.1	4.4629	0.0000	SURCHARGED
10080 minute winter	15	7380	4.483	2.115	26.1	4.5227	0.0000	SURCHARGED
10080 minute winter	14	7380	4.483	2.180	26.1	4.6613	0.0000	SURCHARGED
10080 minute winter	13	7320	4.483	2.261	26.1	4.8342	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)
15 minute winter	Spur 8	10.000	97	20.4	0.992	0.513	0.2268	
10080 minute winter	97	8.001	96	0.5	0.186	0.002	4.5100	
10080 minute winter	96	8.002	95	0.6	0.232	0.002	8.5445	
10080 minute winter	95	8.003	27	0.7	0.102	0.001	16.4013	
10080 minute winter	Spur 6	10.000_1	28	7.7	0.497	0.015	9.7375	
10080 minute winter	28	10.001	27	7.8	0.341	0.003	18.6771	
10080 minute winter	27	8.004	26	9.0	0.371	0.004	14.8644	
10080 minute winter	26	9.005	25	9.1	0.374	0.004	36.8566	
10080 minute winter	25	8.006	24	7.4	0.328	0.003	50.5832	
15 minute winter	Spur 7	11.000	24	171.2	3.739	0.623	0.3326	
10080 minute winter	24	8.007	23	10.5	0.394	0.004	32.0530	
10080 minute winter	23	8.008	22	10.9	0.338	0.005	37.3517	
15 minute winter	Spur 44	12.000	22	26.9	1.055	0.675	0.2550	
15 minute winter	Spur 16	13.000	22	114.9	2.876	0.541	0.3494	
10080 minute winter	22	8.009	126	13.1	0.377	0.007	13.8107	
10080 minute winter	21	8.011	20	13.4	0.371	0.003	78.9611	
15 minute summer	Spur 45	14.000	20	0.0	0.000	0.000	0.0000	
10080 minute winter	20	8.012	19	12.8	0.269	0.003	115.1365	
10080 minute winter	Spur 17	15.000	19	-34.5	-0.312	-0.031	0.8779	
10080 minute winter	19	1.019	18	25.3	0.423	0.006	166.6912	
15 minute winter	Spur 18	16.000	18	29.1	1.076	0.727	0.2637	
10080 minute winter	18	1.020	17	25.8	0.400	0.007	127.8281	
15 minute winter	Spur 19	17.000	17	19.1	2.467	0.404	0.0679	
10080 minute winter	17	1.021	16	26.1	0.399	0.006	40.6716	
10080 minute winter	16	1.022	15	26.1	0.380	0.007	40.0815	
10080 minute winter	15	1.023_1	14	26.1	0.369	0.006	75.8260	
10080 minute winter	14	1.023	13	26.1	0.307	0.007	103.9317	
10080 minute winter	13	1.024	12	26.1	0.191	0.007	44.1715	

Results for 2 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	12	7320	4.483	2.296	26.1	11.7260	0.0000	SURCHARGED
10080 minute winter	11	7320	4.483	0.194	1.3	0.2194	0.0000	OK
10080 minute winter	10	7320	4.483	0.261	1.3	0.2951	0.0000	OK
10080 minute winter	9	7320	4.483	0.283	7.9	0.0000	0.0000	OK
15 minute winter	Spur 5	10	4.635	0.145	32.6	0.3351	0.0000	OK
15 minute winter	64	11	4.310	0.115	36.7	0.2343	0.0000	OK
15 minute winter	Spur 4	10	4.415	0.245	74.1	1.0892	0.0000	OK
15 minute winter	63	11	4.169	0.276	112.8	0.5609	0.0000	OK
15 minute winter	62	12	4.060	0.271	115.4	0.5495	0.0000	OK
15 minute winter	Spur 3	10	4.335	0.165	74.1	1.0060	0.0000	OK
15 minute winter	61	12	3.602	0.296	178.3	0.8347	0.0000	OK
15 minute winter	60	13	3.505	0.302	182.9	0.8514	0.0000	OK
15 minute winter	Spur 1	10	4.205	0.275	103.8	2.1051	0.0000	OK
15 minute winter	66	11	3.871	0.261	105.4	0.5274	0.0000	OK
15 minute winter	65	12	3.781	0.255	110.4	0.5190	0.0000	OK
15 minute winter	Spur 2	11	4.211	0.261	111.2	2.1483	0.0000	OK
15 minute winter	59	13	3.436	0.486	376.5	0.6671	0.0000	OK
15 minute winter	Spur 43	10	5.004	0.154	32.6	0.5221	0.0000	OK
15 minute winter	58	13	3.401	0.481	397.0	0.6484	0.0000	OK
15 minute winter	Spur 24	10	3.936	0.092	13.3	0.0860	0.0000	OK
15 minute winter	J58	13	3.363	0.471	400.3	0.5327	0.0000	OK
15 minute winter	Spur 42	10	5.089	0.159	32.6	0.5173	0.0000	OK
15 minute winter	Spur 20	10	5.011	0.171	35.6	0.5873	0.0000	OK
15 minute winter	57	13	3.316	0.490	446.3	0.6534	0.0000	OK
15 minute winter	Spur 41	10	4.963	0.113	19.3	0.2221	0.0000	OK
15 minute winter	56	14	3.264	0.520	453.5	0.6932	0.0000	OK
15 minute winter	Spur 25	10	3.783	0.115	19.3	0.1437	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)
10080 minute winter	12	1.026_1	7	26.1	0.109	0.007	21.5447	
10080 minute winter	12	1.025	11	1.3	0.036	0.001	2.8575	
10080 minute winter	11	1.026	10	1.3	0.014	0.001	5.5262	
10080 minute winter	10	1.027	9	1.2	0.010	0.001	2.3070	
10080 minute winter	9	Flow through pond	8	-7.9	-0.006	0.000	1234.8524	
15 minute winter	Spur 5	19.000	64	32.0	0.983	0.451	0.5546	
15 minute winter	64	19.001	63	36.3	0.506	0.109	4.7278	
15 minute winter	Spur 4	20.000	63	72.8	1.268	1.021	0.7168	
15 minute winter	63	19.002	62	110.9	1.007	0.511	5.7058	
15 minute winter	62	19.003	61	111.8	1.126	0.515	5.2802	
15 minute winter	Spur 3	21.000	61	73.0	1.912	0.538	0.6780	
15 minute winter	61	19.004	60	179.2	1.002	0.222	11.3049	
15 minute winter	60	19.005	59	175.1	0.947	0.215	12.2799	
15 minute winter	Spur 1	22.000	66	100.9	1.274	0.913	2.4403	
15 minute winter	66	22.001	65	105.9	0.966	0.373	5.5373	
15 minute winter	65	22.002	59	103.6	1.048	0.366	7.3355	
15 minute winter	Spur 2	23.000	59	107.5	1.713	1.017	2.2491	
15 minute winter	59	19.006	58	365.5	0.957	0.302	7.0462	
15 minute winter	Spur 43	24.000	58	31.6	1.116	0.794	0.9313	
15 minute winter	58	19.007	J58	389.5	1.004	0.268	6.7366	
15 minute winter	Spur 24	25.000	J58	13.2	0.888	0.329	0.1294	
15 minute winter	J58	19.008	57	397.5	1.000	0.274	15.9857	
15 minute winter	Spur 42	26.000	57	31.9	1.100	0.801	0.3928	
15 minute winter	Spur 20	27.000	57	35.0	1.128	0.876	0.2816	
15 minute winter	57	19.009	56	439.0	1.043	0.302	21.1423	
15 minute winter	Spur 41	28.000	56	19.0	0.977	0.476	0.2567	
15 minute winter	56	19.010	J56	444.0	1.033	0.306	6.1244	
15 minute winter	Spur 25	29.000	J56	19.1	0.973	0.480	0.1551	

Results for 2 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	J56	14	3.228	0.507	455.8	0.5729	0.0000	OK
15 minute winter	Spur 21	10	4.719	0.199	43.0	0.7437	0.0000	OK
15 minute winter	55	14	3.182	0.537	474.7	0.7120	0.0000	OK
15 minute winter	Spur 40	10	3.821	0.095	12.5	0.0821	0.0000	OK
15 minute winter	J55	14	3.137	0.537	469.4	0.6073	0.0000	OK
15 minute winter	Spur 26	10	5.056	0.086	11.9	0.1233	0.0000	OK
15 minute winter	54	14	3.097	0.511	473.1	0.6832	0.0000	OK
15 minute winter	Spur 22	10	4.609	0.169	35.6	0.7721	0.0000	OK
15 minute winter	53	15	3.042	0.549	484.8	0.7547	0.0000	OK
15 minute winter	Spur 23	10	4.092	0.122	40.0	0.6220	0.0000	OK
15 minute winter	52	15	3.001	0.534	494.7	0.7392	0.0000	OK
15 minute winter	51	15	2.944	0.550	497.2	0.6225	0.0000	OK
120 minute winter	S278 Storage	90	4.112	0.078	8.4	13.4551	0.0000	OK
15 minute winter	S278 S6	10	4.179	0.264	34.1	1.0255	0.0000	SURCHARGED
15 minute winter	S278 S7	10	4.177	0.329	5.9	0.3721	0.0000	SURCHARGED
15 minute winter	S278 S8	10	3.748	0.065	8.7	0.0925	0.0000	OK
15 minute winter	50	10	3.481	0.080	13.3	0.1105	0.0000	OK
15 minute winter	Spur 35	10	5.537	0.087	10.8	0.1218	0.0000	OK
15 minute winter	Spur 27	10	4.590	0.150	29.7	0.3963	0.0000	OK
15 minute winter	49	11	3.306	0.180	56.0	0.3485	0.0000	OK
15 minute winter	48	11	3.236	0.178	58.3	0.3448	0.0000	OK
15 minute winter	Spur 36	10	5.030	0.150	29.7	0.5058	0.0000	OK
15 minute winter	Spur 28	10	5.137	0.177	37.1	0.7583	0.0000	OK
15 minute winter	47	12	3.054	0.276	123.7	0.7492	0.0000	OK
15 minute winter	Spur 29	10	5.343	0.093	11.9	0.1516	0.0000	OK
15 minute winter	Spur 37	10	5.322	0.072	7.9	0.0784	0.0000	OK
15 minute winter	46	12	3.039	0.349	141.4	0.9449	0.0000	OK
15 minute winter	Spur 38	10	5.044	0.124	22.2	0.3017	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	J56	19.011	55	444.5	1.018	0.306	20.4456	
15 minute winter	Spur 21	30.000	55	41.9	1.201	1.051	0.4357	
15 minute winter	55	19.012	J55	463.7	1.018	0.343	14.4727	
15 minute winter	Spur 40	31.000	J55	12.3	1.069	0.692	0.1737	
15 minute winter	J55	19.013	54	466.3	1.051	0.334	4.0936	
15 minute winter	Spur 26	32.000	54	11.7	0.863	0.293	0.1319	
15 minute winter	54	19.014	53	466.4	1.022	0.321	25.7120	
15 minute winter	Spur 22	33.000	53	34.7	1.131	0.868	0.3508	
15 minute winter	53	19.015	52	479.5	1.016	0.330	7.3725	
15 minute winter	Spur 23	34.000	52	39.0	1.808	0.554	0.7143	
15 minute winter	52	19.016	51	497.2	1.052	0.341	20.5763	
15 minute winter	51	19.017	38	499.8	1.059	0.344	11.4305	
120 minute winter	S278 Storage	35.000	S278 S6	-8.4	-0.806	-0.200	0.1017	
15 minute winter	S278 S6	35.001	S278 S7	5.9	0.521	0.149	0.4545	
15 minute winter	S278 S7	Hydro-Brake®	S278 S8	4.0				
15 minute winter	S278 S8	35.003	50	8.6	0.929	0.173	0.2094	
15 minute winter	50	35.004	49	13.2	0.901	0.146	0.2768	
15 minute winter	Spur 35	36.000	49	10.6	1.030	0.601	0.1120	
15 minute winter	Spur 27	37.000	49	29.2	1.073	0.733	0.2907	
15 minute winter	49	35.005	48	55.5	0.877	0.231	1.7754	
15 minute winter	48	35.006	47	56.9	0.972	0.236	3.0637	
15 minute winter	Spur 36	38.000	47	29.1	1.072	0.729	0.2240	
15 minute winter	Spur 28	39.000	47	36.3	1.141	0.913	0.2587	
15 minute winter	47	35.007	46	119.7	0.779	0.194	6.1085	
15 minute winter	Spur 29	40.000	46	11.7	1.050	0.661	0.1223	
15 minute winter	Spur 37	41.000	46	7.8	0.953	0.439	0.0637	
15 minute winter	46	35.008	45	133.5	0.671	0.240	4.4397	
15 minute winter	Spur 38	42.000	45	21.9	1.010	0.546	0.2141	

Results for 2 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	45	12	3.024	0.377	157.0	1.0179	0.0000	OK
15 minute winter	Spur 30	10	5.056	0.186	48.9	0.9421	0.0000	OK
15 minute winter	44	12	3.007	0.385	200.5	1.0401	0.0000	OK
15 minute winter	Spur 31	10	5.336	0.086	10.4	0.1144	0.0000	OK
15 minute winter	43	13	2.974	0.415	205.5	1.1193	0.0000	OK
15 minute winter	Spur 32	10	4.626	0.206	57.8	1.0796	0.0000	OK
15 minute winter	42	13	2.949	0.452	250.7	1.2204	0.0000	OK
15 minute winter	Spur 39	10	5.207	0.177	37.1	0.7716	0.0000	OK
15 minute winter	41	14	2.925	0.446	278.9	1.2042	0.0000	OK
15 minute winter	40	14	2.913	0.499	272.2	1.3517	0.0000	OK
15 minute winter	Spur 33	10	4.307	0.197	53.4	1.0374	0.0000	OK
15 minute winter	39	14	2.903	0.520	299.6	1.3237	0.0000	OK
15 minute winter	38	15	2.895	0.541	719.9	2.1511	0.0000	OK
15 minute winter	37	15	2.844	0.524	712.6	0.0000	0.0000	OK
15 minute winter	36	15	2.814	0.546	713.4	0.0000	0.0000	OK
15 minute winter	Spur 34	10	3.280	0.164	40.0	0.9568	0.0000	OK
15 minute winter	35	15	2.759	0.531	725.3	0.9391	0.0000	OK
10080 minute winter	34	7800	2.693	0.574	23.0	1.0137	0.0000	OK
10080 minute winter	33	7800	2.693	0.633	22.9	1.1179	0.0000	OK
10080 minute winter	32	7800	2.693	0.771	22.6	1.3618	0.0000	OK
10080 minute winter	31	7800	2.695	0.795	57.3	0.0000	0.0000	OK
10080 minute winter	8	7320	4.483	0.383	16.9	0.0000	0.0000	OK
10080 minute winter	7	7320	4.483	2.313	26.1	11.8128	0.0000	SURCHARGED
10080 minute winter	6	7800	2.694	0.754	9.6	1.0786	0.0000	SURCHARGED
10080 minute winter	5	7800	2.694	0.794	9.6	0.0000	0.0000	OK
10080 minute winter	4	7800	2.692	0.992	25.6	0.0000	0.0000	SURCHARGED
10080 minute winter	3	7800	2.692	1.012	13.3	2.5752	0.0000	SURCHARGED
10080 minute winter	2	7020	2.149	0.739	13.3	0.8358	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)
15 minute winter	45	35.009	44	153.5	0.709	0.275	2.7155	
15 minute winter	Spur 30	43.000	44	48.1	1.104	0.675	0.3046	
15 minute winter	44	35.010	43	194.7	0.869	0.382	8.7180	
15 minute winter	Spur 31	44.000	43	10.3	1.013	0.580	0.0714	
15 minute winter	43	35.011	42	200.4	0.770	0.393	9.5068	
15 minute winter	Spur 32	45.000	42	56.8	1.167	0.798	0.4228	
15 minute winter	42	35.012	41	245.7	0.949	0.488	2.9423	
15 minute winter	Spur 39	46.000	41	36.4	1.142	0.910	0.2247	
15 minute winter	41	35.013	40	269.9	0.924	0.335	13.2232	
15 minute winter	40	35.014	39	255.6	0.808	0.316	6.8867	
15 minute winter	Spur 33	47.000	39	52.6	1.136	0.741	0.2811	
15 minute winter	39	35.015	38	286.8	0.962	0.352	6.6525	
15 minute winter	38	19.018	37	712.6	1.379	0.304	10.6378	
15 minute winter	37	19.019	36	713.4	1.369	0.306	16.5083	
15 minute winter	36	19.020	35	711.9	1.347	0.303	12.6538	
15 minute winter	Spur 34	48.000	35	39.2	1.038	0.549	0.3724	
15 minute winter	35	19.021	34	718.3	1.299	0.233	36.8701	
10080 minute winter	34	19.022	33	22.9	0.301	0.007	23.4028	
10080 minute winter	33	19.023	32	22.6	0.282	0.007	66.8339	
10080 minute winter	32	19.024	31	25.9	0.359	0.008	12.3524	
10080 minute winter	31	Flow through pond	4	25.6	0.035	0.000	4261.1074	
10080 minute winter	8	18.000	7	-16.9	-0.162	-0.010	6.5843	
10080 minute winter	7	Hydro-Brake®	6	9.6				
10080 minute winter	6	49.002	5	9.6	0.515	0.086	1.4199	
10080 minute winter	5	Flow through pond	4	25.6	0.035	0.000	4261.1074	
10080 minute winter	4	51.000	3	13.3	0.131	0.035	4.3173	
10080 minute winter	3	Hydro-Brake®	2	13.3				
10080 minute winter	2	51.002	Ex Outfall	13.3	0.334	0.234	0.3660	

Results for 2 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	Ex Outfall	7020	2.140	0.840	13.3	0.9499	0.0000	FLOOD RISK
15 minute summer	Ex Ditch	1	2.133	0.880	0.5	0.0000	0.0000	OK
10080 minute winter	126	7260	4.483	1.395	13.1	0.0000	0.0000	SURCHARGED
10080 minute winter	127	7320	4.483	0.744	6.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
10080 minute winter	Ex Outfall	49.003	Ex Ditch	13.3	0.334	0.334	0.3179	5894.5
10080 minute winter	126	8.010	21	13.5	0.547	0.007	19.5247	
10080 minute winter	127	1.005	114	6.9	0.559	0.004	11.3321	

Results for 30 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	Spur 15	11	5.290	0.625	150.5	3.4886	0.0000	SURCHARGED
10080 minute winter	118	7920	4.960	0.394	1.8	1.1515	0.0000	OK
10080 minute winter	117	7920	4.960	0.622	4.5	1.8175	0.0000	OK
15 minute winter	Spur 14	11	5.530	0.550	75.3	1.8276	0.0000	SURCHARGED
10080 minute winter	Spur 13	7920	4.960	1.066	5.6	15.4346	0.0000	SURCHARGED
10080 minute winter	116	7920	4.960	1.093	12.9	1.9175	0.0000	OK
15 minute winter	Spur 12	10	5.432	0.242	255.9	3.1817	0.0000	OK
10080 minute winter	115	7920	4.960	1.196	21.8	2.4498	0.0000	OK
10080 minute winter	114	7920	4.960	1.259	24.3	0.3173	0.0000	OK
15 minute winter	Spur 10	10	5.433	0.143	26.3	0.3195	0.0000	OK
15 minute winter	112	11	5.177	0.191	60.4	0.5238	0.0000	OK
10080 minute winter	111	7980	4.960	0.232	0.8	0.4958	0.0000	OK
10080 minute winter	110	7920	4.960	1.244	4.1	2.5282	0.0000	OK
10080 minute winter	109	7920	4.960	1.292	31.4	6.1599	0.0000	OK
10080 minute winter	108	7920	4.960	1.361	44.9	1.7818	0.0000	OK
15 minute winter	Dummy 3	11	6.122	0.313	134.7	2.5979	0.0000	OK
10080 minute winter	107	7920	4.960	1.392	40.4	2.9766	0.0000	OK
10080 minute winter	106	7920	4.960	1.507	21.5	2.0423	0.0000	OK
10080 minute winter	105	7920	4.960	1.795	74.4	6.2940	0.0000	SURCHARGED
10080 minute winter	104	7920	4.960	1.824	30.5	0.0000	0.0000	SURCHARGED
10080 minute winter	103	7920	4.960	1.856	30.5	0.0000	0.0000	SURCHARGED
10080 minute winter	Spur 9	7920	4.960	0.730	9.4	7.4716	0.0000	SURCHARGED
10080 minute winter	125	7920	4.960	1.909	61.4	4.0819	0.0000	SURCHARGED
10080 minute winter	102	7920	4.960	1.989	39.3	0.0000	0.0000	SURCHARGED
10080 minute winter	101	7920	4.960	2.127	30.8	4.5480	0.0000	SURCHARGED
10080 minute winter	100	7920	4.960	2.265	29.9	0.0000	0.0000	SURCHARGED
10080 minute winter	71	7920	4.960	2.292	51.3	4.9007	0.0000	SURCHARGED
30 minute winter	Spur Optional	23	5.116	0.706	18.6	0.0000	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)
15 minute winter	Spur 15	1.000	118	145.3	2.078	2.053	1.6229	
10080 minute winter	118	1.001	117	3.2	0.441	0.004	6.0727	
10080 minute winter	117	1.002	116	4.1	0.435	0.005	5.8366	
15 minute winter	Spur 14	2.000	116	72.3	1.818	1.814	0.8693	
10080 minute winter	Spur 13	3.000	116	8.4	0.390	0.038	2.8050	
10080 minute winter	116	1.003	115	19.0	0.296	0.008	77.6784	
15 minute winter	Spur 12	4.000	115	251.4	2.523	0.298	3.5023	
10080 minute winter	115	1.004	127	19.9	0.361	0.011	34.1955	
10080 minute winter	114	1.006_1	109	25.2	0.386	0.008	28.8597	
15 minute winter	Spur 10	6.000	112	25.8	1.026	0.648	0.3373	
15 minute winter	112	5.001	111	58.0	0.997	0.359	4.2228	
10080 minute winter	111	5.002	110	1.0	0.333	0.004	1.5572	
10080 minute winter	110	6.003	109	8.6	0.063	0.003	45.2848	
10080 minute winter	109	1.006	108	44.3	0.393	0.014	67.7916	
10080 minute winter	108	1.007	107	38.2	0.391	0.012	31.8286	
15 minute winter	Dummy 3	6.000_1	107	129.2	1.235	0.812	6.8034	
10080 minute winter	107	1.008	106	20.9	0.459	0.005	136.2069	
10080 minute winter	106	1.009	105	41.9	0.786	0.006	47.2492	
10080 minute winter	105	1.010	104	-51.4	0.380	-0.013	37.2931	
10080 minute winter	104	1.011	103	30.5	0.385	0.008	40.9975	
10080 minute winter	103	1.012	125	51.6	0.356	0.013	67.8528	
10080 minute winter	Spur 9	7.000	125	22.7	0.443	0.142	1.9804	
10080 minute winter	125	1.013	102	39.3	0.415	0.010	102.4619	
10080 minute winter	102	1.014	101	30.8	0.411	0.005	83.1006	
10080 minute winter	101	1.015	100	29.9	0.339	0.008	176.5539	
10080 minute winter	100	1.016	71	51.3	0.272	0.013	34.7454	
10080 minute winter	71	1.018	19	35.8	0.202	0.008	12.3806	
30 minute winter	Spur Optional	9.000	97	-18.6	0.313	-0.167	1.8707	

Results for 30 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	Spur 8	10	6.031	0.261	52.7	0.7031	0.0000	SURCHARGED
60 minute summer	97	42	4.995	0.863	73.1	1.8038	0.0000	SURCHARGED
30 minute winter	96	23	5.025	0.936	165.9	1.9580	0.0000	SURCHARGED
10080 minute winter	95	7980	4.960	0.940	12.4	1.9539	0.0000	SURCHARGED
10080 minute winter	Spur 6	7920	4.960	0.983	12.2	30.3269	0.0000	SURCHARGED
10080 minute winter	28	7920	4.960	1.632	75.9	2.3357	0.0000	SURCHARGED
10080 minute winter	27	7920	4.960	1.657	63.0	2.7758	0.0000	SURCHARGED
10080 minute winter	26	7920	4.960	1.675	47.9	0.0000	0.0000	SURCHARGED
10080 minute winter	25	7920	4.960	1.720	34.4	0.0000	0.0000	SURCHARGED
15 minute winter	Spur 7	11	5.807	1.287	440.1	16.7901	0.0000	SURCHARGED
10080 minute winter	24	7920	4.960	1.781	32.9	2.5489	0.0000	SURCHARGED
10080 minute winter	23	7920	4.960	1.819	33.2	2.6033	0.0000	SURCHARGED
15 minute winter	Spur 44	10	5.935	0.365	69.6	1.1949	0.0000	SURCHARGED
15 minute winter	Spur 16	11	5.226	0.761	295.4	7.3422	0.0000	SURCHARGED
10080 minute winter	22	7920	4.960	1.862	35.3	2.6648	0.0000	SURCHARGED
10080 minute winter	21	7920	4.960	2.145	32.3	4.5865	0.0000	SURCHARGED
15 minute summer	Spur 45	1	5.350	0.000	0.0	0.0000	0.0000	OK
10080 minute winter	20	7920	4.960	2.213	32.1	4.7318	0.0000	SURCHARGED
10080 minute winter	Spur 17	7920	4.960	1.645	36.7	21.6410	0.0000	SURCHARGED
10080 minute winter	19	7920	4.960	2.303	101.4	11.7625	0.0000	SURCHARGED
15 minute winter	Spur 18	10	5.273	0.398	75.3	1.4998	0.0000	SURCHARGED
10080 minute winter	18	7920	4.960	2.433	46.6	5.2022	0.0000	SURCHARGED
10080 minute winter	Spur 19	7920	4.960	0.410	3.1	1.0221	0.0000	SURCHARGED
10080 minute winter	17	7920	4.960	2.523	48.7	5.3946	0.0000	SURCHARGED
10080 minute winter	16	7920	4.960	2.564	52.1	5.4823	0.0000	SURCHARGED
10080 minute winter	15	7920	4.960	2.592	55.2	5.5421	0.0000	SURCHARGED
10080 minute winter	14	7920	4.960	2.657	58.1	5.6811	0.0000	SURCHARGED
10080 minute winter	13	7920	4.960	2.738	60.1	5.8543	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)
15 minute winter	Spur 8	10.000	97	51.7	1.311	1.299	0.4152	
60 minute summer	97	8.001	96	96.5	0.685	0.338	6.9219	
30 minute winter	96	8.002	95	-160.3	1.098	-0.563	11.2093	
10080 minute winter	95	8.003	27	3.1	0.101	0.004	17.9369	
10080 minute winter	Spur 6	10.000_1	28	75.9	0.523	0.151	12.8832	
10080 minute winter	28	10.001	27	59.9	0.348	0.025	20.3104	
10080 minute winter	27	8.004	26	47.9	0.377	0.021	15.9297	
10080 minute winter	26	9.005	25	34.4	0.379	0.015	38.7499	
10080 minute winter	25	8.006	24	31.2	0.334	0.013	51.7849	
15 minute winter	Spur 7	11.000	24	404.6	5.746	1.472	0.5121	
10080 minute winter	24	8.007	23	33.2	0.397	0.014	32.2331	
10080 minute winter	23	8.008	22	33.2	0.340	0.014	37.3724	
15 minute winter	Spur 44	12.000	22	67.8	1.704	1.703	0.3909	
15 minute winter	Spur 16	13.000	22	282.2	4.009	1.329	0.6157	
10080 minute winter	22	8.009	126	32.3	0.378	0.018	13.8107	
10080 minute winter	21	8.011	20	32.1	0.368	0.008	78.9638	
15 minute summer	Spur 45	14.000	20	0.0	0.000	0.000	0.0000	
10080 minute winter	20	8.012	19	31.6	0.266	0.008	115.1365	
10080 minute winter	Spur 17	15.000	19	44.4	0.414	0.040	0.8779	
10080 minute winter	19	1.019	18	45.8	0.409	0.012	166.6912	
15 minute winter	Spur 18	16.000	18	73.2	1.840	1.831	0.3827	
10080 minute winter	18	1.020	17	45.5	0.397	0.012	127.8281	
10080 minute winter	Spur 19	17.000	17	3.5	0.812	0.074	0.1540	
10080 minute winter	17	1.021	16	52.1	0.400	0.012	40.6716	
10080 minute winter	16	1.022	15	55.2	0.389	0.015	40.0815	
10080 minute winter	15	1.023_1	14	58.1	0.395	0.014	75.8260	
10080 minute winter	14	1.023	13	60.1	0.307	0.015	103.9317	
10080 minute winter	13	1.024	12	60.7	0.194	0.015	44.1715	

Results for 30 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	12	7920	4.960	2.773	60.7	14.1627	0.0000	SURCHARGED
10080 minute winter	11	7920	4.960	0.671	18.5	0.7592	0.0000	OK
10080 minute winter	10	7980	4.960	0.738	12.9	0.8349	0.0000	OK
10080 minute winter	9	7920	4.960	0.760	180.8	0.0000	0.0000	OK
15 minute winter	Spur 5	10	4.763	0.273	82.8	0.6309	0.0000	OK
15 minute winter	64	12	4.465	0.270	93.3	0.5528	0.0000	OK
15 minute winter	Spur 4	11	4.847	0.677	188.1	3.0115	0.0000	SURCHARGED
15 minute winter	63	12	4.444	0.551	271.3	1.1214	0.0000	SURCHARGED
15 minute winter	62	12	4.281	0.492	271.7	0.9979	0.0000	OK
15 minute winter	Spur 3	11	4.752	0.582	188.1	3.5525	0.0000	SURCHARGED
15 minute winter	61	13	3.960	0.654	458.7	1.8428	0.0000	OK
15 minute winter	60	14	3.940	0.737	436.0	2.0781	0.0000	OK
15 minute winter	Spur 1	10	4.742	0.812	263.4	6.2082	0.0000	SURCHARGED
15 minute winter	66	11	4.083	0.473	265.8	0.9559	0.0000	OK
15 minute winter	65	12	3.982	0.456	275.5	0.9270	0.0000	OK
15 minute winter	Spur 2	11	5.832	1.882	282.2	15.4900	0.0000	SURCHARGED
15 minute winter	59	14	3.919	0.969	884.6	1.3318	0.0000	OK
15 minute winter	Spur 43	11	5.649	0.799	82.8	2.7136	0.0000	SURCHARGED
15 minute winter	58	14	3.892	0.972	911.3	1.3104	0.0000	OK
15 minute winter	Spur 24	10	4.010	0.166	33.9	0.1550	0.0000	OK
15 minute winter	J58	14	3.867	0.975	921.8	1.1029	0.0000	OK
15 minute winter	Spur 42	10	5.443	0.513	82.8	1.6690	0.0000	SURCHARGED
15 minute winter	Spur 20	10	5.331	0.491	90.3	1.6869	0.0000	SURCHARGED
15 minute winter	57	14	3.835	1.009	1046.5	1.3461	0.0000	OK
15 minute winter	Spur 41	10	5.092	0.242	48.9	0.4762	0.0000	SURCHARGED
15 minute winter	56	14	3.791	1.047	1046.9	1.3951	0.0000	OK
15 minute winter	Spur 25	10	3.902	0.234	48.9	0.2936	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)
10080 minute winter	12	1.026_1	7	42.0	0.118	0.011	21.5447	
10080 minute winter	12	1.025	11	18.5	0.084	0.015	17.8734	
10080 minute winter	11	1.026	10	12.9	0.048	0.011	24.6178	
10080 minute winter	10	1.027	9	16.2	0.052	0.013	8.5834	
10080 minute winter	9	Flow through pond	8	-173.1	-0.007	-0.001	4153.2866	
15 minute winter	Spur 5	19.000	64	81.3	1.305	1.145	1.0499	
15 minute winter	64	19.001	63	85.1	0.609	0.254	10.3696	
15 minute winter	Spur 4	20.000	63	184.1	2.614	2.583	0.8824	
15 minute winter	63	19.002	62	260.4	1.246	1.198	10.8887	
15 minute winter	62	19.003	61	271.4	1.458	1.249	9.6718	
15 minute winter	Spur 3	21.000	61	181.5	2.578	1.338	1.2386	
15 minute winter	61	19.004	60	424.7	1.154	0.525	32.4149	
15 minute winter	60	19.005	59	372.2	0.837	0.457	35.5004	
15 minute winter	Spur 1	22.000	66	254.5	2.308	2.303	3.3461	
15 minute winter	66	22.001	65	264.2	1.184	0.931	11.3050	
15 minute winter	65	22.002	59	262.6	1.266	0.929	17.7097	
15 minute winter	Spur 2	23.000	59	248.7	3.532	2.354	2.4459	
15 minute winter	59	19.006	58	830.0	1.090	0.685	15.1459	
15 minute winter	Spur 43	24.000	58	77.6	1.952	1.949	1.2939	
15 minute winter	58	19.007	J58	894.4	1.120	0.616	15.4021	
15 minute winter	Spur 24	25.000	J58	33.6	1.113	0.839	0.2630	
15 minute winter	J58	19.008	57	892.2	1.080	0.615	36.6409	
15 minute winter	Spur 42	26.000	57	80.0	2.011	2.007	0.5331	
15 minute winter	Spur 20	27.000	57	87.9	2.210	2.202	0.3582	
15 minute winter	57	19.009	56	998.0	1.176	0.688	46.7538	
15 minute winter	Spur 41	28.000	56	47.9	1.234	1.204	0.4910	
15 minute winter	56	19.010	J56	995.9	1.159	0.686	13.3295	
15 minute winter	Spur 25	29.000	J56	48.5	1.260	1.220	0.2943	

Results for 30 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	J56	14	3.758	1.037	1035.4	1.1733	0.0000	OK
15 minute winter	Spur 21	11	5.266	0.746	109.1	2.7891	0.0000	SURCHARGED
15 minute winter	55	14	3.707	1.062	1084.9	1.4093	0.0000	OK
15 minute winter	Spur 40	10	4.213	0.487	31.6	0.4212	0.0000	SURCHARGED
15 minute winter	J55	14	3.657	1.057	1073.9	1.1952	0.0000	OK
15 minute winter	Spur 26	10	5.122	0.152	30.1	0.2169	0.0000	OK
15 minute winter	54	14	3.617	1.031	1088.8	1.3797	0.0000	OK
15 minute winter	Spur 22	11	4.971	0.531	90.3	2.4209	0.0000	SURCHARGED
15 minute winter	53	14	3.546	1.053	1144.7	1.4472	0.0000	OK
15 minute winter	Spur 23	11	4.654	0.684	101.6	3.4788	0.0000	SURCHARGED
15 minute winter	52	14	3.496	1.029	1226.0	1.4226	0.0000	OK
15 minute winter	51	14	3.410	1.016	1231.9	1.1493	0.0000	OK
120 minute winter	S278 Storage	116	4.339	0.305	24.0	52.7202	0.0000	SURCHARGED
15 minute winter	S278 S6	10	4.364	0.449	86.5	1.7443	0.0000	SURCHARGED
15 minute winter	S278 S7	10	4.362	0.514	11.0	0.5818	0.0000	SURCHARGED
15 minute winter	S278 S8	12	3.874	0.191	24.6	0.2720	0.0000	OK
15 minute winter	50	13	3.801	0.400	27.6	0.5509	0.0000	SURCHARGED
15 minute winter	Spur 35	10	5.763	0.313	27.5	0.4384	0.0000	SURCHARGED
15 minute winter	Spur 27	10	4.856	0.416	75.3	1.0997	0.0000	SURCHARGED
15 minute winter	49	12	3.911	0.785	135.3	1.5209	0.0000	SURCHARGED
15 minute winter	48	12	3.830	0.772	139.7	1.4971	0.0000	SURCHARGED
15 minute winter	Spur 36	10	5.261	0.381	75.3	1.2809	0.0000	SURCHARGED
15 minute winter	Spur 28	10	5.452	0.492	94.1	2.1118	0.0000	SURCHARGED
15 minute winter	47	12	3.740	0.962	294.2	2.6080	0.0000	SURCHARGED
15 minute winter	Spur 29	11	5.618	0.368	30.1	0.6006	0.0000	SURCHARGED
15 minute winter	Spur 37	10	5.412	0.162	19.9	0.1750	0.0000	SURCHARGED
15 minute winter	46	13	3.692	1.002	292.0	2.7134	0.0000	SURCHARGED
15 minute winter	Spur 38	10	5.199	0.279	56.4	0.6807	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)
15 minute winter	J56	19.011	55	991.1	1.129	0.683	43.7854	
15 minute winter	Spur 21	30.000	55	105.0	2.641	2.636	0.4928	
15 minute winter	55	19.012	J55	1052.4	1.149	0.778	30.0337	
15 minute winter	Spur 40	31.000	J55	30.4	1.729	1.715	0.2634	
15 minute winter	J55	19.013	54	1068.9	1.157	0.765	8.6875	
15 minute winter	Spur 26	32.000	54	29.7	1.082	0.742	0.2667	
15 minute winter	54	19.014	53	1095.4	1.160	0.755	53.7103	
15 minute winter	Spur 22	33.000	53	87.0	2.188	2.176	0.4494	
15 minute winter	53	19.015	52	1151.1	1.218	0.793	14.9480	
15 minute winter	Spur 23	34.000	52	90.8	2.283	1.289	1.3000	
15 minute winter	52	19.016	51	1231.9	1.302	0.846	41.1766	
15 minute winter	51	19.017	38	1240.5	1.335	0.854	22.2923	
120 minute winter	S278 Storage	35.000	S278 S6	-24.0	-0.943	-0.574	0.2440	
15 minute winter	S278 S6	35.001	S278 S7	11.0	0.701	0.277	0.4545	
15 minute winter	S278 S7	Hydro-Brake®	S278 S8	4.0				
15 minute winter	S278 S8	35.003	50	15.6	1.087	0.313	0.8543	
15 minute winter	50	35.004	49	39.0	0.999	0.432	1.3307	
15 minute winter	Spur 35	36.000	49	26.5	1.507	1.497	0.1883	
15 minute winter	Spur 27	37.000	49	73.8	1.856	1.856	0.4198	
15 minute winter	49	35.005	48	132.2	1.033	0.550	5.9141	
15 minute winter	48	35.006	47	125.6	0.994	0.520	11.1957	
15 minute winter	Spur 36	38.000	47	73.7	1.855	1.846	0.3237	
15 minute winter	Spur 28	39.000	47	91.0	2.287	2.285	0.3203	
15 minute winter	47	35.007	46	236.4	0.815	0.384	15.4650	
15 minute winter	Spur 29	40.000	46	29.0	1.646	1.638	0.1913	
15 minute winter	Spur 37	41.000	46	19.5	1.124	1.094	0.1306	
15 minute winter	46	35.008	45	279.1	0.686	0.502	9.2610	
15 minute winter	Spur 38	42.000	45	55.5	1.402	1.387	0.3773	

Results for 30 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	45	12	3.677	1.030	319.0	2.7839	0.0000	SURCHARGED
15 minute winter	Spur 30	10	5.245	0.375	124.2	1.8955	0.0000	SURCHARGED
15 minute winter	44	12	3.660	1.038	437.4	2.8026	0.0000	SURCHARGED
15 minute winter	Spur 31	10	5.504	0.254	26.3	0.3371	0.0000	SURCHARGED
15 minute winter	43	12	3.608	1.049	456.8	2.8303	0.0000	SURCHARGED
15 minute winter	Spur 32	10	4.876	0.456	146.7	2.3870	0.0000	SURCHARGED
15 minute winter	42	13	3.529	1.032	591.9	2.7848	0.0000	SURCHARGED
15 minute winter	Spur 39	10	5.497	0.467	94.1	2.0395	0.0000	SURCHARGED
15 minute winter	41	13	3.467	0.988	666.7	2.6671	0.0000	SURCHARGED
15 minute winter	40	13	3.410	0.996	656.3	2.6978	0.0000	SURCHARGED
15 minute winter	Spur 33	10	4.507	0.397	135.5	2.0896	0.0000	SURCHARGED
15 minute winter	39	13	3.375	0.992	755.1	2.5236	0.0000	SURCHARGED
15 minute winter	38	14	3.334	0.980	1877.8	3.8958	0.0000	OK
15 minute winter	37	14	3.276	0.956	1864.5	0.0000	0.0000	OK
15 minute winter	36	14	3.254	0.986	1856.6	0.0000	0.0000	OK
15 minute winter	Spur 34	10	3.440	0.324	101.6	1.8833	0.0000	SURCHARGED
15 minute winter	35	14	3.192	0.964	1877.7	1.7035	0.0000	OK
15 minute winter	34	15	3.095	0.976	1851.2	1.7246	0.0000	OK
10080 minute winter	33	9780	3.040	0.980	36.7	1.7317	0.0000	OK
10080 minute winter	32	9720	3.040	1.118	35.7	1.9754	0.0000	OK
10080 minute winter	31	9780	3.045	1.145	104.6	0.0000	0.0000	OK
10080 minute winter	8	7920	4.960	0.860	105.8	0.0000	0.0000	OK
10080 minute winter	7	7920	4.960	2.790	42.0	14.2495	0.0000	SURCHARGED
10080 minute winter	6	9780	3.040	1.100	9.7	1.5742	0.0000	SURCHARGED
10080 minute winter	5	9780	3.040	1.140	9.7	0.0000	0.0000	OK
10080 minute winter	4	9780	3.038	1.338	29.9	0.0000	0.0000	SURCHARGED
10080 minute winter	3	9780	3.038	1.358	13.3	3.4563	0.0000	SURCHARGED
2880 minute winter	2	1800	2.149	0.739	13.3	0.8358	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)
15 minute winter	45	35.009	44	333.0	0.757	0.596	5.3211	
15 minute winter	Spur 30	43.000	44	122.6	1.743	1.719	0.4767	
15 minute winter	44	35.010	43	430.5	0.978	0.844	16.0935	
15 minute winter	Spur 31	44.000	43	25.8	1.465	1.456	0.1220	
15 minute winter	43	35.011	42	465.1	1.057	0.913	15.8716	
15 minute winter	Spur 32	45.000	42	144.4	2.051	2.028	0.6023	
15 minute winter	42	35.012	41	581.1	1.320	1.154	4.7163	
15 minute winter	Spur 39	46.000	41	91.3	2.295	2.284	0.2781	
15 minute winter	41	35.013	40	650.4	1.055	0.806	24.8585	
15 minute winter	40	35.014	39	644.4	1.017	0.797	11.7901	
15 minute winter	Spur 33	47.000	39	133.7	1.899	1.884	0.4186	
15 minute winter	39	35.015	38	749.5	1.207	0.919	10.8515	
15 minute winter	38	19.018	37	1864.5	1.717	0.796	22.2836	
15 minute winter	37	19.019	36	1856.6	1.718	0.796	34.4984	
15 minute winter	36	19.020	35	1812.4	1.695	0.772	26.3126	
15 minute winter	Spur 34	48.000	35	99.5	1.442	1.395	0.6505	
15 minute winter	35	19.021	34	1851.2	1.611	0.601	78.3825	
15 minute winter	34	19.022	33	1803.7	1.602	0.585	42.2515	
10080 minute winter	33	19.023	32	35.7	0.294	0.012	108.5820	
10080 minute winter	32	19.024	31	55.5	0.380	0.018	18.9443	
10080 minute winter	31	Flow through pond	4	29.9	0.035	0.000	6930.8994	
10080 minute winter	8	18.000	7	-33.2	-0.249	-0.020	16.1796	
10080 minute winter	7	Hydro-Brake®	6	9.7				
10080 minute winter	6	49.002	5	9.7	0.538	0.087	1.4199	
10080 minute winter	5	Flow through pond	4	29.9	0.035	0.000	6930.8994	
10080 minute winter	4	51.000	3	13.3	0.177	0.035	4.3173	
10080 minute winter	3	Hydro-Brake®	2	13.3				
2880 minute winter	2	51.002	Ex Outfall	13.3	0.334	0.234	0.3660	

Results for 30 year Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
2880 minute winter	Ex Outfall	1800	2.140	0.840	13.3	0.9499	0.0000	FLOOD RISK
15 minute summer	Ex Ditch	1	2.133	0.880	8.3	0.0000	0.0000	OK
10080 minute winter	126	7920	4.960	1.872	32.3	0.0000	0.0000	SURCHARGED
10080 minute winter	127	7920	4.960	1.221	19.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
2880 minute winter	Ex Outfall	49.003	Ex Ditch	13.3	0.334	0.334	0.3179	1731.5
10080 minute winter	126	8.010	21	32.3	0.547	0.018	19.5247	
10080 minute winter	127	1.005	114	24.2	0.559	0.013	18.9461	

Results for 100 year +65% CC Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	Spur 15	20	7.173	2.508	238.9	15.8571	0.0000	FLOOD RISK
30 minute winter	118	20	7.189	2.623	228.8	7.6613	0.0000	SURCHARGED
30 minute winter	117	20	7.192	2.854	244.8	8.3352	0.0000	FLOOD RISK
30 minute summer	Spur 14	21	7.087	2.107	119.5	8.1622	0.0000	FLOOD RISK
30 minute summer	Spur 13	20	7.117	3.223	796.4	48.8616	0.0000	FLOOD RISK
30 minute winter	116	20	7.172	3.305	1079.0	5.7967	0.0000	FLOOD RISK
30 minute winter	Spur 12	20	7.262	2.072	602.4	27.2099	0.0000	FLOOD RISK
30 minute winter	115	20	7.102	3.338	1445.7	6.8361	0.0000	SURCHARGED
30 minute winter	114	20	7.053	3.352	2201.1	0.8447	0.0000	SURCHARGED
30 minute winter	Spur 10	20	7.499	2.209	93.4	4.9486	0.0000	FLOOD RISK
30 minute winter	112	20	7.329	2.343	90.4	6.4343	0.0000	FLOOD RISK
30 minute winter	111	20	7.096	2.368	123.1	5.0548	0.0000	SURCHARGED
30 minute winter	110	20	7.038	3.322	2166.4	6.7503	0.0000	SURCHARGED
30 minute winter	109	20	7.036	3.368	2562.3	16.0554	0.0000	SURCHARGED
30 minute winter	108	20	7.011	3.412	2055.5	4.4667	0.0000	SURCHARGED
30 minute winter	Dummy 3	20	7.224	1.415	193.5	11.7367	0.0000	SURCHARGED
30 minute winter	107	20	6.986	3.418	1713.5	7.3087	0.0000	SURCHARGED
30 minute winter	106	20	6.890	3.437	1755.1	4.6568	0.0000	SURCHARGED
30 minute winter	105	21	6.865	3.700	3657.5	12.9735	0.0000	FLOOD RISK
30 minute winter	104	21	6.852	3.716	1830.4	0.0000	0.0000	FLOOD RISK
30 minute winter	103	21	6.846	3.742	1836.8	0.0000	0.0000	FLOOD RISK
30 minute winter	Spur 9	21	7.058	2.828	470.3	28.9341	0.0000	FLOOD RISK
30 minute winter	125	21	6.826	3.775	2204.5	8.0717	0.0000	SURCHARGED
30 minute winter	102	21	6.794	3.823	2224.9	0.0000	0.0000	SURCHARGED
30 minute winter	101	21	6.770	3.937	2232.3	8.4178	0.0000	SURCHARGED
30 minute winter	100	21	6.755	4.060	2241.8	0.0000	0.0000	SURCHARGED
30 minute winter	71	21	6.740	4.072	2239.3	8.7067	0.0000	FLOOD RISK
30 minute winter	Spur Optional	21	7.210	2.800	17.0	0.0000	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	Spur 15	1.000	118	229.2	3.255	3.239	1.7037	
30 minute winter	118	1.001	117	227.5	1.427	0.311	10.2121	
30 minute winter	117	1.002	116	242.4	1.183	0.303	7.7732	
30 minute summer	Spur 14	2.000	116	114.4	2.878	2.873	0.8818	
30 minute summer	Spur 13	3.000	116	784.8	3.633	3.574	2.8050	
30 minute winter	116	1.003	115	1060.6	1.166	0.446	86.0914	
30 minute winter	Spur 12	4.000	115	368.8	2.764	0.437	9.8793	
30 minute winter	115	1.004	127	1423.4	1.559	0.793	36.1988	
30 minute winter	114	1.006_1	109	1334.5	1.449	0.414	31.8313	
30 minute winter	Spur 10	6.000	112	-57.6	-1.448	-1.446	0.5325	
30 minute winter	112	5.001	111	94.1	1.105	0.582	11.4612	
30 minute winter	111	5.002	110	117.3	1.098	0.495	3.3062	
30 minute winter	110	6.003	109	-2041.7	-1.219	-0.659	50.2107	
30 minute winter	109	1.006	108	-2545.0	1.532	-0.824	72.4808	
30 minute winter	108	1.007	107	-1972.3	1.648	-0.644	33.1129	
30 minute winter	Dummy 3	6.000_1	107	219.9	1.394	1.381	10.3218	
30 minute winter	107	1.008	106	1694.9	1.815	0.428	146.5460	
30 minute winter	106	1.009	105	1755.9	1.959	0.232	48.2785	
30 minute winter	105	1.010	104	-2264.0	1.332	-0.575	37.2931	
30 minute winter	104	1.011	103	1836.8	1.255	0.465	40.9975	
30 minute winter	103	1.012	125	1844.9	1.114	0.467	67.8528	
30 minute winter	Spur 9	7.000	125	433.2	2.734	2.707	1.9804	
30 minute winter	125	1.013	102	2224.9	1.477	0.564	102.4619	
30 minute winter	102	1.014	101	2232.3	1.219	0.387	83.1006	
30 minute winter	101	1.015	100	2241.8	1.053	0.568	176.5539	
30 minute winter	100	1.016	71	2239.3	1.051	0.569	34.7454	
30 minute winter	71	1.018	19	2231.3	1.048	0.530	12.3806	
30 minute winter	Spur Optional	9.000	97	-17.0	-0.154	-0.153	1.8707	

Results for 100 year +65% CC Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	Spur 8	21	7.250	1.480	75.7	3.9931	0.0000	SURCHARGED
30 minute winter	97	21	7.147	3.015	107.3	6.3015	0.0000	SURCHARGED
30 minute winter	96	21	7.146	3.057	128.0	6.3917	0.0000	SURCHARGED
30 minute winter	95	21	7.087	3.067	433.4	6.3741	0.0000	SURCHARGED
30 minute winter	Spur 6	21	7.245	3.268	1556.7	103.2363	0.0000	FLOOD RISK
30 minute winter	28	21	7.060	3.732	1483.5	5.3408	0.0000	SURCHARGED
30 minute winter	27	21	7.041	3.738	1560.9	6.2607	0.0000	SURCHARGED
30 minute winter	26	21	7.025	3.740	1492.4	0.0000	0.0000	SURCHARGED
30 minute winter	25	21	7.004	3.764	1453.2	0.0000	0.0000	SURCHARGED
15 minute summer	Spur 7	11	7.658	3.138	760.9	50.0856	0.0000	FLOOD RISK
30 minute winter	24	21	6.968	3.789	1925.6	5.4219	0.0000	SURCHARGED
30 minute winter	23	21	6.916	3.775	1912.1	5.4027	0.0000	SURCHARGED
30 minute winter	Spur 44	21	7.067	1.497	100.0	4.9051	0.0000	SURCHARGED
30 minute winter	Spur 16	20	7.312	2.847	424.3	31.2015	0.0000	FLOOD RISK
30 minute winter	22	21	6.864	3.766	2313.1	5.3885	0.0000	SURCHARGED
30 minute winter	21	21	6.792	3.977	2343.2	8.5027	0.0000	SURCHARGED
30 minute winter	Spur 45	21	6.751	1.401	20.9	0.0000	0.0000	SURCHARGED
30 minute winter	20	21	6.756	4.009	2385.6	8.5715	0.0000	FLOOD RISK
30 minute winter	Spur 17	21	7.009	3.694	756.8	48.5973	0.0000	FLOOD RISK
30 minute winter	19	21	6.711	4.054	4615.2	20.7044	0.0000	FLOOD RISK
30 minute winter	Spur 18	21	6.658	1.783	108.1	6.7176	0.0000	FLOOD RISK
30 minute winter	18	21	6.423	3.896	4667.9	8.3298	0.0000	SURCHARGED
15 minute winter	Spur 19	12	6.376	1.826	88.9	5.0532	0.0000	FLOOD RISK
30 minute winter	17	21	6.159	3.722	4709.2	7.9581	0.0000	SURCHARGED
30 minute winter	16	21	5.989	3.593	4708.0	7.6812	0.0000	FLOOD RISK
10080 minute winter	15	9600	5.974	3.606	79.9	7.7088	0.0000	FLOOD RISK
10080 minute winter	14	9600	5.974	3.671	79.9	7.8478	0.0000	SURCHARGED
10080 minute winter	13	9600	5.974	3.752	79.9	8.0209	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)
30 minute winter	Spur 8	10.000	97	90.9	2.286	2.284	0.4382	
30 minute winter	97	8.001	96	88.2	0.802	0.308	6.9219	
30 minute winter	96	8.002	95	108.6	1.132	0.382	11.2093	
30 minute winter	95	8.003	27	-416.2	-1.478	-0.569	17.9369	
30 minute winter	Spur 6	10.000_1	28	1483.5	3.371	2.952	12.8832	
30 minute winter	28	10.001	27	1427.8	1.200	0.595	20.3104	
30 minute winter	27	8.004	26	1492.4	1.235	0.649	15.9297	
30 minute winter	26	9.005	25	1453.2	1.171	0.623	38.7499	
30 minute winter	25	8.006	24	1425.5	1.055	0.607	51.7849	
15 minute summer	Spur 7	11.000	24	632.1	8.978	2.299	0.5122	
30 minute winter	24	8.007	23	1912.1	1.397	0.814	32.2331	
30 minute winter	23	8.008	22	1913.7	1.402	0.825	37.3724	
30 minute winter	Spur 44	12.000	22	99.7	2.507	2.506	0.3980	
30 minute winter	Spur 16	13.000	22	355.6	5.050	1.674	0.6157	
30 minute winter	22	8.009	126	2328.2	1.854	1.267	13.8107	
30 minute winter	21	8.011	20	2385.6	1.197	0.575	78.9638	
30 minute winter	Spur 45	14.000	20	-20.9	-1.187	-1.168	0.0572	
30 minute winter	20	8.012	19	2409.2	1.131	0.610	115.1365	
30 minute winter	Spur 17	15.000	19	689.9	4.355	0.616	0.8779	
30 minute winter	19	1.019	18	4595.4	2.157	1.165	166.6912	
30 minute winter	Spur 18	16.000	18	109.6	2.756	2.742	0.3880	
30 minute winter	18	1.020	17	4662.5	2.189	1.244	127.8281	
15 minute winter	Spur 19	17.000	17	73.3	4.166	1.549	0.1540	
30 minute winter	17	1.021	16	4708.0	2.210	1.049	40.6716	
30 minute winter	16	1.022	15	4708.3	2.210	1.261	40.0815	
10080 minute winter	15	1.023_1	14	79.9	0.395	0.019	75.8260	
10080 minute winter	14	1.023	13	79.9	0.290	0.020	103.9317	
10080 minute winter	13	1.024	12	79.8	0.198	0.020	44.1715	

Results for 100 year +65% CC Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
10080 minute winter	12	9600	5.974	3.787	79.8	19.3382	0.0000	SURCHARGED
10080 minute winter	11	9600	5.974	1.685	27.5	1.9053	0.0000	SURCHARGED
10080 minute winter	10	9600	5.974	1.752	24.7	1.9811	0.0000	SURCHARGED
10080 minute winter	9	9600	5.974	1.774	182.8	0.0000	0.0000	OK
15 minute winter	Spur 5	13	7.811	3.321	150.3	7.6648	0.0000	FLOOD RISK
15 minute winter	64	13	7.672	3.477	155.0	7.1074	0.0000	SURCHARGED
15 minute winter	Spur 4	12	8.104	3.934	341.7	18.3668	0.0000	FLOOD RISK
15 minute winter	63	13	7.631	3.738	438.0	7.6037	0.0000	SURCHARGED
15 minute winter	62	13	7.314	3.525	399.3	7.1553	0.0000	SURCHARGED
15 minute summer	Spur 3	12	7.036	2.866	325.2	18.6588	0.0000	FLOOD RISK
15 minute winter	61	13	6.944	3.638	625.5	10.2518	0.0000	SURCHARGED
15 minute winter	60	13	6.872	3.669	619.5	10.3399	0.0000	SURCHARGED
15 minute summer	Spur 1	12	7.133	3.203	455.3	26.9748	0.0000	FLOOD RISK
15 minute winter	66	13	7.149	3.539	402.8	7.1602	0.0000	SURCHARGED
15 minute winter	65	13	7.007	3.481	400.0	7.0796	0.0000	SURCHARGED
15 minute summer	Spur 2	10	7.139	3.189	487.7	47.1598	0.0000	FLOOD RISK
15 minute winter	59	13	6.788	3.838	1312.3	5.2728	0.0000	SURCHARGED
15 minute summer	Spur 43	11	7.116	2.266	143.1	9.0962	0.0000	FLOOD RISK
15 minute winter	58	13	6.694	3.774	1423.0	5.0875	0.0000	SURCHARGED
15 minute winter	Spur 24	13	6.671	2.827	67.1	2.6380	0.0000	SURCHARGED
15 minute winter	J58	13	6.615	3.723	1462.4	4.2111	0.0000	SURCHARGED
15 minute winter	Spur 42	13	7.043	2.113	150.3	6.8755	0.0000	FLOOD RISK
15 minute winter	Spur 20	13	6.955	2.115	164.0	7.2620	0.0000	SURCHARGED
15 minute winter	57	13	6.495	3.669	1684.8	4.8946	0.0000	SURCHARGED
15 minute winter	Spur 41	13	6.498	1.648	88.9	3.2398	0.0000	SURCHARGED
15 minute winter	56	13	6.319	3.575	1746.6	4.7625	0.0000	SURCHARGED
15 minute winter	Spur 25	13	6.320	2.652	116.7	3.3252	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)
10080 minute winter	12	1.026_1	7	55.9	0.111	0.014	21.5447	
10080 minute winter	12	1.025	11	27.5	0.116	0.023	27.7838	
10080 minute winter	11	1.026	10	24.7	0.060	0.020	34.5046	
10080 minute winter	10	1.027	9	24.7	0.063	0.020	11.2384	
10080 minute winter	9	Flow through pond	8	-173.3	-0.008	-0.001	11491.9893	
15 minute winter	Spur 5	19.000	64	133.1	1.890	1.876	1.1980	
15 minute winter	64	19.001	63	129.3	0.653	0.387	13.6554	
15 minute winter	Spur 4	20.000	63	286.9	4.074	4.025	0.8824	
15 minute winter	63	19.002	62	377.4	1.747	1.737	11.0371	
15 minute winter	62	19.003	61	364.0	1.685	1.675	11.4564	
15 minute summer	Spur 3	21.000	61	299.0	4.246	2.204	1.2513	
15 minute winter	61	19.004	60	602.4	1.225	0.745	39.2521	
15 minute winter	60	19.005	59	620.1	0.978	0.762	38.7261	
15 minute summer	Spur 1	22.000	66	388.3	3.521	3.514	3.3970	
15 minute winter	66	22.001	65	379.4	1.347	1.338	13.7388	
15 minute winter	65	22.002	59	349.3	1.355	1.235	20.7278	
15 minute summer	Spur 2	23.000	59	340.6	4.837	3.223	2.4657	
15 minute winter	59	19.006	58	1314.3	1.524	1.085	15.6776	
15 minute summer	Spur 43	24.000	58	119.8	3.013	3.009	1.3072	
15 minute winter	58	19.007	J58	1424.9	1.438	0.982	16.7461	
15 minute winter	Spur 24	25.000	J58	56.8	1.432	1.419	0.3470	
15 minute winter	J58	19.008	57	1464.1	1.477	1.009	39.2574	
15 minute winter	Spur 42	26.000	57	140.0	3.521	3.515	0.5385	
15 minute winter	Spur 20	27.000	57	155.0	3.897	3.881	0.3618	
15 minute winter	57	19.009	56	1675.1	1.690	1.154	48.8093	
15 minute winter	Spur 41	28.000	56	86.2	2.167	2.165	0.5259	
15 minute winter	56	19.010	J56	1742.5	1.758	1.200	13.7828	
15 minute winter	Spur 25	29.000	J56	81.9	2.059	2.060	0.3145	

Results for 100 year +65% CC Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	J56	13	6.210	3.489	1796.2	3.9456	0.0000	SURCHARGED
15 minute winter	Spur 21	12	7.097	2.577	198.2	9.6404	0.0000	FLOOD RISK
15 minute winter	55	13	6.018	3.373	1943.1	4.4766	0.0000	SURCHARGED
15 minute winter	Spur 40	12	6.642	2.916	57.4	2.5224	0.0000	SURCHARGED
15 minute winter	J55	13	5.835	3.235	1981.1	3.6590	0.0000	SURCHARGED
15 minute winter	Spur 26	13	5.756	0.786	54.7	1.1246	0.0000	SURCHARGED
15 minute winter	54	13	5.707	3.121	2026.7	4.1760	0.0000	SURCHARGED
15 minute winter	Spur 22	13	6.017	1.577	164.0	7.1894	0.0000	FLOOD RISK
15 minute winter	53	13	5.429	2.936	2145.4	4.0345	0.0000	SURCHARGED
15 minute summer	Spur 23	11	5.827	1.857	175.6	14.1670	0.0000	FLOOD RISK
15 minute winter	52	13	5.257	2.790	2276.7	3.8581	0.0000	SURCHARGED
15 minute winter	51	13	4.956	2.562	2278.1	2.8971	0.0000	SURCHARGED
180 minute winter	S278 Storage	176	4.728	0.694	33.3	120.0357	0.0000	SURCHARGED
15 minute winter	S278 S6	11	4.883	0.968	157.1	3.7634	0.0000	SURCHARGED
15 minute winter	S278 S7	11	4.889	1.041	8.6	1.1772	0.0000	SURCHARGED
15 minute winter	S278 S8	13	6.064	2.381	24.2	3.3888	0.0000	SURCHARGED
15 minute winter	50	13	6.038	2.637	160.6	3.6306	0.0000	SURCHARGED
15 minute winter	Spur 35	12	6.592	1.142	49.9	1.5981	0.0000	SURCHARGED
15 minute winter	Spur 27	12	6.544	2.104	136.7	5.5599	0.0000	SURCHARGED
15 minute winter	49	13	6.021	2.895	185.2	5.6079	0.0000	SURCHARGED
15 minute winter	48	13	5.978	2.920	191.5	5.6617	0.0000	SURCHARGED
15 minute winter	Spur 36	12	6.264	1.384	136.7	4.6565	0.0000	SURCHARGED
15 minute winter	Spur 28	12	6.522	1.562	170.8	6.7124	0.0000	SURCHARGED
15 minute winter	47	13	5.895	3.117	455.7	8.4520	0.0000	SURCHARGED
15 minute winter	Spur 29	12	6.521	1.271	54.7	2.0765	0.0000	SURCHARGED
15 minute winter	Spur 37	13	6.006	0.756	36.2	0.8182	0.0000	SURCHARGED
15 minute winter	46	13	5.843	3.153	515.7	8.5396	0.0000	SURCHARGED
15 minute winter	Spur 38	13	5.981	1.061	102.6	2.5880	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)
15 minute winter	J56	19.011	55	1798.2	1.815	1.239	45.0839	
15 minute winter	Spur 21	30.000	55	165.5	4.161	4.152	0.4979	
15 minute winter	55	19.012	J55	1943.6	1.961	1.436	30.7500	
15 minute winter	Spur 40	31.000	J55	47.1	2.675	2.652	0.2661	
15 minute winter	J55	19.013	54	1983.0	2.001	1.419	8.9771	
15 minute winter	Spur 26	32.000	54	54.2	1.370	1.352	0.3861	
15 minute winter	54	19.014	53	2028.8	2.047	1.398	55.5565	
15 minute winter	Spur 22	33.000	53	148.4	3.733	3.711	0.4540	
15 minute winter	53	19.015	52	2146.7	2.166	1.479	15.4746	
15 minute summer	Spur 23	34.000	52	130.1	3.272	1.848	1.3133	
15 minute winter	52	19.016	51	2278.1	2.299	1.564	43.1315	
15 minute winter	51	19.017	38	2279.5	2.300	1.570	23.7758	
180 minute winter	S278 Storage	35.000	S278 S6	-33.3	-0.838	-0.795	0.2440	
15 minute winter	S278 S6	35.001	S278 S7	8.6	0.742	0.217	0.4545	
15 minute winter	S278 S7	Hydro-Brake®	S278 S8	4.0				
15 minute winter	S278 S8	35.003	50	28.2	1.135	0.566	0.8979	
15 minute winter	50	35.004	49	-123.4	-1.753	-1.368	1.3307	
15 minute winter	Spur 35	36.000	49	46.6	2.648	2.631	0.1908	
15 minute winter	Spur 27	37.000	49	118.4	2.976	2.976	0.4254	
15 minute winter	49	35.005	48	180.8	1.119	0.752	5.9141	
15 minute winter	48	35.006	47	202.4	0.990	0.838	11.1957	
15 minute winter	Spur 36	38.000	47	129.3	3.252	3.237	0.3280	
15 minute winter	Spur 28	39.000	47	159.1	4.001	3.997	0.3236	
15 minute winter	47	35.007	46	426.5	0.969	0.693	15.4650	
15 minute winter	Spur 29	40.000	46	49.8	2.831	2.817	0.1932	
15 minute winter	Spur 37	41.000	46	35.4	2.009	1.990	0.1369	
15 minute winter	46	35.008	45	497.8	1.131	0.896	9.2610	
15 minute winter	Spur 38	42.000	45	100.3	2.522	2.506	0.3937	

Results for 100 year +65% CC Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	45	13	5.787	3.140	602.3	8.4855	0.0000	SURCHARGED
15 minute winter	Spur 30	13	5.895	1.025	225.5	5.1763	0.0000	SURCHARGED
15 minute winter	44	13	5.726	3.104	801.6	8.3782	0.0000	SURCHARGED
15 minute winter	Spur 31	10	5.905	0.655	47.9	0.8689	0.0000	SURCHARGED
15 minute winter	43	13	5.549	2.990	824.8	8.0658	0.0000	SURCHARGED
15 minute winter	Spur 32	13	5.633	1.213	266.5	6.3474	0.0000	SURCHARGED
15 minute winter	42	13	5.350	2.853	1071.5	7.6998	0.0000	SURCHARGED
15 minute winter	Spur 39	11	6.146	1.116	170.8	4.8729	0.0000	SURCHARGED
15 minute winter	41	13	5.180	2.701	1226.8	7.2897	0.0000	SURCHARGED
15 minute winter	40	13	5.008	2.594	1216.4	7.0272	0.0000	SURCHARGED
15 minute winter	Spur 33	13	5.064	0.954	246.0	5.0256	0.0000	SURCHARGED
15 minute winter	39	13	4.885	2.502	1430.5	6.3676	0.0000	SURCHARGED
15 minute winter	38	13	4.729	2.375	3633.0	9.4427	0.0000	SURCHARGED
15 minute winter	37	13	4.583	2.263	3613.0	0.0000	0.0000	SURCHARGED
15 minute winter	36	13	4.476	2.208	3606.3	0.0000	0.0000	SURCHARGED
15 minute winter	Spur 34	13	4.457	1.341	184.5	7.8045	0.0000	FLOOD RISK
15 minute winter	35	13	4.317	2.089	3747.7	3.6915	0.0000	FLOOD RISK
15 minute winter	34	13	4.073	1.954	3648.1	3.4534	0.0000	SURCHARGED
15 minute winter	33	13	3.891	1.831	3630.7	3.2362	0.0000	SURCHARGED
15 minute winter	32	13	3.611	1.689	3631.4	2.9850	0.0000	FLOOD RISK
15 minute winter	31	13	3.529	1.629	3631.5	0.0000	0.0000	OK
10080 minute winter	8	9600	5.974	1.874	181.6	0.0000	0.0000	FLOOD RISK
10080 minute winter	7	9600	5.974	3.804	55.9	19.4250	0.0000	FLOOD RISK
8640 minute winter	6	6300	3.410	1.470	11.0	2.1039	0.0000	SURCHARGED
8640 minute winter	5	6300	3.410	1.510	11.1	0.0000	0.0000	OK
10080 minute winter	4	7500	3.407	1.707	294.8	0.0000	0.0000	SURCHARGED
10080 minute winter	3	7500	3.407	1.727	18.8	4.3954	0.0000	SURCHARGED
120 minute summer	2	108	2.149	0.739	13.3	0.8358	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)
15 minute winter	45	35.009	44	577.2	1.312	1.032	5.3211	
15 minute winter	Spur 30	43.000	44	221.4	3.144	3.105	0.4919	
15 minute winter	44	35.010	43	765.0	1.738	1.500	16.0935	
15 minute winter	Spur 31	44.000	43	46.1	2.619	2.603	0.1238	
15 minute winter	43	35.011	42	798.7	1.815	1.568	15.8716	
15 minute winter	Spur 32	45.000	42	259.1	3.680	3.638	0.6117	
15 minute winter	42	35.012	41	1052.8	2.392	2.092	4.7163	
15 minute winter	Spur 39	46.000	41	163.8	4.118	4.098	0.2781	
15 minute winter	41	35.013	40	1202.7	1.898	1.491	24.8585	
15 minute winter	40	35.014	39	1194.0	1.884	1.476	11.7901	
15 minute winter	Spur 33	47.000	39	241.2	3.426	3.399	0.4278	
15 minute winter	39	35.015	38	1431.0	2.258	1.755	10.8515	
15 minute winter	38	19.018	37	3613.0	2.534	1.543	29.0218	
15 minute winter	37	19.019	36	3606.3	2.529	1.547	44.7790	
15 minute winter	36	19.020	35	3595.7	2.522	1.532	34.0070	
15 minute winter	Spur 34	48.000	35	180.4	2.562	2.529	0.6945	
15 minute winter	35	19.021	34	3648.1	2.121	1.184	115.1814	
15 minute winter	34	19.022	33	3630.7	2.188	1.177	62.2049	
15 minute winter	33	19.023	32	3631.4	2.063	1.178	145.5374	
15 minute winter	32	19.024	31	3631.5	2.063	1.183	23.4056	
15 minute winter	31	Flow through pond	4	3868.9	0.639	0.022	2468.2571	
10080 minute winter	8	18.000	7	-45.8	-0.225	-0.028	17.8712	
10080 minute winter	7	Hydro-Brake®	6	11.1				
8640 minute winter	6	49.002	5	11.1	0.576	0.100	1.4199	
8640 minute winter	5	Flow through pond	4	225.3	0.049	0.001	9979.9131	
10080 minute winter	4	51.000	3	18.8	0.104	0.050	4.3173	
10080 minute winter	3	Hydro-Brake®	2	13.3				
120 minute summer	2	51.002	Ex Outfall	13.3	0.810	0.234	0.3660	

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 89.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	Ex Outfall	108	2.140	0.840	13.3	0.9499	0.0000	FLOOD RISK
15 minute summer	Ex Ditch	1	2.133	0.880	12.2	0.0000	0.0000	OK
30 minute winter	126	21	6.830	3.742	2328.2	0.0000	0.0000	SURCHARGED
30 minute winter	127	20	7.066	3.327	1423.4	0.0000	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)
120 minute summer	Ex Outfall	49.003	Ex Ditch	13.3	0.334	0.334	0.3179	238.3
30 minute winter	126	8.010	21	2343.2	2.030	1.282	19.5247	
30 minute winter	127	1.005	114	1321.4	1.599	0.728	19.8256	