

Appendix F: Long term surface water flood risk mapping

THE HEXAGON, QUEENS WALK, READING, RG1 7QF

Rivers and sea risk	Very low risk Very low risk means that this area has a chance of flooding of less than 0.1% each year.
Surface water risk	Very low risk Very low risk means that this area has a chance of flooding of less than 0.1% each year. Lead local flood authorities (LLFA) manage the risk from surface water flooding and may hold more detailed information. Your LLFA is Reading.
Reservoir risk	Flooding from reservoirs is unlikely in this area
Groundwater risk	Flooding from groundwater is unlikely in this area

Flood map for planning

Your reference
<Unspecified>

Location (easting/northing)
471116/173271

Created
21 Nov 2023 16:20

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following**:

- bigger than 1 hectare (ha)
- In an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

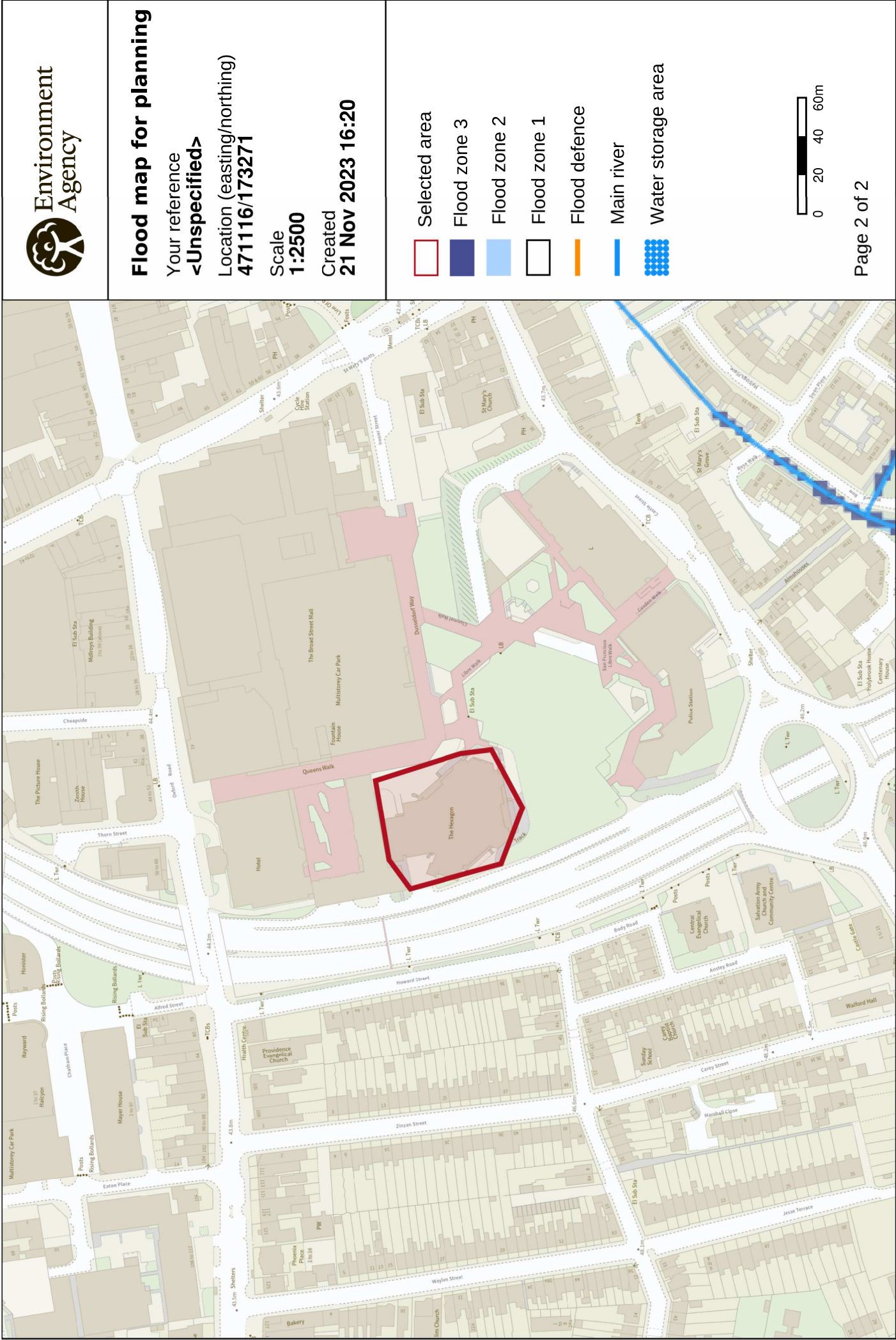
Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence **which** sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2022 OS 100024198. <https://flood-map-for-planning.service.gov.uk/os-terms>



Learn more about this area's flood risk

Select the type of flood risk information you're interested in. The map will then update.

Flood risk

High risk: depth

▼

Location

Enter a place or postcode



Surface water flood risk: water depth in a high risk scenario

Flood depth (millimetres)

- Over 900mm
- 300 to 900mm
- Below 300mm
- Location you selected

[View the flood risk information for the location you originally searched for \(/risk\)](#)

[View the flood risk information for another location \(/postcode\)](#)

Learn more about this area's flood risk

Select the type of flood risk information you're interested in. The map will then update.

Flood risk

Low risk: depth

▼

Location

Enter a place or postcode



Surface water flood risk: water depth in a low risk scenario

Flood depth (millimetres)

- Over 900mm
- 300 to 900mm
- Below 300mm
- Location you selected

[View the flood risk information for the location you originally searched for \(/risk\)](#)

[View the flood risk information for another location \(/postcode\)](#)

Learn more about this area's flood risk

Select the type of flood risk information you're interested in. The map will then update.

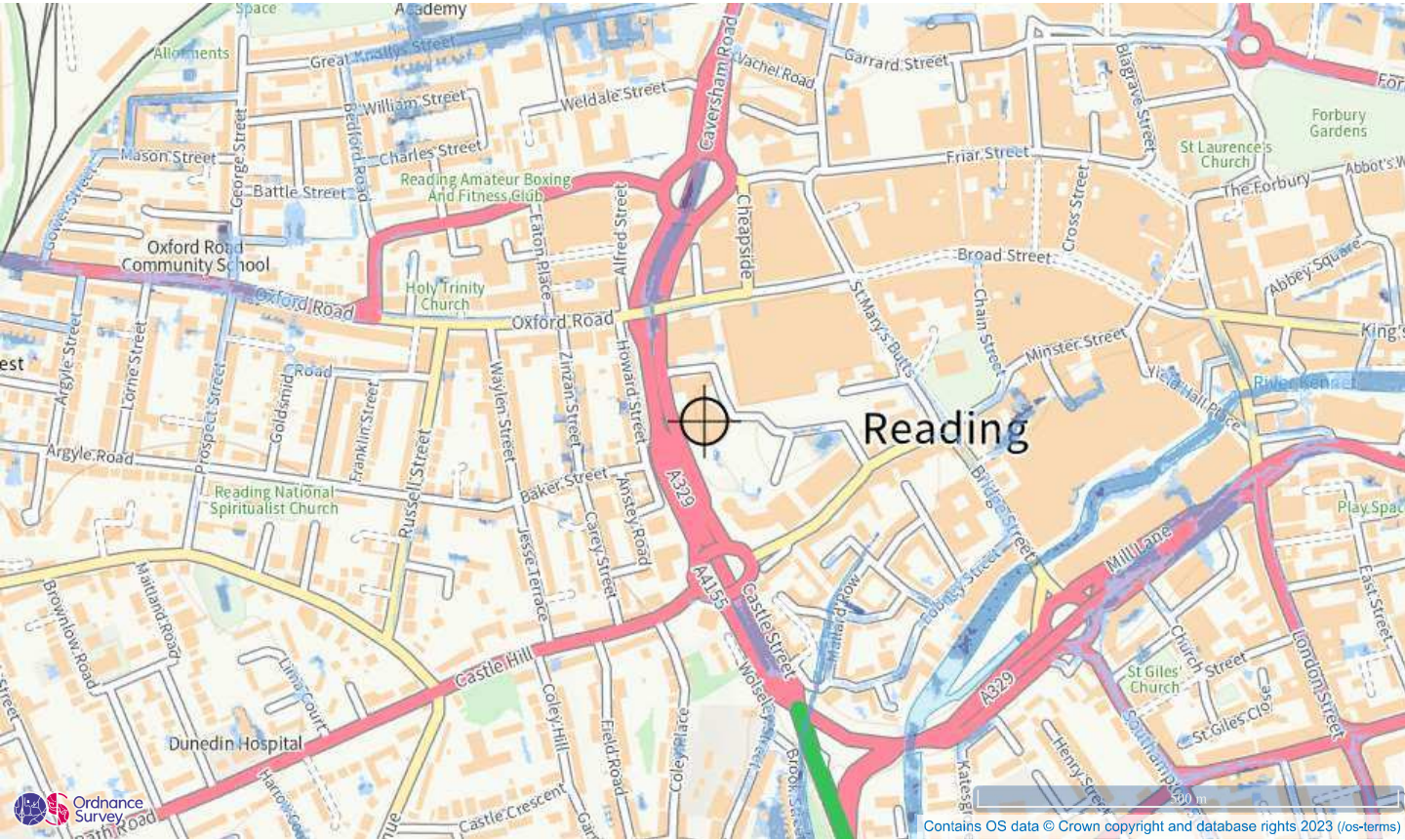
Flood risk

Medium risk: depth

▼

Location

Enter a place or postcode



Surface water flood risk: water depth in a medium risk scenario

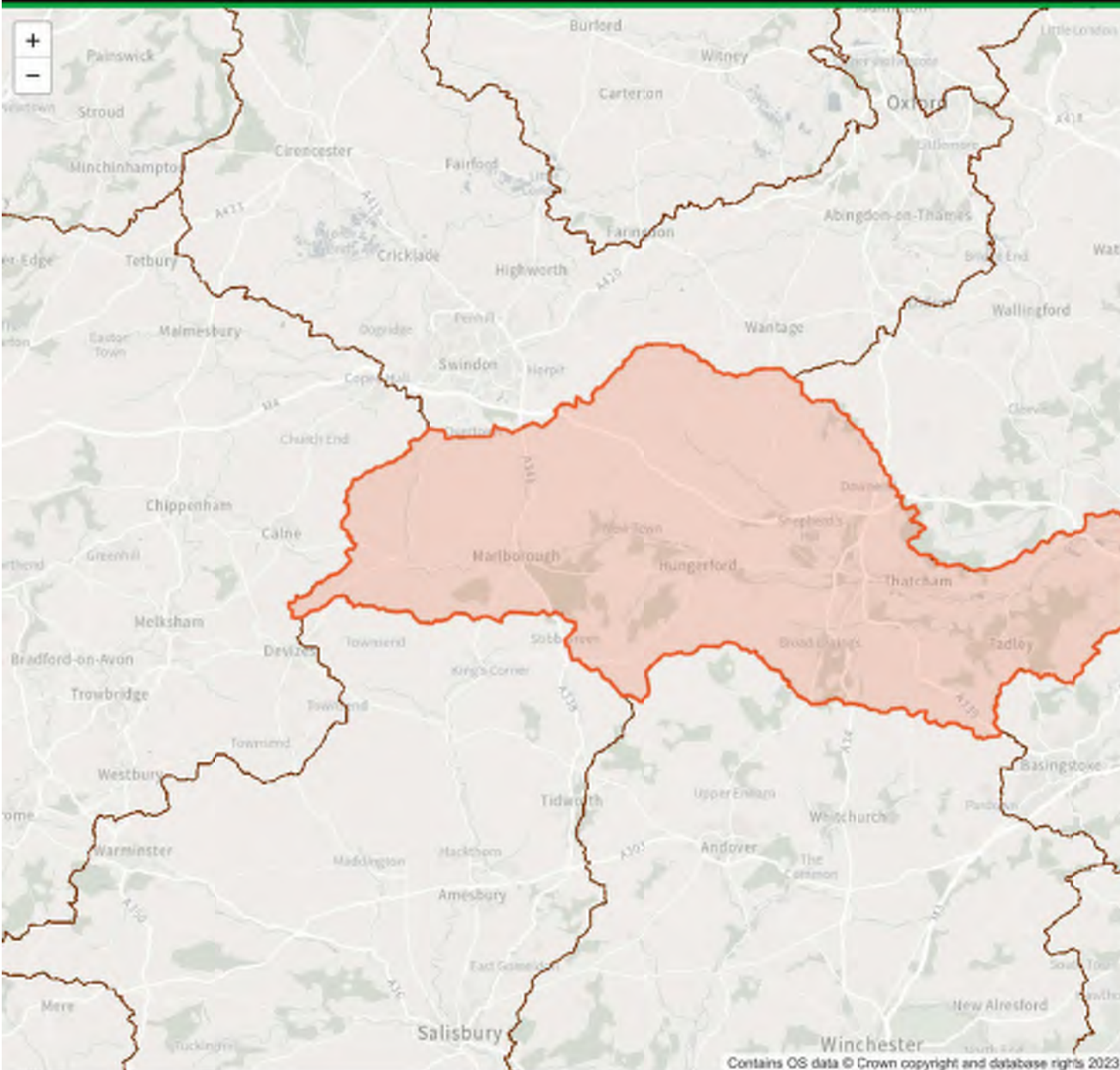
Flood depth (millimetres)

- Over 900mm
- 300 to 900mm
- Below 300mm
- Location you selected

[View the flood risk information for the location you originally searched for \(/risk\)](#)

[View the flood risk information for another location \(/postcode\)](#)

Appendix G: Calculations



Kennet and tributaries Management Catchment peak rainfall allowances

3.3% annual exceedance rainfall event

Epoch

	Central allowance	Upper end allowance
2050s	20%	35%
2070s	25%	35%

1% annual exceedance rainfall event

Epoch

	Central allowance	Upper end allowance
2050s	20%	40%
2070s	25%	40%

*Use '2050s' for development with a lifetime up to 2060 and use the 2070s epoch for development with a lifetime between 2061 and 2125.

This map contains information generated by Met Office Hadley Centre (2019): UKCP Local Projections on a 5km grid over the UK for 1980-2080. Centre for Environmental Data Analysis, 2022

Calculated by:	Tony Goff
Site name:	Hexbox
Site location:	Reading

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.

Site Details

Latitude:	51.45411° N
Longitude:	0.97791° W
Reference:	150616747
Date:	Dec 11 2023 15:25

Runoff estimation approach

IH124

Site characteristics

Indicative area (ha): 1

Methodology

Use estimation method:	Calculate from SPR and SAAR
SPR estimation method:	Calculate from SOIL type

Notes

(1) Is $Q_{BAR} < 2.0$ l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

Soil characteristics

	Default	Edited
SOIL type:	2	2
HOST class:	N/A	N/A
SPR/SPRHOST:	0.3	0.3

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

Hydrological characteristics

	Default	Edited
BAR (mm):	642	642
Hydrological region:	6	6
Greenfield runoff factor 1 year:	0.85	0.85
Greenfield runoff factor 30 years:	2.3	2.3
Greenfield runoff factor 100 years:	3.19	3.19
Greenfield runoff factor 200 years:	3.74	3.74

(3) Is $SPR/SPRHOST \leq 0.3$?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

	Default	Edited
Q _{BAR} (l/s):	1.65	1.65
Q ₁ (l/s):	1.4	1.4
Q ₃₀ (l/s):	3.79	3.79
Q ₁₀₀ (l/s):	5.25	5.25
Q ₂₀₀ (l/s):	6.16	6.16

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at 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 www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of 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, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

		Project: Hexbox, Hexagon Theatre, Reading				Project No: 5544	
		Surface Water Western side				Made by: TJG Date: Dec 2023	
		Planning stage Pre and Post Development runoff volumes 1:100 year 6 hour event				Revision 00	
						Page 1 of 1	
Development runoff volumes in 1:100 year 6 hour event							
Using the Wallingford method and calculating the M100-360 rainfall depth from the M5-60 rainfall							
depth gives a rainfall depth of		62.4mm		in the 1:100 Year 6 hour storm			
Total existing building and hard paved areas draining to west to sewer =						510m ²	
Total volume of rain falling onto the existing areas =						31.8m ³	
Assuming 95% runoff during long return period event gives discharge of						30.2m ³	
Total existing volume in 1:100yr 6 hour storm =						30.2m³	
Using the Wallingford method and calculating the M100-360 rainfall depth including 40% climate							
change allowance gives a rainfall depth of				82.9mm		in the 1:100 year 6 hour storm	
including 40% climate change allowance							
Discharge from site		= Area x urban creep x rainfall/1000 x discharge coefficient					
Proposed hard roof areas							
		0m ² 0% urban creep, 95% discharge				0.0m ³	
Proposed impermeable paving							
		271m ² 0% urban creep, 95% discharge				16.1m ³	
Proposed porous pavements. Ciria SUDS manual advises that a minimum of 5mm depth is retained							
therefore discharge based on M100-360 rainfall - 5mm =				57.4mm			
		0m ² 0% urban creep, 95% discharge				0.0m ³	
Total proposed volume discharged from 1:100 year event without climate change						17.7m³	
Total proposed volume discharged from the 1:100 year event + 40% climate change						21.3m ³	
The increase in overall paved areas leads to an increase in the discharge volume in the present							
day 1:100 year 6 hour storm without climate change.				Increase =		-12.6m³	
When climate change is taken into account the discharge volume increases by						-8.9m³	
It is not practical to reduce the discharge to the greenfield volume.							
The proposed discharge below the present day discharge from the previously developed site							
to the sewer to the west (the proposed roof drains to the east and to soakaway)							
This satisfies non statutory technical standard S5							

**Design Settings**

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	2	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	0.600
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	300.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Width (mm)	Easting (m)	Northing (m)	Depth (m)
S-4.003	0.018	5.00	39.845	1200	1000	139.544	-14.861	1.645
Attenuation			39.840	1200		144.783	-14.856	1.220
S-4.002			39.840	1200	1000	149.589	-14.894	1.700
S-4.001			39.840	600		149.587	-23.584	1.300
ex.MH			39.840	900		154.571	-23.583	1.350
S-4.004	0.031	5.00	40.200	600		127.841	-14.871	1.400
S-5.001			39.840	450		149.581	-10.686	0.840
S-5.002	0.035	5.00	39.840	450		150.894	-10.681	0.505
S-7.001	0.010	5.00	40.200	450		114.088	-26.243	0.800
S.4-005			40.200	600		127.858	-26.269	1.000
S-4.006	0.016	5.00	40.200	450		127.846	-31.946	0.800
S-6.001	0.007	5.00	39.850	450		138.948	-23.033	1.025

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)
1.003	S-4.003	Attenuation	5.239	0.600	38.650	38.620	0.030	174.6	225	5.54	47.4
1.004	Attenuation	S-4.002	4.806	0.600	38.620	38.590	0.030	160.2	225	5.62	47.2
1.005	S-4.002	S-4.001	8.690	0.600	38.590	38.540	0.050	173.8	150	5.81	46.5
1.006	S-4.001	ex.MH	4.984	0.600	38.540	38.490	0.050	99.7	150	5.89	46.2
1.002	S-4.004	S-4.003	11.703	0.600	38.800	38.700	0.100	117.0	225	5.45	47.8
4.001	S-5.001	S-4.002	4.208	0.600	39.300	38.950	0.350	12.0	150	5.04	49.3
4.000	S-5.002	S-5.001	1.313	0.600	39.335	39.300	0.035	37.5	150	5.01	49.3
1.000	S-7.001	S.4-005	13.770	0.600	39.400	39.200	0.200	68.9	150	5.19	48.7
1.001	S.4-005	S-4.004	11.398	0.600	39.200	38.800	0.400	28.5	150	5.29	48.3
2.000	S-4.006	S.4-005	5.677	0.600	39.400	39.200	0.200	28.4	150	5.05	49.2

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.003	0.986	39.2	14.1	0.970	0.995	0.082	0.0
1.004	1.030	41.0	14.0	0.995	1.025	0.082	0.0
1.005	0.759	13.4	19.7	1.100	1.150	0.117	0.0
1.006	1.006	17.8	19.5	1.150	1.200	0.117	0.0
1.002	1.207	48.0	9.9	1.175	0.920	0.057	0.0
4.001	2.921	51.6	6.2	0.390	0.740	0.035	0.0
4.000	1.648	29.1	6.2	0.355	0.390	0.035	0.0
1.000	1.213	21.4	1.8	0.650	0.850	0.010	0.0
1.001	1.893	33.5	4.6	0.850	1.250	0.026	0.0
2.000	1.897	33.5	2.9	0.650	0.850	0.016	0.0

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)
3.000	S-6.001	S-4.003	8.194	0.600	38.825	38.775	0.050	163.9	150	5.17	48.8

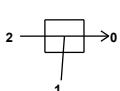
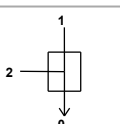
Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
3.000	0.782	13.8	1.2	0.875	0.920	0.007	0.0

Pipeline Schedule

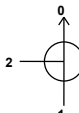
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.003	5.239	174.6	225	Circular	39.845	38.650	0.970	39.840	38.620	0.995
1.004	4.806	160.2	225	Circular	39.840	38.620	0.995	39.840	38.590	1.025
1.005	8.690	173.8	150	Circular	39.840	38.590	1.100	39.840	38.540	1.150
1.006	4.984	99.7	150	Circular	39.840	38.540	1.150	39.840	38.490	1.200
1.002	11.703	117.0	225	Circular	40.200	38.800	1.175	39.845	38.700	0.920
4.001	4.208	12.0	150	Circular	39.840	39.300	0.390	39.840	38.950	0.740
4.000	1.313	37.5	150	Circular	39.840	39.335	0.355	39.840	39.300	0.390
1.000	13.770	68.9	150	Circular	40.200	39.400	0.650	40.200	39.200	0.850
1.001	11.398	28.5	150	Circular	40.200	39.200	0.850	40.200	38.800	1.250
2.000	5.677	28.4	150	Circular	40.200	39.400	0.650	40.200	39.200	0.850
3.000	8.194	163.9	150	Circular	39.850	38.825	0.875	39.845	38.775	0.920

Link	US Node	Dia (mm)	Width (mm)	Node Type	MH Type	DS Node	Dia (mm)	Width (mm)	Node Type	MH Type
1.003	S-4.003	1200	1000	Manhole	Adoptable	Attenuation	1200		Manhole	Adoptable
1.004	Attenuation	1200		Manhole	Adoptable	S-4.002	1200	1000	Manhole	Adoptable
1.005	S-4.002	1200	1000	Manhole	Adoptable	S-4.001	600		Manhole	Adoptable
1.006	S-4.001	600		Manhole	Adoptable	ex.MH	900		Manhole	Adoptable
1.002	S-4.004	600		Manhole	Adoptable	S-4.003	1200	1000	Manhole	Adoptable
4.001	S-5.001	450		Manhole	Adoptable	S-4.002	1200	1000	Manhole	Adoptable
4.000	S-5.002	450		Junction		S-5.001	450		Manhole	Adoptable
1.000	S-7.001	450		Manhole	Adoptable	S-4-005	600		Manhole	Adoptable
1.001	S-4-005	600		Manhole	Adoptable	S-4.004	600		Manhole	Adoptable
2.000	S-4.006	450		Manhole	Adoptable	S-4-005	600		Manhole	Adoptable
3.000	S-6.001	450		Manhole	Adoptable	S-4.003	1200	1000	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)	
S-4.003	139.544	-14.861	39.845	1.645	1200	1000		1 2 0	3.000 1.002 1.003	38.775 38.700 38.650	150 225 225
Attenuation	144.783	-14.856	39.840	1.220	1200			1 0	1.003 1.004	38.620 38.620	225 225
S-4.002	149.589	-14.894	39.840	1.700	1200	1000		1 2 0	4.001 1.004 1.005	38.950 38.590 38.590	150 225 150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)
S-4.001	149.587	-23.584	39.840	1.300	600		1	1.005	38.540	150
							0	1.006	38.540	150
ex.MH	154.571	-23.583	39.840	1.350	900		1	1.006	38.490	150
S-4.004	127.841	-14.871	40.200	1.400	600		1	1.001	38.800	150
							0	1.002	38.800	225
S-5.001	149.581	-10.686	39.840	0.840	450		1	4.000	39.300	150
							0	4.001	39.300	150
S-5.002	150.894	-10.681	39.840	0.505	450					
							0	4.000	39.335	150
S-7.001	114.088	-26.243	40.200	0.800	450					
							0	1.000	39.400	150
S.4-005	127.858	-26.269	40.200	1.000	600		1	2.000	39.200	150
							2	1.000	39.200	150
							0	1.001	39.200	150
S-4.006	127.846	-31.946	40.200	0.800	450					
							0	2.000	39.400	150
S-6.001	138.948	-23.033	39.850	1.025	450					
							0	3.000	38.825	150

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	x	Check Discharge Rate(s)	x
Rainfall Events	Singular	Drain Down Time (mins)	1440	Check Discharge Volume	x
Summer CV	1.000	Additional Storage (m³/ha)	0.0		
Analysis Speed	Detailed	Starting Level (m)			

Storm Durations

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

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

Node S-4.002 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	38.590	Product Number	CTL-SHE-0070-2000-0820-2000
Design Depth (m)	0.820	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.0	Min Node Diameter (mm)	1200

Node S-5.001 Online Orifice Control

Flap Valve	✓	Design Depth (m)	0.410	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	1.0		
Invert Level (m)	39.300	Diameter (m)	0.027		

Node Attenuation Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.5	Invert Level (m)	38.660
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	468

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	91.0	91.0	0.750	91.0	116.4	0.751	0.0	116.4

Node S-5.002 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	39.410	Slope (1:X)	9999.9
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	408	Depth (m)	0.300
Safety Factor	1.5	Width (m)	10.000	Inf Depth (m)	
Porosity	0.30	Length (m)	35.000		

Other (defaults)

Entry Loss (manhole)	0.250	Entry Loss (junction)	0.000	Apply Recommended Losses	x
Exit Loss (manhole)	0.250	Exit Loss (junction)	0.000	Flood Risk (m)	0.300

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
2 year +40% CC +10% A 15 minute summer	138.533	39.200
2 year +40% CC +10% A 30 minute summer	88.928	25.164
2 year +40% CC +10% A 60 minute summer	58.734	15.522
2 year +40% CC +10% A 120 minute summer	42.081	11.121
2 year +40% CC +10% A 180 minute summer	34.193	8.799
2 year +40% CC +10% A 240 minute summer	27.778	7.341
2 year +40% CC +10% A 360 minute summer	21.647	5.571
2 year +40% CC +10% A 480 minute summer	17.133	4.528
2 year +40% CC +10% A 600 minute summer	14.026	3.836
2 year +40% CC +10% A 720 minute summer	12.469	3.342

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
2 year +40% CC +10% A 960 minute summer	10.161	2.676
2 year +40% CC +10% A 1440 minute summer	7.310	1.959
10 year +40% CC +10% A 15 minute summer	315.839	89.372
10 year +40% CC +10% A 30 minute summer	203.277	57.521
10 year +40% CC +10% A 60 minute summer	134.718	35.602
10 year +40% CC +10% A 120 minute summer	84.220	22.257
10 year +40% CC +10% A 180 minute summer	64.693	16.648
10 year +40% CC +10% A 240 minute summer	50.878	13.445
10 year +40% CC +10% A 360 minute summer	38.206	9.832
10 year +40% CC +10% A 480 minute summer	29.579	7.817
10 year +40% CC +10% A 600 minute summer	23.850	6.523
10 year +40% CC +10% A 720 minute summer	20.962	5.618
10 year +40% CC +10% A 960 minute summer	16.809	4.426
10 year +40% CC +10% A 1440 minute summer	11.824	3.169
30 year +40% CC +10% A 15 minute summer	427.975	121.102
30 year +40% CC +10% A 30 minute summer	279.197	79.003
30 year +40% CC +10% A 60 minute summer	186.070	49.173
30 year +40% CC +10% A 120 minute summer	112.086	29.621
30 year +40% CC +10% A 180 minute summer	84.600	21.771
30 year +40% CC +10% A 240 minute summer	65.863	17.406
30 year +40% CC +10% A 360 minute summer	48.947	12.596
30 year +40% CC +10% A 480 minute summer	37.653	9.951
30 year +40% CC +10% A 600 minute summer	30.219	8.266
30 year +40% CC +10% A 720 minute summer	26.464	7.093
30 year +40% CC +10% A 960 minute summer	21.105	5.557
30 year +40% CC +10% A 1440 minute summer	14.719	3.945
100 year +40% CC +10% A 15 minute summer	556.781	157.550
100 year +40% CC +10% A 30 minute summer	366.671	103.755
100 year +40% CC +10% A 60 minute summer	245.504	64.879
100 year +40% CC +10% A 120 minute summer	144.216	38.112
100 year +40% CC +10% A 180 minute summer	107.732	27.723
100 year +40% CC +10% A 240 minute summer	83.363	22.030
100 year +40% CC +10% A 360 minute summer	61.489	15.823
100 year +40% CC +10% A 480 minute summer	47.159	12.463
100 year +40% CC +10% A 600 minute summer	37.777	10.333
100 year +40% CC +10% A 720 minute summer	33.033	8.853
100 year +40% CC +10% A 960 minute summer	26.270	6.917
100 year +40% CC +10% A 1440 minute summer	18.201	4.878

Results for 2 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S-4.003	168	38.815	0.165	7.0	0.1981	0.0000	OK
240 minute summer	Attenuation	168	38.815	0.195	6.8	13.6683	0.0000	OK
240 minute summer	S-4.002	168	38.815	0.225	2.0	0.2700	0.0000	SURCHARGED
240 minute summer	S-4.001	168	38.576	0.036	2.0	0.0101	0.0000	OK
240 minute summer	ex.MH	168	38.524	0.034	2.0	0.0000	0.0000	OK
15 minute summer	S-4.004	10	38.889	0.089	14.2	0.0251	0.0000	OK
240 minute summer	S-5.001	168	39.463	0.163	2.9	0.0260	0.0000	SURCHARGED
240 minute summer	S-5.002	168	39.463	0.128	3.2	5.3889	0.0000	OK
15 minute summer	S-7.001	10	39.434	0.034	2.5	0.0055	0.0000	OK
15 minute summer	S-4-005	10	39.245	0.044	6.5	0.0126	0.0000	OK
15 minute summer	S-4.006	10	39.436	0.036	4.0	0.0057	0.0000	OK
15 minute summer	S-6.001	10	38.862	0.037	1.8	0.0060	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)
240 minute summer	S-4.003	1.003	Attenuation	6.8	0.376	0.174	0.1776	
240 minute summer	Attenuation	1.004	S-4.002	1.4	0.323	0.035	0.1834	
240 minute summer	S-4.002	1.005	S-4.001	2.0	0.566	0.147	0.0303	
240 minute summer	S-4.001	1.006	ex.MH	2.0	0.642	0.111	0.0153	38.2
15 minute summer	S-4.004	1.002	S-4.003	14.0	1.011	0.292	0.1623	
240 minute summer	S-5.001	4.001	S-4.002	0.6	0.958	0.011	0.0026	
240 minute summer	S-5.002	4.000	S-5.001	2.9	0.385	0.100	0.0221	
15 minute summer	S-7.001	1.000	S-4-005	2.5	0.671	0.116	0.0510	
15 minute summer	S-4-005	1.001	S-4.004	6.4	0.847	0.191	0.0867	
15 minute summer	S-4.006	2.000	S-4-005	4.0	1.054	0.119	0.0215	
15 minute summer	S-6.001	3.000	S-4.003	1.8	0.527	0.127	0.0274	

Results for 10 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S-4.003	224	39.016	0.366	12.6	0.4396	0.0000	SURCHARGED
240 minute summer	Attenuation	224	39.016	0.396	12.2	31.2925	0.0000	SURCHARGED
240 minute summer	S-4.002	224	39.016	0.426	2.1	0.5115	0.0000	SURCHARGED
30 minute summer	S-4.001	72	38.576	0.036	2.0	0.0101	0.0000	OK
30 minute summer	ex.MH	72	38.524	0.034	2.0	0.0000	0.0000	OK
240 minute summer	S-4.004	224	39.016	0.216	9.0	0.0612	0.0000	OK
180 minute summer	S-5.001	156	39.532	0.232	2.9	0.0369	0.0000	SURCHARGED
180 minute summer	S-5.002	156	39.532	0.197	6.4	12.6441	0.0000	SURCHARGED
15 minute summer	S-7.001	10	39.453	0.053	5.7	0.0084	0.0000	OK
15 minute summer	S-4-005	10	39.270	0.070	14.8	0.0197	0.0000	OK
15 minute summer	S-4.006	10	39.457	0.057	9.2	0.0091	0.0000	OK
240 minute summer	S-6.001	224	39.016	0.191	1.1	0.0304	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 summer	S-4.003	1.003	Attenuation	12.2	0.402	0.310	0.2084	
240 minute summer	Attenuation	1.004	S-4.002	1.5	0.273	0.038	0.1911	
240 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
30 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	37.0
240 minute summer	S-4.004	1.002	S-4.003	9.0	0.734	0.186	0.4623	
180 minute summer	S-5.001	4.001	S-4.002	0.7	1.005	0.014	0.0161	
180 minute summer	S-5.002	4.000	S-5.001	2.9	0.427	0.101	0.0231	
15 minute summer	S-7.001	1.000	S-4-005	5.6	0.836	0.263	0.0932	
15 minute summer	S-4-005	1.001	S-4.004	14.7	1.064	0.440	0.1459	
15 minute summer	S-4.006	2.000	S-4-005	9.2	1.295	0.273	0.0402	
240 minute summer	S-6.001	3.000	S-4.003	1.0	0.426	0.072	0.1443	

Results for 30 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S-4.003	244	39.181	0.531	15.7	0.6368	0.0000	SURCHARGED
240 minute summer	Attenuation	244	39.181	0.561	15.4	45.6902	0.0000	SURCHARGED
240 minute summer	S-4.002	244	39.181	0.591	2.2	0.7088	0.0000	SURCHARGED
240 minute summer	S-4.001	636	38.576	0.036	2.0	0.0101	0.0000	OK
240 minute summer	ex.MH	636	38.524	0.034	2.0	0.0000	0.0000	OK
240 minute summer	S-4.004	244	39.181	0.381	11.6	0.1077	0.0000	SURCHARGED
180 minute summer	S-5.001	180	39.582	0.282	2.6	0.0449	0.0000	FLOOD RISK
180 minute summer	S-5.002	180	39.582	0.247	8.4	17.8921	0.0000	FLOOD RISK
15 minute summer	S-7.001	10	39.463	0.063	7.7	0.0100	0.0000	OK
15 minute summer	S-4-005	11	39.294	0.094	20.1	0.0267	0.0000	OK
15 minute summer	S-4.006	10	39.469	0.069	12.5	0.0109	0.0000	OK
240 minute summer	S-6.001	244	39.181	0.356	1.4	0.0566	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 summer	S-4.003	1.003	Attenuation	15.4	0.447	0.392	0.2084	
240 minute summer	Attenuation	1.004	S-4.002	1.9	0.227	0.046	0.1911	
240 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
240 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	89.5
240 minute summer	S-4.004	1.002	S-4.003	11.1	0.689	0.230	0.4654	
180 minute summer	S-5.001	4.001	S-4.002	0.8	0.999	0.015	0.0386	
180 minute summer	S-5.002	4.000	S-5.001	2.6	0.430	0.089	0.0231	
15 minute summer	S-7.001	1.000	S-4-005	7.6	0.867	0.356	0.1265	
15 minute summer	S-4-005	1.001	S-4.004	19.7	1.232	0.588	0.1669	
15 minute summer	S-4.006	2.000	S-4-005	12.5	1.357	0.372	0.0546	
240 minute summer	S-6.001	3.000	S-4.003	1.2	0.418	0.086	0.1443	

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S-4.003	244	39.351	0.701	20.4	0.8411	0.0000	SURCHARGED
240 minute summer	Attenuation	244	39.351	0.731	20.1	60.6009	0.0000	SURCHARGED
240 minute summer	S-4.002	244	39.351	0.761	2.2	0.9131	0.0000	SURCHARGED
30 minute summer	S-4.001	365	38.576	0.036	2.0	0.0101	0.0000	OK
30 minute summer	ex.MH	365	38.524	0.034	2.0	0.0000	0.0000	OK
240 minute summer	S-4.004	244	39.351	0.551	14.7	0.1559	0.0000	SURCHARGED
180 minute summer	S-5.001	180	39.642	0.342	2.2	0.0545	0.0000	FLOOD RISK
180 minute summer	S-5.002	180	39.643	0.308	10.7	24.2054	0.0000	FLOOD RISK
15 minute summer	S-7.001	12	39.508	0.108	10.0	0.0172	0.0000	OK
15 minute summer	S-4-005	11	39.480	0.280	25.1	0.0792	0.0000	SURCHARGED
15 minute summer	S-4.006	11	39.524	0.124	16.2	0.0198	0.0000	OK
240 minute summer	S-6.001	244	39.351	0.526	1.8	0.0836	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 summer	S-4.003	1.003	Attenuation	20.1	0.507	0.514	0.2084	
240 minute summer	Attenuation	1.004	S-4.002	2.0	0.107	0.048	0.1911	
240 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
30 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	66.9
240 minute summer	S-4.004	1.002	S-4.003	14.3	0.638	0.299	0.4654	
180 minute summer	S-5.001	4.001	S-4.002	0.9	1.002	0.017	0.0447	
180 minute summer	S-5.002	4.000	S-5.001	2.2	0.168	0.076	0.0231	
15 minute summer	S-7.001	1.000	S-4-005	9.8	0.877	0.457	0.2148	
15 minute summer	S-4-005	1.001	S-4.004	23.3	1.325	0.697	0.2007	
15 minute summer	S-4.006	2.000	S-4-005	15.2	1.389	0.455	0.0943	
240 minute summer	S-6.001	3.000	S-4.003	1.6	0.418	0.114	0.1443	

Results for 2 year +40% CC +10% A 15 minute summer. 1455 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S-4.003	11	38.767	0.117	20.2	0.1402	0.0000	OK
15 minute summer	Attenuation	19	38.743	0.123	20.0	7.3645	0.0000	OK
15 minute summer	S-4.002	18	38.743	0.153	2.1	0.1839	0.0000	SURCHARGED
15 minute summer	S-4.001	19	38.574	0.034	1.8	0.0096	0.0000	OK
15 minute summer	ex.MH	19	38.522	0.032	1.8	0.0000	0.0000	OK
15 minute summer	S-4.004	10	38.889	0.089	14.2	0.0251	0.0000	OK
15 minute summer	S-5.001	16	39.444	0.144	3.2	0.0230	0.0000	OK
15 minute summer	S-5.002	18	39.441	0.106	8.7	3.0414	0.0000	OK
15 minute summer	S-7.001	10	39.434	0.034	2.5	0.0055	0.0000	OK
15 minute summer	S.4-005	10	39.245	0.044	6.5	0.0126	0.0000	OK
15 minute summer	S-4.006	10	39.436	0.036	4.0	0.0057	0.0000	OK
15 minute summer	S-6.001	10	38.862	0.037	1.8	0.0060	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S-4.003	1.003	Attenuation	20.0	1.292	0.510	0.0986	
15 minute summer	Attenuation	1.004	S-4.002	1.8	0.465	0.044	0.1225	
15 minute summer	S-4.002	1.005	S-4.001	1.8	0.554	0.135	0.0285	
15 minute summer	S-4.001	1.006	ex.MH	1.8	0.629	0.102	0.0144	12.6
15 minute summer	S-4.004	1.002	S-4.003	14.0	1.011	0.292	0.1623	
15 minute summer	S-5.001	4.001	S-4.002	0.5	0.936	0.011	0.0024	
15 minute summer	S-5.002	4.000	S-5.001	3.2	0.735	0.110	0.0201	
15 minute summer	S-7.001	1.000	S.4-005	2.5	0.671	0.116	0.0510	
15 minute summer	S.4-005	1.001	S-4.004	6.4	0.847	0.191	0.0867	
15 minute summer	S-4.006	2.000	S.4-005	4.0	1.054	0.119	0.0215	
15 minute summer	S-6.001	3.000	S-4.003	1.8	0.527	0.127	0.0274	

Results for 2 year +40% CC +10% A 30 minute summer. 1470 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S-4.003	19	38.764	0.114	18.0	0.1372	0.0000	OK
30 minute summer	Attenuation	33	38.762	0.142	17.9	9.0007	0.0000	OK
30 minute summer	S-4.002	33	38.762	0.172	2.0	0.2061	0.0000	SURCHARGED
30 minute summer	S-4.001	33	38.575	0.035	1.9	0.0098	0.0000	OK
30 minute summer	ex.MH	33	38.523	0.033	1.9	0.0000	0.0000	OK
30 minute summer	S-4.004	18	38.883	0.083	12.6	0.0236	0.0000	OK
30 minute summer	S-5.001	30	39.449	0.149	4.4	0.0237	0.0000	OK
30 minute summer	S-5.002	32	39.447	0.112	7.7	3.7027	0.0000	OK
30 minute summer	S-7.001	18	39.432	0.032	2.2	0.0052	0.0000	OK
30 minute summer	S.4-005	18	39.242	0.042	5.8	0.0120	0.0000	OK
30 minute summer	S-4.006	18	39.434	0.034	3.6	0.0054	0.0000	OK
30 minute summer	S-6.001	18	38.859	0.034	1.5	0.0055	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S-4.003	1.003	Attenuation	17.9	1.070	0.456	0.1205	
30 minute summer	Attenuation	1.004	S-4.002	1.6	0.395	0.039	0.1414	
30 minute summer	S-4.002	1.005	S-4.001	1.9	0.559	0.140	0.0292	
30 minute summer	S-4.001	1.006	ex.MH	1.9	0.634	0.105	0.0147	16.3
30 minute summer	S-4.004	1.002	S-4.003	12.6	0.985	0.262	0.1497	
30 minute summer	S-5.001	4.001	S-4.002	0.6	0.942	0.011	0.0025	
30 minute summer	S-5.002	4.000	S-5.001	4.4	0.711	0.151	0.0208	
30 minute summer	S-7.001	1.000	S.4-005	2.2	0.643	0.103	0.0473	
30 minute summer	S.4-005	1.001	S-4.004	5.8	0.829	0.173	0.0805	
30 minute summer	S-4.006	2.000	S.4-005	3.6	1.031	0.107	0.0200	
30 minute summer	S-6.001	3.000	S-4.003	1.5	0.505	0.108	0.0243	

Results for 2 year +40% CC +10% A 60 minute summer. 1500 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S-4.003	60	38.773	0.123	13.1	0.1474	0.0000	OK
60 minute summer	Attenuation	60	38.773	0.153	13.0	9.9592	0.0000	OK
60 minute summer	S-4.002	60	38.773	0.183	2.0	0.2192	0.0000	SURCHARGED
60 minute summer	S-4.001	61	38.575	0.035	1.9	0.0099	0.0000	OK
60 minute summer	ex.MH	61	38.523	0.033	1.9	0.0000	0.0000	OK
60 minute summer	S-4.004	33	38.870	0.070	9.2	0.0198	0.0000	OK
60 minute summer	S-5.001	54	39.451	0.151	3.4	0.0240	0.0000	SURCHARGED
60 minute summer	S-5.002	60	39.450	0.115	6.2	3.9760	0.0000	OK
60 minute summer	S-7.001	33	39.428	0.028	1.6	0.0044	0.0000	OK
60 minute summer	S-4-005	33	39.236	0.036	4.2	0.0102	0.0000	OK
60 minute summer	S-4.006	33	39.428	0.028	2.6	0.0045	0.0000	OK
60 minute summer	S-6.001	34	38.854	0.029	1.1	0.0047	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S-4.003	1.003	Attenuation	13.0	0.794	0.332	0.1332	
60 minute summer	Attenuation	1.004	S-4.002	1.5	0.412	0.036	0.1519	
60 minute summer	S-4.002	1.005	S-4.001	1.9	0.561	0.142	0.0295	
60 minute summer	S-4.001	1.006	ex.MH	1.9	0.636	0.107	0.0149	20.0
60 minute summer	S-4.004	1.002	S-4.003	9.2	0.907	0.191	0.1187	
60 minute summer	S-5.001	4.001	S-4.002	0.6	0.944	0.011	0.0025	
60 minute summer	S-5.002	4.000	S-5.001	3.4	0.571	0.118	0.0210	
60 minute summer	S-7.001	1.000	S-4-005	1.6	0.587	0.075	0.0377	
60 minute summer	S-4-005	1.001	S-4.004	4.2	0.755	0.126	0.0644	
60 minute summer	S-4.006	2.000	S-4-005	2.6	0.943	0.078	0.0158	
60 minute summer	S-6.001	3.000	S-4.003	1.1	0.463	0.080	0.0195	

Results for 2 year +40% CC +10% A 120 minute summer. 1560 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	S-4.003	98	38.803	0.153	10.1	0.1832	0.0000	OK
120 minute summer	Attenuation	100	38.803	0.183	10.0	12.5794	0.0000	OK
120 minute summer	S-4.002	100	38.803	0.213	2.0	0.2551	0.0000	SURCHARGED
120 minute summer	S-4.001	100	38.575	0.035	2.0	0.0100	0.0000	OK
120 minute summer	ex.MH	100	38.524	0.034	2.0	0.0000	0.0000	OK
120 minute summer	S-4.004	64	38.861	0.061	7.0	0.0171	0.0000	OK
120 minute summer	S-5.001	98	39.459	0.159	2.8	0.0253	0.0000	SURCHARGED
120 minute summer	S-5.002	98	39.459	0.124	5.2	4.9395	0.0000	OK
120 minute summer	S-7.001	64	39.424	0.024	1.2	0.0038	0.0000	OK
120 minute summer	S-4-005	64	39.231	0.031	3.2	0.0089	0.0000	OK
120 minute summer	S-4.006	64	39.425	0.025	2.0	0.0040	0.0000	OK
120 minute summer	S-6.001	64	38.852	0.027	0.9	0.0042	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S-4.003	1.003	Attenuation	10.0	0.553	0.255	0.1656	
120 minute summer	Attenuation	1.004	S-4.002	1.5	0.322	0.036	0.1764	
120 minute summer	S-4.002	1.005	S-4.001	2.0	0.565	0.146	0.0301	
120 minute summer	S-4.001	1.006	ex.MH	2.0	0.641	0.110	0.0152	28.7
120 minute summer	S-4.004	1.002	S-4.003	7.0	0.843	0.146	0.1166	
120 minute summer	S-5.001	4.001	S-4.002	0.6	0.954	0.011	0.0025	
120 minute summer	S-5.002	4.000	S-5.001	2.8	0.489	0.095	0.0218	
120 minute summer	S-7.001	1.000	S-4-005	1.2	0.537	0.056	0.0309	
120 minute summer	S-4-005	1.001	S-4.004	3.2	0.700	0.096	0.0531	
120 minute summer	S-4.006	2.000	S-4-005	2.0	0.879	0.060	0.0130	
120 minute summer	S-6.001	3.000	S-4.003	0.9	0.437	0.065	0.0169	

Results for 2 year +40% CC +10% A 180 minute summer. 1620 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	S-4.003	132	38.813	0.163	8.0	0.1955	0.0000	OK
180 minute summer	Attenuation	132	38.813	0.193	7.9	13.4774	0.0000	OK
180 minute summer	S-4.002	132	38.813	0.223	2.0	0.2674	0.0000	SURCHARGED
180 minute summer	S-4.001	136	38.576	0.036	2.0	0.0101	0.0000	OK
180 minute summer	ex.MH	136	38.524	0.034	2.0	0.0000	0.0000	OK
180 minute summer	S-4.004	96	38.854	0.054	5.6	0.0152	0.0000	OK
180 minute summer	S-5.001	132	39.462	0.162	2.7	0.0258	0.0000	SURCHARGED
180 minute summer	S-5.002	132	39.462	0.127	3.7	5.2506	0.0000	OK
180 minute summer	S-7.001	96	39.422	0.022	1.0	0.0035	0.0000	OK
180 minute summer	S-4-005	96	39.228	0.028	2.6	0.0080	0.0000	OK
180 minute summer	S-4.006	96	39.422	0.022	1.6	0.0036	0.0000	OK
180 minute summer	S-6.001	96	38.848	0.023	0.7	0.0037	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S-4.003	1.003	Attenuation	7.9	0.434	0.201	0.1756	
180 minute summer	Attenuation	1.004	S-4.002	1.4	0.296	0.035	0.1825	
180 minute summer	S-4.002	1.005	S-4.001	2.0	0.566	0.147	0.0303	
180 minute summer	S-4.001	1.006	ex.MH	2.0	0.642	0.111	0.0153	34.2
180 minute summer	S-4.004	1.002	S-4.003	5.6	0.787	0.117	0.1299	
180 minute summer	S-5.001	4.001	S-4.002	0.6	0.957	0.011	0.0026	
180 minute summer	S-5.002	4.000	S-5.001	2.7	0.419	0.092	0.0220	
180 minute summer	S-7.001	1.000	S-4-005	1.0	0.514	0.047	0.0269	
180 minute summer	S-4-005	1.001	S-4.004	2.6	0.668	0.078	0.0453	
180 minute summer	S-4.006	2.000	S-4-005	1.6	0.819	0.048	0.0112	
180 minute summer	S-6.001	3.000	S-4.003	0.7	0.407	0.051	0.0166	

Results for 2 year +40% CC +10% A 240 minute summer. 1680 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S-4.003	168	38.815	0.165	7.0	0.1981	0.0000	OK
240 minute summer	Attenuation	168	38.815	0.195	6.8	13.6683	0.0000	OK
240 minute summer	S-4.002	168	38.815	0.225	2.0	0.2700	0.0000	SURCHARGED
240 minute summer	S-4.001	168	38.576	0.036	2.0	0.0101	0.0000	OK
240 minute summer	ex.MH	168	38.524	0.034	2.0	0.0000	0.0000	OK
240 minute summer	S-4.004	124	38.850	0.050	4.9	0.0141	0.0000	OK
240 minute summer	S-5.001	168	39.463	0.163	2.9	0.0260	0.0000	SURCHARGED
240 minute summer	S-5.002	168	39.463	0.128	3.2	5.3889	0.0000	OK
240 minute summer	S-7.001	124	39.420	0.020	0.8	0.0032	0.0000	OK
240 minute summer	S-4-005	124	39.226	0.026	2.2	0.0074	0.0000	OK
240 minute summer	S-4.006	124	39.421	0.021	1.4	0.0033	0.0000	OK
240 minute summer	S-6.001	128	38.847	0.022	0.6	0.0034	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S-4.003	1.003	Attenuation	6.8	0.376	0.174	0.1776	
240 minute summer	Attenuation	1.004	S-4.002	1.4	0.323	0.035	0.1834	
240 minute summer	S-4.002	1.005	S-4.001	2.0	0.566	0.147	0.0303	
240 minute summer	S-4.001	1.006	ex.MH	2.0	0.642	0.111	0.0153	38.2
240 minute summer	S-4.004	1.002	S-4.003	4.9	0.746	0.102	0.1324	
240 minute summer	S-5.001	4.001	S-4.002	0.6	0.958	0.011	0.0026	
240 minute summer	S-5.002	4.000	S-5.001	2.9	0.385	0.100	0.0221	
240 minute summer	S-7.001	1.000	S-4-005	0.8	0.479	0.037	0.0235	
240 minute summer	S-4-005	1.001	S-4.004	2.2	0.637	0.065	0.0408	
240 minute summer	S-4.006	2.000	S-4-005	1.4	0.794	0.042	0.0100	
240 minute summer	S-6.001	3.000	S-4.003	0.6	0.389	0.043	0.0178	

Results for 2 year +40% CC +10% A 360 minute summer. 1800 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	S-4.003	240	38.811	0.161	5.6	0.1932	0.0000	OK
360 minute summer	Attenuation	240	38.811	0.191	5.4	13.3076	0.0000	OK
360 minute summer	S-4.002	240	38.811	0.221	2.0	0.2651	0.0000	SURCHARGED
360 minute summer	S-4.001	240	38.576	0.036	2.0	0.0101	0.0000	OK
360 minute summer	ex.MH	240	38.524	0.034	2.0	0.0000	0.0000	OK
360 minute summer	S-4.004	184	38.844	0.044	3.9	0.0124	0.0000	OK
360 minute summer	S-5.001	240	39.459	0.159	2.5	0.0253	0.0000	SURCHARGED
360 minute summer	S-5.002	240	39.459	0.124	2.6	4.9257	0.0000	OK
360 minute summer	S-7.001	184	39.419	0.019	0.7	0.0030	0.0000	OK
360 minute summer	S-4-005	184	39.224	0.024	1.8	0.0067	0.0000	OK
360 minute summer	S-4.006	184	39.419	0.019	1.1	0.0030	0.0000	OK
360 minute summer	S-6.001	184	38.845	0.020	0.5	0.0031	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S-4.003	1.003	Attenuation	5.4	0.315	0.138	0.1738	
360 minute summer	Attenuation	1.004	S-4.002	1.4	0.098	0.035	0.1814	
360 minute summer	S-4.002	1.005	S-4.001	2.0	0.566	0.147	0.0302	
360 minute summer	S-4.001	1.006	ex.MH	2.0	0.642	0.111	0.0153	43.3
360 minute summer	S-4.004	1.002	S-4.003	3.9	0.681	0.081	0.1266	
360 minute summer	S-5.001	4.001	S-4.002	0.6	0.954	0.011	0.0025	
360 minute summer	S-5.002	4.000	S-5.001	2.5	0.230	0.084	0.0218	
360 minute summer	S-7.001	1.000	S-4-005	0.7	0.464	0.032	0.0207	
360 minute summer	S-4-005	1.001	S-4.004	1.8	0.601	0.053	0.0346	
360 minute summer	S-4.006	2.000	S-4-005	1.1	0.728	0.033	0.0086	
360 minute summer	S-6.001	3.000	S-4.003	0.5	0.367	0.036	0.0151	

Results for 2 year +40% CC +10% A 480 minute summer. 1920 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	S-4.003	304	38.797	0.147	4.2	0.1761	0.0000	OK
480 minute summer	Attenuation	304	38.797	0.177	4.1	12.0603	0.0000	OK
480 minute summer	S-4.002	304	38.797	0.207	2.0	0.2480	0.0000	SURCHARGED
480 minute summer	S-4.001	304	38.575	0.035	1.9	0.0100	0.0000	OK
480 minute summer	ex.MH	304	38.523	0.033	1.9	0.0000	0.0000	OK
480 minute summer	S-4.004	240	38.838	0.038	2.9	0.0109	0.0000	OK
480 minute summer	S-5.001	304	39.457	0.157	2.0	0.0249	0.0000	SURCHARGED
480 minute summer	S-5.002	304	39.457	0.122	2.7	4.7123	0.0000	OK
480 minute summer	S-7.001	240	39.416	0.016	0.5	0.0025	0.0000	OK
480 minute summer	S-4-005	248	39.220	0.020	1.3	0.0057	0.0000	OK
480 minute summer	S-4.006	248	39.416	0.016	0.8	0.0026	0.0000	OK
480 minute summer	S-6.001	248	38.843	0.018	0.4	0.0028	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S-4.003	1.003	Attenuation	4.1	0.294	0.105	0.1595	
480 minute summer	Attenuation	1.004	S-4.002	1.4	0.098	0.034	0.1722	
480 minute summer	S-4.002	1.005	S-4.001	1.9	0.564	0.145	0.0300	
480 minute summer	S-4.001	1.006	ex.MH	1.9	0.640	0.110	0.0152	46.5
480 minute summer	S-4.004	1.002	S-4.003	2.9	0.658	0.060	0.1075	
480 minute summer	S-5.001	4.001	S-4.002	0.6	0.952	0.011	0.0025	
480 minute summer	S-5.002	4.000	S-5.001	2.0	0.249	0.068	0.0216	
480 minute summer	S-7.001	1.000	S-4-005	0.5	0.430	0.023	0.0166	
480 minute summer	S-4-005	1.001	S-4.004	1.3	0.551	0.039	0.0283	
480 minute summer	S-4.006	2.000	S-4-005	0.8	0.662	0.024	0.0069	
480 minute summer	S-6.001	3.000	S-4.003	0.4	0.346	0.029	0.0095	

Results for 2 year +40% CC +10% A 600 minute summer. 2040 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	S-4.003	375	38.792	0.142	3.5	0.1702	0.0000	OK
600 minute summer	Attenuation	375	38.792	0.172	3.4	11.6280	0.0000	OK
600 minute summer	S-4.002	375	38.792	0.202	1.9	0.2421	0.0000	SURCHARGED
600 minute summer	S-4.001	375	38.575	0.035	1.9	0.0100	0.0000	OK
600 minute summer	ex.MH	375	38.523	0.033	1.9	0.0000	0.0000	OK
600 minute summer	S-4.004	300	38.835	0.035	2.4	0.0099	0.0000	OK
600 minute summer	S-5.001	375	39.454	0.154	3.1	0.0244	0.0000	SURCHARGED
600 minute summer	S-5.002	375	39.454	0.119	2.4	4.3612	0.0000	OK
600 minute summer	S-7.001	315	39.414	0.014	0.4	0.0023	0.0000	OK
600 minute summer	S-4-005	315	39.219	0.019	1.1	0.0053	0.0000	OK
600 minute summer	S-4.006	315	39.415	0.015	0.7	0.0024	0.0000	OK
600 minute summer	S-6.001	315	38.841	0.016	0.3	0.0025	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S-4.003	1.003	Attenuation	3.4	0.281	0.088	0.1542	
600 minute summer	Attenuation	1.004	S-4.002	1.4	0.097	0.034	0.1684	
600 minute summer	S-4.002	1.005	S-4.001	1.9	0.564	0.145	0.0299	
600 minute summer	S-4.001	1.006	ex.MH	1.9	0.640	0.109	0.0151	49.6
600 minute summer	S-4.004	1.002	S-4.003	2.4	0.623	0.050	0.1011	
600 minute summer	S-5.001	4.001	S-4.002	0.6	0.948	0.011	0.0025	
600 minute summer	S-5.002	4.000	S-5.001	3.1	-0.279	0.107	0.0214	
600 minute summer	S-7.001	1.000	S-4-005	0.4	0.383	0.019	0.0145	
600 minute summer	S-4-005	1.001	S-4.004	1.1	0.530	0.033	0.0248	
600 minute summer	S-4.006	2.000	S-4-005	0.7	0.647	0.021	0.0062	
600 minute summer	S-6.001	3.000	S-4.003	0.3	0.320	0.022	0.0077	

Results for 2 year +40% CC +10% A 720 minute summer. 2160 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	S-4.003	435	38.782	0.132	3.2	0.1584	0.0000	OK
720 minute summer	Attenuation	435	38.782	0.162	3.1	10.7673	0.0000	OK
720 minute summer	S-4.002	435	38.782	0.192	1.9	0.2303	0.0000	SURCHARGED
720 minute summer	S-4.001	435	38.575	0.035	1.9	0.0099	0.0000	OK
720 minute summer	ex.MH	435	38.523	0.033	1.9	0.0000	0.0000	OK
720 minute summer	S-4.004	360	38.833	0.033	2.2	0.0094	0.0000	OK
720 minute summer	S-5.001	420	39.448	0.148	1.8	0.0235	0.0000	OK
720 minute summer	S-5.002	435	39.448	0.113	2.5	3.7417	0.0000	OK
720 minute summer	S-7.001	375	39.414	0.014	0.4	0.0023	0.0000	OK
720 minute summer	S-4-005	375	39.218	0.018	1.0	0.0051	0.0000	OK
720 minute summer	S-4.006	375	39.414	0.014	0.6	0.0022	0.0000	OK
720 minute summer	S-6.001	375	38.841	0.016	0.3	0.0025	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S-4.003	1.003	Attenuation	3.1	0.270	0.080	0.1435	
720 minute summer	Attenuation	1.004	S-4.002	1.4	0.087	0.034	0.1602	
720 minute summer	S-4.002	1.005	S-4.001	1.9	0.562	0.143	0.0297	
720 minute summer	S-4.001	1.006	ex.MH	1.9	0.638	0.108	0.0150	51.2
720 minute summer	S-4.004	1.002	S-4.003	2.2	0.607	0.046	0.0885	
720 minute summer	S-5.001	4.001	S-4.002	0.6	0.942	0.011	0.0025	
720 minute summer	S-5.002	4.000	S-5.001	1.8	0.157	0.061	0.0208	
720 minute summer	S-7.001	1.000	S-4-005	0.4	0.397	0.019	0.0140	
720 minute summer	S-4-005	1.001	S-4.004	1.0	0.512	0.030	0.0233	
720 minute summer	S-4.006	2.000	S-4-005	0.6	0.603	0.018	0.0057	
720 minute summer	S-6.001	3.000	S-4.003	0.3	0.320	0.022	0.0077	

Results for 2 year +40% CC +10% A 960 minute summer. 2400 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	S-4.003	570	38.760	0.110	2.5	0.1321	0.0000	OK
960 minute summer	Attenuation	570	38.760	0.140	2.5	8.8444	0.0000	OK
960 minute summer	S-4.002	570	38.760	0.170	1.9	0.2039	0.0000	SURCHARGED
960 minute summer	S-4.001	570	38.575	0.035	1.9	0.0098	0.0000	OK
960 minute summer	ex.MH	570	38.523	0.033	1.9	0.0000	0.0000	OK
960 minute summer	S-4.004	480	38.830	0.030	1.8	0.0086	0.0000	OK
960 minute summer	S-5.001	570	39.443	0.143	2.4	0.0227	0.0000	OK
960 minute summer	S-5.002	570	39.440	0.105	2.1	2.9444	0.0000	OK
960 minute summer	S-7.001	480	39.412	0.012	0.3	0.0020	0.0000	OK
960 minute summer	S-4-005	495	39.216	0.016	0.8	0.0046	0.0000	OK
960 minute summer	S-4.006	495	39.413	0.013	0.5	0.0020	0.0000	OK
960 minute summer	S-6.001	465	38.838	0.013	0.2	0.0020	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S-4.003	1.003	Attenuation	2.5	0.260	0.063	0.1185	
960 minute summer	Attenuation	1.004	S-4.002	1.3	0.087	0.033	0.1397	
960 minute summer	S-4.002	1.005	S-4.001	1.9	0.558	0.139	0.0291	
960 minute summer	S-4.001	1.006	ex.MH	1.9	0.633	0.105	0.0147	53.8
960 minute summer	S-4.004	1.002	S-4.003	1.8	0.574	0.038	0.0616	
960 minute summer	S-5.001	4.001	S-4.002	0.5	0.933	0.010	0.0024	
960 minute summer	S-5.002	4.000	S-5.001	2.4	0.193	0.083	0.0200	
960 minute summer	S-7.001	1.000	S-4-005	0.3	0.373	0.014	0.0117	
960 minute summer	S-4-005	1.001	S-4.004	0.8	0.471	0.024	0.0202	
960 minute summer	S-4.006	2.000	S-4-005	0.5	0.577	0.015	0.0049	
960 minute summer	S-6.001	3.000	S-4.003	0.2	0.285	0.014	0.0058	

Results for 2 year +40% CC +10% A 1440 minute summer. 2880 minute analysis at 30 minute timestep. Mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	S-4.003	810	38.735	0.085	1.9	0.1018	0.0000	OK
1440 minute summer	Attenuation	810	38.735	0.115	1.9	6.6294	0.0000	OK
1440 minute summer	S-4.002	810	38.735	0.145	1.8	0.1735	0.0000	OK
1440 minute summer	S-4.001	810	38.574	0.034	1.8	0.0096	0.0000	OK
1440 minute summer	ex.MH	810	38.522	0.032	1.8	0.0000	0.0000	OK
1440 minute summer	S-4.004	750	38.826	0.026	1.3	0.0073	0.0000	OK
1440 minute summer	S-5.001	780	39.431	0.131	2.7	0.0208	0.0000	OK
1440 minute summer	S-5.002	810	39.426	0.091	1.9	1.4861	0.0000	OK
1440 minute summer	S-7.001	690	39.410	0.010	0.2	0.0016	0.0000	OK
1440 minute summer	S-4-005	750	39.214	0.014	0.6	0.0040	0.0000	OK
1440 minute summer	S-4.006	750	39.412	0.012	0.4	0.0018	0.0000	OK
1440 minute summer	S-6.001	750	38.838	0.013	0.2	0.0020	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S-4.003	1.003	Attenuation	1.9	0.259	0.048	0.0891	
1440 minute summer	Attenuation	1.004	S-4.002	1.3	0.087	0.031	0.1136	
1440 minute summer	S-4.002	1.005	S-4.001	1.8	0.551	0.133	0.0282	
1440 minute summer	S-4.001	1.006	ex.MH	1.8	0.626	0.100	0.0142	57.4
1440 minute summer	S-4.004	1.002	S-4.003	1.3	0.522	0.027	0.0339	
1440 minute summer	S-5.001	4.001	S-4.002	0.5	0.917	0.010	0.0023	
1440 minute summer	S-5.002	4.000	S-5.001	2.7	0.303	0.093	0.0181	
1440 minute summer	S-7.001	1.000	S-4-005	0.2	0.347	0.009	0.0093	
1440 minute summer	S-4-005	1.001	S-4.004	0.6	0.433	0.018	0.0162	
1440 minute summer	S-4.006	2.000	S-4-005	0.4	0.555	0.012	0.0041	
1440 minute summer	S-6.001	3.000	S-4.003	0.2	0.285	0.014	0.0058	

Results for 10 year +40% CC +10% A 15 minute summer. 1455 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S-4.003	12	38.864	0.214	46.0	0.2569	0.0000	OK
15 minute summer	Attenuation	19	38.860	0.240	45.3	17.5980	0.0000	SURCHARGED
15 minute summer	S-4.002	20	38.860	0.270	2.7	0.3238	0.0000	SURCHARGED
15 minute summer	S-4.001	20	38.576	0.036	2.0	0.0101	0.0000	OK
15 minute summer	ex.MH	20	38.524	0.034	2.0	0.0000	0.0000	OK
15 minute summer	S-4.004	10	38.950	0.150	32.4	0.0425	0.0000	OK
15 minute summer	S-5.001	19	39.486	0.186	3.9	0.0295	0.0000	SURCHARGED
15 minute summer	S-5.002	19	39.486	0.151	20.9	7.7263	0.0000	SURCHARGED
15 minute summer	S-7.001	10	39.453	0.053	5.7	0.0084	0.0000	OK
15 minute summer	S-4.005	10	39.270	0.070	14.8	0.0197	0.0000	OK
15 minute summer	S-4.006	10	39.457	0.057	9.2	0.0091	0.0000	OK
15 minute summer	S-6.001	10	38.883	0.058	4.0	0.0092	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S-4.003	1.003	Attenuation	45.3	1.606	1.155	0.2052	
15 minute summer	Attenuation	1.004	S-4.002	2.2	0.484	0.054	0.1911	
15 minute summer	S-4.002	1.005	S-4.001	2.0	0.583	0.149	0.0306	
15 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.112	0.0155	28.7
15 minute summer	S-4.004	1.002	S-4.003	32.1	1.196	0.668	0.3354	
15 minute summer	S-5.001	4.001	S-4.002	0.6	0.978	0.012	0.0027	
15 minute summer	S-5.002	4.000	S-5.001	3.9	0.599	0.133	0.0231	
15 minute summer	S-7.001	1.000	S-4.005	5.6	0.836	0.263	0.0932	
15 minute summer	S-4.005	1.001	S-4.004	14.7	1.064	0.440	0.1459	
15 minute summer	S-4.006	2.000	S-4.005	9.2	1.295	0.273	0.0402	
15 minute summer	S-6.001	3.000	S-4.003	4.0	0.636	0.288	0.0653	

Results for 10 year +40% CC +10% A 30 minute summer. 1470 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S-4.003	34	38.911	0.261	40.9	0.3135	0.0000	SURCHARGED
30 minute summer	Attenuation	34	38.911	0.291	39.8	22.1007	0.0000	SURCHARGED
30 minute summer	S-4.002	34	38.911	0.321	2.9	0.3855	0.0000	SURCHARGED
30 minute summer	S-4.001	72	38.576	0.036	2.0	0.0101	0.0000	OK
30 minute summer	ex.MH	72	38.524	0.034	2.0	0.0000	0.0000	OK
30 minute summer	S-4.004	18	38.943	0.143	28.7	0.0404	0.0000	OK
30 minute summer	S-5.001	33	39.504	0.204	2.7	0.0324	0.0000	SURCHARGED
30 minute summer	S-5.002	33	39.504	0.169	17.5	9.6468	0.0000	SURCHARGED
30 minute summer	S-7.001	18	39.449	0.049	5.0	0.0078	0.0000	OK
30 minute summer	S-4-005	18	39.265	0.065	13.1	0.0185	0.0000	OK
30 minute summer	S-4.006	18	39.453	0.053	8.1	0.0084	0.0000	OK
30 minute summer	S-6.001	34	38.911	0.086	3.5	0.0137	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S-4.003	1.003	Attenuation	39.8	1.275	1.015	0.2084	
30 minute summer	Attenuation	1.004	S-4.002	2.5	0.527	0.061	0.1911	
30 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
30 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	37.0
30 minute summer	S-4.004	1.002	S-4.003	28.6	1.139	0.596	0.3408	
30 minute summer	S-5.001	4.001	S-4.002	0.7	0.994	0.013	0.0028	
30 minute summer	S-5.002	4.000	S-5.001	2.7	0.703	0.092	0.0231	
30 minute summer	S-7.001	1.000	S-4-005	5.0	0.810	0.233	0.0852	
30 minute summer	S-4-005	1.001	S-4.004	13.1	1.016	0.392	0.1404	
30 minute summer	S-4.006	2.000	S-4-005	8.1	1.259	0.242	0.0366	
30 minute summer	S-6.001	3.000	S-4.003	3.5	0.607	0.256	0.1118	

Results for 10 year +40% CC +10% A 60 minute summer. 1500 minute analysis at 1 minute timestep. Mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S-4.003	63	38.957	0.307	30.3	0.3679	0.0000	SURCHARGED
60 minute summer	Attenuation	63	38.957	0.337	29.6	26.0753	0.0000	SURCHARGED
60 minute summer	S-4.002	63	38.957	0.367	2.4	0.4400	0.0000	SURCHARGED
60 minute summer	S-4.001	156	38.576	0.036	2.0	0.0101	0.0000	OK
60 minute summer	ex.MH	156	38.524	0.034	2.0	0.0000	0.0000	OK
60 minute summer	S-4.004	63	38.956	0.156	21.2	0.0442	0.0000	OK
60 minute summer	S-5.001	62	39.519	0.219	2.8	0.0349	0.0000	SURCHARGED
60 minute summer	S-5.002	62	39.520	0.185	13.1	11.2899	0.0000	SURCHARGED
60 minute summer	S-7.001	33	39.442	0.042	3.7	0.0067	0.0000	OK
60 minute summer	S.4-005	33	39.255	0.055	9.7	0.0157	0.0000	OK
60 minute summer	S-4.006	33	39.445	0.045	6.0	0.0071	0.0000	OK
60 minute summer	S-6.001	63	38.957	0.132	2.6	0.0209	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S-4.003	1.003	Attenuation	29.6	0.867	0.754	0.2084	
60 minute summer	Attenuation	1.004	S-4.002	1.8	0.425	0.045	0.1911	
60 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
60 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	45.9
60 minute summer	S-4.004	1.002	S-4.003	21.2	0.995	0.442	0.4050	
60 minute summer	S-5.001	4.001	S-4.002	0.7	1.006	0.013	0.0029	
60 minute summer	S-5.002	4.000	S-5.001	2.8	0.747	0.097	0.0231	
60 minute summer	S-7.001	1.000	S.4-005	3.7	0.747	0.173	0.0685	
60 minute summer	S.4-005	1.001	S-4.004	9.7	0.935	0.290	0.1169	
60 minute summer	S-4.006	2.000	S.4-005	6.0	1.171	0.179	0.0292	
60 minute summer	S-6.001	3.000	S-4.003	2.6	0.552	0.191	0.1392	

Results for 10 year +40% CC +10% A 120 minute summer. 1560 minute analysis at 2 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	S-4.003	122	39.002	0.352	20.2	0.4225	0.0000	SURCHARGED
120 minute summer	Attenuation	122	39.002	0.382	19.4	30.0498	0.0000	SURCHARGED
120 minute summer	S-4.002	122	39.002	0.412	2.2	0.4945	0.0000	SURCHARGED
120 minute summer	S-4.001	270	38.576	0.036	2.0	0.0101	0.0000	OK
120 minute summer	ex.MH	270	38.524	0.034	2.0	0.0000	0.0000	OK
120 minute summer	S-4.004	122	39.002	0.202	14.2	0.0572	0.0000	OK
120 minute summer	S-5.001	120	39.532	0.232	2.5	0.0368	0.0000	SURCHARGED
120 minute summer	S-5.002	120	39.532	0.197	8.6	12.5709	0.0000	SURCHARGED
120 minute summer	S-7.001	64	39.435	0.035	2.5	0.0055	0.0000	OK
120 minute summer	S-4-005	64	39.245	0.045	6.5	0.0127	0.0000	OK
120 minute summer	S-4.006	64	39.436	0.036	4.0	0.0057	0.0000	OK
120 minute summer	S-6.001	122	39.002	0.177	1.7	0.0282	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S-4.003	1.003	Attenuation	19.4	0.534	0.496	0.2084	
120 minute summer	Attenuation	1.004	S-4.002	1.6	0.355	0.040	0.1911	
120 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
120 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	57.3
120 minute summer	S-4.004	1.002	S-4.003	14.2	0.867	0.296	0.4528	
120 minute summer	S-5.001	4.001	S-4.002	0.7	1.006	0.014	0.0129	
120 minute summer	S-5.002	4.000	S-5.001	2.5	0.407	0.086	0.0231	
120 minute summer	S-7.001	1.000	S-4-005	2.5	0.671	0.117	0.0515	
120 minute summer	S-4-005	1.001	S-4.004	6.5	0.907	0.194	0.1138	
120 minute summer	S-4.006	2.000	S-4-005	4.0	1.055	0.119	0.0216	
120 minute summer	S-6.001	3.000	S-4.003	1.7	0.491	0.122	0.1443	

Results for 10 year +40% CC +10% A 180 minute summer. 1620 minute analysis at 4 minute timestep. Mass balance: 99.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	S-4.003	180	39.013	0.363	14.9	0.4353	0.0000	SURCHARGED
180 minute summer	Attenuation	180	39.013	0.393	14.5	30.9763	0.0000	SURCHARGED
180 minute summer	S-4.002	180	39.013	0.423	2.2	0.5071	0.0000	SURCHARGED
180 minute summer	S-4.001	344	38.576	0.036	2.0	0.0101	0.0000	OK
180 minute summer	ex.MH	344	38.524	0.034	2.0	0.0000	0.0000	OK
180 minute summer	S-4.004	180	39.013	0.213	10.6	0.0602	0.0000	OK
180 minute summer	S-5.001	156	39.532	0.232	2.9	0.0369	0.0000	SURCHARGED
180 minute summer	S-5.002	156	39.532	0.197	6.4	12.6441	0.0000	SURCHARGED
180 minute summer	S-7.001	96	39.429	0.029	1.8	0.0047	0.0000	OK
180 minute summer	S-4-005	96	39.238	0.038	4.8	0.0109	0.0000	OK
180 minute summer	S-4.006	96	39.431	0.031	3.0	0.0049	0.0000	OK
180 minute summer	S-6.001	180	39.013	0.188	1.3	0.0299	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S-4.003	1.003	Attenuation	14.5	0.447	0.370	0.2084	
180 minute summer	Attenuation	1.004	S-4.002	1.6	0.243	0.038	0.1911	
180 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
180 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	64.0
180 minute summer	S-4.004	1.002	S-4.003	10.6	0.782	0.221	0.4604	
180 minute summer	S-5.001	4.001	S-4.002	0.7	1.005	0.014	0.0161	
180 minute summer	S-5.002	4.000	S-5.001	2.9	0.427	0.101	0.0231	
180 minute summer	S-7.001	1.000	S-4-005	1.8	0.605	0.084	0.0412	
180 minute summer	S-4-005	1.001	S-4.004	4.8	0.823	0.143	0.1133	
180 minute summer	S-4.006	2.000	S-4-005	3.0	0.982	0.090	0.0174	
180 minute summer	S-6.001	3.000	S-4.003	1.3	0.460	0.093	0.1443	

Results for 10 year +40% CC +10% A 240 minute summer. 1680 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S-4.003	224	39.016	0.366	12.6	0.4396	0.0000	SURCHARGED
240 minute summer	Attenuation	224	39.016	0.396	12.2	31.2925	0.0000	SURCHARGED
240 minute summer	S-4.002	224	39.016	0.426	2.1	0.5115	0.0000	SURCHARGED
240 minute summer	S-4.001	404	38.576	0.036	2.0	0.0101	0.0000	OK
240 minute summer	ex.MH	404	38.524	0.034	2.0	0.0000	0.0000	OK
240 minute summer	S-4.004	224	39.016	0.216	9.0	0.0612	0.0000	OK
240 minute summer	S-5.001	188	39.531	0.231	3.2	0.0367	0.0000	SURCHARGED
240 minute summer	S-5.002	188	39.531	0.196	5.4	12.4848	0.0000	SURCHARGED
240 minute summer	S-7.001	124	39.428	0.028	1.6	0.0044	0.0000	OK
240 minute summer	S-4-005	124	39.235	0.035	4.1	0.0100	0.0000	OK
240 minute summer	S-4.006	124	39.428	0.028	2.5	0.0044	0.0000	OK
240 minute summer	S-6.001	224	39.016	0.191	1.1	0.0304	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S-4.003	1.003	Attenuation	12.2	0.402	0.310	0.2084	
240 minute summer	Attenuation	1.004	S-4.002	1.5	0.273	0.038	0.1911	
240 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
240 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	69.3
240 minute summer	S-4.004	1.002	S-4.003	9.0	0.734	0.186	0.4623	
240 minute summer	S-5.001	4.001	S-4.002	0.7	1.002	0.014	0.0172	
240 minute summer	S-5.002	4.000	S-5.001	3.2	0.384	0.110	0.0231	
240 minute summer	S-7.001	1.000	S-4-005	1.6	0.593	0.074	0.0372	
240 minute summer	S-4-005	1.001	S-4.004	4.1	0.786	0.122	0.1121	
240 minute summer	S-4.006	2.000	S-4-005	2.5	0.926	0.074	0.0154	
240 minute summer	S-6.001	3.000	S-4.003	1.0	0.426	0.072	0.1443	

Results for 10 year +40% CC +10% A 360 minute summer. 1800 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	S-4.003	280	38.998	0.348	9.5	0.4178	0.0000	SURCHARGED
360 minute summer	Attenuation	280	38.998	0.378	9.2	29.7023	0.0000	SURCHARGED
360 minute summer	S-4.002	280	38.998	0.408	2.1	0.4897	0.0000	SURCHARGED
360 minute summer	S-4.001	192	38.576	0.036	2.0	0.0101	0.0000	OK
360 minute summer	ex.MH	192	38.524	0.034	2.0	0.0000	0.0000	OK
360 minute summer	S-4.004	280	38.998	0.198	6.7	0.0561	0.0000	OK
360 minute summer	S-5.001	256	39.525	0.225	2.8	0.0357	0.0000	SURCHARGED
360 minute summer	S-5.002	256	39.525	0.190	4.1	11.8206	0.0000	SURCHARGED
360 minute summer	S-7.001	184	39.424	0.024	1.2	0.0038	0.0000	OK
360 minute summer	S-4-005	184	39.231	0.031	3.1	0.0087	0.0000	OK
360 minute summer	S-4.006	184	39.424	0.024	1.9	0.0039	0.0000	OK
360 minute summer	S-6.001	280	38.998	0.173	0.8	0.0275	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S-4.003	1.003	Attenuation	9.2	0.265	0.236	0.2084	
360 minute summer	Attenuation	1.004	S-4.002	1.5	0.098	0.037	0.1911	
360 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
360 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	75.9
360 minute summer	S-4.004	1.002	S-4.003	6.6	0.668	0.139	0.4496	
360 minute summer	S-5.001	4.001	S-4.002	0.7	1.002	0.013	0.0117	
360 minute summer	S-5.002	4.000	S-5.001	2.8	0.394	0.095	0.0231	
360 minute summer	S-7.001	1.000	S-4-005	1.2	0.543	0.056	0.0304	
360 minute summer	S-4-005	1.001	S-4.004	3.1	0.726	0.092	0.1090	
360 minute summer	S-4.006	2.000	S-4-005	1.9	0.858	0.057	0.0126	
360 minute summer	S-6.001	3.000	S-4.003	0.8	0.387	0.058	0.1443	

Results for 10 year +40% CC +10% A 480 minute summer. 1920 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	S-4.003	344	38.979	0.329	7.4	0.3953	0.0000	SURCHARGED
480 minute summer	Attenuation	344	38.979	0.359	7.1	28.0612	0.0000	SURCHARGED
480 minute summer	S-4.002	344	38.979	0.389	2.1	0.4672	0.0000	SURCHARGED
480 minute summer	S-4.001	552	38.576	0.036	2.0	0.0101	0.0000	OK
480 minute summer	ex.MH	552	38.524	0.034	2.0	0.0000	0.0000	OK
480 minute summer	S-4.004	344	38.979	0.179	5.2	0.0508	0.0000	OK
480 minute summer	S-5.001	328	39.517	0.217	2.9	0.0345	0.0000	SURCHARGED
480 minute summer	S-5.002	328	39.517	0.182	3.2	11.0320	0.0000	SURCHARGED
480 minute summer	S-7.001	248	39.421	0.021	0.9	0.0033	0.0000	OK
480 minute summer	S-4-005	248	39.227	0.027	2.4	0.0077	0.0000	OK
480 minute summer	S-4.006	248	39.422	0.022	1.5	0.0034	0.0000	OK
480 minute summer	S-6.001	344	38.979	0.154	0.6	0.0246	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S-4.003	1.003	Attenuation	7.1	0.238	0.182	0.2084	
480 minute summer	Attenuation	1.004	S-4.002	1.5	0.098	0.036	0.1911	
480 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
480 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	80.8
480 minute summer	S-4.004	1.002	S-4.003	5.2	0.656	0.108	0.4315	
480 minute summer	S-5.001	4.001	S-4.002	0.7	1.001	0.013	0.0065	
480 minute summer	S-5.002	4.000	S-5.001	2.9	0.398	0.099	0.0231	
480 minute summer	S-7.001	1.000	S-4-005	0.9	0.493	0.042	0.0253	
480 minute summer	S-4-005	1.001	S-4.004	2.4	0.672	0.072	0.1076	
480 minute summer	S-4.006	2.000	S-4-005	1.5	0.806	0.045	0.0106	
480 minute summer	S-6.001	3.000	S-4.003	0.6	0.387	0.043	0.1443	

Results for 10 year +40% CC +10% A 600 minute summer. 2040 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	S-4.003	405	38.962	0.312	6.0	0.3750	0.0000	SURCHARGED
600 minute summer	Attenuation	405	38.962	0.342	5.8	26.5756	0.0000	SURCHARGED
600 minute summer	S-4.002	405	38.962	0.372	2.1	0.4468	0.0000	SURCHARGED
600 minute summer	S-4.001	615	38.576	0.036	2.0	0.0101	0.0000	OK
600 minute summer	ex.MH	615	38.524	0.034	2.0	0.0000	0.0000	OK
600 minute summer	S-4.004	405	38.963	0.163	4.2	0.0460	0.0000	OK
600 minute summer	S-5.001	405	39.513	0.213	2.5	0.0338	0.0000	SURCHARGED
600 minute summer	S-5.002	405	39.513	0.178	2.6	10.5713	0.0000	SURCHARGED
600 minute summer	S-7.001	315	39.419	0.019	0.7	0.0030	0.0000	OK
600 minute summer	S-4-005	315	39.224	0.024	1.9	0.0069	0.0000	OK
600 minute summer	S-4.006	315	39.419	0.019	1.2	0.0031	0.0000	OK
600 minute summer	S-6.001	405	38.962	0.137	0.5	0.0219	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S-4.003	1.003	Attenuation	5.8	0.224	0.148	0.2084	
600 minute summer	Attenuation	1.004	S-4.002	1.5	0.098	0.036	0.1911	
600 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
600 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	84.4
600 minute summer	S-4.004	1.002	S-4.003	4.2	0.607	0.087	0.4124	
600 minute summer	S-5.001	4.001	S-4.002	0.7	1.001	0.013	0.0029	
600 minute summer	S-5.002	4.000	S-5.001	2.5	0.403	0.086	0.0231	
600 minute summer	S-7.001	1.000	S-4-005	0.7	0.454	0.033	0.0213	
600 minute summer	S-4-005	1.001	S-4.004	1.9	0.621	0.057	0.1061	
600 minute summer	S-4.006	2.000	S-4-005	1.2	0.756	0.036	0.0090	
600 minute summer	S-6.001	3.000	S-4.003	0.5	0.345	0.036	0.1414	

Results for 10 year +40% CC +10% A 720 minute summer. 2160 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	S-4.003	480	38.939	0.289	5.2	0.3463	0.0000	SURCHARGED
720 minute summer	Attenuation	480	38.939	0.319	5.1	24.4844	0.0000	SURCHARGED
720 minute summer	S-4.002	480	38.938	0.348	2.0	0.4182	0.0000	SURCHARGED
720 minute summer	S-4.001	645	38.576	0.036	2.0	0.0101	0.0000	OK
720 minute summer	ex.MH	645	38.524	0.034	2.0	0.0000	0.0000	OK
720 minute summer	S-4.004	480	38.939	0.139	3.6	0.0392	0.0000	OK
720 minute summer	S-5.001	465	39.503	0.203	2.5	0.0323	0.0000	SURCHARGED
720 minute summer	S-5.002	465	39.503	0.168	2.6	9.5726	0.0000	SURCHARGED
720 minute summer	S-7.001	375	39.417	0.017	0.6	0.0028	0.0000	OK
720 minute summer	S-4-005	375	39.222	0.022	1.6	0.0063	0.0000	OK
720 minute summer	S-4.006	375	39.418	0.018	1.0	0.0028	0.0000	OK
720 minute summer	S-6.001	480	38.939	0.114	0.5	0.0181	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S-4.003	1.003	Attenuation	5.1	0.222	0.129	0.2084	
720 minute summer	Attenuation	1.004	S-4.002	1.4	0.098	0.035	0.1911	
720 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
720 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	86.4
720 minute summer	S-4.004	1.002	S-4.003	3.6	0.599	0.075	0.3829	
720 minute summer	S-5.001	4.001	S-4.002	0.7	0.993	0.013	0.0028	
720 minute summer	S-5.002	4.000	S-5.001	2.5	0.310	0.087	0.0231	
720 minute summer	S-7.001	1.000	S-4-005	0.6	0.437	0.028	0.0190	
720 minute summer	S-4-005	1.001	S-4.004	1.6	0.585	0.048	0.1011	
720 minute summer	S-4.006	2.000	S-4-005	1.0	0.714	0.030	0.0080	
720 minute summer	S-6.001	3.000	S-4.003	0.5	0.345	0.036	0.1308	

Results for 10 year +40% CC +10% A 960 minute summer. 2400 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	S-4.003	615	38.906	0.256	4.2	0.3071	0.0000	SURCHARGED
960 minute summer	Attenuation	615	38.906	0.286	4.1	21.6208	0.0000	SURCHARGED
960 minute summer	S-4.002	615	38.906	0.316	2.0	0.3790	0.0000	SURCHARGED
960 minute summer	S-4.001	705	38.576	0.036	2.0	0.0101	0.0000	OK
960 minute summer	ex.MH	705	38.524	0.034	2.0	0.0000	0.0000	OK
960 minute summer	S-4.004	615	38.906	0.106	2.9	0.0300	0.0000	OK
960 minute summer	S-5.001	600	39.493	0.193	2.7	0.0307	0.0000	SURCHARGED
960 minute summer	S-5.002	600	39.493	0.158	2.3	8.5363	0.0000	SURCHARGED
960 minute summer	S-7.001	480	39.416	0.016	0.5	0.0025	0.0000	OK
960 minute summer	S.4-005	495	39.220	0.020	1.3	0.0057	0.0000	OK
960 minute summer	S-4.006	495	39.416	0.016	0.8	0.0026	0.0000	OK
960 minute summer	S-6.001	615	38.906	0.081	0.4	0.0129	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S-4.003	1.003	Attenuation	4.1	0.224	0.104	0.2084	
960 minute summer	Attenuation	1.004	S-4.002	1.4	0.098	0.035	0.1911	
960 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
960 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	91.7
960 minute summer	S-4.004	1.002	S-4.003	2.9	0.591	0.060	0.3304	
960 minute summer	S-5.001	4.001	S-4.002	0.6	0.985	0.012	0.0027	
960 minute summer	S-5.002	4.000	S-5.001	2.7	0.405	0.092	0.0231	
960 minute summer	S-7.001	1.000	S.4-005	0.5	0.430	0.023	0.0166	
960 minute summer	S.4-005	1.001	S-4.004	1.3	0.551	0.039	0.0796	
960 minute summer	S-4.006	2.000	S.4-005	0.8	0.662	0.024	0.0069	
960 minute summer	S-6.001	3.000	S-4.003	0.4	0.345	0.029	0.1065	

Results for 10 year +40% CC +10% A 1440 minute summer. 2880 minute analysis at 30 minute timestep. Mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	S-4.003	870	38.843	0.193	3.0	0.2319	0.0000	OK
1440 minute summer	Attenuation	870	38.843	0.223	2.9	16.1310	0.0000	OK
1440 minute summer	S-4.002	870	38.843	0.253	2.0	0.3037	0.0000	SURCHARGED
1440 minute summer	S-4.001	870	38.576	0.036	2.0	0.0101	0.0000	OK
1440 minute summer	ex.MH	870	38.524	0.034	2.0	0.0000	0.0000	OK
1440 minute summer	S-4.004	870	38.843	0.043	2.1	0.0122	0.0000	OK
1440 minute summer	S-5.001	870	39.475	0.175	2.9	0.0279	0.0000	SURCHARGED
1440 minute summer	S-5.002	870	39.475	0.140	2.2	6.6411	0.0000	OK
1440 minute summer	S-7.001	750	39.414	0.014	0.4	0.0023	0.0000	OK
1440 minute summer	S-4.005	750	39.218	0.018	1.0	0.0051	0.0000	OK
1440 minute summer	S-4.006	750	39.414	0.014	0.6	0.0022	0.0000	OK
1440 minute summer	S-6.001	870	38.843	0.018	0.3	0.0029	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S-4.003	1.003	Attenuation	2.9	0.226	0.075	0.1991	
1440 minute summer	Attenuation	1.004	S-4.002	1.4	0.087	0.034	0.1910	
1440 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0305	
1440 minute summer	S-4.001	1.006	ex.MH	2.0	0.644	0.112	0.0154	97.0
1440 minute summer	S-4.004	1.002	S-4.003	2.1	0.533	0.044	0.1870	
1440 minute summer	S-5.001	4.001	S-4.002	0.6	0.969	0.012	0.0026	
1440 minute summer	S-5.002	4.000	S-5.001	2.9	0.282	0.100	0.0228	
1440 minute summer	S-7.001	1.000	S-4.005	0.4	0.397	0.019	0.0140	
1440 minute summer	S-4.005	1.001	S-4.004	1.0	0.523	0.030	0.0280	
1440 minute summer	S-4.006	2.000	S-4.005	0.6	0.603	0.018	0.0057	
1440 minute summer	S-6.001	3.000	S-4.003	0.3	0.319	0.022	0.0369	

Results for 30 year +40% CC +10% A 15 minute summer. 1455 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S-4.003	11	38.955	0.305	59.8	0.3660	0.0000	SURCHARGED
15 minute summer	Attenuation	20	38.934	0.314	59.4	24.0658	0.0000	SURCHARGED
15 minute summer	S-4.002	20	38.934	0.344	3.1	0.4126	0.0000	SURCHARGED
15 minute summer	S-4.001	85	38.576	0.036	2.0	0.0101	0.0000	OK
15 minute summer	ex.MH	85	38.524	0.034	2.0	0.0000	0.0000	OK
15 minute summer	S-4.004	11	39.063	0.263	43.7	0.0745	0.0000	SURCHARGED
15 minute summer	S-5.001	19	39.514	0.214	5.8	0.0340	0.0000	SURCHARGED
15 minute summer	S-5.002	19	39.514	0.179	27.4	10.6944	0.0000	SURCHARGED
15 minute summer	S-7.001	10	39.463	0.063	7.7	0.0100	0.0000	OK
15 minute summer	S-4.005	11	39.294	0.094	20.1	0.0267	0.0000	OK
15 minute summer	S-4.006	10	39.469	0.069	12.5	0.0109	0.0000	OK
15 minute summer	S-6.001	11	38.963	0.138	5.4	0.0220	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S-4.003	1.003	Attenuation	59.4	1.676	1.514	0.2084	
15 minute summer	Attenuation	1.004	S-4.002	2.6	0.412	0.064	0.1911	
15 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
15 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	38.9
15 minute summer	S-4.004	1.002	S-4.003	42.1	1.190	0.876	0.4654	
15 minute summer	S-5.001	4.001	S-4.002	0.7	1.002	0.013	0.0028	
15 minute summer	S-5.002	4.000	S-5.001	5.8	0.528	0.198	0.0231	
15 minute summer	S-7.001	1.000	S-4.005	7.6	0.867	0.356	0.1265	
15 minute summer	S-4.005	1.001	S-4.004	19.7	1.232	0.588	0.1669	
15 minute summer	S-4.006	2.000	S-4.005	12.5	1.357	0.372	0.0546	
15 minute summer	S-6.001	3.000	S-4.003	5.0	0.637	0.364	0.1417	

Results for 30 year +40% CC +10% A 30 minute summer. 1470 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S-4.003	34	39.013	0.363	54.6	0.4361	0.0000	SURCHARGED
30 minute summer	Attenuation	34	39.014	0.394	53.9	31.0541	0.0000	SURCHARGED
30 minute summer	S-4.002	34	39.014	0.424	2.8	0.5082	0.0000	SURCHARGED
30 minute summer	S-4.001	197	38.576	0.036	2.0	0.0101	0.0000	OK
30 minute summer	ex.MH	197	38.524	0.034	2.0	0.0000	0.0000	OK
30 minute summer	S-4.004	19	39.053	0.253	39.3	0.0715	0.0000	SURCHARGED
30 minute summer	S-5.001	34	39.542	0.242	2.8	0.0385	0.0000	FLOOD RISK
30 minute summer	S-5.002	34	39.542	0.207	24.1	13.6932	0.0000	FLOOD RISK
30 minute summer	S-7.001	17	39.459	0.059	6.9	0.0094	0.0000	OK
30 minute summer	S.4-005	18	39.285	0.085	18.1	0.0239	0.0000	OK
30 minute summer	S-4.006	17	39.464	0.064	11.2	0.0102	0.0000	OK
30 minute summer	S-6.001	34	39.013	0.188	4.9	0.0300	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S-4.003	1.003	Attenuation	53.9	1.355	1.375	0.2084	
30 minute summer	Attenuation	1.004	S-4.002	2.2	0.505	0.054	0.1911	
30 minute summer	S-4.002	1.005	S-4.001	2.0	0.606	0.149	0.0306	
30 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	50.9
30 minute summer	S-4.004	1.002	S-4.003	38.3	1.128	0.798	0.4654	
30 minute summer	S-5.001	4.001	S-4.002	0.7	1.007	0.014	0.0164	
30 minute summer	S-5.002	4.000	S-5.001	2.8	0.612	0.096	0.0231	
30 minute summer	S-7.001	1.000	S.4-005	6.9	0.861	0.322	0.1146	
30 minute summer	S.4-005	1.001	S-4.004	17.8	1.140	0.534	0.1586	
30 minute summer	S-4.006	2.000	S.4-005	11.2	1.336	0.334	0.0495	
30 minute summer	S-6.001	3.000	S-4.003	4.3	0.614	0.312	0.1443	

Results for 30 year +40% CC +10% A 60 minute summer. 1500 minute analysis at 1 minute timestep. Mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S-4.003	64	39.089	0.439	40.3	0.5262	0.0000	SURCHARGED
60 minute summer	Attenuation	64	39.089	0.469	39.5	37.6293	0.0000	SURCHARGED
60 minute summer	S-4.002	64	39.089	0.499	2.5	0.5983	0.0000	SURCHARGED
60 minute summer	S-4.001	324	38.576	0.036	2.0	0.0101	0.0000	OK
60 minute summer	ex.MH	324	38.524	0.034	2.0	0.0000	0.0000	OK
60 minute summer	S-4.004	63	39.088	0.288	29.3	0.0816	0.0000	SURCHARGED
60 minute summer	S-5.001	63	39.567	0.267	2.9	0.0424	0.0000	FLOOD RISK
60 minute summer	S-5.002	63	39.567	0.232	17.9	16.2477	0.0000	FLOOD RISK
60 minute summer	S-7.001	33	39.450	0.050	5.1	0.0079	0.0000	OK
60 minute summer	S-4-005	33	39.266	0.066	13.4	0.0187	0.0000	OK
60 minute summer	S-4.006	33	39.454	0.054	8.3	0.0086	0.0000	OK
60 minute summer	S-6.001	64	39.089	0.264	3.6	0.0419	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S-4.003	1.003	Attenuation	39.5	0.993	1.007	0.2084	
60 minute summer	Attenuation	1.004	S-4.002	2.0	0.491	0.050	0.1911	
60 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
60 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	63.3
60 minute summer	S-4.004	1.002	S-4.003	28.4	0.969	0.592	0.4654	
60 minute summer	S-5.001	4.001	S-4.002	0.8	1.006	0.015	0.0373	
60 minute summer	S-5.002	4.000	S-5.001	2.9	0.742	0.100	0.0231	
60 minute summer	S-7.001	1.000	S-4-005	5.1	0.814	0.238	0.0865	
60 minute summer	S-4-005	1.001	S-4.004	13.4	0.983	0.401	0.1429	
60 minute summer	S-4.006	2.000	S-4-005	8.3	1.267	0.248	0.0373	
60 minute summer	S-6.001	3.000	S-4.003	3.1	0.552	0.222	0.1443	

Results for 30 year +40% CC +10% A 120 minute summer. 1560 minute analysis at 2 minute timestep. Mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	S-4.003	124	39.151	0.501	25.7	0.6015	0.0000	SURCHARGED
120 minute summer	Attenuation	124	39.151	0.531	25.2	43.1158	0.0000	SURCHARGED
120 minute summer	S-4.002	124	39.151	0.561	2.3	0.6735	0.0000	SURCHARGED
120 minute summer	S-4.001	476	38.576	0.036	2.0	0.0101	0.0000	OK
120 minute summer	ex.MH	476	38.524	0.034	2.0	0.0000	0.0000	OK
120 minute summer	S-4.004	124	39.151	0.351	18.8	0.0994	0.0000	SURCHARGED
120 minute summer	S-5.001	122	39.582	0.282	2.5	0.0448	0.0000	FLOOD RISK
120 minute summer	S-5.002	122	39.582	0.247	11.5	17.8223	0.0000	FLOOD RISK
120 minute summer	S-7.001	64	39.440	0.040	3.3	0.0063	0.0000	OK
120 minute summer	S-4-005	64	39.252	0.052	8.6	0.0147	0.0000	OK
120 minute summer	S-4.006	64	39.442	0.042	5.3	0.0066	0.0000	OK
120 minute summer	S-6.001	124	39.151	0.326	2.3	0.0519	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S-4.003	1.003	Attenuation	25.2	0.634	0.643	0.2084	
120 minute summer	Attenuation	1.004	S-4.002	1.8	0.440	0.044	0.1911	
120 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
120 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	76.2
120 minute summer	S-4.004	1.002	S-4.003	18.0	0.825	0.375	0.4654	
120 minute summer	S-5.001	4.001	S-4.002	0.8	1.004	0.015	0.0386	
120 minute summer	S-5.002	4.000	S-5.001	-3.0	0.347	-0.104	0.0231	
120 minute summer	S-7.001	1.000	S-4-005	3.3	0.725	0.154	0.0629	
120 minute summer	S-4-005	1.001	S-4.004	8.6	0.920	0.257	0.1311	
120 minute summer	S-4.006	2.000	S-4-005	5.3	1.134	0.158	0.0266	
120 minute summer	S-6.001	3.000	S-4.003	1.9	0.480	0.137	0.1443	

Results for 30 year +40% CC +10% A 180 minute summer. 1620 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	S-4.003	184	39.177	0.527	18.9	0.6323	0.0000	SURCHARGED
180 minute summer	Attenuation	184	39.177	0.557	18.6	45.3626	0.0000	SURCHARGED
180 minute summer	S-4.002	184	39.177	0.587	2.2	0.7043	0.0000	SURCHARGED
180 minute summer	S-4.001	572	38.576	0.036	2.0	0.0101	0.0000	OK
180 minute summer	ex.MH	572	38.524	0.034	2.0	0.0000	0.0000	OK
180 minute summer	S-4.004	184	39.177	0.377	13.8	0.1067	0.0000	SURCHARGED
180 minute summer	S-5.001	180	39.582	0.282	2.6	0.0449	0.0000	FLOOD RISK
180 minute summer	S-5.002	180	39.582	0.247	8.4	17.8921	0.0000	FLOOD RISK
180 minute summer	S-7.001	96	39.434	0.034	2.4	0.0054	0.0000	OK
180 minute summer	S-4-005	96	39.244	0.044	6.3	0.0125	0.0000	OK
180 minute summer	S-4.006	96	39.435	0.035	3.9	0.0056	0.0000	OK
180 minute summer	S-6.001	184	39.177	0.352	1.7	0.0560	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S-4.003	1.003	Attenuation	18.6	0.467	0.474	0.2084	
180 minute summer	Attenuation	1.004	S-4.002	1.9	0.107	0.046	0.1911	
180 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
180 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	84.2
180 minute summer	S-4.004	1.002	S-4.003	13.3	0.721	0.277	0.4654	
180 minute summer	S-5.001	4.001	S-4.002	0.8	0.999	0.015	0.0386	
180 minute summer	S-5.002	4.000	S-5.001	2.6	0.430	0.089	0.0231	
180 minute summer	S-7.001	1.000	S-4-005	2.4	0.661	0.112	0.0502	
180 minute summer	S-4-005	1.001	S-4.004	6.3	0.844	0.188	0.1249	
180 minute summer	S-4.006	2.000	S-4-005	3.9	1.050	0.116	0.0212	
180 minute summer	S-6.001	3.000	S-4.003	1.4	0.447	0.105	0.1443	

Results for 30 year +40% CC +10% A 240 minute summer. 1680 minute analysis at 4 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S-4.003	244	39.181	0.531	15.7	0.6368	0.0000	SURCHARGED
240 minute summer	Attenuation	244	39.181	0.561	15.4	45.6902	0.0000	SURCHARGED
240 minute summer	S-4.002	244	39.181	0.591	2.2	0.7088	0.0000	SURCHARGED
240 minute summer	S-4.001	636	38.576	0.036	2.0	0.0101	0.0000	OK
240 minute summer	ex.MH	636	38.524	0.034	2.0	0.0000	0.0000	OK
240 minute summer	S-4.004	244	39.181	0.381	11.6	0.1077	0.0000	SURCHARGED
240 minute summer	S-5.001	208	39.580	0.280	2.9	0.0444	0.0000	FLOOD RISK
240 minute summer	S-5.002	208	39.580	0.245	7.0	17.5939	0.0000	FLOOD RISK
240 minute summer	S-7.001	124	39.431	0.031	2.0	0.0049	0.0000	OK
240 minute summer	S-4-005	124	39.240	0.040	5.3	0.0114	0.0000	OK
240 minute summer	S-4.006	124	39.432	0.032	3.3	0.0051	0.0000	OK
240 minute summer	S-6.001	244	39.181	0.356	1.4	0.0566	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S-4.003	1.003	Attenuation	15.4	0.447	0.392	0.2084	
240 minute summer	Attenuation	1.004	S-4.002	1.9	0.227	0.046	0.1911	
240 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
240 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	89.5
240 minute summer	S-4.004	1.002	S-4.003	11.1	0.689	0.230	0.4654	
240 minute summer	S-5.001	4.001	S-4.002	0.8	1.003	0.015	0.0386	
240 minute summer	S-5.002	4.000	S-5.001	2.9	0.427	0.101	0.0231	
240 minute summer	S-7.001	1.000	S-4-005	2.0	0.625	0.093	0.0441	
240 minute summer	S-4-005	1.001	S-4.004	5.3	0.787	0.157	0.1210	
240 minute summer	S-4.006	2.000	S-4-005	3.3	1.006	0.098	0.0186	
240 minute summer	S-6.001	3.000	S-4.003	1.2	0.418	0.086	0.1443	

Results for 30 year +40% CC +10% A 360 minute summer. 1800 minute analysis at 8 minute timestep. Mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	S-4.003	360	39.166	0.516	11.7	0.6196	0.0000	SURCHARGED
360 minute summer	Attenuation	360	39.166	0.546	11.5	44.4330	0.0000	SURCHARGED
360 minute summer	S-4.002	360	39.166	0.576	2.1	0.6916	0.0000	SURCHARGED
360 minute summer	S-4.001	728	38.576	0.036	2.0	0.0101	0.0000	OK
360 minute summer	ex.MH	728	38.524	0.034	2.0	0.0000	0.0000	OK
360 minute summer	S-4.004	360	39.166	0.366	8.6	0.1037	0.0000	SURCHARGED
360 minute summer	S-5.001	264	39.569	0.269	3.1	0.0428	0.0000	FLOOD RISK
360 minute summer	S-5.002	264	39.569	0.234	5.2	16.4931	0.0000	FLOOD RISK
360 minute summer	S-7.001	184	39.427	0.027	1.5	0.0043	0.0000	OK
360 minute summer	S-4-005	184	39.235	0.035	3.9	0.0098	0.0000	OK
360 minute summer	S-4.006	184	39.427	0.027	2.4	0.0043	0.0000	OK
360 minute summer	S-6.001	360	39.166	0.341	1.1	0.0543	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S-4.003	1.003	Attenuation	11.5	0.288	0.292	0.2084	
360 minute summer	Attenuation	1.004	S-4.002	1.9	0.098	0.047	0.1911	
360 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
360 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	96.8
360 minute summer	S-4.004	1.002	S-4.003	8.2	0.630	0.171	0.4654	
360 minute summer	S-5.001	4.001	S-4.002	0.8	0.988	0.015	0.0386	
360 minute summer	S-5.002	4.000	S-5.001	3.1	0.368	0.105	0.0231	
360 minute summer	S-7.001	1.000	S-4-005	1.5	0.578	0.070	0.0357	
360 minute summer	S-4-005	1.001	S-4.004	3.9	0.701	0.116	0.1163	
360 minute summer	S-4.006	2.000	S-4-005	2.4	0.919	0.071	0.0149	
360 minute summer	S-6.001	3.000	S-4.003	0.9	0.387	0.067	0.1443	

Results for 30 year +40% CC +10% A 480 minute summer. 1920 minute analysis at 8 minute timestep. Mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	S-4.003	432	39.133	0.483	9.1	0.5793	0.0000	SURCHARGED
480 minute summer	Attenuation	432	39.133	0.513	8.9	41.4901	0.0000	SURCHARGED
480 minute summer	S-4.002	432	39.133	0.543	2.1	0.6512	0.0000	SURCHARGED
480 minute summer	S-4.001	240	38.576	0.036	2.0	0.0101	0.0000	OK
480 minute summer	ex.MH	240	38.524	0.034	2.0	0.0000	0.0000	OK
480 minute summer	S-4.004	432	39.133	0.333	6.7	0.0942	0.0000	SURCHARGED
480 minute summer	S-5.001	328	39.559	0.259	3.2	0.0412	0.0000	FLOOD RISK
480 minute summer	S-5.002	328	39.559	0.224	4.0	15.4548	0.0000	FLOOD RISK
480 minute summer	S-7.001	248	39.424	0.024	1.2	0.0038	0.0000	OK
480 minute summer	S-4-005	248	39.231	0.031	3.1	0.0087	0.0000	OK
480 minute summer	S-4.006	248	39.424	0.024	1.9	0.0039	0.0000	OK
480 minute summer	S-6.001	432	39.133	0.308	0.8	0.0489	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S-4.003	1.003	Attenuation	8.9	0.265	0.228	0.2084	
480 minute summer	Attenuation	1.004	S-4.002	1.9	0.098	0.047	0.1911	
480 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
480 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	102.4
480 minute summer	S-4.004	1.002	S-4.003	6.4	0.612	0.134	0.4654	
480 minute summer	S-5.001	4.001	S-4.002	0.8	0.997	0.015	0.0385	
480 minute summer	S-5.002	4.000	S-5.001	3.2	0.397	0.111	0.0231	
480 minute summer	S-7.001	1.000	S-4-005	1.2	0.544	0.056	0.0305	
480 minute summer	S-4-005	1.001	S-4.004	3.1	0.685	0.093	0.1136	
480 minute summer	S-4.006	2.000	S-4-005	1.9	0.858	0.057	0.0126	
480 minute summer	S-6.001	3.000	S-4.003	0.7	0.367	0.049	0.1443	

Results for 30 year +40% CC +10% A 600 minute summer. 2040 minute analysis at 15 minute timestep. Mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	S-4.003	450	39.104	0.454	7.3	0.5448	0.0000	SURCHARGED
600 minute summer	Attenuation	450	39.104	0.484	7.2	38.9692	0.0000	SURCHARGED
600 minute summer	S-4.002	450	39.104	0.514	2.1	0.6167	0.0000	SURCHARGED
600 minute summer	S-4.001	840	38.576	0.036	2.0	0.0101	0.0000	OK
600 minute summer	ex.MH	840	38.524	0.034	2.0	0.0000	0.0000	OK
600 minute summer	S-4.004	450	39.104	0.304	5.3	0.0860	0.0000	SURCHARGED
600 minute summer	S-5.001	405	39.552	0.252	3.0	0.0400	0.0000	FLOOD RISK
600 minute summer	S-5.002	405	39.552	0.217	3.2	14.6613	0.0000	FLOOD RISK
600 minute summer	S-7.001	315	39.421	0.021	0.9	0.0033	0.0000	OK
600 minute summer	S-4-005	315	39.227	0.027	2.4	0.0077	0.0000	OK
600 minute summer	S-4.006	315	39.422	0.022	1.5	0.0034	0.0000	OK
600 minute summer	S-6.001	450	39.104	0.279	0.7	0.0444	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S-4.003	1.003	Attenuation	7.2	0.237	0.183	0.2084	
600 minute summer	Attenuation	1.004	S-4.002	1.9	0.098	0.046	0.1911	
600 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
600 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	106.7
600 minute summer	S-4.004	1.002	S-4.003	5.1	0.599	0.106	0.4654	
600 minute summer	S-5.001	4.001	S-4.002	0.7	0.989	0.014	0.0385	
600 minute summer	S-5.002	4.000	S-5.001	3.0	0.413	0.102	0.0231	
600 minute summer	S-7.001	1.000	S-4-005	0.9	0.493	0.042	0.0253	
600 minute summer	S-4-005	1.001	S-4.004	2.4	0.621	0.072	0.1109	
600 minute summer	S-4.006	2.000	S-4-005	1.5	0.806	0.045	0.0106	
600 minute summer	S-6.001	3.000	S-4.003	0.6	0.345	0.043	0.1443	

Results for 30 year +40% CC +10% A 720 minute summer. 2160 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	S-4.003	510	39.073	0.423	6.4	0.5082	0.0000	SURCHARGED
720 minute summer	Attenuation	510	39.073	0.453	6.2	36.2954	0.0000	SURCHARGED
720 minute summer	S-4.002	510	39.073	0.483	2.1	0.5800	0.0000	SURCHARGED
720 minute summer	S-4.001	885	38.576	0.036	2.0	0.0101	0.0000	OK
720 minute summer	ex.MH	885	38.524	0.034	2.0	0.0000	0.0000	OK
720 minute summer	S-4.004	510	39.073	0.273	4.6	0.0774	0.0000	SURCHARGED
720 minute summer	S-5.001	480	39.542	0.242	2.7	0.0385	0.0000	FLOOD RISK
720 minute summer	S-5.002	480	39.542	0.207	2.8	13.6808	0.0000	FLOOD RISK
720 minute summer	S-7.001	375	39.420	0.020	0.8	0.0032	0.0000	OK
720 minute summer	S-4-005	375	39.226	0.026	2.1	0.0072	0.0000	OK
720 minute summer	S-4.006	375	39.420	0.020	1.3	0.0032	0.0000	OK
720 minute summer	S-6.001	510	39.073	0.248	0.6	0.0395	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S-4.003	1.003	Attenuation	6.2	0.212	0.159	0.2084	
720 minute summer	Attenuation	1.004	S-4.002	1.8	0.098	0.044	0.1911	
720 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
720 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	109.5
720 minute summer	S-4.004	1.002	S-4.003	4.5	0.607	0.093	0.4654	
720 minute summer	S-5.001	4.001	S-4.002	0.7	0.998	0.014	0.0341	
720 minute summer	S-5.002	4.000	S-5.001	2.7	0.408	0.094	0.0231	
720 minute summer	S-7.001	1.000	S-4-005	0.8	0.479	0.037	0.0231	
720 minute summer	S-4-005	1.001	S-4.004	2.1	0.616	0.063	0.1105	
720 minute summer	S-4.006	2.000	S-4-005	1.3	0.769	0.039	0.0096	
720 minute summer	S-6.001	3.000	S-4.003	0.5	0.345	0.037	0.1443	

Results for 30 year +40% CC +10% A 960 minute summer. 2400 minute analysis at 15 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	S-4.003	645	39.026	0.376	5.0	0.4514	0.0000	SURCHARGED
960 minute summer	Attenuation	645	39.026	0.406	4.9	32.1509	0.0000	SURCHARGED
960 minute summer	S-4.002	645	39.026	0.436	2.0	0.5232	0.0000	SURCHARGED
960 minute summer	S-4.001	495	38.576	0.036	2.0	0.0101	0.0000	OK
960 minute summer	ex.MH	495	38.524	0.034	2.0	0.0000	0.0000	OK
960 minute summer	S-4.004	645	39.026	0.226	3.6	0.0640	0.0000	SURCHARGED
960 minute summer	S-5.001	615	39.530	0.230	2.5	0.0365	0.0000	SURCHARGED
960 minute summer	S-5.002	615	39.530	0.195	2.3	12.3667	0.0000	SURCHARGED
960 minute summer	S-7.001	480	39.417	0.017	0.6	0.0028	0.0000	OK
960 minute summer	S-4-005	495	39.222	0.022	1.6	0.0063	0.0000	OK
960 minute summer	S-4.006	495	39.418	0.018	1.0	0.0028	0.0000	OK
960 minute summer	S-6.001	645	39.026	0.201	0.5	0.0320	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S-4.003	1.003	Attenuation	4.9	0.218	0.125	0.2084	
960 minute summer	Attenuation	1.004	S-4.002	1.7	0.098	0.042	0.1911	
960 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
960 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	114.7
960 minute summer	S-4.004	1.002	S-4.003	3.5	0.574	0.072	0.4653	
960 minute summer	S-5.001	4.001	S-4.002	0.7	0.997	0.014	0.0203	
960 minute summer	S-5.002	4.000	S-5.001	2.5	0.381	0.086	0.0231	
960 minute summer	S-7.001	1.000	S-4-005	0.6	0.448	0.028	0.0190	
960 minute summer	S-4-005	1.001	S-4.004	1.6	0.578	0.048	0.1076	
960 minute summer	S-4.006	2.000	S-4-005	1.0	0.714	0.030	0.0080	
960 minute summer	S-6.001	3.000	S-4.003	0.5	0.320	0.036	0.1443	

Results for 30 year +40% CC +10% A 1440 minute summer. 2880 minute analysis at 30 minute timestep. Mass balance: 100.00

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	S-4.003	900	38.949	0.299	3.7	0.3584	0.0000	SURCHARGED
1440 minute summer	Attenuation	900	38.949	0.329	3.6	25.3648	0.0000	SURCHARGED
1440 minute summer	S-4.002	900	38.949	0.359	2.0	0.4303	0.0000	SURCHARGED
1440 minute summer	S-4.001	1110	38.576	0.036	2.0	0.0101	0.0000	OK
1440 minute summer	ex.MH	1110	38.524	0.034	2.0	0.0000	0.0000	OK
1440 minute summer	S-4.004	900	38.949	0.149	2.6	0.0421	0.0000	OK
1440 minute summer	S-5.001	870	39.505	0.205	2.2	0.0326	0.0000	SURCHARGED
1440 minute summer	S-5.002	870	39.505	0.170	1.9	9.7916	0.0000	SURCHARGED
1440 minute summer	S-7.001	750	39.416	0.016	0.5	0.0025	0.0000	OK
1440 minute summer	S-4.005	750	39.220	0.020	1.2	0.0055	0.0000	OK
1440 minute summer	S-4.006	750	39.415	0.015	0.7	0.0024	0.0000	OK
1440 minute summer	S-6.001	900	38.949	0.124	0.3	0.0197	0.0000	OK

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S-4.003	1.003	Attenuation	3.6	0.226	0.092	0.2084	
1440 minute summer	Attenuation	1.004	S-4.002	1.4	0.096	0.035	0.1911	
1440 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
1440 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	121.6
1440 minute summer	S-4.004	1.002	S-4.003	2.6	0.543	0.054	0.3956	
1440 minute summer	S-5.001	4.001	S-4.002	0.7	0.995	0.013	0.0028	
1440 minute summer	S-5.002	4.000	S-5.001	2.2	0.263	0.076	0.0231	
1440 minute summer	S-7.001	1.000	S-4.005	0.5	0.430	0.023	0.0160	
1440 minute summer	S-4.005	1.001	S-4.004	1.2	0.544	0.036	0.1043	
1440 minute summer	S-4.006	2.000	S-4.005	0.7	0.624	0.021	0.0064	
1440 minute summer	S-6.001	3.000	S-4.003	0.3	0.319	0.022	0.1358	

Results for 100 year +40% CC +10% A 15 minute summer. 1455 minute analysis at 1 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S-4.003	12	39.081	0.431	75.7	0.5167	0.0000	SURCHARGED
15 minute summer	Attenuation	20	39.022	0.402	74.4	31.7775	0.0000	SURCHARGED
15 minute summer	S-4.002	20	39.022	0.432	3.4	0.5180	0.0000	SURCHARGED
15 minute summer	S-4.001	193	38.576	0.036	2.0	0.0101	0.0000	OK
15 minute summer	ex.MH	193	38.524	0.034	2.0	0.0000	0.0000	OK
15 minute summer	S-4.004	11	39.234	0.434	53.5	0.1229	0.0000	SURCHARGED
15 minute summer	S-5.001	19	39.546	0.246	2.9	0.0392	0.0000	FLOOD RISK
15 minute summer	S-5.002	19	39.546	0.211	35.2	14.1208	0.0000	FLOOD RISK
15 minute summer	S-7.001	12	39.508	0.108	10.0	0.0172	0.0000	OK
15 minute summer	S-4.005	11	39.480	0.280	25.1	0.0792	0.0000	SURCHARGED
15 minute summer	S-4.006	11	39.524	0.124	16.2	0.0198	0.0000	OK
15 minute summer	S-6.001	12	39.091	0.266	7.1	0.0423	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S-4.003	1.003	Attenuation	74.4	1.873	1.897	0.2084	
15 minute summer	Attenuation	1.004	S-4.002	2.8	0.480	0.067	0.1911	
15 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
15 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	50.6
15 minute summer	S-4.004	1.002	S-4.003	52.1	1.311	1.086	0.4654	
15 minute summer	S-5.001	4.001	S-4.002	0.7	1.010	0.014	0.0190	
15 minute summer	S-5.002	4.000	S-5.001	-2.9	0.497	-0.101	0.0231	
15 minute summer	S-7.001	1.000	S-4.005	9.8	0.877	0.457	0.2148	
15 minute summer	S-4.005	1.001	S-4.004	23.3	1.325	0.697	0.2007	
15 minute summer	S-4.006	2.000	S-4.005	15.2	1.389	0.455	0.0943	
15 minute summer	S-6.001	3.000	S-4.003	6.0	0.601	0.434	0.1443	

Results for 100 year +40% CC +10% A 30 minute summer. 1470 minute analysis at 1 minute timestep. Mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	S-4.003	35	39.136	0.486	69.8	0.5830	0.0000	SURCHARGED
30 minute summer	Attenuation	35	39.136	0.516	68.7	41.7957	0.0000	SURCHARGED
30 minute summer	S-4.002	35	39.136	0.546	3.0	0.6554	0.0000	SURCHARGED
30 minute summer	S-4.001	365	38.576	0.036	2.0	0.0101	0.0000	OK
30 minute summer	ex.MH	365	38.524	0.034	2.0	0.0000	0.0000	OK
30 minute summer	S-4.004	19	39.241	0.441	49.3	0.1247	0.0000	SURCHARGED
30 minute summer	S-5.001	34	39.587	0.287	3.1	0.0456	0.0000	FLOOD RISK
30 minute summer	S-5.002	34	39.587	0.252	31.6	18.3408	0.0000	FLOOD RISK
30 minute summer	S-7.001	19	39.477	0.077	9.0	0.0123	0.0000	OK
30 minute summer	S-4.005	19	39.455	0.255	23.3	0.0723	0.0000	SURCHARGED
30 minute summer	S-4.006	19	39.493	0.093	14.6	0.0147	0.0000	OK
30 minute summer	S-6.001	35	39.136	0.311	6.4	0.0494	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	S-4.003	1.003	Attenuation	68.7	1.728	1.753	0.2084	
30 minute summer	Attenuation	1.004	S-4.002	2.4	0.460	0.058	0.1911	
30 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
30 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	66.9
30 minute summer	S-4.004	1.002	S-4.003	48.4	1.217	1.008	0.4654	
30 minute summer	S-5.001	4.001	S-4.002	0.8	1.008	0.015	0.0386	
30 minute summer	S-5.002	4.000	S-5.001	3.1	0.558	0.105	0.0231	
30 minute summer	S-7.001	1.000	S-4.005	9.0	0.858	0.420	0.1842	
30 minute summer	S-4.005	1.001	S-4.004	21.4	1.214	0.639	0.2007	
30 minute summer	S-4.006	2.000	S-4.005	14.4	1.349	0.431	0.0823	
30 minute summer	S-6.001	3.000	S-4.003	5.5	0.611	0.397	0.1443	

Results for 100 year +40% CC +10% A 60 minute summer. 1500 minute analysis at 1 minute timestep. Mass balance: 99.93%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S-4.003	64	39.244	0.594	53.5	0.7129	0.0000	SURCHARGED
60 minute summer	Attenuation	64	39.244	0.624	52.8	51.2659	0.0000	SURCHARGED
60 minute summer	S-4.002	64	39.244	0.654	2.7	0.7852	0.0000	SURCHARGED
60 minute summer	S-4.001	562	38.576	0.036	2.0	0.0101	0.0000	OK
60 minute summer	ex.MH	562	38.524	0.034	2.0	0.0000	0.0000	OK
60 minute summer	S-4.004	65	39.244	0.444	38.2	0.1256	0.0000	SURCHARGED
60 minute summer	S-5.001	63	39.622	0.322	2.6	0.0512	0.0000	FLOOD RISK
60 minute summer	S-5.002	63	39.622	0.287	23.6	22.0865	0.0000	FLOOD RISK
60 minute summer	S-7.001	32	39.458	0.057	6.7	0.0091	0.0000	OK
60 minute summer	S.4-005	34	39.298	0.098	17.6	0.0278	0.0000	OK
60 minute summer	S-4.006	32	39.463	0.063	10.9	0.0100	0.0000	OK
60 minute summer	S-6.001	64	39.244	0.419	4.8	0.0666	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S-4.003	1.003	Attenuation	52.8	1.328	1.347	0.2084	
60 minute summer	Attenuation	1.004	S-4.002	2.0	0.534	0.049	0.1911	
60 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
60 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	83.6
60 minute summer	S-4.004	1.002	S-4.003	37.5	0.943	0.781	0.4654	
60 minute summer	S-5.001	4.001	S-4.002	0.8	1.008	0.016	0.0387	
60 minute summer	S-5.002	4.000	S-5.001	-2.8	0.703	-0.095	0.0231	
60 minute summer	S-7.001	1.000	S.4-005	6.7	0.844	0.313	0.1257	
60 minute summer	S.4-005	1.001	S-4.004	17.2	1.073	0.516	0.1700	
60 minute summer	S-4.006	2.000	S.4-005	10.9	1.316	0.325	0.0537	
60 minute summer	S-6.001	3.000	S-4.003	4.2	0.544	0.305	0.1443	

Results for 100 year +40% CC +10% A 120 minute summer. 1560 minute analysis at 2 minute timestep. Mass balance: 99.96%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	S-4.003	124	39.312	0.662	33.7	0.7942	0.0000	SURCHARGED
120 minute summer	Attenuation	124	39.312	0.692	33.3	57.1788	0.0000	SURCHARGED
120 minute summer	S-4.002	124	39.312	0.722	2.5	0.8662	0.0000	SURCHARGED
120 minute summer	S-4.001	716	38.576	0.036	2.0	0.0101	0.0000	OK
120 minute summer	ex.MH	716	38.524	0.034	2.0	0.0000	0.0000	OK
120 minute summer	S-4.004	124	39.312	0.512	24.2	0.1448	0.0000	SURCHARGED
120 minute summer	S-5.001	122	39.640	0.340	3.4	0.0541	0.0000	FLOOD RISK
120 minute summer	S-5.002	122	39.641	0.306	14.7	23.9941	0.0000	FLOOD RISK
120 minute summer	S-7.001	64	39.445	0.045	4.2	0.0071	0.0000	OK
120 minute summer	S-4-005	124	39.312	0.112	11.0	0.0316	0.0000	OK
120 minute summer	S-4.006	64	39.448	0.048	6.8	0.0076	0.0000	OK
120 minute summer	S-6.001	124	39.312	0.487	3.0	0.0774	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	S-4.003	1.003	Attenuation	33.3	0.838	0.850	0.2084	
120 minute summer	Attenuation	1.004	S-4.002	2.0	0.490	0.048	0.1911	
120 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
120 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	98.0
120 minute summer	S-4.004	1.002	S-4.003	23.7	0.774	0.494	0.4654	
120 minute summer	S-5.001	4.001	S-4.002	0.9	1.007	0.017	0.0387	
120 minute summer	S-5.002	4.000	S-5.001	3.4	0.382	0.116	0.0231	
120 minute summer	S-7.001	1.000	S-4-005	4.2	0.774	0.196	0.1015	
120 minute summer	S-4-005	1.001	S-4.004	11.0	0.918	0.329	0.1805	
120 minute summer	S-4.006	2.000	S-4-005	6.8	1.206	0.203	0.0416	
120 minute summer	S-6.001	3.000	S-4.003	2.6	0.469	0.191	0.1443	

Results for 100 year +40% CC +10% A 180 minute summer. 1620 minute analysis at 4 minute timestep. Mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	S-4.003	184	39.339	0.689	24.7	0.8269	0.0000	SURCHARGED
180 minute summer	Attenuation	184	39.339	0.719	24.4	59.5620	0.0000	SURCHARGED
180 minute summer	S-4.002	184	39.339	0.749	2.3	0.8988	0.0000	SURCHARGED
180 minute summer	S-4.001	804	38.576	0.036	2.0	0.0101	0.0000	OK
180 minute summer	ex.MH	808	38.524	0.034	2.0	0.0000	0.0000	OK
180 minute summer	S-4.004	184	39.339	0.539	17.7	0.1525	0.0000	SURCHARGED
180 minute summer	S-5.001	180	39.642	0.342	2.2	0.0545	0.0000	FLOOD RISK
180 minute summer	S-5.002	180	39.643	0.308	10.7	24.2054	0.0000	FLOOD RISK
180 minute summer	S-7.001	96	39.439	0.039	3.1	0.0061	0.0000	OK
180 minute summer	S.4-005	184	39.339	0.139	8.1	0.0393	0.0000	OK
180 minute summer	S-4.006	96	39.440	0.040	5.0	0.0064	0.0000	OK
180 minute summer	S-6.001	184	39.339	0.514	2.2	0.0817	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	S-4.003	1.003	Attenuation	24.4	0.613	0.621	0.2084	
180 minute summer	Attenuation	1.004	S-4.002	2.0	0.098	0.048	0.1911	
180 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
180 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	106.9
180 minute summer	S-4.004	1.002	S-4.003	17.3	0.691	0.361	0.4654	
180 minute summer	S-5.001	4.001	S-4.002	0.9	1.002	0.017	0.0447	
180 minute summer	S-5.002	4.000	S-5.001	2.2	0.168	0.076	0.0231	
180 minute summer	S-7.001	1.000	S.4-005	3.1	0.712	0.145	0.1214	
180 minute summer	S.4-005	1.001	S-4.004	8.1	0.854	0.242	0.1974	
180 minute summer	S-4.006	2.000	S.4-005	5.0	1.117	0.149	0.0502	
180 minute summer	S-6.001	3.000	S-4.003	1.9	0.443	0.140	0.1443	

Results for 100 year +40% CC +10% A 240 minute summer. 1680 minute analysis at 4 minute timestep. Mass balance: 99.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	S-4.003	244	39.351	0.701	20.4	0.8411	0.0000	SURCHARGED
240 minute summer	Attenuation	244	39.351	0.731	20.1	60.6009	0.0000	SURCHARGED
240 minute summer	S-4.002	244	39.351	0.761	2.2	0.9131	0.0000	SURCHARGED
240 minute summer	S-4.001	872	38.576	0.036	2.0	0.0101	0.0000	OK
240 minute summer	ex.MH	872	38.524	0.034	2.0	0.0000	0.0000	OK
240 minute summer	S-4.004	244	39.351	0.551	14.7	0.1559	0.0000	SURCHARGED
240 minute summer	S-5.001	228	39.639	0.339	2.6	0.0539	0.0000	FLOOD RISK
240 minute summer	S-5.002	228	39.639	0.304	8.9	23.8518	0.0000	FLOOD RISK
240 minute summer	S-7.001	124	39.435	0.035	2.6	0.0056	0.0000	OK
240 minute summer	S-4-005	244	39.351	0.151	6.7	0.0427	0.0000	SURCHARGED
240 minute summer	S-4.006	124	39.436	0.036	4.1	0.0058	0.0000	OK
240 minute summer	S-6.001	244	39.351	0.526	1.8	0.0836	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S-4.003	1.003	Attenuation	20.1	0.507	0.514	0.2084	
240 minute summer	Attenuation	1.004	S-4.002	2.0	0.107	0.048	0.1911	
240 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
240 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	113.7
240 minute summer	S-4.004	1.002	S-4.003	14.3	0.638	0.299	0.4654	
240 minute summer	S-5.001	4.001	S-4.002	0.9	1.003	0.017	0.0481	
240 minute summer	S-5.002	4.000	S-5.001	2.6	0.430	0.089	0.0231	
240 minute summer	S-7.001	1.000	S-4-005	2.6	0.680	0.121	0.1248	
240 minute summer	S-4-005	1.001	S-4.004	6.7	0.781	0.199	0.2006	
240 minute summer	S-4.006	2.000	S-4-005	4.1	1.058	0.122	0.0517	
240 minute summer	S-6.001	3.000	S-4.003	1.6	0.418	0.114	0.1443	

Results for 100 year +40% CC +10% A 360 minute summer. 1800 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	S-4.003	360	39.340	0.690	14.9	0.8277	0.0000	SURCHARGED
360 minute summer	Attenuation	360	39.340	0.720	14.7	59.6170	0.0000	SURCHARGED
360 minute summer	S-4.002	360	39.340	0.750	2.2	0.8996	0.0000	SURCHARGED
360 minute summer	S-4.001	968	38.576	0.036	2.0	0.0101	0.0000	OK
360 minute summer	ex.MH	968	38.524	0.034	2.0	0.0000	0.0000	OK
360 minute summer	S-4.004	360	39.340	0.540	10.8	0.1528	0.0000	SURCHARGED
360 minute summer	S-5.001	288	39.627	0.327	2.6	0.0520	0.0000	FLOOD RISK
360 minute summer	S-5.002	288	39.627	0.292	6.6	22.6053	0.0000	FLOOD RISK
360 minute summer	S-7.001	184	39.430	0.030	1.9	0.0048	0.0000	OK
360 minute summer	S.4-005	360	39.340	0.140	4.9	0.0396	0.0000	OK
360 minute summer	S-4.006	184	39.431	0.031	3.0	0.0049	0.0000	OK
360 minute summer	S-6.001	360	39.340	0.515	1.3	0.0818	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	S-4.003	1.003	Attenuation	14.7	0.371	0.376	0.2084	
360 minute summer	Attenuation	1.004	S-4.002	2.0	0.098	0.048	0.1911	
360 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
360 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	122.2
360 minute summer	S-4.004	1.002	S-4.003	10.5	0.606	0.218	0.4654	
360 minute summer	S-5.001	4.001	S-4.002	0.8	0.995	0.016	0.0448	
360 minute summer	S-5.002	4.000	S-5.001	2.6	-0.278	0.089	0.0231	
360 minute summer	S-7.001	1.000	S.4-005	1.9	0.622	0.088	0.1214	
360 minute summer	S.4-005	1.001	S-4.004	4.9	0.710	0.146	0.1978	
360 minute summer	S-4.006	2.000	S.4-005	3.0	0.975	0.089	0.0500	
360 minute summer	S-6.001	3.000	S-4.003	1.1	0.367	0.083	0.1443	

Results for 100 year +40% CC +10% A 480 minute summer. 1920 minute analysis at 8 minute timestep. Mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	S-4.003	440	39.313	0.663	11.4	0.7957	0.0000	SURCHARGED
480 minute summer	Attenuation	440	39.313	0.693	11.3	57.2833	0.0000	SURCHARGED
480 minute summer	S-4.002	440	39.313	0.723	2.1	0.8676	0.0000	SURCHARGED
480 minute summer	S-4.001	1040	38.576	0.036	2.0	0.0101	0.0000	OK
480 minute summer	ex.MH	1040	38.524	0.034	2.0	0.0000	0.0000	OK
480 minute summer	S-4.004	440	39.313	0.513	8.2	0.1452	0.0000	SURCHARGED
480 minute summer	S-5.001	344	39.615	0.315	2.9	0.0500	0.0000	FLOOD RISK
480 minute summer	S-5.002	344	39.615	0.280	5.0	21.2745	0.0000	FLOOD RISK
480 minute summer	S-7.001	248	39.426	0.026	1.4	0.0041	0.0000	OK
480 minute summer	S-4-005	440	39.313	0.113	3.7	0.0320	0.0000	OK
480 minute summer	S-4.006	248	39.427	0.027	2.3	0.0042	0.0000	OK
480 minute summer	S-6.001	440	39.313	0.488	1.0	0.0776	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute summer	S-4.003	1.003	Attenuation	11.3	0.283	0.287	0.2084	
480 minute summer	Attenuation	1.004	S-4.002	2.0	0.098	0.048	0.1911	
480 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
480 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	127.8
480 minute summer	S-4.004	1.002	S-4.003	8.0	0.574	0.167	0.4654	
480 minute summer	S-5.001	4.001	S-4.002	0.8	1.002	0.016	0.0387	
480 minute summer	S-5.002	4.000	S-5.001	2.9	0.366	0.100	0.0231	
480 minute summer	S-7.001	1.000	S-4-005	1.4	0.564	0.065	0.1004	
480 minute summer	S-4-005	1.001	S-4.004	3.7	0.666	0.111	0.1816	
480 minute summer	S-4.006	2.000	S-4-005	2.3	0.911	0.069	0.0416	
480 minute summer	S-6.001	3.000	S-4.003	0.9	0.367	0.064	0.1443	

Results for 100 year +40% CC +10% A 600 minute summer. 2040 minute analysis at 15 minute timestep. Mass balance: 100.00

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute summer	S-4.003	495	39.279	0.629	9.3	0.7551	0.0000	SURCHARGED
600 minute summer	Attenuation	495	39.279	0.659	9.2	54.3202	0.0000	SURCHARGED
600 minute summer	S-4.002	495	39.279	0.689	2.1	0.8270	0.0000	SURCHARGED
600 minute summer	S-4.001	1110	38.576	0.036	2.0	0.0101	0.0000	OK
600 minute summer	ex.MH	1110	38.524	0.034	2.0	0.0000	0.0000	OK
600 minute summer	S-4.004	495	39.279	0.479	6.7	0.1356	0.0000	SURCHARGED
600 minute summer	S-5.001	420	39.603	0.303	2.7	0.0481	0.0000	FLOOD RISK
600 minute summer	S-5.002	420	39.603	0.268	4.0	20.0134	0.0000	FLOOD RISK
600 minute summer	S-7.001	315	39.424	0.024	1.2	0.0038	0.0000	OK
600 minute summer	S-4-005	495	39.279	0.079	3.1	0.0224	0.0000	OK
600 minute summer	S-4.006	315	39.424	0.024	1.9	0.0039	0.0000	OK
600 minute summer	S-6.001	495	39.279	0.454	0.8	0.0722	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute summer	S-4.003	1.003	Attenuation	9.2	0.252	0.233	0.2084	
600 minute summer	Attenuation	1.004	S-4.002	2.0	0.098	0.048	0.1911	
600 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
600 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.112	0.0155	131.7
600 minute summer	S-4.004	1.002	S-4.003	6.5	0.590	0.136	0.4654	
600 minute summer	S-5.001	4.001	S-4.002	0.8	0.993	0.016	0.0386	
600 minute summer	S-5.002	4.000	S-5.001	2.7	0.422	0.092	0.0231	
600 minute summer	S-7.001	1.000	S-4-005	1.2	0.544	0.056	0.0673	
600 minute summer	S-4-005	1.001	S-4.004	3.1	0.620	0.093	0.1542	
600 minute summer	S-4.006	2.000	S-4-005	1.9	0.858	0.057	0.0279	
600 minute summer	S-6.001	3.000	S-4.003	0.7	0.345	0.051	0.1443	

Results for 100 year +40% CC +10% A 720 minute summer. 2160 minute analysis at 15 minute timestep. Mass balance: 99.98%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	S-4.003	585	39.259	0.609	8.1	0.7312	0.0000	SURCHARGED
720 minute summer	Attenuation	585	39.259	0.639	8.0	52.5736	0.0000	SURCHARGED
720 minute summer	S-4.002	585	39.259	0.669	2.1	0.8031	0.0000	SURCHARGED
720 minute summer	S-4.001	1170	38.576	0.036	2.0	0.0101	0.0000	OK
720 minute summer	ex.MH	1170	38.524	0.034	2.0	0.0000	0.0000	OK
720 minute summer	S-4.004	585	39.259	0.459	5.8	0.1300	0.0000	SURCHARGED
720 minute summer	S-5.001	495	39.591	0.291	2.5	0.0463	0.0000	FLOOD RISK
720 minute summer	S-5.002	495	39.591	0.256	3.5	18.8334	0.0000	FLOOD RISK
720 minute summer	S-7.001	375	39.422	0.022	1.0	0.0035	0.0000	OK
720 minute summer	S-4-005	585	39.259	0.059	2.6	0.0168	0.0000	OK
720 minute summer	S-4.006	375	39.422	0.022	1.6	0.0036	0.0000	OK
720 minute summer	S-6.001	585	39.259	0.434	0.7	0.0691	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	S-4.003	1.003	Attenuation	8.0	0.237	0.203	0.2084	
720 minute summer	Attenuation	1.004	S-4.002	2.0	0.098	0.048	0.1911	
720 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
720 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.112	0.0155	136.8
720 minute summer	S-4.004	1.002	S-4.003	5.6	0.563	0.118	0.4654	
720 minute summer	S-5.001	4.001	S-4.002	0.8	0.990	0.015	0.0386	
720 minute summer	S-5.002	4.000	S-5.001	2.5	0.299	0.084	0.0231	
720 minute summer	S-7.001	1.000	S-4-005	1.0	0.514	0.047	0.0468	
720 minute summer	S-4-005	1.001	S-4.004	2.6	0.609	0.078	0.1373	
720 minute summer	S-4.006	2.000	S-4-005	1.6	0.816	0.048	0.0195	
720 minute summer	S-6.001	3.000	S-4.003	0.6	0.345	0.045	0.1443	

Results for 100 year +40% CC +10% A 960 minute summer. 2400 minute analysis at 15 minute timestep. Mass balance: 100.00

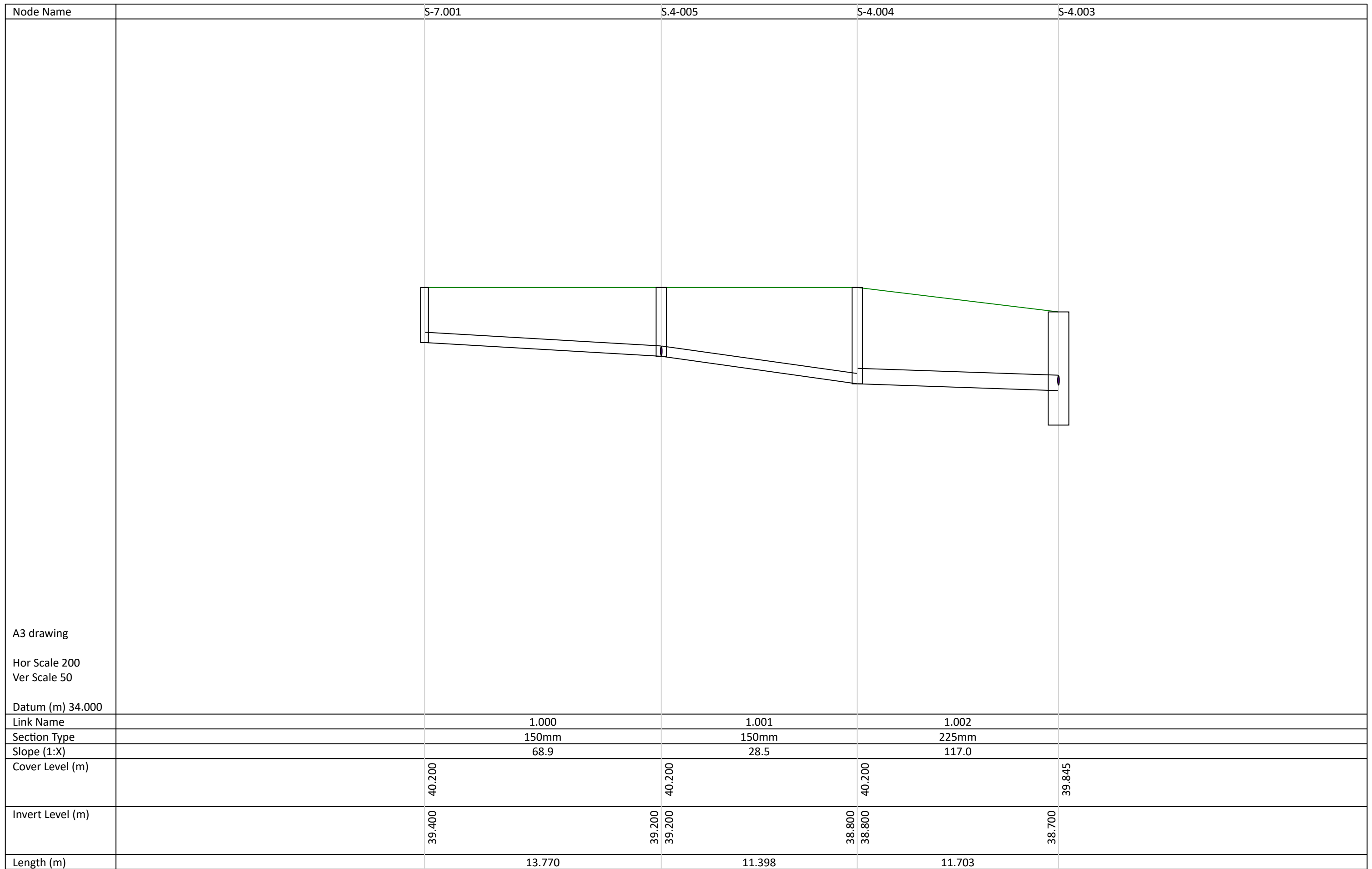
Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute summer	S-4.003	720	39.208	0.558	6.4	0.6694	0.0000	SURCHARGED
960 minute summer	Attenuation	720	39.208	0.588	6.3	48.0616	0.0000	SURCHARGED
960 minute summer	S-4.002	720	39.208	0.618	2.1	0.7413	0.0000	SURCHARGED
960 minute summer	S-4.001	1305	38.576	0.036	2.0	0.0101	0.0000	OK
960 minute summer	ex.MH	1305	38.524	0.034	2.0	0.0000	0.0000	OK
960 minute summer	S-4.004	720	39.208	0.408	4.6	0.1154	0.0000	SURCHARGED
960 minute summer	S-5.001	615	39.577	0.277	2.7	0.0440	0.0000	FLOOD RISK
960 minute summer	S-5.002	615	39.577	0.242	2.8	17.3134	0.0000	FLOOD RISK
960 minute summer	S-7.001	495	39.420	0.020	0.8	0.0032	0.0000	OK
960 minute summer	S-4-005	495	39.226	0.026	2.1	0.0072	0.0000	OK
960 minute summer	S-4.006	495	39.420	0.020	1.3	0.0032	0.0000	OK
960 minute summer	S-6.001	720	39.208	0.383	0.6	0.0609	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute summer	S-4.003	1.003	Attenuation	6.3	0.203	0.161	0.2084	
960 minute summer	Attenuation	1.004	S-4.002	2.0	0.098	0.048	0.1911	
960 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
960 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.112	0.0155	142.7
960 minute summer	S-4.004	1.002	S-4.003	4.5	0.563	0.093	0.4654	
960 minute summer	S-5.001	4.001	S-4.002	0.8	1.001	0.015	0.0386	
960 minute summer	S-5.002	4.000	S-5.001	2.7	0.408	0.094	0.0231	
960 minute summer	S-7.001	1.000	S-4-005	0.8	0.479	0.037	0.0231	
960 minute summer	S-4-005	1.001	S-4.004	2.1	0.591	0.063	0.1116	
960 minute summer	S-4.006	2.000	S-4-005	1.3	0.769	0.039	0.0096	
960 minute summer	S-6.001	3.000	S-4.003	0.5	0.320	0.038	0.1443	

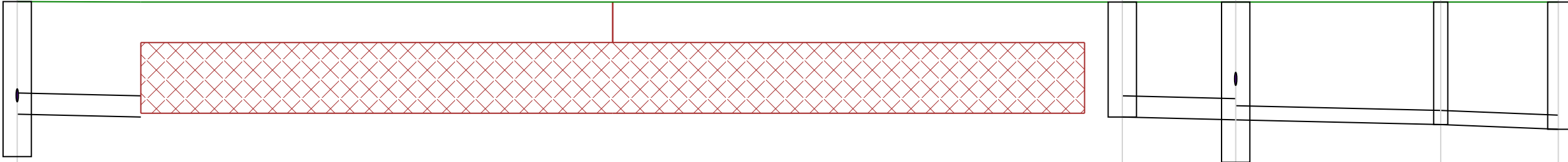
Results for 100 year +40% CC +10% A 1440 minute summer. 2880 minute analysis at 30 minute timestep. Mass balance: 100.0

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute summer	S-4.003	960	39.104	0.454	4.4	0.5445	0.0000	SURCHARGED
1440 minute summer	Attenuation	960	39.104	0.484	4.4	38.9492	0.0000	SURCHARGED
1440 minute summer	S-4.002	960	39.104	0.514	2.0	0.6164	0.0000	SURCHARGED
1440 minute summer	S-4.001	1470	38.576	0.036	2.0	0.0101	0.0000	OK
1440 minute summer	ex.MH	1470	38.524	0.034	2.0	0.0000	0.0000	OK
1440 minute summer	S-4.004	960	39.104	0.304	3.2	0.0860	0.0000	SURCHARGED
1440 minute summer	S-5.001	900	39.543	0.243	2.5	0.0387	0.0000	FLOOD RISK
1440 minute summer	S-5.002	900	39.543	0.208	2.0	13.7715	0.0000	FLOOD RISK
1440 minute summer	S-7.001	750	39.417	0.017	0.6	0.0028	0.0000	OK
1440 minute summer	S-4.005	750	39.222	0.022	1.5	0.0061	0.0000	OK
1440 minute summer	S-4.006	750	39.417	0.017	0.9	0.0027	0.0000	OK
1440 minute summer	S-6.001	960	39.104	0.279	0.4	0.0443	0.0000	SURCHARGED

Link Event	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute summer	S-4.003	1.003	Attenuation	4.4	0.203	0.112	0.2084	
1440 minute summer	Attenuation	1.004	S-4.002	1.9	0.097	0.046	0.1911	
1440 minute summer	S-4.002	1.005	S-4.001	2.0	0.568	0.149	0.0306	
1440 minute summer	S-4.001	1.006	ex.MH	2.0	0.645	0.113	0.0155	151.4
1440 minute summer	S-4.004	1.002	S-4.003	3.1	0.543	0.065	0.4654	
1440 minute summer	S-5.001	4.001	S-4.002	0.7	0.989	0.014	0.0385	
1440 minute summer	S-5.002	4.000	S-5.001	2.5	0.343	0.086	0.0231	
1440 minute summer	S-7.001	1.000	S-4.005	0.6	0.448	0.028	0.0185	
1440 minute summer	S-4.005	1.001	S-4.004	1.5	0.544	0.045	0.1080	
1440 minute summer	S-4.006	2.000	S-4.005	0.9	0.680	0.027	0.0076	
1440 minute summer	S-6.001	3.000	S-4.003	0.4	0.319	0.025	0.1443	





Node Name	S-4.003		Attenuation	S-4.002	S-4.001	ex.MH
A3 drawing Hor Scale 200 Ver Scale 50 Datum (m) 34.000						
	Link Name		1.004	1.005	1.006	
	Section Type		225mm	150mm	150mm	
	Slope (1:X)		160.2	173.8	99.7	
	Cover Level (m)		39.840	39.840	39.840	39.840
	Invert Level (m)		38.620	38.590	38.540	38.490
Length (m)		5.239	4.806	8.690	4.984	



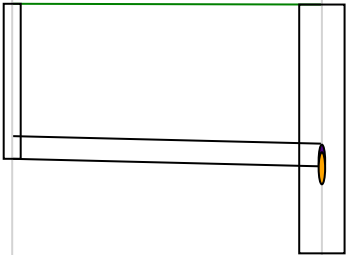
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30-32 Westgate Buildings
Bath
BA1 1EF

File: 5544 HEXBOX 250903.pfd
Network: Storm Network
Jack Pugh
03/09/2025

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HexBox
Surface Water calculations

Node Name	S-4.006S-4-005	
A3 drawing Hor Scale 200 Ver Scale 50 Datum (m) 35.000		
	2.000	
	150mm	
	28.4	
	40.200	40.200
	39.400	39.200
	5.677	
Link Name		
Section Type		
Slope (1:X)		
Cover Level (m)		
Invert Level (m)		
Length (m)		



Node Name	S-6.001	S-4.003
A3 drawing Hor Scale 200 Ver Scale 50 Datum (m) 34.000 		
Link Name	3.000	
Section Type	150mm	
Slope (1:X)	163.9	
Cover Level (m)	39.850	39.845
Invert Level (m)	38.825	38.775
Length (m)	8.194	

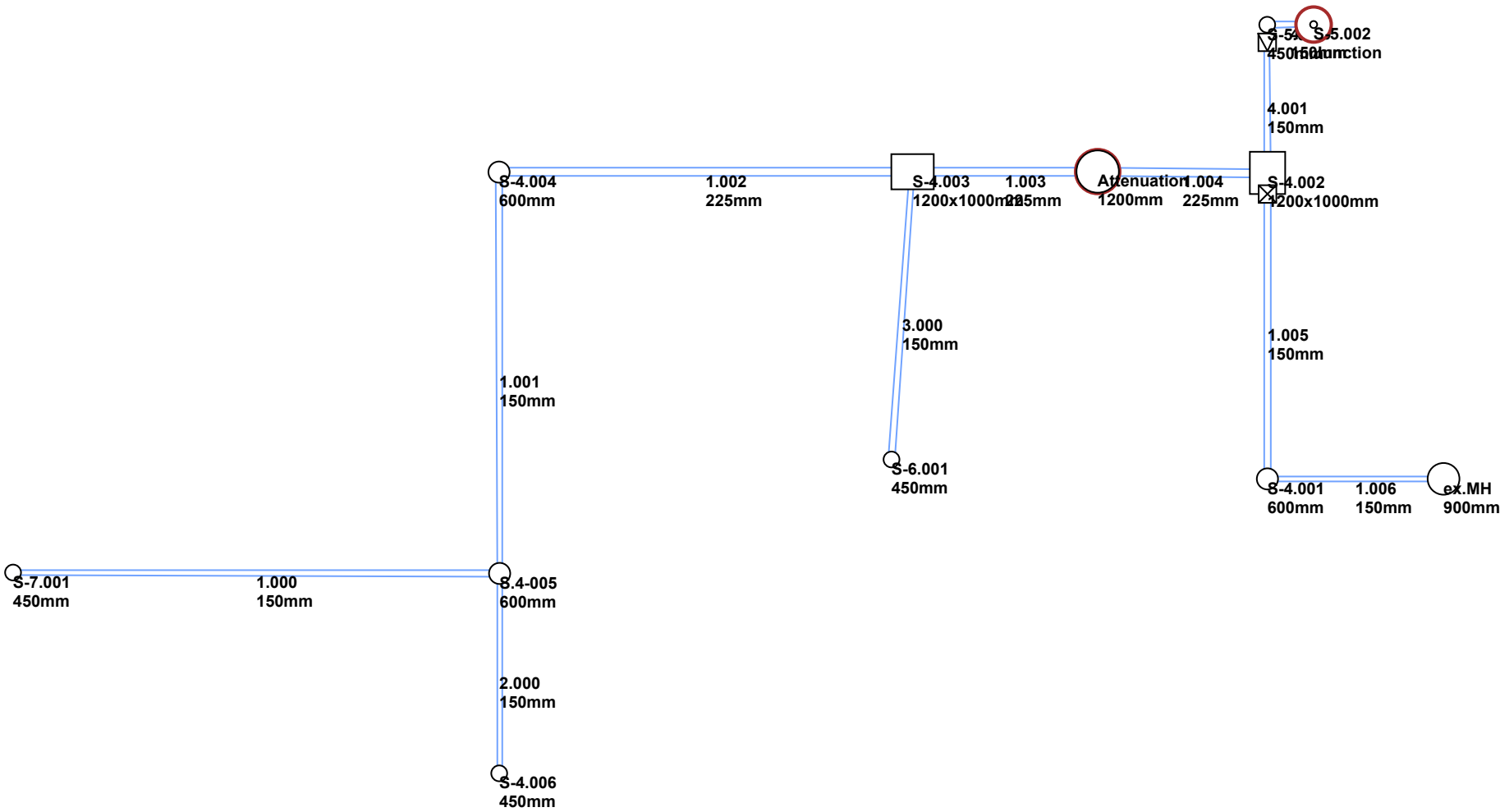


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BA1 1EF

File: 5544 HEXBOX 250903.pfd
Network: Storm Network
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HexBox
Surface Water calculations

Node Name	S-5.001S-4.001S-4.002		
A3 drawing Hor Scale 200 Ver Scale 50 Datum (m) 34.000			
	Link Name	4.00	4.001
	Section Type	150r	150mm
	Slope (1:X)	37.5	12.0
	Cover Level (m)	39.840	39.840
	Invert Level (m)	39.335	38.950
Length (m)	1.31	4.208	



Hexagon Studio Theatre

SUDS Management & Maintenance Plan

July 2025
HEX-MOM-ZZ-XX-RP-S-60002-C01

Contents

This document has been prepared for the sole benefit, use and information of the Hexagon Studio Theatre project and for the purposes set out in the following pages.

The liability of Momentum Consulting Engineers Ltd in respect of the information contained in the document will not extend to any third party.

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Checker

T Dolton

Issue History

Rev.	Date	Comments
C01	16 Jul 2025	First issue

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2. Description of the proposed drainage scheme	3
3. Maintenance responsibility	3
4. Maintenance plan	4



1. Introduction

This maintenance plan is designed to give the Client information on the recommended maintenance of the surface water Sustainable Urban Drainage System (SUDS) drainage elements for the extension building to ensure that the systems remain functioning efficiently.

2. Description of the proposed drainage scheme

The proposed extension building to the north of the existing Hexagon Theatre, associated loading area and parking are to be built in place a combination of existing buildings and impermeable paved areas.

The proposed drainage is split into two systems. The proposed extension building and the larger area of paving to the east drains to the eastern system via porous paving and attenuation tanks with a flow control set at 2l/s before discharging to the existing private surface water drainage system to the east of the theatre buildings. This system flows south and discharges to soakaways.

The western drains the smaller part of the site including the highway access and loading bay. This system drains via petrol interception to the Thames Water surface water sewer system in the highway to the west. Due to depth restrictions, no attenuation is provided on this western system but the area discharging to the sewer is significantly reduced relieving pressure on the sewer system.

The design has been modelled in the Flow hydraulic modelling software for a range of storm durations and return periods. No surface flooding is predicted in the 1:30 year or 1:100 year event plus 40% climate change allowance. The overall discharge from the site via the eastern and western systems is reduced compared to the pre-redevelopment situation

The SUDS elements included in the eastern system are permeable paving and attenuation tank storage with gravity flow control (hydrobrake) on the outlet. The permeable paving in the parking areas to the east of the proposed extension drains to the surface water system via its porous sub-base without infiltration due to the proximity to foundations. The western system includes oil interception.

The existing rainwater drainage from the main Hexagon Theatre is to remain with minor diversions where required to resolve clashes with the new building. The discharge points remain as existing.

3. Maintenance responsibility

The client will be responsible for maintenance of all elements of the surface water drainage systems on site. No adoption is proposed for any element on site.

The Theatre will arrange and manage maintenance work, and bring in specialist contractors as required.



4. Maintenance plan

Maintenance plan is included in tables on following pages.

To be read in conjunction with recommendations of Ciria C753 The SUDS Manual, Environment Agency guidance and manufacturers requirements.

Drainage element	Inspection requirements	Frequency of inspection	Maintenance requirements	Frequency of maintenance	Comments
Attenuation tanks	Inspect all inlets, outlets, overflows and vents to ensure all are in good condition and operating as required	Monthly for 3 months and then annually	Clear any blockages or debris. Repair any defects as found by inspections	As required	Access is provided to the tank via the inlets and outlets. These points can be used for inspection and for flushing to the manholes for clearance. Do not enter below ground chambers without the correct safety equipment and procedures
	Survey inside of tank with CCTV for sediment buildup	Every 5 years or as required if performance is affected	Remove sediments from tank by jetting or other means	As required	
Porous paving	Initial inspections – clogging, settlement, other issues	Monthly for 3 months after installation	Sweep and vacuum surface paying particular attention to areas where surface run off from adjacent areas discharges onto the surfaces	Annually, after autumn leaf fall, or more frequently if required	Additional sedimentation inspections after future construction works in any area draining onto or adjacent to permeable paving.
	Inspect for evidence of poor operation.	3 monthly and after large storms	If poor operation is noted, identify areas of silting and undertake remediation of surface as noted below	As required following inspections	
	Inspect for weed growth	Annually	Remove weeds or manage using weedkiller applied directly to weeds	Annually	

Drainage element	Inspection requirements	Frequency of inspection	Maintenance requirements	Frequency of maintenance	Comments
Porous paving (cont.)			Remediate adjacent soft landscape where through landscape work or planting, level has risen to within 50mm of pavement surface	As required	
	Inspect to monitor silt accumulation rates and identify appropriate sweeping frequency	Annually	Adjust sweeping and vacuum frequency if necessary	As required	
	Inspect for damage, movement or deterioration	Annually	Remediate any depressions or rutting considered to affect structural performance or be a hazard to users	As required	
			Rehabilitate upper surface by remedial sweeping with water jets and oscillating brushes	Every 10 to 15 years, or when the pavement shows signs of significant clogging	
	Winter conditions		Salting in freezing conditions (without grit)	As needed	Do not use grit with salt on porous paving – it will clog the paving preventing proper drainage

Drainage element	Inspection requirements	Frequency of inspection	Maintenance requirements	Frequency of maintenance	Comments
Chambers and piped network	Inspect chambers for integrity and silt accumulation	Monthly for 3 months then annually as required	Empty collected silts from catchpits and chambers either manually from the surface or using a 'gully sucker' lorry	Annually, adjust to more or less frequently as needed depending on silt build up.	Inspect chambers and pipes after future construction works in area to confirm building debris has not entered system.
	Inspect pipe network by CCTV inspection for blockages or structural issues	As required when performance is reduced	Jet or rod pipes when performance is affected	As needed	Do not enter below ground chambers without the correct safety equipment and procedures
Vortex flow control	Inspect chamber for integrity, silt and detritus accumulation	Monthly for 3 months then 6 monthly or annually as required	Debris should be cleared and sediment removed either manually from the surface or using a 'gully sucker' lorry	Immediately if there is any evidence of blockage, especially following heavy rain. Otherwise, annually, adjust to more or less frequently as needed depending on silt build up.	Do not enter below ground chambers without the correct safety equipment and procedures
	Check operation of bypass door in the flow control	6 monthly or annually	If the bypass door has become jammed or stiff, it should be freed off and lubricated in accordance with the manufacturer's literature	As required	
Oil Interceptor	Inspect integrity of interceptor and mechanical parts	Every 6 months	Repair any defects as required	As required	
	Assess depth of accumulated oils and sediments	Every 6 months or more frequently if required	Remove oils and sediments as soon as a significant quantity of oil and/or silt has accumulated.	As required	
	Service electrical equipment and alarms	Every 6 months	Repair any defects as required	As required	
	Check oil depths after any known spillage and remove as needed.	As required			

Drainage element	Inspection requirements	Frequency of inspection	Maintenance requirements	Frequency of maintenance	Comments
Channel / slot drains	Inspect channels and outlets to identify build up of sediments, debris or litter. Check integrity of grates, fixings and channels.	Annually or if surface ponding is noted	Remove sediments, debris or litter by mechanical means or water jetting. Refit loose grates and replace damaged elements.	As required	

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