

Flood Risk Assessment and Drainage Strategy Report

Barratt David Wilson Homes Proposed
Residential Development

Land to the West of Cricket Field North of
Wykham Lane, Bodicote, Oxfordshire

MARCH 2022

REF 957-00-Report 1A



Infrastructure Design Limited Consulting Engineers

33 The Point, Rockingham Road
Market Harborough
Leicestershire LE16 7QU

Tel: 01858 411570
Fax: 01858 411571

*Rev A – Section 7.7 added and calculations updated
to suit*
25.3.22

1.0 Introduction

1.1 Infrastructure Design Ltd has been instructed by Barratt David Wilson Homes (BDW) to prepare this Flood Risk Assessment (FRA) and Drainage Strategy associated with the proposed residential development at land west of . The Ordnance Survey (OS) gridreference for the centre of the site is approximately 445540 mE, 238470 mN.

1.2 This FRA has been prepared in accordance with National Planning Policy Framework (NPPF), July 2021, and its accompanying gov.uk Planning Practice Guidance (PPG): *Flood Risk and Coastal Change* (2016). It is expected that this report will be reviewed by the relevant flood risk authorities as part of a planning application. The development will be for full planning permission.

1.3 The development is a replan within a wider development currently under development, which previously received outline planning permission as part of 15/01326/OUT. This previous application was accompanied by a Flood Risk Assessment undertaken by G R M (GRM/P6194/FRA.FINAL July 2015), which did not identify any significant flood risks at the site. Likewise the development received full Reserved Matters approval under discharge of conditions application 19/00213/DISC for surface water drainage (cond 8).

1.4 This FRA report has been prepared for the sole use of BDW and its contents cannot be copied or relied upon by others except as noted above, without the written authority of Infrastructure Design Ltd.

2.0 The Development

2.1 The location of this 3.37 hectare (ha) greenfield (arable) site is shown in location Plan within Appendix A.

2.2 The proposed development comprises 107 units, an increase of 23 over the approved layout in this area of 84 units and associated infrastructure. The proposed layout is shown on the attached drawing within Appendix B.

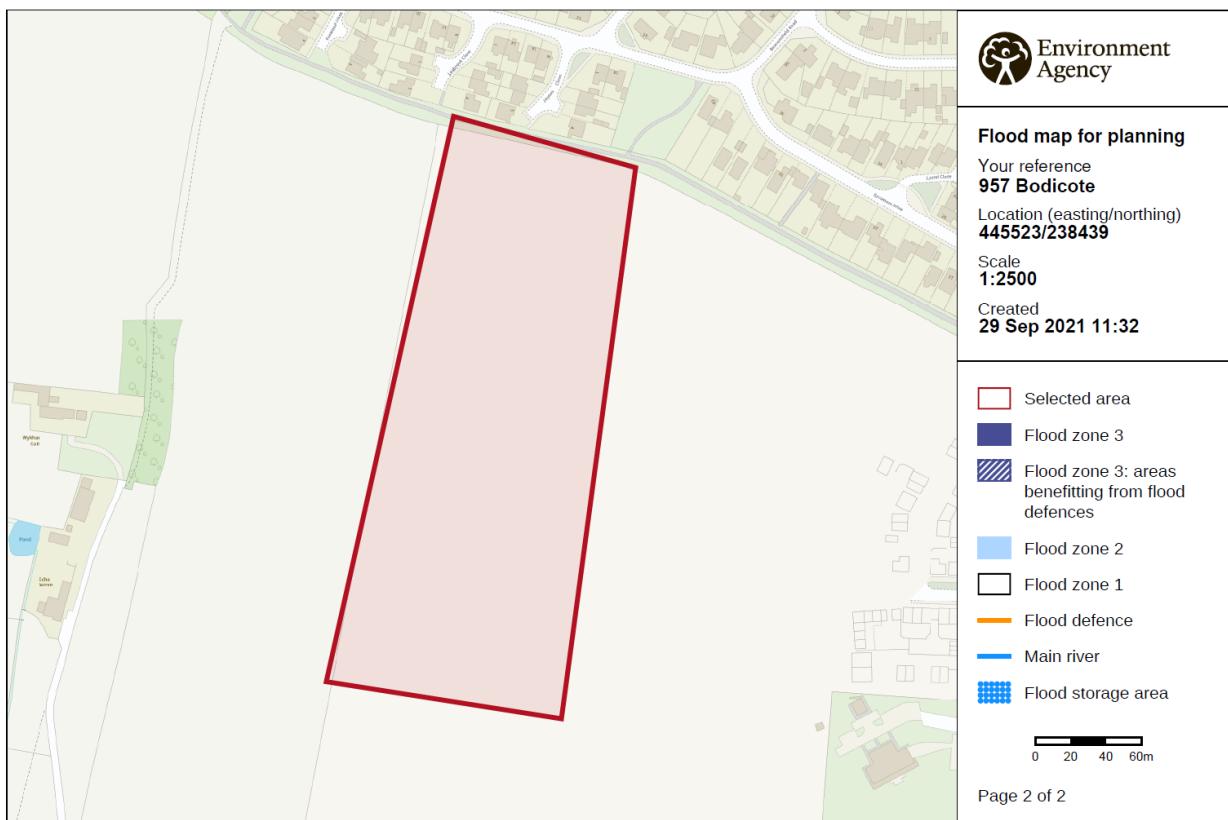
2.3 The existing site use is *less vulnerable* and the proposed is classified as *more vulnerable* and in accordance with Table 2 of the NPPF Planning Practice Guidance (Reference ID: 7-066-20140306).

2.4 The minimum proposed finished floor level is 122.65 mAOD – refer to Planning Levels Plan within Appendix C.

2.5 The site survey (appendix D) relates to OS GPS datum and the site ground levels vary from 125.8 mAOD at the north west boundary to 121.5 mAOD at the south east boundary.

3.0 Flood Zones

3.1 As indicated in Figure 3.1, the site is located fully within flood zone 1, the area at low risk of flooding from significant watercourses. Residential development at this site is therefore considered 'appropriate' in accordance Table 3 of the NPPF Planning Practice Guidance (Reference ID: 7-067-20140306).



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Figure 3.1 - Flood zones for planning

(Source: <https://flood-map-for-planning.service.gov.uk>)

3.2 River Flooding

3.3 As per above the site is deemed within Flood Zone 1, and the topographical survey and OS mapping do not indicate a watercourse within the site.

4.0 Surface Water Flooding

4.1 The Government's risk of flooding from surface water mapping is shown in Figure 4.1. This does not indicate any high, medium or low risk of flooding on site. There is an area of low flood risk to the east and west part of the adjacent sites, which coincide with natural valleys, but does enter the application site.

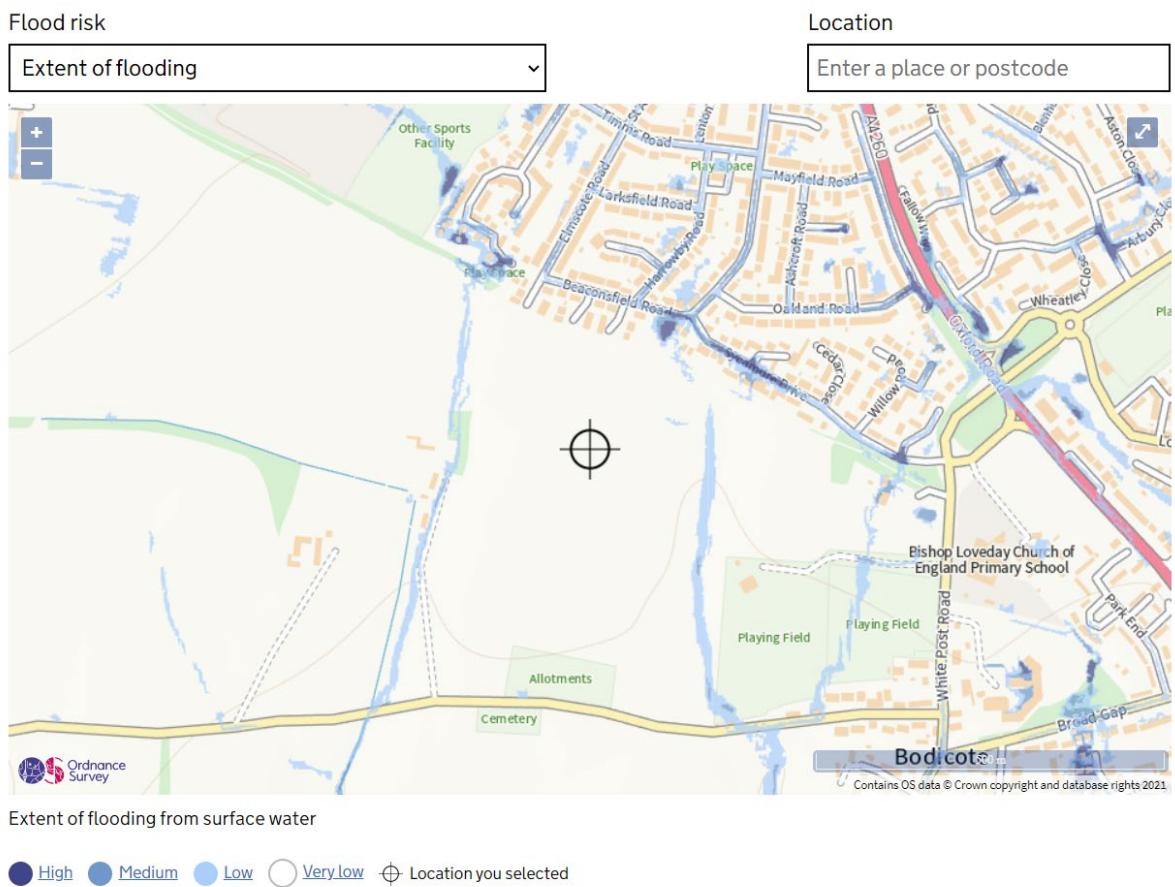


Figure 4.1 – Risk of flooding from surface water

(Source: <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>)

High 1:30 year return period, **Medium** 1:100 year return period, **Low** 1:1,000 year return period

5.0 Groundwater

5.1 No groundwater has been encountered within the extent of the site through any of the site investigations, likewise during the construction of the adjacent site, no issues of groundwater have been evident. No risk was identified within the original FRA. The data in Figure 5.1 below shows that from the British geological Survey data the site is underlain by rocks with essentially no groundwater. There is likely to be a negligible risk of flooding from Groundwater

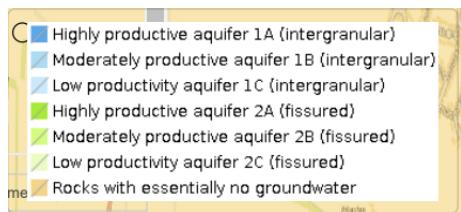
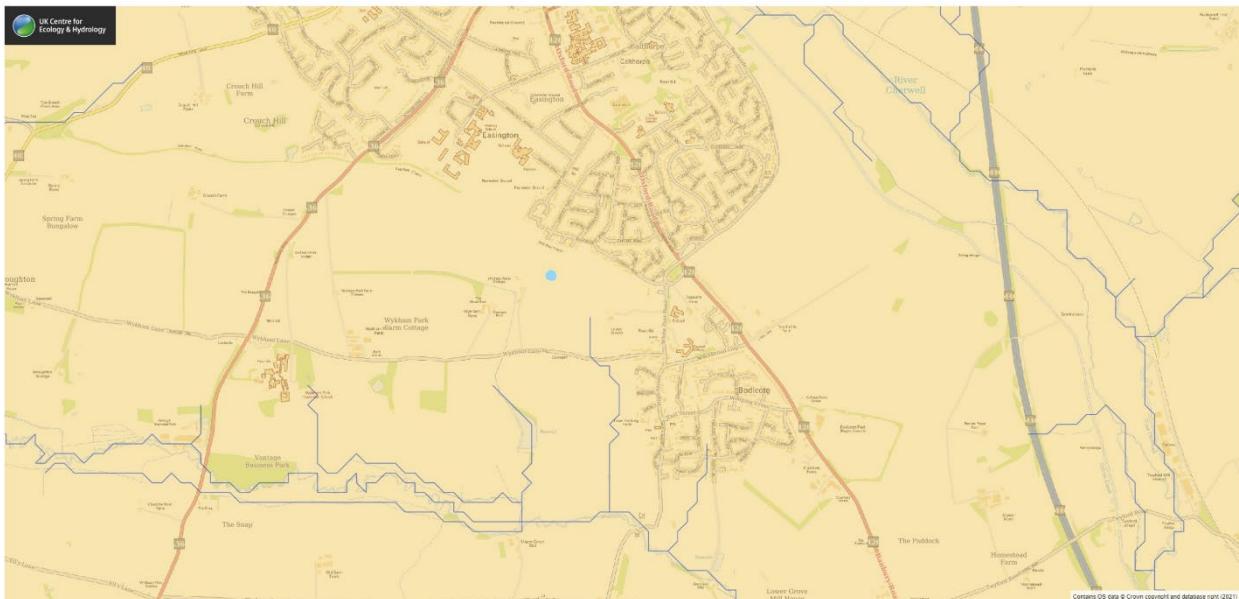


Figure 5.1 – Groundwater



(Source: <https://fehweb.ceh.ac.uk/GB/map>)

6.0 FRA Summary

- The proposed development comprises 107 residential units (an increase of 23 from original) and associated infrastructure on the existing 3.37 ha greenfield site.
- The development site is fully within flood zone 1, the area at low risk of river flooding.
- The site is not at risk of surface water flooding.
- The site is at negligible risk of groundwater flooding.
- As can be seen within the following Drainage Strategy, no increase in flooding downstream of the development.

7.0 DRAINAGE STRATEGY

7.1 Detailed Design of Surface Water Drainage Scheme

The original drainage strategy for the main site, included a series of swales, infiltration basins and main sewers. The strategy was approved under the Reserved Matters application Ref 19/00213/Disc. The portion of the main site now part of this new application utilizes the infrastructure mentioned above to drain the site. Drainage Layout is appended within Appendix E and a check on the capacity of the existing infrastructure has been undertaken and the calculations are within Appendix F. Although the site has more units as part of the replan – the nature of the properties substituted e.g. semi detached units instead of larger detached units, means that catchment areas have stayed broadly similar, in fact the main infrastructure catchment has reduced slightly. The infiltration basin catchments are again similar in total area with an increase in catchment overall of approximately 10% (1.3Ha originally compared with 1.45Ha within replan).

7.2 Further to the above information highlighted, key points which highlights the key points of compliance for the drainage strategy for the site.

7.3 SW Drainage Scheme

❖ The surface water system is to comprise, mainly of soakaways and Infiltration Basins. The main road infrastructure and some of the site drains to the main site infrastructure to the east of the application site. The new scheme based on the replan layout, has required slight enlargement of some soakaways, but all shared infrastructure outside of the application area remains the same, and no capacity issues have been found (Appendix F)

7.4 Greenfield Runoff Rates

❖ To ensure Betterment is provided flow rates restricted to Qbar of 2.71l/s for design storm events up to and including the 1 in 100 year event plus climate change event, for development area.
❖ Modelling utilising Causeway Flow (appendix F) showing the Simulations for various storm event, including allowances for climate change of 20% and 40% in line with normal practice of design for 20% CC and test system for 40% CC and Urban Creep allowances of 10%.

7.5 Exceedance Routing

❖ The results of the modelling within Appendix F show that no flooding occurs, within the infiltration systems, even when tested with 40% climate change and 10% Urban Creep.
❖ The areas of potential flooding caused by exceedance of the main site piped system identified are within Appendix C, exceedance routing has shown where exceedance flows can be directed, via the road corridors, safely to areas of POS and/or the attenuation ponds.

7.6 SuDS

❖ Use of SuDS to improve water quality and flow.
❖ The use of Swales, infiltration Basins and Attenuation Basin with permanent water provides sufficient treatment train to improve the water quality in line with the requirements of C753 and the FRA, see table 7.1 below,

Table 7.1 Proposed runoff treatment – Roofs, Roads and hardstandings

Roof & access road		Treatment Required ¹	Proposed Treatment		
Pollution Hazard ¹	Low		Basin individual indices ²	Swales individual indices ²	Infiltration Basin Indices ²
	Total suspended solids indices	0.5	0.7	0.5	0.6
	Metals indices	0.4	0.7	0.6	0.5
	Hydrocarbons indices	0.4	0.5	0.6	0.6

Notes:

1 - C753 table 26.2 2- C753 table 26.3 & 26.4

7.7 SW Modelling

- ❖ OCC as LLFA have requested that the proposed site be provided with new calculations with Cv set to 0.95 for roofs and 0.90 for paved areas and require details of the storage volumes and where they are located.
- ❖ The Modelling software models Cv as a global coefficient on the catchment areas throughout the site, so an average of the two values of Cv of 0.925 has been utilized within the attached calculations, for the application site, as this will best model OCCs requirements.
- ❖ It should be noted that the works on the main site, already has approval under App 19/00213/DISC-4(a) Discharge Condition 8 Dated 13/10/2020, and this document pertains only to the new application site.

The appended drawings, design and data sheets show that the scheme complies with the requirements of the approved Drainage Strategy and Oxfordshire County Council in all key points for strategy.

<p>Certificate of Compliance Signed</p>  <p>Rob Hill BSc MCIHT Director For Infrastructure Design Ltd</p> <p>25.3.22</p>	
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Appendix A

Location Plan

scale 1:1250
0m 100m

Legend

- Re-plan Boundary
- Land Within DWH Ownership

Rev	Description	Date	Drawn	Chkd
DAVID WILSON HOMES WHERE QUALITY LIVES				
Remus 2 2 Cribbs Way Solihull Business Park Solihull B90 4G1 0121 713 7310 www.dwh.co.uk				
Project Bodicote_Re-Plan White Post Road Bodicote				
Drawing Title Location Plan				
Scale 1:500 @ A1				
Date 25.08.21				
Drawn By JM				
Drawing Ref BODRP.SLP.000				
Revision *				



Appendix B

Proposed Layout



Appendix C

Finished Floor Levels And Exceedance Routing



- FFL 121.70
- GFL 121.70
- Proposed Contours
- Existing Contours

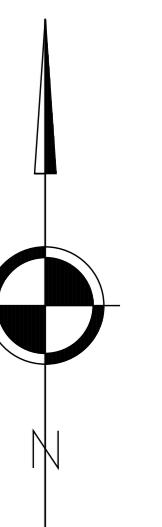
Exceedance Routing

Finalised Finished Floor Levels to be +/- 225mm from those levels shown.

STATUS:	Planning	TITLE: Finished Levels					
		PROJECT: White Post Road, Bodicote	SCALE: 1:500	DATE: Sept 2021			
		DRAWN: IDL	REV	DESCRIPTION	REV	DESCRIPTION	DATE

Appendix D

Site Survey



SURVEY ORIENTATED TO REAL TIME GPS

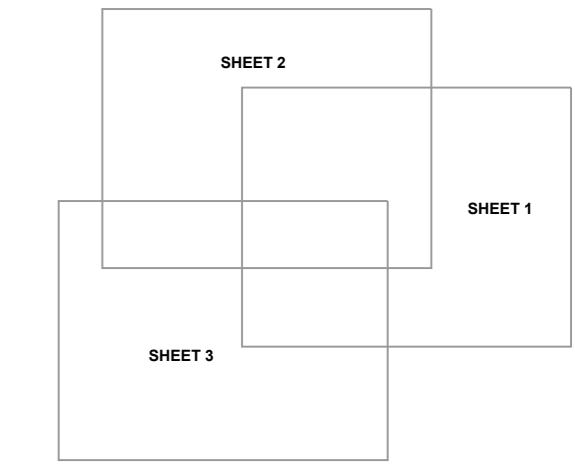
NOTES AND AMENDMENTS

ONLY MANHOLES AND SERVICES VISIBLE AT
TIME OF SURVEY SHOWN.
DRAINAGE INFORMATION MUST BE CHECKED AND
VERIFIED WITH LOCAL AUTHORITY RECORDS
PRIOR TO WORK COMMENCING
Levels defining edge of carriageway are observed at
channel (bottom of bank). Unless otherwise stated.

TREE SYMBOLS ARE SYMMETRIC ONLY AND ARE
NOT REPRESENTATIVE OF THE AVERAGE SPREAD.
THE DRIP LINE LAYER DENOTES THE TREES EXTREMITY

REVISIONS

REV	DESCRIPTION	DRAWN	DATE
A	SURVEY EXTENDED AS REQUESTED BY ANDREW GREEN. ADDITIONAL POINTS SURVEYED AS REQUESTED BY ANDREW GREEN.	AS	16.07.10
B	SURVEY UPATED AND SITE LEVELS CHECKED BY ANDREW GREEN.	PSW	25.01.11
C	SURVEY UPDATED AND SITE LEVELS CHECKED BY ANDREW GREEN.	PSW	21.07.10
D	ADDITIONAL INFORMATION ADDED AS REQUESTED	JW	04.07.09

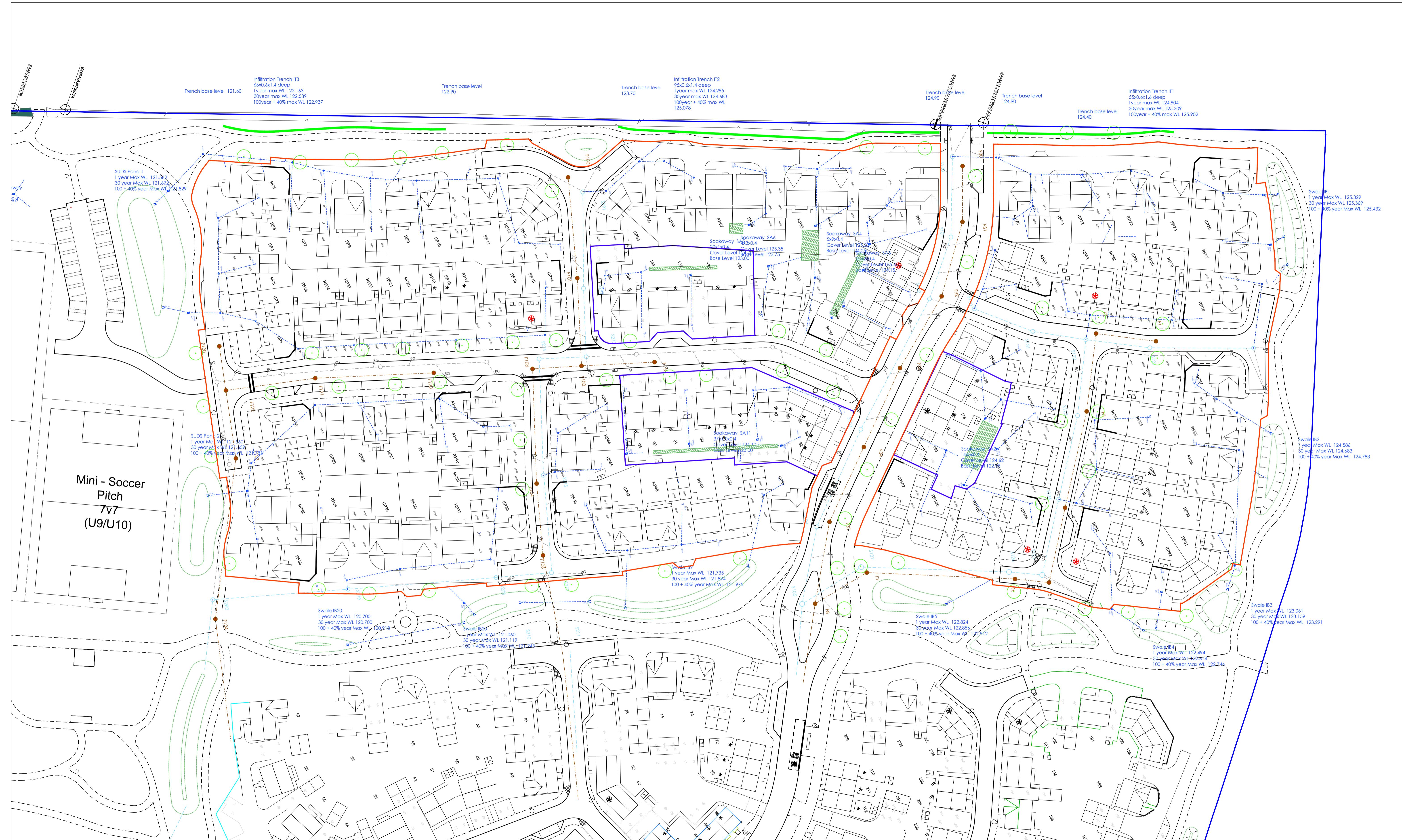


Topographical Survey Legend

B4	Bollard
B5	Blue bollard
B6	Blue skip
B7	Blue timber
B8	Chain link fence
B9	Concrete block
B10	Concrete paving slabs
B11	Concrete wall
B12	Drainage pipe
B13	Hand rail
B14	Hand truck
B15	Hard stand
B16	Hand truck
B17	Hedge
B18	High voltage
B19	Industrial
B20	Industrial
B21	Industrial
B22	Industrial
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Appendix E

Detailed Drainage Layout



Appendix F

Detailed Drainage Calculations and Supporting Plans

District: Cherwell

Application No: 19/00213/DISC-4(a)

Proposal: Discharge of conditions 6 (new link road), 8 (surface water drainage), 9 (floor levels), 10 (play areas), 11 (arboricultural survey), 12 (ecology), 13 (secured by design), 14 (contamination), 18 (mitigation for badgers) and 35 (cycle lanes) of 15/01326/OUT

Location: West Of Cricket Field Nor Wykham Lane Bodicote

Lead Local Flood Authority

Recommendation:

Condition 8 to be Discharged

Detailed Comments:

Construction/Maintainance as per submitted documents/drawings contained in the following:

957 iDL Drainage Compliance Statement August 2020 Rev A

2832-4-5-LM-T7-P1 S106 SUDS SCHEME

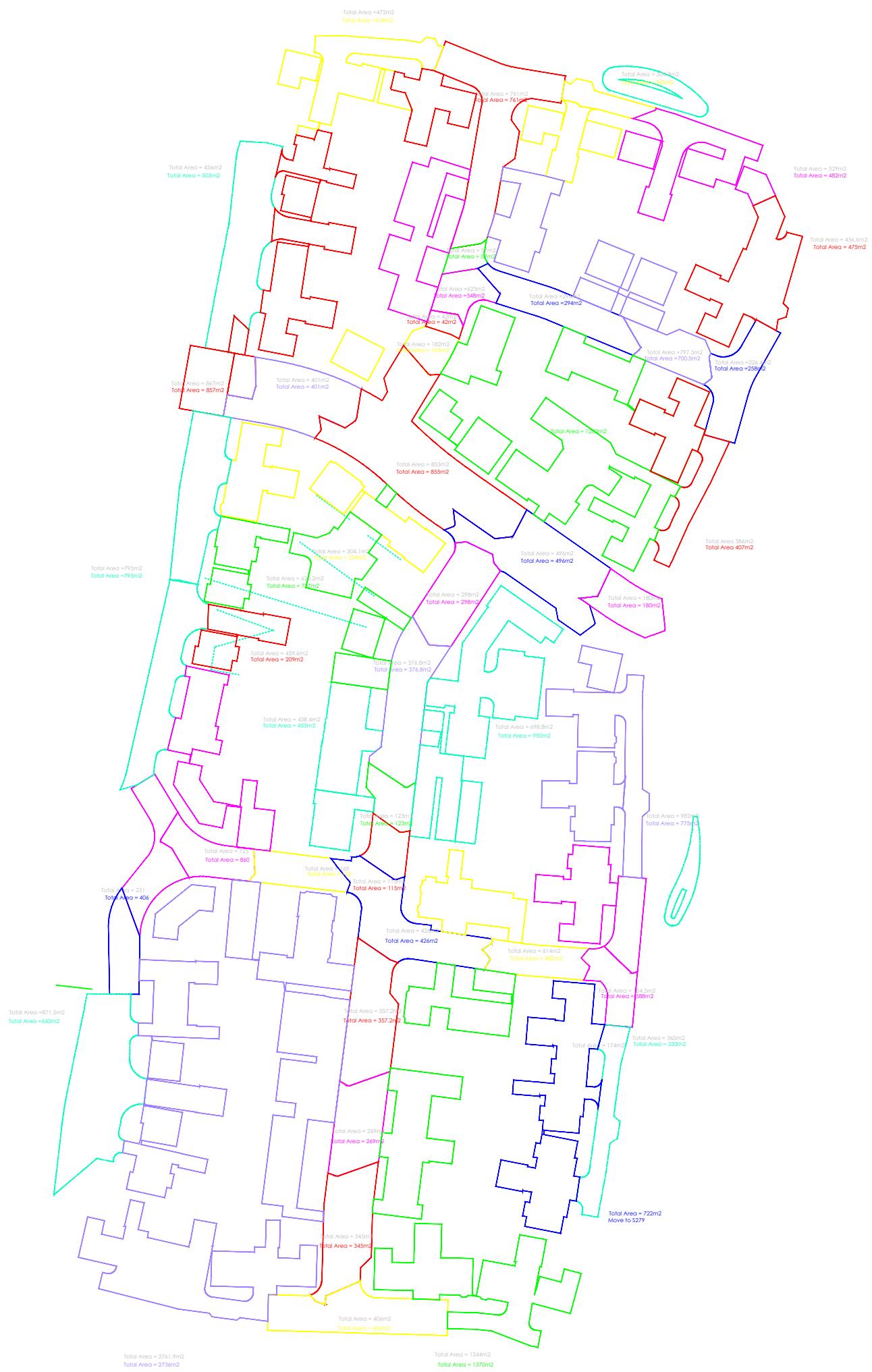
Pages from White Post Road Preliminary Construction Phase Plan

2832-4-5-LM-T2-P3 S106 OPEN SPACE, CAR PARK, SUDs & BRIDLEWAY Management Plan

Officer's Name: Adam Littler

Officer's Title: Drainage Engineer

Date: 13 October 2020



Original Catchment
New Catchment

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	9.000
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.925	Include Intermediate Ground	x
Time of Entry (mins)	2.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
100	0.086	2.00	126.242	1200	445487.285	238495.242	1.442
101	0.032	2.00	126.106	1200	445510.642	238490.652	1.456
102	0.070	2.00	125.902	1200	445527.568	238481.260	1.452
103	0.041	2.00	124.829	1200	445562.043	238454.534	1.479
104	0.015	2.00	123.929	1200	445588.207	238436.682	1.504
120	0.076	2.00	125.490	1200	445558.591	238573.190	1.490
121	0.006	2.00	125.878	1200	445553.153	238542.956	2.078
130	0.019	2.00	126.044	1200	445532.770	238493.760	1.444
131	0.004	2.00	126.199	1200	445542.356	238509.693	1.999
122	0.055	2.00	126.114	1200	445547.497	238524.742	2.464
123	0.029	2.00	125.337	1200	445569.200	238518.411	1.837
124	0.070	2.00	124.504	1200	445592.637	238508.593	1.554
125	0.026	2.00	123.806	1500	445613.833	238499.903	1.456
126	0.000	2.00	123.923	1500	445611.254	238490.391	1.748
127	0.021	2.00	124.000	1500	445602.243	238447.540	2.025
105	0.035	2.00	123.254	1500	445609.948	238428.432	1.654
106	0.106	2.00	122.522	1500	445630.958	238422.969	1.622
107	0.067	2.00	121.031	1500	445668.204	238409.589	1.706
108	0.012	2.00	120.859	1500	445676.235	238403.539	1.759
140	0.037	2.00	122.696	1200	445662.505	238474.032	1.696
141	0.092	2.00	122.088	1200	445684.198	238468.559	1.863
150	0.000	2.00	122.525	1200	445746.094	238491.814	1.675
151	0.090	2.00	122.194	1200	445734.255	238490.735	1.544
152	0.069	2.00	121.988	1200	445723.105	238468.185	1.638
142	0.056	2.00	121.712	1500	445710.738	238454.875	1.937
143	0.000	2.00	121.421	1500	445724.597	238434.717	2.021
144	0.067	2.00	121.200	1500	445717.284	238421.909	2.100
145	0.028	2.00	120.810	1500	445693.065	238403.206	1.860
109	0.102	2.00	120.714	1500	445682.404	238395.482	2.039
110	0.131	2.00	120.857	1500	445711.658	238352.330	2.482
160	0.075	2.00	121.553	1200	445737.725	238428.099	1.528
170	0.018	2.00	123.775	1200	445811.658	238458.826	1.550
171	0.098	2.00	123.550	1200	445794.790	238463.977	1.450
172	0.000	2.00	122.423	1200	445772.278	238417.889	2.323
173	0.007	2.00	122.273	1200	445769.397	238412.761	2.498
174	0.046	2.00	122.633	1200	445785.595	238405.354	3.008
175	0.050	2.00	122.187	1200	445773.001	238379.632	2.762
176	0.073	2.00	122.006	1500	445770.581	238364.913	2.906
180	0.031	2.00	123.310	1200	445811.510	238396.637	1.510
181	0.024	2.00	123.015	1200	445846.321	238380.349	1.615
182	0.000	2.00	122.236	1200	445833.853	238343.753	1.486

Replan area highlighted in pink

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<u>Nodes</u>							
Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
190	0.057	2.00	121.621	1200	445866.733	238308.336	1.621
191	0.010	2.00	122.171	1200	445843.345	238325.433	2.371
183	0.025	2.00	122.322	1200	445830.192	238331.541	2.697
184	0.049	2.00	122.171	1500	445810.078	238336.376	2.696
177	0.075	2.00	121.661	1500	445769.825	238337.955	2.761
111	0.045	2.00	121.115	1500	445726.967	238336.938	3.140
112	0.095	2.00	120.220	1500	445718.773	238300.169	2.695
200	0.027	2.00	122.053	1200	445815.484	238312.566	1.453
201	0.013	2.00	121.918	1200	445814.994	238301.913	1.468
202	0.027	2.00	121.715	1200	445817.202	238285.718	1.465
203	0.000	2.00	121.877	1200	445795.992	238282.778	1.927
204	0.070	2.00	120.949	1200	445752.981	238284.276	1.949
113	0.000	2.00	119.685	1500	445715.581	238287.398	2.360
114	0.000	2.00	119.236	1500	445712.991	238279.095	2.036
115	0.016	2.00	118.771	1500	445707.229	238272.503	1.896
116	0.043	2.00	118.093	1500	445694.489	238268.472	1.893
210	0.024	2.00	121.427	1200	445609.742	238344.943	1.427
211	0.065	2.00	121.757	1200	445611.008	238358.421	1.857
212	0.036	2.00	120.341	1200	445642.201	238355.139	1.441
220	0.084	2.00	120.486	1200	445683.336	238372.895	1.436
213	0.032	2.00	120.101	1200	445658.067	238355.761	1.526
214	0.117	2.00	118.987	1200	445666.870	238310.653	1.787
215	0.073	2.00	118.095	1350	445671.069	238272.667	1.645
117	0.000	2.00	117.850	1800	445683.804	238258.618	2.075
118	0.000		116.922		445687.337	238250.785	1.339
270	0.030	2.00	125.019	1200	445546.227	238452.922	1.519
271	0.038	2.00	124.730	1200	445533.573	238433.057	1.580
272	0.012	2.00	124.208	1200	445528.642	238392.939	1.458
290	0.023	2.00	124.760	1200	445468.119	238377.456	1.510
291	0.086	2.00	124.927	1200	445480.936	238387.232	1.777
292	0.018	2.00	124.567	1200	445506.734	238380.920	1.617
273	0.012	2.00	124.094	1200	445526.824	238378.187	1.619
274	0.043	2.00	123.917	1200	445524.996	238364.349	1.842
275	0.048	2.00	122.919	1200	445559.282	238360.544	1.844
277	0.059	2.00	122.165	1200	445588.118	238358.176	1.640
278	0.000	2.00	121.798	1500	445586.538	238340.571	1.648
279	0.072	2.00	122.114	1500	445582.310	238296.808	2.314
300	0.036	2.00	123.641	1200	445523.206	238348.941	1.441
301	0.027	2.00	123.260	1200	445519.129	238317.682	1.510
302	0.034	2.00	122.900	1200	445516.257	238288.847	1.475
303	0.041	2.00	122.590	1200	445515.230	238269.242	1.315
304	0.000	2.00	122.450	1200	445539.826	238268.614	1.325
280	0.000	2.00	121.550	1500	445578.420	238256.829	2.025
281	0.111	2.00	120.326		445598.334	238250.875	1.626
282	0.000	2.00	118.475		445637.154	238238.539	1.025
283	0.000		116.886		445659.014	238222.795	1.303
119	0.000	2.00	116.506		445680.400	238231.012	1.206
240	0.000		116.705		445698.981	238212.763	1.705
241	0.000	2.00	115.700		445692.988	238166.175	1.700
250	0.000		115.450		445690.621	238144.903	1.898
251	0.000	2.00	115.450		445691.441	238122.889	1.900
260	0.000		115.450	2100	445701.336	238120.282	1.950

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<u>Nodes</u>								
Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	
261	0.000		115.043	1500	445707.350	238123.844	2.602	
<u>Links (Results)</u>								
Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)
1.000	100	101	1.035	41.2	14.4	1.217	1.231	0.086
1.001	101	102	1.329	52.8	19.7	1.231	1.227	0.118
1.002	102	103	2.082	82.8	31.4	1.227	1.253	0.188
1.003	103	104	2.148	85.4	38.3	1.254	1.203	0.229
1.004	104	105	2.834	200.3	40.8	1.204	1.279	0.244
2.000	120	121	1.052	41.8	12.7	1.265	1.853	0.076
2.001	121	122	1.158	46.0	13.7	1.853	2.239	0.082
3.000	130	131	1.923	76.5	3.2	1.219	1.774	0.019
3.001	131	122	2.443	97.1	3.8	1.774	2.239	0.023
2.002	122	123	1.063	42.2	26.7	2.239	1.612	0.160
2.003	123	124	1.929	76.7	31.6	1.612	1.329	0.189
2.004	124	125	2.123	84.4	43.3	1.329	1.231	0.259
2.005	125	126	1.316	52.3	47.6	1.231	1.448	0.285
2.006	126	127	1.058	74.8	47.6	1.448	1.725	0.285
2.007	127	105	1.899	134.2	51.1	1.725	1.279	0.306
1.005	105	106	3.264	360.5	97.8	1.279	1.247	0.585
1.006	106	107	3.538	390.8	115.5	1.247	1.255	0.691
1.007	107	108	3.047	484.6	126.7	1.256	1.309	0.758
1.008	108	109	3.355	533.5	128.7	1.309	1.439	0.770
4.000	140	141	2.321	92.3	6.2	1.471	1.562	0.037
4.001	141	142	1.576	111.4	21.6	1.563	1.487	0.129
5.000	150	151	1.700	67.6	0.0	1.450	1.319	0.000
5.001	151	152	1.428	56.8	15.0	1.319	1.413	0.090
5.002	152	142	2.007	79.8	26.6	1.413	1.563	0.159
4.002	142	143	2.247	248.1	57.5	1.562	1.646	0.344
4.003	143	144	2.241	247.6	70.0	1.646	1.650	0.419
4.004	144	145	1.419	225.7	81.2	1.650	1.410	0.486
4.005	145	109	1.981	315.0	85.9	1.410	1.439	0.514
1.009	109	110	1.844	521.3	231.7	1.439	1.882	1.386
1.010	110	111	3.309	935.6	253.6	1.882	2.540	1.517
6.000	160	143	2.360	93.8	12.5	1.303	1.646	0.075
7.000	170	171	1.098	43.7	3.0	1.325	1.225	0.018
7.001	171	172	2.594	103.1	19.4	1.225	2.098	0.116
7.002	172	173	2.710	107.8	19.4	2.098	2.198	0.116
7.003	173	174	1.442	101.9	20.6	2.198	2.708	0.123
7.004	174	175	1.312	92.7	28.2	2.708	2.462	0.169
7.005	175	176	2.038	144.1	36.6	2.462	2.531	0.219
7.006	176	177	1.559	172.1	48.8	2.531	2.386	0.292
8.000	180	181	1.334	53.0	5.2	1.285	1.390	0.031
8.001	181	182	1.698	67.5	9.2	1.390	1.261	0.055
8.002	182	183	3.782	150.4	9.2	1.261	2.401	0.055
9.000	190	191	1.084	43.1	9.5	1.396	2.146	0.057
9.001	191	183	1.083	43.1	11.2	2.146	2.397	0.067
8.003	183	184	1.337	94.5	24.6	2.397	2.396	0.147
8.004	184	177	1.752	123.9	32.8	2.396	2.386	0.196

Links (Results)

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)
6.005	177	111	2.190	241.9	94.1	2.386	2.465	0.563
1.011	111	112	2.866	1025.5	355.2	2.465	2.020	2.125
1.012	112	113	3.234	1157.2	371.1	2.020	1.685	2.220
10.000	200	201	1.553	61.7	4.5	1.228	1.243	0.027
10.001	201	202	1.448	57.6	6.7	1.243	1.240	0.040
10.002	202	203	1.549	61.6	11.2	1.240	1.702	0.067
10.003	203	204	1.948	77.5	11.2	1.702	1.724	0.067
10.004	204	113	2.373	94.4	22.9	1.724	1.686	0.137
1.014	113	114	3.144	1125.0	394.0	1.685	1.361	2.357
1.015	114	115	5.065	1812.5	394.0	1.361	1.221	2.357
1.016	115	116	5.906	2113.3	396.6	1.221	1.218	2.373
1.017	116	117	4.075	1458.3	403.8	1.218	1.325	2.416
11.000	210	211	1.122	44.6	4.0	1.202	1.632	0.024
11.001	211	212	2.343	93.1	14.9	1.632	1.215	0.089
11.002	212	213	1.644	65.4	20.9	1.216	1.226	0.125
12.000	220	213	1.498	59.6	14.0	1.211	1.226	0.084
11.003	213	214	2.728	192.9	40.3	1.226	1.487	0.241
11.004	214	215	2.094	148.0	59.8	1.487	1.270	0.358
11.005	215	117	2.282	252.0	72.0	1.270	1.325	0.431
1.018	117	118	3.020	1334.3	475.9	1.325	0.497	2.847
15.000	270	271	1.596	63.5	5.0	1.294	1.355	0.030
15.001	271	272	1.301	51.7	11.4	1.355	1.233	0.068
15.002	272	273	1.518	60.4	13.4	1.233	1.319	0.080
16.000	290	291	1.027	40.8	3.8	1.285	1.552	0.023
16.002	291	292	1.133	45.0	18.2	1.552	1.392	0.109
16.003	292	273	1.841	73.2	21.2	1.392	1.319	0.127
15.003	273	274	2.670	188.7	36.6	1.319	1.542	0.219
15.004	274	275	2.685	189.8	43.8	1.542	1.544	0.262
15.005	275	277	2.172	153.5	51.8	1.544	1.340	0.310
15.006	277	278	2.052	145.1	61.7	1.340	1.273	0.369
15.007	278	279	1.615	178.4	61.7	1.273	1.939	0.369
15.008	279	280	1.497	165.3	73.7	1.939	1.650	0.441
17.000	300	301	1.564	62.2	6.0	1.216	1.285	0.036
17.001	301	302	1.385	55.1	10.5	1.285	1.250	0.063
17.002	302	303	1.141	45.4	16.2	1.250	1.090	0.097
17.003	303	304	1.018	40.5	23.1	1.090	1.100	0.138
17.004	304	280	2.491	99.0	23.1	1.100	1.652	0.138
14.010	280	281	1.403	155.0	96.8	1.650	0.551	0.579
14.011	281	282	3.605	14424.6	115.3	0.626	0.025	0.690
14.012	282	283	1.908	303.4	115.3	0.575	0.611	0.690
1.021	119	240	2.614	739.2	0.0	0.606	1.105	0.000
1.022	240	241	10.529	60662.5	0.0	0.505	0.500	0.000
1.023	241	250	3.334	942.6	0.0	1.100	1.250	0.000
1.025	251	260	1.698	480.1	0.0	1.300	1.350	0.000
1.026	260	261	7.089	783.0	0.0	1.575	2.227	0.000

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Detailed
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	20.000	Drain Down Time (mins)	240
Ratio-R	0.400	Additional Storage (m³/ha)	20.0
Summer CV	0.925	Check Discharge Rate(s)	x
Winter CV	0.925	Check Discharge Volume	x

Storm Durations

15 | 30

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	0	0	0
100	20	0	0
100	40	0	0
100	40	10	0

Node 260 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	113.500	Product Number	CTL-SHE-0069-2700-1750-2700
Design Depth (m)	1.750	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.7	Min Node Diameter (mm)	1200

Node 283 Online Orifice Control

Flap Valve	x	Invert Level (m)	115.583	Discharge Coefficient	1.000
Replaces Downstream Link	x	Diameter (m)	0.600		

Node 118 Online Orifice Control

Flap Valve	x	Invert Level (m)	115.583	Discharge Coefficient	1.000
Replaces Downstream Link	x	Diameter (m)	0.750		

Node 281 Online Orifice Control

Flap Valve	x	Invert Level (m)	118.700	Discharge Coefficient	1.000
Replaces Downstream Link	✓	Diameter (m)	0.450		

Node 251 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.25020	Porosity	1.00	Main Channel Length (m)	22.000
Side Inf Coefficient (m/hr)	0.25020	Invert Level (m)	113.550	Main Channel Slope (1:X)	10000.0
Safety Factor	10.0	Time to half empty (mins)		Main Channel n	0.030

Inlets 250

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	878.0	407.0	0.800	1712.0	1241.0	1.550	2627.0	2373.0
0.750	1437.0	966.0	1.500	2392.0	1921.0	1.700	2827.0	2827.0

Node 119 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.05508	Porosity	1.00	Main Channel Length (m)	17.000
Side Inf Coefficient (m/hr)	0.05508	Invert Level (m)	115.300	Main Channel Slope (1:X)	60.0
Safety Factor	2.0	Time to half empty (mins)	7	Main Channel n	0.030

Inlets

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Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	0.0	0.0	0.300	454.0	454.0	0.900	707.0	707.0	1.500	997.0	997.0
0.100	145.0	145.0	0.500	535.0	535.0	1.100	800.0	800.0			
0.200	416.0	416.0	0.700	619.0	619.0	1.300	897.0	897.0			

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	100	9	124.931	0.131	25.7	0.3033	0.0000	OK
15 minute summer	101	9	124.787	0.137	35.3	0.2153	0.0000	OK
15 minute summer	102	9	124.585	0.135	56.4	0.2824	0.0000	OK
15 minute summer	103	9	123.502	0.152	68.4	0.2565	0.0000	OK
15 minute summer	104	9	122.553	0.128	70.8	0.1698	0.0000	OK
15 minute summer	120	9	124.119	0.119	22.7	0.2553	0.0000	OK
15 minute summer	121	9	123.915	0.115	24.6	0.1368	0.0000	OK
15 minute summer	130	9	124.642	0.042	5.7	0.0584	0.0000	OK
15 minute summer	131	9	124.241	0.041	6.9	0.0474	0.0000	OK
15 minute summer	122	9	123.857	0.207	47.6	0.3270	0.0000	OK
15 minute summer	123	9	123.636	0.136	53.5	0.1961	0.0000	OK
15 minute summer	124	10	123.168	0.218	73.3	0.4434	0.0000	OK
15 minute summer	125	10	122.733	0.383	75.2	0.8130	0.0000	SURCHARGED
15 minute summer	126	10	122.408	0.233	70.9	0.4117	0.0000	OK
15 minute summer	127	10	122.153	0.178	76.4	0.3506	0.0000	OK
15 minute summer	105	10	121.776	0.176	147.4	0.3850	0.0000	OK
15 minute summer	106	10	121.075	0.175	169.4	0.5372	0.0000	OK
15 minute summer	107	10	119.531	0.206	184.4	0.5249	0.0000	OK
15 minute summer	108	10	119.327	0.227	188.1	0.4314	0.0000	OK
15 minute summer	140	9	121.053	0.053	11.1	0.0830	0.0000	OK
15 minute summer	141	9	120.353	0.128	38.6	0.2702	0.0000	OK
15 minute summer	150	1	120.850	0.000	0.0	0.0000	0.0000	OK
15 minute summer	151	9	120.760	0.110	26.9	0.2534	0.0000	OK
15 minute summer	152	9	120.487	0.137	47.5	0.2696	0.0000	OK
15 minute summer	142	9	119.967	0.192	102.8	0.4501	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	100	1.000	101	25.7	1.047	0.626	0.5854	
15 minute summer	101	1.001	102	35.5	1.417	0.672	0.4853	
15 minute summer	102	1.002	103	56.1	2.110	0.678	1.1602	
15 minute summer	103	1.003	104	66.3	2.360	0.776	0.8903	
15 minute summer	104	1.004	105	69.3	2.518	0.346	0.6400	
15 minute summer	120	2.000	121	22.8	1.095	0.545	0.6397	
15 minute summer	121	2.001	122	24.3	0.798	0.528	0.5598	
15 minute summer	130	3.000	131	5.7	1.149	0.075	0.0923	
15 minute summer	131	3.001	122	6.9	0.342	0.071	0.3430	
15 minute summer	122	2.002	123	44.9	1.414	1.062	0.7152	
15 minute summer	123	2.003	124	52.4	1.735	0.683	0.8027	
15 minute summer	124	2.004	125	67.5	1.719	0.799	0.9069	
15 minute summer	125	2.005	126	70.9	1.782	1.354	0.3860	
15 minute summer	126	2.006	127	72.7	1.415	0.971	2.2357	
15 minute summer	127	2.007	105	76.5	1.872	0.570	0.8418	
15 minute summer	105	1.005	106	149.0	2.951	0.413	1.0962	
15 minute summer	106	1.006	107	172.6	3.467	0.442	1.9708	
15 minute summer	107	1.007	108	186.0	2.473	0.384	0.7565	
15 minute summer	108	1.008	109	190.2	2.558	0.356	0.8274	
15 minute summer	140	4.000	141	11.1	1.572	0.120	0.1580	
15 minute summer	141	4.001	142	38.6	1.405	0.347	0.8210	
15 minute summer	150	5.000	151	0.0	0.000	0.000	0.1150	
15 minute summer	151	5.001	152	27.0	1.209	0.475	0.5607	
15 minute summer	152	5.002	142	47.5	1.994	0.595	0.4330	
15 minute summer	142	4.002	143	102.8	1.684	0.414	1.4936	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	143	9	119.615	0.215	125.2	0.3801	0.0000	OK
15 minute summer	144	9	119.364	0.264	144.6	0.6359	0.0000	OK
15 minute summer	145	9	119.203	0.253	150.2	0.5236	0.0000	OK
15 minute summer	109	10	119.059	0.384	351.5	1.0619	0.0000	OK
15 minute summer	110	10	118.699	0.324	390.1	0.9159	0.0000	OK
15 minute summer	160	9	120.105	0.079	22.4	0.1680	0.0000	OK
15 minute summer	170	9	122.278	0.053	5.4	0.0723	0.0000	OK
15 minute summer	171	9	122.189	0.089	34.6	0.2219	0.0000	OK
15 minute summer	172	9	120.209	0.109	34.6	0.1237	0.0000	OK
15 minute summer	173	9	119.921	0.146	36.4	0.1737	0.0000	OK
15 minute summer	174	9	119.791	0.166	49.9	0.2390	0.0000	OK
15 minute summer	175	9	119.566	0.141	63.4	0.2110	0.0000	OK
15 minute summer	176	9	119.299	0.199	82.8	0.4525	0.0000	OK
15 minute summer	180	9	121.863	0.063	9.3	0.0975	0.0000	OK
15 minute summer	181	9	121.481	0.081	16.4	0.1159	0.0000	OK
15 minute summer	182	9	120.799	0.049	16.1	0.0554	0.0000	OK
15 minute summer	190	9	120.098	0.098	17.0	0.1797	0.0000	OK
15 minute summer	191	9	119.915	0.115	20.1	0.1391	0.0000	OK
15 minute summer	183	9	119.777	0.152	42.8	0.1998	0.0000	OK
15 minute summer	184	9	119.620	0.145	56.8	0.3096	0.0000	OK
15 minute summer	177	10	119.140	0.240	157.3	0.5548	0.0000	OK
15 minute summer	111	10	118.388	0.413	559.8	0.8492	0.0000	OK
15 minute summer	112	10	117.985	0.460	582.1	1.1361	0.0000	OK
15 minute summer	200	9	120.655	0.055	8.1	0.0823	0.0000	OK
15 minute summer	201	9	120.521	0.071	12.0	0.0922	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	143	4.003	144	124.7	2.058	0.504	0.8935	
15 minute summer	144	4.004	145	141.8	1.503	0.628	2.8867	
15 minute summer	145	4.005	109	143.8	1.676	0.456	1.1323	
15 minute summer	109	1.009	110	367.0	2.121	0.704	9.0111	
15 minute summer	110	1.010	111	398.9	2.210	0.426	3.9352	
15 minute summer	160	6.000	143	22.4	1.868	0.239	0.1763	
15 minute summer	170	7.000	171	5.4	0.501	0.123	0.1922	
15 minute summer	171	7.001	172	34.6	2.095	0.336	0.8668	
15 minute summer	172	7.002	173	34.3	2.065	0.318	0.0978	
15 minute summer	173	7.003	174	36.1	0.974	0.355	0.6609	
15 minute summer	174	7.004	175	48.4	1.352	0.523	1.0411	
15 minute summer	175	7.005	176	61.1	1.933	0.424	0.4724	
15 minute summer	176	7.006	177	80.5	1.236	0.468	1.7560	
15 minute summer	180	8.000	181	9.3	0.843	0.175	0.4231	
15 minute summer	181	8.001	182	16.1	1.689	0.238	0.3723	
15 minute summer	182	8.002	183	15.7	2.061	0.105	0.1222	
15 minute summer	190	9.000	191	17.1	0.933	0.396	0.5341	
15 minute summer	191	9.001	183	19.6	1.018	0.455	0.2796	
15 minute summer	183	8.003	184	42.1	1.238	0.446	0.7195	
15 minute summer	184	8.004	177	54.5	1.548	0.440	1.4182	
15 minute summer	177	6.005	111	153.1	2.200	0.633	2.9807	
15 minute summer	111	1.011	112	565.3	2.316	0.551	9.1893	
15 minute summer	112	1.012	113	579.2	2.270	0.501	3.3594	
15 minute summer	200	10.000	201	8.1	0.899	0.131	0.0964	
15 minute summer	201	10.001	202	12.0	0.917	0.209	0.2147	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US	Peak	Level	Depth	Inflow	Node	Flood	Status
	Node	(mins)	(m)	(m)	(l/s)	Vol (m³)	(m³)	
15 minute summer	202	9	120.344	0.094	20.1	0.1407	0.0000	OK
15 minute summer	203	9	120.027	0.077	20.2	0.0870	0.0000	OK
15 minute summer	204	9	119.104	0.104	40.5	0.1925	0.0000	OK
15 minute summer	113	10	117.773	0.448	613.7	0.7920	0.0000	OK
15 minute summer	114	10	117.539	0.339	611.6	0.5995	0.0000	OK
15 minute summer	115	10	117.163	0.288	612.6	0.5584	0.0000	OK
15 minute summer	116	10	116.605	0.405	617.8	0.8991	0.0000	OK
15 minute summer	210	9	120.063	0.063	7.2	0.0918	0.0000	OK
15 minute summer	211	9	119.982	0.082	26.6	0.1499	0.0000	OK
15 minute summer	212	9	119.034	0.134	37.4	0.2178	0.0000	OK
15 minute summer	220	9	119.156	0.106	25.1	0.2433	0.0000	OK
15 minute summer	213	9	118.701	0.126	72.0	0.1947	0.0000	OK
15 minute summer	214	9	117.393	0.193	106.7	0.4702	0.0000	OK
15 minute summer	215	9	116.666	0.216	124.6	0.5019	0.0000	OK
15 minute summer	117	10	116.295	0.520	724.3	1.3245	0.0000	OK
15 minute summer	118	10	116.140	0.557	720.8	0.0000	0.0000	OK
15 minute summer	270	9	123.557	0.057	9.0	0.0869	0.0000	OK
15 minute summer	271	9	123.248	0.098	20.4	0.1577	0.0000	OK
15 minute summer	272	9	122.854	0.104	24.0	0.1346	0.0000	OK
15 minute summer	290	9	123.312	0.062	6.9	0.0891	0.0000	OK
15 minute summer	291	9	123.296	0.146	32.5	0.3056	0.0000	OK
15 minute summer	292	9	123.073	0.123	38.0	0.1663	0.0000	OK
15 minute summer	273	9	122.620	0.145	63.9	0.1856	0.0000	OK
15 minute summer	274	9	122.210	0.135	76.3	0.2154	0.0000	OK
15 minute summer	275	9	121.247	0.172	89.3	0.2836	0.0000	OK

Link Event	US	Link	DS	Outflow	Velocity	Flow/Cap	Link	Discharge
(Upstream Depth)	Node		Node	(l/s)	(m/s)		Vol (m³)	Vol (m³)
15 minute summer	202	10.002	203	20.2	1.464	0.328	0.2959	
15 minute summer	203	10.003	204	19.7	1.318	0.254	0.6441	
15 minute summer	204	10.004	113	38.5	2.210	0.409	0.6547	
15 minute summer	113	1.014	114	611.6	2.831	0.544	1.8750	
15 minute summer	114	1.015	115	609.8	3.776	0.336	1.4227	
15 minute summer	115	1.016	116	610.2	3.359	0.289	2.4645	
15 minute summer	116	1.017	117	612.0	2.737	0.420	3.4392	
15 minute summer	210	11.000	211	7.2	0.657	0.162	0.1491	
15 minute summer	211	11.001	212	26.6	1.426	0.286	0.5859	
15 minute summer	212	11.002	213	37.4	1.615	0.572	0.3675	
15 minute summer	220	12.000	213	25.0	1.408	0.420	0.5431	
15 minute summer	213	11.003	214	71.8	1.891	0.372	1.7412	
15 minute summer	214	11.004	215	102.8	2.224	0.695	1.7671	
15 minute summer	215	11.005	117	121.7	2.062	0.483	1.1230	
15 minute summer	117	1.018	118	720.8	2.352	0.540	2.6320	
15 minute summer	118	Flow through pond	119	860.5	0.351	0.005	83.4446	
15 minute summer	270	15.000	271	9.0	0.752	0.142	0.2876	
15 minute summer	271	15.001	272	20.4	1.187	0.395	0.6959	
15 minute summer	272	15.002	273	22.8	1.348	0.378	0.2516	
15 minute summer	290	16.000	291	6.9	0.385	0.169	0.2907	
15 minute summer	291	16.002	292	32.6	1.320	0.724	0.6550	
15 minute summer	292	16.003	273	37.5	1.779	0.513	0.4276	
15 minute summer	273	15.003	274	63.4	1.973	0.336	0.4496	
15 minute summer	274	15.004	275	74.9	2.070	0.395	1.2477	
15 minute summer	275	15.005	277	85.3	1.814	0.556	1.3625	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	277	9	120.734	0.209	102.9	0.3874	0.0000	OK
15 minute summer	278	10	120.354	0.204	99.6	0.3603	0.0000	OK
15 minute summer	279	10	120.049	0.249	116.4	0.5951	0.0000	OK
15 minute summer	300	9	122.263	0.063	10.8	0.1028	0.0000	OK
15 minute summer	301	9	121.839	0.089	18.9	0.1331	0.0000	OK
15 minute summer	302	9	121.562	0.137	28.7	0.2177	0.0000	OK
15 minute summer	303	9	121.456	0.180	40.1	0.3167	0.0000	OK
15 minute summer	304	9	121.222	0.097	38.1	0.1096	0.0000	OK
15 minute summer	280	10	119.850	0.325	156.5	0.5734	0.0000	OK
15 minute summer	281	10	118.983	0.283	166.6	0.3860	0.0000	OK
15 minute summer	282	10	117.687	0.237	166.5	0.0000	0.0000	OK
15 minute summer	283	10	115.852	0.269	163.9	0.0000	0.0000	OK
15 minute summer	119	12	115.742	0.441	860.5	0.0000	0.0000	OK
15 minute summer	240	12	115.195	0.195	688.9	0.0000	0.0000	OK
15 minute summer	241	12	114.370	0.370	688.0	0.0000	0.0000	OK
30 minute winter	250	43	113.942	0.390	516.6	0.0000	0.0000	OK
30 minute winter	251	44	113.941	0.391	331.0	0.0000	0.0000	OK
30 minute summer	260	46	113.951	0.451	23.6	1.5615	0.0000	SURCHARGED
15 minute summer	261	1	112.441	0.000	2.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	277	15.006	278	99.6	2.058	0.687	0.8549	
15 minute summer	278	15.007	279	103.7	1.490	0.581	3.0540	
15 minute summer	279	15.008	280	119.2	1.318	0.721	3.5969	
15 minute summer	300	17.000	301	10.8	0.928	0.173	0.3745	
15 minute summer	301	17.001	302	18.6	0.930	0.337	0.5785	
15 minute summer	302	17.002	303	27.8	0.929	0.612	0.5830	
15 minute summer	303	17.003	304	38.1	1.500	0.943	0.6211	
15 minute summer	304	17.004	280	37.3	2.111	0.377	0.9960	
15 minute summer	280	14.010	281	147.0	1.556	0.948	1.9805	
15 minute summer	281	Orifice	282	166.5				
15 minute summer	282	14.012	283	163.9	1.941	0.540	2.2747	
15 minute summer	283	Flow through pond	119	860.5	0.351	0.005	83.4446	
15 minute summer	119	1.021	240	688.9	4.541	0.932	3.9259	
15 minute summer	119	Infiltration		3.9				
15 minute summer	240	1.022	241	688.0	2.383	0.011	16.4119	
15 minute summer	241	1.023	250	685.5	3.771	0.727	3.8921	
30 minute winter	250	Flow through pond	251	331.0	0.084	0.009	398.6598	
30 minute winter	251	1.025	260	16.0	0.545	0.033	2.1534	
30 minute winter	251	Infiltration		4.7				
30 minute summer	260	Hydro-Brake®	261	2.1				31.3

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	100	10	125.292	0.492	48.8	1.1431	0.0000	SURCHARGED
15 minute summer	101	10	125.170	0.520	60.7	0.8173	0.0000	SURCHARGED
15 minute summer	102	10	124.964	0.514	92.5	1.0769	0.0000	SURCHARGED
15 minute summer	103	9	123.865	0.515	105.5	0.8683	0.0000	SURCHARGED
15 minute summer	104	9	122.588	0.163	105.4	0.2168	0.0000	OK
15 minute summer	120	10	124.623	0.623	43.1	1.3394	0.0000	SURCHARGED
15 minute summer	121	10	124.570	0.770	41.5	0.9155	0.0000	SURCHARGED
15 minute summer	130	9	124.657	0.057	10.8	0.0799	0.0000	OK
15 minute summer	131	10	124.506	0.306	13.3	0.3588	0.0000	SURCHARGED
15 minute summer	122	10	124.504	0.854	61.4	1.3469	0.0000	SURCHARGED
15 minute summer	123	10	124.215	0.715	68.8	1.0339	0.0000	SURCHARGED
15 minute summer	124	10	123.830	0.880	97.8	1.7884	0.0000	SURCHARGED
15 minute summer	125	10	123.060	0.710	100.4	1.5079	0.0000	SURCHARGED
15 minute summer	126	10	122.559	0.384	95.4	0.6788	0.0000	SURCHARGED
15 minute summer	127	10	122.194	0.219	102.5	0.4325	0.0000	OK
15 minute summer	105	9	121.826	0.226	219.3	0.4953	0.0000	OK
15 minute summer	106	9	121.137	0.237	278.4	0.7279	0.0000	OK
15 minute summer	107	10	119.688	0.363	313.7	0.9255	0.0000	OK
15 minute summer	108	10	119.625	0.525	309.7	0.9996	0.0000	SURCHARGED
15 minute summer	140	9	121.073	0.073	21.0	0.1139	0.0000	OK
15 minute summer	141	9	120.416	0.191	73.2	0.4040	0.0000	OK
15 minute summer	150	10	120.869	0.019	0.7	0.0215	0.0000	OK
15 minute summer	151	9	120.866	0.216	51.1	0.4959	0.0000	OK
15 minute summer	152	9	120.703	0.353	84.5	0.6955	0.0000	SURCHARGED
15 minute summer	142	10	120.155	0.380	185.6	0.8900	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	100	1.000	101	42.6	1.133	1.034	0.9467	
15 minute summer	101	1.001	102	52.9	1.451	1.001	0.7698	
15 minute summer	102	1.002	103	82.2	2.143	0.993	1.7349	
15 minute summer	103	1.003	104	97.2	2.582	1.138	1.2591	
15 minute summer	104	1.004	105	104.7	2.794	0.523	0.8727	
15 minute summer	120	2.000	121	38.1	1.110	0.910	1.2217	
15 minute summer	121	2.001	122	33.4	0.839	0.725	0.7585	
15 minute summer	130	3.000	131	11.0	1.368	0.144	0.4240	
15 minute summer	131	3.001	122	16.5	0.568	0.170	0.6325	
15 minute summer	122	2.002	123	54.7	1.375	1.294	0.8991	
15 minute summer	123	2.003	124	63.6	1.694	0.829	1.0106	
15 minute summer	124	2.004	125	85.6	2.153	1.014	0.9111	
15 minute summer	125	2.005	126	95.4	2.400	1.823	0.3919	
15 minute summer	126	2.006	127	95.5	1.425	1.276	2.7481	
15 minute summer	127	2.007	105	102.4	1.983	0.763	1.0626	
15 minute summer	105	1.005	106	218.3	3.212	0.606	1.5495	
15 minute summer	106	1.006	107	275.7	3.785	0.705	3.1090	
15 minute summer	107	1.007	108	302.9	2.527	0.625	1.4846	
15 minute summer	108	1.008	109	295.3	2.591	0.554	1.6079	
15 minute summer	140	4.000	141	21.0	1.550	0.228	0.3513	
15 minute summer	141	4.001	142	73.4	1.631	0.659	1.3475	
15 minute summer	150	5.000	151	1.0	0.062	0.015	0.2331	
15 minute summer	151	5.001	152	46.4	1.305	0.816	0.9933	
15 minute summer	152	5.002	142	80.4	2.076	1.007	0.7226	
15 minute summer	142	4.002	143	178.4	1.737	0.719	2.6981	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	143	10	119.928	0.528	220.9	0.9333	0.0000	SURCHARGED
15 minute summer	144	10	119.717	0.617	234.7	1.4842	0.0000	SURCHARGED
15 minute summer	145	10	119.565	0.615	233.6	1.2717	0.0000	SURCHARGED
15 minute summer	109	10	119.444	0.769	584.7	2.1276	0.0000	SURCHARGED
15 minute summer	110	10	119.001	0.626	650.1	1.7669	0.0000	SURCHARGED
15 minute summer	160	8	120.136	0.111	42.6	0.2354	0.0000	OK
15 minute summer	170	9	122.298	0.073	10.2	0.1001	0.0000	OK
15 minute summer	171	9	122.230	0.130	65.8	0.3219	0.0000	OK
15 minute summer	172	9	120.270	0.170	65.8	0.1924	0.0000	OK
15 minute summer	173	10	120.067	0.292	69.6	0.3467	0.0000	OK
15 minute summer	174	10	119.984	0.359	94.7	0.5156	0.0000	SURCHARGED
15 minute summer	175	10	119.797	0.372	119.5	0.5558	0.0000	SURCHARGED
15 minute summer	176	10	119.676	0.576	151.6	1.3082	0.0000	SURCHARGED
15 minute summer	180	9	121.889	0.089	17.6	0.1366	0.0000	OK
15 minute summer	181	9	121.517	0.117	31.2	0.1673	0.0000	OK
15 minute summer	182	9	120.819	0.069	30.9	0.0777	0.0000	OK
15 minute summer	190	9	120.145	0.145	32.4	0.2665	0.0000	OK
15 minute summer	191	9	119.983	0.183	38.4	0.2227	0.0000	OK
15 minute summer	183	10	119.898	0.273	82.4	0.3591	0.0000	OK
15 minute summer	184	10	119.807	0.332	108.0	0.7084	0.0000	SURCHARGED
15 minute summer	177	10	119.535	0.635	253.4	1.4665	0.0000	SURCHARGED
15 minute summer	111	10	118.714	0.739	892.9	1.5173	0.0000	SURCHARGED
15 minute summer	112	10	118.253	0.728	891.4	1.7988	0.0000	SURCHARGED
15 minute summer	200	9	120.677	0.077	15.3	0.1161	0.0000	OK
15 minute summer	201	9	120.553	0.103	22.7	0.1352	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	143	4.003	144	196.7	1.991	0.795	1.6268	
15 minute summer	144	4.004	145	217.7	1.531	0.965	4.8484	
15 minute summer	145	4.005	109	231.8	1.575	0.736	2.0859	
15 minute summer	109	1.009	110	575.8	2.161	1.104	14.6847	
15 minute summer	110	1.010	111	628.6	2.295	0.672	6.1149	
15 minute summer	160	6.000	143	42.5	1.858	0.453	0.4270	
15 minute summer	170	7.000	171	10.2	0.587	0.233	0.3078	
15 minute summer	171	7.001	172	65.8	2.360	0.638	1.4334	
15 minute summer	172	7.002	173	65.6	2.162	0.609	0.1929	
15 minute summer	173	7.003	174	68.6	1.052	0.674	1.2498	
15 minute summer	174	7.004	175	91.1	1.434	0.982	2.0168	
15 minute summer	175	7.005	176	110.2	1.922	0.765	1.0504	
15 minute summer	176	7.006	177	123.1	1.307	0.715	2.9746	
15 minute summer	180	8.000	181	17.6	0.996	0.332	0.6800	
15 minute summer	181	8.001	182	30.9	2.002	0.458	0.6017	
15 minute summer	182	8.002	183	30.7	2.061	0.204	0.2978	
15 minute summer	190	9.000	191	32.7	1.069	0.759	0.8946	
15 minute summer	191	9.001	183	37.5	1.136	0.871	0.4782	
15 minute summer	183	8.003	184	80.3	1.363	0.849	1.4244	
15 minute summer	184	8.004	177	97.0	1.518	0.783	2.8368	
15 minute summer	177	6.005	111	238.8	2.374	0.987	4.7284	
15 minute summer	111	1.011	112	859.6	2.408	0.838	13.4477	
15 minute summer	112	1.012	113	893.9	2.505	0.772	4.6474	
15 minute summer	200	10.000	201	15.3	1.029	0.248	0.1590	
15 minute summer	201	10.001	202	22.7	1.049	0.395	0.3535	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	202	9	120.388	0.138	38.0	0.2067	0.0000	OK
15 minute summer	203	9	120.060	0.110	38.2	0.1246	0.0000	OK
15 minute summer	204	9	119.162	0.162	77.5	0.2987	0.0000	OK
15 minute summer	113	10	117.962	0.637	956.0	1.1258	0.0000	OK
15 minute summer	114	10	117.675	0.475	960.6	0.8388	0.0000	OK
15 minute summer	115	10	117.342	0.467	967.1	0.9038	0.0000	OK
15 minute summer	116	10	116.987	0.787	986.5	1.7483	0.0000	SURCHARGED
15 minute summer	210	9	120.090	0.090	13.6	0.1326	0.0000	OK
15 minute summer	211	9	120.017	0.117	50.5	0.2148	0.0000	OK
15 minute summer	212	9	119.192	0.292	70.9	0.4758	0.0000	SURCHARGED
15 minute summer	220	9	119.212	0.162	47.7	0.3735	0.0000	OK
15 minute summer	213	9	118.768	0.193	131.6	0.2997	0.0000	OK
15 minute summer	214	10	117.920	0.719	193.3	1.7555	0.0000	SURCHARGED
15 minute summer	215	10	116.912	0.462	210.4	1.0717	0.0000	SURCHARGED
15 minute summer	117	10	116.622	0.847	1190.4	2.1553	0.0000	SURCHARGED
15 minute summer	118	10	116.335	0.751	1192.9	0.0000	0.0000	OK
15 minute summer	270	9	123.579	0.079	17.0	0.1206	0.0000	OK
15 minute summer	271	9	123.295	0.145	38.6	0.2335	0.0000	OK
15 minute summer	272	9	122.912	0.162	45.6	0.2094	0.0000	OK
15 minute summer	290	9	123.474	0.224	13.1	0.3216	0.0000	OK
15 minute summer	291	9	123.462	0.312	59.1	0.6550	0.0000	SURCHARGED
15 minute summer	292	9	123.131	0.181	65.2	0.2453	0.0000	OK
15 minute summer	273	9	122.695	0.220	113.9	0.2816	0.0000	OK
15 minute summer	274	10	122.328	0.253	136.6	0.4037	0.0000	OK
15 minute summer	275	10	121.889	0.814	153.4	1.3441	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	202	10.002	203	38.2	1.705	0.620	0.4795	
15 minute summer	203	10.003	204	37.8	1.556	0.488	1.0721	
15 minute summer	204	10.004	113	75.9	2.413	0.804	1.1801	
15 minute summer	113	1.014	114	960.6	3.055	0.854	2.6848	
15 minute summer	114	1.015	115	961.7	3.895	0.531	2.3269	
15 minute summer	115	1.016	116	972.1	3.368	0.460	4.1446	
15 minute summer	116	1.017	117	995.1	2.788	0.682	5.1887	
15 minute summer	210	11.000	211	13.6	0.761	0.305	0.2424	
15 minute summer	211	11.001	212	50.5	1.629	0.542	0.9518	
15 minute summer	212	11.002	213	65.8	1.732	1.007	0.6182	
15 minute summer	220	12.000	213	47.6	1.617	0.800	0.8993	
15 minute summer	213	11.003	214	126.9	2.058	0.658	2.7213	
15 minute summer	214	11.004	215	169.1	2.401	1.142	2.6912	
15 minute summer	215	11.005	117	202.4	2.147	0.803	2.0915	
15 minute summer	117	1.018	118	1192.9	2.715	0.894	3.6540	
15 minute summer	118	Flow through pond	119	1478.8	0.366	0.008	177.6795	
15 minute summer	270	15.000	271	17.0	0.879	0.268	0.4645	
15 minute summer	271	15.001	272	38.8	1.346	0.750	1.1626	
15 minute summer	272	15.002	273	44.5	1.543	0.736	0.4280	
15 minute summer	290	16.000	291	14.6	0.388	0.359	0.6407	
15 minute summer	291	16.002	292	55.0	1.407	1.221	0.9833	
15 minute summer	292	16.003	273	62.6	1.972	0.856	0.6505	
15 minute summer	273	15.003	274	112.2	2.067	0.595	0.8064	
15 minute summer	274	15.004	275	126.2	2.128	0.665	2.3067	
15 minute summer	275	15.005	277	136.8	1.943	0.891	2.0374	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	277	10	121.303	0.778	164.8	1.4384	0.0000	SURCHARGED
15 minute summer	278	10	120.784	0.634	157.5	1.1211	0.0000	SURCHARGED
15 minute summer	279	10	120.498	0.698	180.7	1.6685	0.0000	SURCHARGED
15 minute summer	300	9	122.288	0.088	20.4	0.1436	0.0000	OK
15 minute summer	301	10	121.945	0.195	35.7	0.2897	0.0000	OK
15 minute summer	302	9	121.874	0.449	48.7	0.7149	0.0000	SURCHARGED
15 minute summer	303	9	121.712	0.437	64.3	0.7672	0.0000	SURCHARGED
15 minute summer	304	10	121.249	0.124	58.6	0.1407	0.0000	OK
15 minute summer	280	10	120.121	0.596	233.7	1.0528	0.0000	SURCHARGED
15 minute summer	281	10	119.088	0.388	267.4	0.5293	0.0000	OK
15 minute summer	282	10	117.779	0.329	267.4	0.0000	0.0000	OK
15 minute summer	283	12	115.997	0.414	266.6	0.0000	0.0000	OK
15 minute summer	119	13	115.932	0.632	1478.8	0.0000	0.0000	SURCHARGED
30 minute summer	240	19	115.226	0.226	1016.8	0.0000	0.0000	OK
15 minute summer	241	14	114.554	0.554	1015.1	0.0000	0.0000	OK
30 minute winter	250	45	114.233	0.681	830.4	0.0000	0.0000	OK
30 minute summer	251	45	114.232	0.682	593.7	0.0000	0.0000	SURCHARGED
30 minute summer	260	45	114.238	0.738	28.7	2.5572	0.0000	SURCHARGED
15 minute summer	261	1	112.441	0.000	2.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	277	15.006	278	157.5	2.237	1.086	1.2447	
15 minute summer	278	15.007	279	153.2	1.413	0.859	4.8494	
15 minute summer	279	15.008	280	174.5	1.582	1.056	4.4304	
15 minute summer	300	17.000	301	20.4	1.094	0.328	0.7468	
15 minute summer	301	17.001	302	29.4	1.009	0.534	1.1053	
15 minute summer	302	17.002	303	41.1	1.033	0.906	0.7808	
15 minute summer	303	17.003	304	58.6	1.681	1.448	0.7662	
15 minute summer	304	17.004	280	59.2	2.033	0.597	1.2567	
15 minute summer	280	14.010	281	230.1	2.088	1.485	2.2388	
15 minute summer	281	Orifice	282	267.4				
15 minute summer	282	14.012	283	266.6	2.149	0.879	3.3421	
15 minute summer	283	Flow through pond	119	1478.8	0.366	0.008	177.6795	
15 minute summer	119	1.021	240	1013.9	4.942	1.372	4.9271	
15 minute summer	119	Infiltration		4.5				
30 minute summer	240	1.022	241	1016.2	2.325	0.017	32.5277	
15 minute summer	241	1.023	250	1000.9	3.990	1.062	5.9221	
30 minute winter	250	Flow through pond	251	570.4	0.104	0.015	771.4234	
30 minute summer	251	1.025	260	28.7	0.570	0.060	2.8824	
30 minute summer	251	Infiltration		6.3				
30 minute summer	260	Hydro-Brake®	261	2.1				

27.7

Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	100	9	126.242	1.442	76.0	3.3512	2.4029	FLOOD
15 minute summer	101	10	126.106	1.456	71.6	2.2874	0.1879	FLOOD
15 minute summer	102	10	125.891	1.441	115.4	3.0182	0.0000	FLOOD RISK
15 minute summer	103	10	124.414	1.064	127.2	1.7924	0.0000	SURCHARGED
15 minute summer	104	10	122.629	0.204	130.5	0.2711	0.0000	OK
15 minute summer	120	10	125.490	1.490	67.2	3.2050	1.4867	FLOOD
15 minute summer	121	10	125.486	1.686	45.9	2.0045	0.0000	SURCHARGED
15 minute summer	130	10	125.508	0.908	23.7	1.2660	0.0000	SURCHARGED
15 minute summer	131	10	125.491	1.291	31.4	1.5119	0.0000	SURCHARGED
15 minute summer	122	10	125.460	1.810	85.9	2.8545	0.0000	SURCHARGED
15 minute summer	123	10	125.080	1.580	74.1	2.2858	0.0000	FLOOD RISK
15 minute summer	124	10	124.504	1.554	119.8	3.1577	0.8443	FLOOD
15 minute summer	125	11	123.544	1.194	124.6	2.5368	0.0000	FLOOD RISK
15 minute summer	126	11	122.947	0.772	114.2	1.3641	0.0000	SURCHARGED
15 minute summer	127	11	122.482	0.507	126.6	1.0017	0.0000	SURCHARGED
15 minute summer	105	10	122.222	0.622	280.6	1.3625	0.0000	SURCHARGED
15 minute summer	106	10	121.807	0.907	352.9	2.7869	0.0000	SURCHARGED
15 minute summer	107	10	120.869	1.544	374.2	3.9429	0.0000	FLOOD RISK
15 minute summer	108	10	120.730	1.630	347.5	3.1029	0.0000	FLOOD RISK
15 minute summer	140	10	121.513	0.513	32.7	0.8042	0.0000	SURCHARGED
15 minute summer	141	10	121.499	1.274	112.6	2.7005	0.0000	SURCHARGED
15 minute summer	150	10	122.076	1.226	22.9	1.3871	0.0000	SURCHARGED
15 minute summer	151	10	122.080	1.430	79.6	3.2853	0.0000	FLOOD RISK
15 minute summer	152	10	121.873	1.523	101.4	3.0055	0.0000	FLOOD RISK
15 minute summer	142	10	121.370	1.595	232.4	3.7397	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	100	1.000	101	43.3	1.123	1.053	0.9467	
15 minute summer	101	1.001	102	59.0	1.484	1.117	0.7698	
15 minute summer	102	1.002	103	92.0	2.312	1.111	1.7349	
15 minute summer	103	1.003	104	118.6	2.981	1.388	1.2589	
15 minute summer	104	1.004	105	130.2	2.784	0.650	1.4114	
15 minute summer	120	2.000	121	40.6	1.181	0.971	1.2217	
15 minute summer	121	2.001	122	37.3	0.938	0.810	0.7585	
15 minute summer	130	3.000	131	16.6	1.333	0.217	0.7395	
15 minute summer	131	3.001	122	-27.9	-0.701	-0.287	0.6325	
15 minute summer	122	2.002	123	59.6	1.498	1.410	0.8991	
15 minute summer	123	2.003	124	74.5	1.874	0.971	1.0106	
15 minute summer	124	2.004	125	101.6	2.556	1.204	0.9111	
15 minute summer	125	2.005	126	114.2	2.871	2.181	0.3919	
15 minute summer	126	2.006	127	113.9	1.618	1.523	3.0835	
15 minute summer	127	2.007	105	129.5	2.026	0.965	1.4508	
15 minute summer	105	1.005	106	264.1	3.284	0.732	2.3944	
15 minute summer	106	1.006	107	315.1	3.637	0.806	4.3651	
15 minute summer	107	1.007	108	336.9	2.459	0.695	1.5931	
15 minute summer	108	1.008	109	347.7	2.495	0.652	1.6079	
15 minute summer	140	4.000	141	31.3	1.508	0.339	0.8898	
15 minute summer	141	4.001	142	98.9	1.473	0.888	2.1027	
15 minute summer	150	5.000	151	-22.9	-0.681	-0.339	0.4728	
15 minute summer	151	5.001	152	45.2	1.285	0.796	1.0005	
15 minute summer	152	5.002	142	84.0	2.113	1.053	0.7226	
15 minute summer	142	4.002	143	171.4	1.722	0.691	2.6982	

Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	143	10	121.081	1.681	228.6	2.9704	0.0000	SURCHARGED
15 minute summer	144	10	120.831	1.731	257.2	4.1634	0.0000	SURCHARGED
15 minute summer	145	10	120.645	1.695	256.2	3.5053	0.0000	FLOOD RISK
15 minute summer	109	10	120.497	1.822	636.9	5.0432	0.0000	FLOOD RISK
15 minute summer	110	10	119.908	1.533	723.4	4.3282	0.0000	SURCHARGED
15 minute summer	160	10	121.178	1.153	66.3	2.4357	0.0000	SURCHARGED
15 minute summer	170	10	122.519	0.294	15.9	0.4006	0.0000	SURCHARGED
15 minute summer	171	10	122.478	0.378	101.3	0.9374	0.0000	SURCHARGED
15 minute summer	172	10	121.558	1.458	92.1	1.6492	0.0000	SURCHARGED
15 minute summer	173	10	121.377	1.602	79.8	1.9016	0.0000	SURCHARGED
15 minute summer	174	10	121.257	1.632	108.4	2.3452	0.0000	SURCHARGED
15 minute summer	175	10	121.016	1.591	140.8	2.3758	0.0000	SURCHARGED
15 minute summer	176	10	120.836	1.736	168.7	3.9406	0.0000	SURCHARGED
15 minute summer	180	9	121.914	0.114	27.4	0.1760	0.0000	OK
15 minute summer	181	9	121.556	0.156	48.7	0.2221	0.0000	OK
15 minute summer	182	10	121.105	0.355	49.5	0.4019	0.0000	SURCHARGED
15 minute summer	190	10	121.183	1.183	50.4	2.1703	0.0000	SURCHARGED
15 minute summer	191	10	121.098	1.298	53.1	1.5770	0.0000	SURCHARGED
15 minute summer	183	10	121.041	1.416	101.7	1.8630	0.0000	SURCHARGED
15 minute summer	184	10	120.925	1.450	130.8	3.0907	0.0000	SURCHARGED
15 minute summer	177	10	120.628	1.728	294.1	3.9920	0.0000	SURCHARGED
15 minute summer	111	10	119.511	1.535	1007.0	3.1538	0.0000	SURCHARGED
15 minute summer	112	10	118.869	1.344	1065.2	3.3219	0.0000	SURCHARGED
15 minute summer	200	9	120.701	0.101	23.9	0.1525	0.0000	OK
15 minute summer	201	9	120.587	0.137	35.4	0.1795	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	143	4.003	144	208.7	1.997	0.843	1.6268	
15 minute summer	144	4.004	145	240.6	1.518	1.066	4.8484	
15 minute summer	145	4.005	109	259.3	1.636	0.823	2.0859	
15 minute summer	109	1.009	110	647.9	2.300	1.243	14.6847	
15 minute summer	110	1.010	111	708.4	2.515	0.757	6.1149	
15 minute summer	160	6.000	143	57.7	1.967	0.615	0.5847	
15 minute summer	170	7.000	171	17.0	0.621	0.388	0.7014	
15 minute summer	171	7.001	172	92.1	2.494	0.893	2.0399	
15 minute summer	172	7.002	173	73.6	2.144	0.683	0.2339	
15 minute summer	173	7.003	174	75.3	1.069	0.739	1.2542	
15 minute summer	174	7.004	175	96.6	1.376	1.042	2.0168	
15 minute summer	175	7.005	176	114.9	1.922	0.797	1.0504	
15 minute summer	176	7.006	177	150.0	1.360	0.872	2.9746	
15 minute summer	180	8.000	181	27.5	1.108	0.519	0.9509	
15 minute summer	181	8.001	182	49.5	2.078	0.734	1.1825	
15 minute summer	182	8.002	183	42.1	1.975	0.280	0.5070	
15 minute summer	190	9.000	191	44.3	1.125	1.028	1.1522	
15 minute summer	191	9.001	183	43.9	1.207	1.020	0.5768	
15 minute summer	183	8.003	184	87.5	1.309	0.926	1.4568	
15 minute summer	184	8.004	177	102.4	1.513	0.827	2.8368	
15 minute summer	177	6.005	111	277.7	2.518	1.148	4.7284	
15 minute summer	111	1.011	112	1008.8	2.826	0.984	13.4477	
15 minute summer	112	1.012	113	1060.3	2.971	0.916	4.6993	
15 minute summer	200	10.000	201	23.9	1.119	0.387	0.2277	
15 minute summer	201	10.001	202	35.5	1.121	0.617	0.5091	

Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	202	9	120.447	0.197	59.4	0.2961	0.0000	OK
15 minute summer	203	10	120.129	0.179	59.5	0.2023	0.0000	OK
15 minute summer	204	10	119.801	0.801	116.8	1.4811	0.0000	SURCHARGED
15 minute summer	113	10	118.469	1.144	1151.0	2.0209	0.0000	SURCHARGED
15 minute summer	114	10	118.062	0.862	1152.0	1.5224	0.0000	SURCHARGED
15 minute summer	115	10	117.759	0.884	1161.2	1.7112	0.0000	SURCHARGED
15 minute summer	116	10	117.382	1.182	1184.5	2.6244	0.0000	SURCHARGED
15 minute summer	210	10	120.568	0.568	21.2	0.8339	0.0000	SURCHARGED
15 minute summer	211	10	120.546	0.646	77.3	1.1827	0.0000	SURCHARGED
15 minute summer	212	10	120.206	1.306	98.4	2.1297	0.0000	FLOOD RISK
15 minute summer	220	10	120.162	1.112	74.3	2.5588	0.0000	SURCHARGED
15 minute summer	213	10	119.821	1.246	165.3	1.9318	0.0000	FLOOD RISK
15 minute summer	214	10	118.942	1.742	246.5	4.2495	0.0000	FLOOD RISK
15 minute summer	215	10	117.355	0.904	272.3	2.0975	0.0000	SURCHARGED
15 minute summer	117	10	116.859	1.084	1439.8	2.7583	0.0000	SURCHARGED
15 minute summer	118	11	116.507	0.924	1440.8	0.0000	0.0000	OK
15 minute summer	270	10	123.824	0.324	26.5	0.4939	0.0000	SURCHARGED
15 minute summer	271	10	123.826	0.676	59.5	1.0903	0.0000	SURCHARGED
15 minute summer	272	10	123.681	0.931	59.1	1.2063	0.0000	SURCHARGED
15 minute summer	290	10	124.429	1.179	20.3	1.6933	0.0000	SURCHARGED
15 minute summer	291	10	124.415	1.265	87.0	2.6559	0.0000	SURCHARGED
15 minute summer	292	10	124.038	1.088	79.6	1.4734	0.0000	SURCHARGED
15 minute summer	273	10	123.613	1.138	129.3	1.4558	0.0000	SURCHARGED
15 minute summer	274	10	123.384	1.309	160.4	2.0912	0.0000	SURCHARGED
15 minute summer	275	10	122.836	1.761	178.2	2.9094	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	202	10.002	203	59.5	1.806	0.966	0.7076	
15 minute summer	203	10.003	204	54.9	1.496	0.709	1.5842	
15 minute summer	204	10.004	113	90.7	2.489	0.961	1.4926	
15 minute summer	113	1.014	114	1152.0	3.227	1.024	3.1050	
15 minute summer	114	1.015	115	1152.9	3.900	0.636	3.1253	
15 minute summer	115	1.016	116	1162.1	3.256	0.550	4.7703	
15 minute summer	116	1.017	117	1185.5	3.321	0.813	5.1887	
15 minute summer	210	11.000	211	19.8	0.766	0.445	0.5384	
15 minute summer	211	11.001	212	66.6	1.746	0.715	1.2474	
15 minute summer	212	11.002	213	77.4	1.946	1.184	0.6315	
15 minute summer	220	12.000	213	59.6	1.534	1.001	1.2142	
15 minute summer	213	11.003	214	143.9	2.065	0.746	3.2364	
15 minute summer	214	11.004	215	211.5	3.003	1.429	2.6912	
15 minute summer	215	11.005	117	265.7	2.409	1.054	2.0915	
15 minute summer	117	1.018	118	1440.8	3.274	1.080	3.7820	
15 minute summer	118	Flow through pond	119	1827.9	0.407	0.010	294.7435	
15 minute summer	270	15.000	271	25.9	0.951	0.409	0.9367	
15 minute summer	271	15.001	272	48.5	1.390	0.938	1.6075	
15 minute summer	272	15.002	273	50.1	1.496	0.830	0.5912	
15 minute summer	290	16.000	291	16.4	0.481	0.402	0.6411	
15 minute summer	291	16.002	292	63.8	1.603	1.416	1.0563	
15 minute summer	292	16.003	273	68.6	1.919	0.937	0.8064	
15 minute summer	273	15.003	274	122.4	2.001	0.649	0.9829	
15 minute summer	274	15.004	275	135.9	2.087	0.716	2.4292	
15 minute summer	275	15.005	277	150.8	2.141	0.982	2.0374	

Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	277	10	122.136	1.611	196.5	2.9809	0.0000	FLOOD RISK
15 minute summer	278	10	121.415	1.265	181.8	2.2354	0.0000	SURCHARGED
15 minute summer	279	10	121.014	1.214	226.5	2.9003	0.0000	SURCHARGED
15 minute summer	300	10	122.639	0.439	31.8	0.7162	0.0000	SURCHARGED
15 minute summer	301	10	122.581	0.831	53.3	1.2380	0.0000	SURCHARGED
15 minute summer	302	10	122.417	0.992	59.8	1.5799	0.0000	SURCHARGED
15 minute summer	303	10	122.085	0.810	89.4	1.4208	0.0000	SURCHARGED
15 minute summer	304	11	121.333	0.208	83.1	0.2351	0.0000	OK
15 minute summer	280	10	120.402	0.877	302.2	1.5498	0.0000	SURCHARGED
15 minute summer	281	9	119.198	0.498	369.7	0.6792	0.0000	OK
15 minute summer	282	10	118.475	1.025	367.6	0.0000	0.2461	FLOOD
30 minute summer	283	22	116.172	0.588	335.6	0.0000	0.0000	OK
30 minute summer	119	23	116.148	0.848	1752.0	0.0000	0.0000	SURCHARGED
30 minute summer	240	23	115.237	0.237	1157.8	0.0000	0.0000	OK
30 minute summer	241	27	114.766	0.766	1156.9	0.0000	0.0000	SURCHARGED
30 minute winter	250	44	114.499	0.946	1103.1	0.0000	0.0000	OK
30 minute winter	251	41	114.498	0.948	786.5	0.0000	0.0000	SURCHARGED
30 minute winter	260	41	114.504	1.004	26.8	3.4784	0.0000	SURCHARGED
15 minute summer	261	1	112.441	0.000	2.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	277	15.006	278	181.8	2.581	1.253	1.2447	
15 minute summer	278	15.007	279	182.8	1.657	1.025	4.8494	
15 minute summer	279	15.008	280	222.1	2.014	1.344	4.4304	
15 minute summer	300	17.000	301	29.5	1.069	0.474	1.2537	
15 minute summer	301	17.001	302	37.5	1.016	0.681	1.1525	
15 minute summer	302	17.002	303	58.1	1.460	1.280	0.7808	
15 minute summer	303	17.003	304	83.1	2.093	2.054	0.9611	
15 minute summer	304	17.004	280	80.1	2.038	0.809	1.5762	
15 minute summer	280	14.010	281	303.1	2.748	1.956	2.2693	
15 minute summer	281	Orifice	282	367.6				
15 minute summer	282	14.012	283	358.2	2.262	1.180	4.1638	
30 minute summer	283	Flow through pond	119	1752.0	0.362	0.010	300.1804	
30 minute summer	119	1.021	240	1157.8	5.125	1.566	5.0132	
30 minute summer	119	Infiltration		5.2				
30 minute summer	240	1.022	241	1156.9	2.295	0.019	59.9059	
30 minute summer	241	1.023	250	1138.0	4.041	1.207	6.0287	
30 minute winter	250	Flow through pond	251	786.5	0.125	0.021	1208.4635	
30 minute winter	251	1.025	260	26.8	0.620	0.056	2.8824	
30 minute winter	251	Infiltration		9.6				
30 minute winter	260	Hydro-Brake®	261	2.1				31.9

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	100	9	126.242	1.442	88.6	3.3512	3.9501	FLOOD
15 minute summer	101	9	126.106	1.456	75.7	2.2874	1.5836	FLOOD
15 minute summer	102	9	125.902	1.452	122.6	3.0419	2.5525	FLOOD
15 minute summer	103	9	124.606	1.255	129.0	2.1154	0.0000	FLOOD RISK
15 minute summer	104	10	122.922	0.497	139.9	0.6612	0.0000	SURCHARGED
15 minute summer	120	9	125.490	1.490	78.3	3.2050	7.1726	FLOOD
15 minute winter	121	10	125.531	1.731	45.9	2.0576	0.0000	SURCHARGED
15 minute summer	130	10	125.626	1.026	21.0	1.4302	0.0000	SURCHARGED
15 minute summer	131	10	125.596	1.396	50.9	1.6350	0.0000	SURCHARGED
15 minute winter	122	10	125.541	1.890	75.3	2.9813	0.0000	SURCHARGED
15 minute summer	123	10	125.167	1.667	84.5	2.4119	0.0000	FLOOD RISK
15 minute summer	124	9	124.504	1.554	145.0	3.1577	5.4533	FLOOD
15 minute summer	125	10	123.729	1.379	123.3	2.9292	0.0000	FLOOD RISK
15 minute summer	126	10	123.196	1.020	116.3	1.8032	0.0000	SURCHARGED
15 minute summer	127	10	122.827	0.852	124.9	1.6829	0.0000	SURCHARGED
15 minute summer	105	10	122.566	0.966	262.0	2.1159	0.0000	SURCHARGED
15 minute summer	106	10	122.124	1.224	363.7	3.7620	0.0000	SURCHARGED
15 minute summer	107	10	121.024	1.699	410.8	4.3368	0.0000	FLOOD RISK
15 minute summer	108	10	120.859	1.759	369.6	3.3491	4.1284	FLOOD
15 minute summer	140	10	122.037	1.037	38.2	1.6252	0.0000	SURCHARGED
15 minute summer	141	10	121.958	1.733	131.5	3.6721	0.0000	FLOOD RISK
15 minute winter	150	10	122.205	1.355	10.6	1.5326	0.0000	SURCHARGED
15 minute summer	151	10	122.194	1.544	92.7	3.5466	1.1603	FLOOD
15 minute summer	152	9	121.988	1.638	109.9	3.2318	3.5671	FLOOD
15 minute summer	142	10	121.711	1.936	203.4	4.5406	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	100	1.000	101	44.2	1.136	1.075	0.9467	
15 minute summer	101	1.001	102	57.3	1.444	1.085	0.7698	
15 minute summer	102	1.002	103	89.6	2.253	1.082	1.7349	
15 minute summer	103	1.003	104	124.4	3.129	1.457	1.2597	
15 minute summer	104	1.004	105	126.9	2.748	0.634	1.6375	
15 minute summer	120	2.000	121	40.2	1.109	0.960	1.2217	
15 minute winter	121	2.001	122	34.1	0.858	0.741	0.7585	
15 minute summer	130	3.000	131	19.7	1.395	0.258	0.7395	
15 minute summer	131	3.001	122	-28.1	-0.707	-0.289	0.6325	
15 minute winter	122	2.002	123	60.2	1.514	1.425	0.8991	
15 minute summer	123	2.003	124	80.9	2.035	1.055	1.0106	
15 minute summer	124	2.004	125	96.5	2.427	1.144	0.9111	
15 minute summer	125	2.005	126	116.3	2.926	2.223	0.3919	
15 minute summer	126	2.006	127	111.8	1.589	1.495	3.0835	
15 minute summer	127	2.007	105	128.9	2.045	0.960	1.4508	
15 minute summer	105	1.005	106	263.5	3.259	0.731	2.3944	
15 minute summer	106	1.006	107	341.8	3.609	0.875	4.3651	
15 minute summer	107	1.007	108	362.3	2.485	0.748	1.5931	
15 minute summer	108	1.008	109	349.9	2.526	0.656	1.6079	
15 minute summer	140	4.000	141	36.7	1.554	0.398	0.8898	
15 minute summer	141	4.001	142	91.5	1.526	0.822	2.1027	
15 minute winter	150	5.000	151	-10.6	-0.266	-0.156	0.4728	
15 minute summer	151	5.001	152	48.0	1.321	0.845	1.0005	
15 minute summer	152	5.002	142	80.0	2.059	1.002	0.7226	
15 minute summer	142	4.002	143	183.3	1.737	0.739	2.6982	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	143	10	121.373	1.973	232.2	3.4863	0.0000	FLOOD RISK
15 minute summer	144	10	121.049	1.949	275.7	4.6883	0.0000	FLOOD RISK
15 minute summer	145	10	120.810	1.860	291.0	3.8465	3.0698	FLOOD
15 minute summer	109	10	120.669	1.994	656.0	5.5187	0.0000	FLOOD RISK
15 minute summer	110	10	120.131	1.756	753.6	4.9579	0.0000	SURCHARGED
15 minute summer	160	10	121.548	1.523	77.3	3.2183	0.0000	FLOOD RISK
15 minute summer	170	10	123.171	0.946	18.6	1.2890	0.0000	SURCHARGED
15 minute summer	171	10	123.120	1.020	118.2	2.5318	0.0000	SURCHARGED
15 minute summer	172	10	122.126	2.026	100.1	2.2912	0.0000	FLOOD RISK
15 minute summer	173	10	121.939	2.164	78.4	2.5688	0.0000	SURCHARGED
15 minute summer	174	10	121.816	2.191	102.0	3.1482	0.0000	SURCHARGED
15 minute summer	175	10	121.553	2.128	127.9	3.1776	0.0000	SURCHARGED
15 minute summer	176	10	121.349	2.249	181.2	5.1042	0.0000	SURCHARGED
15 minute summer	180	9	121.927	0.127	32.0	0.1951	0.0000	OK
15 minute summer	181	11	121.669	0.269	56.8	0.3844	0.0000	SURCHARGED
15 minute summer	182	10	121.582	0.832	59.5	0.9406	0.0000	SURCHARGED
15 minute summer	190	10	121.621	1.621	58.7	2.9729	0.8094	FLOOD
15 minute summer	191	10	121.593	1.793	49.9	2.1780	0.0000	SURCHARGED
15 minute summer	183	10	121.547	1.922	104.4	2.5296	0.0000	SURCHARGED
15 minute summer	184	10	121.449	1.974	115.7	4.2064	0.0000	SURCHARGED
15 minute summer	177	10	121.103	2.202	303.3	5.0878	0.0000	SURCHARGED
15 minute summer	111	10	119.752	1.777	1038.0	3.6502	0.0000	SURCHARGED
15 minute summer	112	10	119.087	1.562	1112.2	3.8618	0.0000	SURCHARGED
15 minute summer	200	10	120.729	0.129	27.8	0.1938	0.0000	OK
15 minute summer	201	10	120.711	0.261	41.4	0.3418	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	143	4.003	144	232.5	2.108	0.939	1.6268	
15 minute summer	144	4.004	145	274.0	1.730	1.214	4.8484	
15 minute summer	145	4.005	109	263.1	1.661	0.835	2.0859	
15 minute summer	109	1.009	110	649.9	2.307	1.247	14.6847	
15 minute summer	110	1.010	111	720.0	2.556	0.770	6.1149	
15 minute summer	160	6.000	143	48.9	1.859	0.521	0.5847	
15 minute summer	170	7.000	171	17.3	0.611	0.395	0.7014	
15 minute summer	171	7.001	172	100.1	2.518	0.971	2.0399	
15 minute summer	172	7.002	173	71.3	2.161	0.661	0.2339	
15 minute summer	173	7.003	174	81.6	1.159	0.801	1.2542	
15 minute summer	174	7.004	175	100.9	1.433	1.088	2.0168	
15 minute summer	175	7.005	176	126.5	1.901	0.878	1.0504	
15 minute summer	176	7.006	177	163.9	1.486	0.952	2.9746	
15 minute summer	180	8.000	181	32.1	1.155	0.605	1.0906	
15 minute summer	181	8.001	182	59.5	2.145	0.881	1.5376	
15 minute summer	182	8.002	183	44.3	1.987	0.294	0.5070	
15 minute summer	190	9.000	191	39.7	1.085	0.920	1.1522	
15 minute summer	191	9.001	183	40.0	1.208	0.929	0.5768	
15 minute summer	183	8.003	184	85.9	1.257	0.909	1.4568	
15 minute summer	184	8.004	177	108.5	1.541	0.876	2.8368	
15 minute summer	177	6.005	111	301.3	2.732	1.246	4.7284	
15 minute summer	111	1.011	112	1026.8	2.877	1.001	13.4477	
15 minute summer	112	1.012	113	1091.6	3.058	0.943	4.6993	
15 minute summer	200	10.000	201	28.0	1.123	0.454	0.3375	
15 minute summer	201	10.001	202	37.8	1.134	0.658	0.6501	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	202	10	120.666	0.415	65.6	0.6232	0.0000	SURCHARGED
15 minute summer	203	10	120.489	0.539	62.2	0.6096	0.0000	SURCHARGED
15 minute summer	204	10	120.126	1.126	123.5	2.0816	0.0000	SURCHARGED
15 minute summer	113	10	118.664	1.339	1186.6	2.3658	0.0000	SURCHARGED
15 minute summer	114	10	118.230	1.030	1191.0	1.8194	0.0000	SURCHARGED
15 minute summer	115	10	117.906	1.031	1204.4	1.9959	0.0000	SURCHARGED
15 minute summer	116	10	117.502	1.302	1234.0	2.8916	0.0000	SURCHARGED
15 minute summer	210	10	120.962	0.962	24.8	1.4116	0.0000	SURCHARGED
15 minute summer	211	10	120.934	1.034	89.9	1.8925	0.0000	SURCHARGED
15 minute summer	212	9	120.341	1.441	106.1	2.3503	2.2378	FLOOD
15 minute summer	220	10	120.455	1.405	86.5	3.2318	0.0000	FLOOD RISK
15 minute summer	213	9	119.974	1.399	166.2	2.1680	0.0000	FLOOD RISK
15 minute summer	214	9	118.987	1.787	266.0	4.3603	4.4070	FLOOD
15 minute summer	215	9	117.485	1.035	281.2	2.3991	0.0000	SURCHARGED
30 minute summer	117	19	116.944	1.169	1428.9	2.9753	0.0000	SURCHARGED
30 minute summer	118	20	116.626	1.043	1427.4	0.0000	0.0000	OK
15 minute summer	270	10	124.324	0.824	30.9	1.2578	0.0000	SURCHARGED
15 minute summer	271	10	124.296	1.146	68.2	1.8466	0.0000	SURCHARGED
15 minute summer	272	10	124.088	1.338	67.6	1.7337	0.0000	FLOOD RISK
15 minute summer	290	10	124.760	1.510	23.7	2.1684	0.8227	FLOOD
15 minute summer	291	10	124.709	1.559	94.7	3.2718	0.0000	FLOOD RISK
15 minute summer	292	10	124.387	1.437	87.0	1.9452	0.0000	FLOOD RISK
15 minute summer	273	10	123.960	1.485	142.6	1.8997	0.0000	FLOOD RISK
15 minute summer	274	10	123.658	1.582	154.6	2.5288	0.0000	FLOOD RISK
15 minute summer	275	9	122.919	1.844	172.3	3.0463	2.0402	FLOOD

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	202	10.002	203	62.2	1.832	1.010	0.8516	
15 minute summer	203	10.003	204	53.1	1.433	0.686	1.7116	
15 minute summer	204	10.004	113	95.0	2.389	1.007	1.4926	
15 minute summer	113	1.014	114	1191.0	3.337	1.059	3.1050	
15 minute summer	114	1.015	115	1194.7	3.871	0.659	3.1253	
15 minute summer	115	1.016	116	1207.8	3.384	0.571	4.7703	
15 minute summer	116	1.017	117	1235.7	3.462	0.847	5.1887	
15 minute summer	210	11.000	211	22.9	0.742	0.514	0.5384	
15 minute summer	211	11.001	212	69.1	1.737	0.741	1.2474	
15 minute summer	212	11.002	213	78.6	1.977	1.203	0.6315	
15 minute summer	220	12.000	213	60.1	1.541	1.009	1.2142	
15 minute summer	213	11.003	214	149.8	2.128	0.777	3.2364	
15 minute summer	214	11.004	215	207.6	2.948	1.403	2.6912	
15 minute summer	215	11.005	117	275.5	2.498	1.093	2.0915	
30 minute summer	117	1.018	118	1427.4	3.244	1.070	3.7820	
30 minute summer	118	Flow through pond	119	1817.4	0.374	0.010	359.9591	
15 minute summer	270	15.000	271	29.1	0.946	0.459	0.9367	
15 minute summer	271	15.001	272	55.2	1.398	1.068	1.6075	
15 minute summer	272	15.002	273	57.2	1.439	0.948	0.5912	
15 minute summer	290	16.000	291	16.0	0.528	0.392	0.6411	
15 minute summer	291	16.002	292	68.4	1.720	1.519	1.0563	
15 minute summer	292	16.003	273	73.0	1.879	0.998	0.8064	
15 minute summer	273	15.003	274	117.5	2.019	0.622	0.9829	
15 minute summer	274	15.004	275	143.1	2.124	0.754	2.4292	
15 minute summer	275	15.005	277	157.7	2.240	1.027	2.0374	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	277	9	122.165	1.640	213.1	3.0340	2.7213	FLOOD
15 minute summer	278	10	121.475	1.325	182.7	2.3415	0.0000	SURCHARGED
15 minute summer	279	9	121.100	1.300	247.1	3.1056	0.0000	SURCHARGED
15 minute summer	300	10	123.038	0.837	37.1	1.3659	0.0000	SURCHARGED
15 minute summer	301	10	122.979	1.229	62.2	1.8305	0.0000	FLOOD RISK
15 minute summer	302	10	122.805	1.380	66.8	2.1967	0.0000	FLOOD RISK
15 minute summer	303	10	122.462	1.187	97.6	2.0828	0.0000	FLOOD RISK
15 minute summer	304	10	121.639	0.514	88.3	0.5808	0.0000	SURCHARGED
15 minute summer	280	10	120.442	0.917	311.7	1.6206	0.0000	SURCHARGED
15 minute summer	281	9	119.270	0.570	415.3	0.7775	0.0000	OK
15 minute summer	282	9	118.475	1.025	413.2	0.0000	4.7528	FLOOD
30 minute summer	283	22	116.274	0.691	358.2	0.0000	0.0000	OK
30 minute summer	119	23	116.244	0.944	1817.4	0.0000	0.0000	FLOOD RISK
30 minute summer	240	24	115.241	0.241	1214.2	0.0000	0.0000	OK
30 minute winter	241	30	114.908	0.908	1194.7	0.0000	0.0000	SURCHARGED
30 minute winter	250	41	114.604	1.051	1156.1	0.0000	0.0000	OK
30 minute winter	251	43	114.603	1.053	781.3	0.0000	0.0000	SURCHARGED
30 minute winter	260	53	114.609	1.109	20.2	3.8412	0.0000	SURCHARGED
15 minute summer	261	1	112.441	0.000	2.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	277	15.006	278	182.7	2.595	1.260	1.2447	
15 minute summer	278	15.007	279	187.2	1.697	1.049	4.8494	
15 minute summer	279	15.008	280	231.1	2.095	1.398	4.4304	
15 minute summer	300	17.000	301	34.4	1.116	0.554	1.2537	
15 minute summer	301	17.001	302	38.6	1.003	0.701	1.1525	
15 minute summer	302	17.002	303	59.2	1.489	1.305	0.7808	
15 minute summer	303	17.003	304	88.3	2.227	2.181	0.9785	
15 minute summer	304	17.004	280	82.8	2.083	0.837	1.6049	
15 minute summer	280	14.010	281	313.1	2.839	2.020	2.2693	
15 minute summer	281	Orifice	282	413.2				
15 minute summer	282	14.012	283	358.2	2.262	1.180	4.1638	
30 minute summer	283	Flow through pond	119	1817.4	0.374	0.010	359.9591	
30 minute summer	119	1.021	240	1214.2	5.350	1.643	5.0456	
30 minute summer	119	Infiltration		5.6				
30 minute summer	240	1.022	241	1213.3	2.278	0.020	82.2653	
30 minute winter	241	1.023	250	1156.1	4.105	1.226	6.0287	
30 minute winter	250	Flow through pond	251	777.3	0.131	0.021	1408.6748	
30 minute winter	251	1.025	260	20.2	0.673	0.042	2.8824	
30 minute winter	251	Infiltration		10.3				
30 minute winter	260	Hydro-Brake®	261	2.2				33.4

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	100	9	126.242	1.442	97.5	3.5228	4.7965	FLOOD
15 minute summer	101	9	126.106	1.456	80.5	2.3500	1.8853	FLOOD
15 minute summer	102	9	125.902	1.452	129.8	3.1828	3.6854	FLOOD
15 minute summer	103	10	124.732	1.382	131.4	2.4067	0.0000	FLOOD RISK
15 minute summer	104	10	123.077	0.652	144.0	0.8801	0.0000	SURCHARGED
15 minute summer	120	9	125.490	1.490	86.1	3.3570	9.7080	FLOOD
15 minute summer	121	9	125.579	1.779	52.5	2.1246	0.0000	FLOOD RISK
15 minute summer	130	9	125.689	1.089	21.6	1.5467	0.0000	SURCHARGED
15 minute summer	131	9	125.637	1.437	40.2	1.6888	0.0000	SURCHARGED
15 minute summer	122	9	125.604	1.954	92.9	3.1691	0.0000	SURCHARGED
15 minute summer	123	9	125.217	1.717	91.6	2.5372	0.0000	FLOOD RISK
15 minute summer	124	9	124.504	1.554	160.4	3.2976	7.6966	FLOOD
15 minute summer	125	10	123.806	1.456	127.6	3.1450	0.3277	FLOOD
15 minute summer	126	10	123.330	1.155	110.4	2.0403	0.0000	SURCHARGED
15 minute summer	127	10	122.978	1.003	121.5	2.0014	0.0000	SURCHARGED
15 minute summer	105	10	122.712	1.112	275.7	2.4838	0.0000	SURCHARGED
15 minute summer	106	10	122.243	1.343	387.2	4.3029	0.0000	FLOOD RISK
15 minute summer	107	9	121.031	1.706	414.7	4.4885	2.3688	FLOOD
15 minute summer	108	9	120.859	1.759	375.5	3.3720	12.7625	FLOOD
15 minute summer	140	10	122.122	1.122	42.0	1.8068	0.0000	SURCHARGED
15 minute summer	141	10	122.030	1.805	143.1	4.0022	0.0000	FLOOD RISK
15 minute summer	150	9	122.246	1.396	15.1	1.5792	0.0000	FLOOD RISK
15 minute summer	151	9	122.194	1.544	116.8	3.7257	4.8622	FLOOD
15 minute summer	152	9	121.988	1.638	121.3	3.3710	5.4934	FLOOD
15 minute summer	142	10	121.712	1.937	217.6	4.6546	1.0653	FLOOD

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	100	1.000	101	44.3	1.114	1.076	0.9467	
15 minute summer	101	1.001	102	57.1	1.437	1.081	0.7698	
15 minute summer	102	1.002	103	89.2	2.244	1.078	1.7349	
15 minute summer	103	1.003	104	127.0	3.194	1.487	1.2597	
15 minute summer	104	1.004	105	126.3	2.739	0.630	1.6375	
15 minute summer	120	2.000	121	45.7	1.150	1.093	1.2217	
15 minute summer	121	2.001	122	33.5	0.842	0.727	0.7585	
15 minute summer	130	3.000	131	21.0	1.429	0.275	0.7395	
15 minute summer	131	3.001	122	30.7	0.772	0.316	0.6325	
15 minute summer	122	2.002	123	58.8	1.479	1.392	0.8991	
15 minute summer	123	2.003	124	83.2	2.091	1.084	1.0106	
15 minute summer	124	2.004	125	98.1	2.468	1.163	0.9111	
15 minute summer	125	2.005	126	110.4	2.775	2.108	0.3919	
15 minute summer	126	2.006	127	113.4	1.610	1.515	3.0835	
15 minute summer	127	2.007	105	128.3	2.032	0.956	1.4508	
15 minute summer	105	1.005	106	277.5	3.232	0.770	2.3944	
15 minute summer	106	1.006	107	338.8	3.687	0.867	4.3651	
15 minute summer	107	1.007	108	366.3	2.485	0.756	1.5931	
15 minute summer	108	1.008	109	348.6	2.435	0.653	1.6079	
15 minute summer	140	4.000	141	38.8	1.583	0.421	0.8898	
15 minute summer	141	4.001	142	106.2	1.558	0.954	2.1027	
15 minute summer	150	5.000	151	-15.1	-0.379	-0.223	0.4728	
15 minute summer	151	5.001	152	52.5	1.333	0.925	1.0005	
15 minute summer	152	5.002	142	80.1	2.174	1.003	0.7226	
15 minute summer	142	4.002	143	182.0	1.743	0.734	2.6982	

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	143	9	121.396	1.996	230.4	3.5276	0.0000	FLOOD RISK
15 minute summer	144	9	121.122	2.022	279.4	4.9933	0.0000	FLOOD RISK
15 minute summer	145	9	120.810	1.860	303.4	3.9023	10.3522	FLOOD
15 minute summer	109	9	120.714	2.039	629.4	5.8479	0.2244	FLOOD
15 minute summer	110	9	120.273	1.898	740.1	5.5573	0.0000	SURCHARGED
15 minute summer	160	9	121.553	1.528	85.0	3.3784	2.2642	FLOOD
15 minute summer	170	10	123.543	1.318	29.4	1.8267	0.0000	FLOOD RISK
15 minute summer	171	10	123.527	1.427	125.0	3.7363	0.0000	FLOOD RISK
15 minute summer	172	10	122.423	2.323	88.8	2.6273	0.6912	FLOOD
15 minute summer	173	10	122.270	2.494	76.7	2.9759	0.0000	FLOOD RISK
15 minute summer	174	10	122.158	2.533	103.8	3.7159	0.0000	SURCHARGED
15 minute summer	175	10	121.878	2.453	131.3	3.7500	0.0000	SURCHARGED
15 minute summer	176	10	121.645	2.545	189.1	5.9042	0.0000	SURCHARGED
15 minute summer	180	9	121.934	0.134	35.2	0.2125	0.0000	OK
15 minute summer	181	10	121.947	0.547	62.8	0.7979	0.0000	SURCHARGED
15 minute summer	182	10	121.770	1.020	51.6	1.1536	0.0000	SURCHARGED
15 minute summer	190	10	121.621	1.621	64.6	3.0880	3.6739	FLOOD
15 minute summer	191	10	121.679	1.879	49.5	2.2993	0.0000	SURCHARGED
15 minute summer	183	10	121.696	2.070	97.1	2.7641	0.0000	SURCHARGED
15 minute summer	184	10	121.643	2.168	114.7	4.6982	0.0000	SURCHARGED
15 minute summer	177	10	121.349	2.449	314.4	5.7923	0.0000	SURCHARGED
15 minute summer	111	9	119.865	1.890	1055.1	3.9348	0.0000	SURCHARGED
15 minute summer	112	9	119.177	1.652	1146.8	4.2021	0.0000	SURCHARGED
15 minute summer	200	10	120.961	0.361	30.6	0.5559	0.0000	SURCHARGED
15 minute summer	201	10	120.949	0.499	43.7	0.6618	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	143	4.003	144	231.3	2.097	0.934	1.6268	
15 minute summer	144	4.004	145	278.4	1.757	1.233	4.8484	
15 minute summer	145	4.005	109	265.4	1.765	0.842	2.0859	
15 minute summer	109	1.009	110	640.0	2.272	1.228	14.6847	
15 minute summer	110	1.010	111	726.6	2.580	0.777	6.1149	
15 minute summer	160	6.000	143	49.0	1.903	0.522	0.5847	
15 minute summer	170	7.000	171	19.5	0.586	0.446	0.7014	
15 minute summer	171	7.001	172	88.8	2.431	0.861	2.0399	
15 minute summer	172	7.002	173	73.7	2.146	0.684	0.2339	
15 minute summer	173	7.003	174	84.5	1.200	0.829	1.2542	
15 minute summer	174	7.004	175	106.3	1.509	1.146	2.0168	
15 minute summer	175	7.005	176	134.7	1.914	0.935	1.0504	
15 minute summer	176	7.006	177	177.7	1.612	1.033	2.9746	
15 minute summer	180	8.000	181	35.6	1.156	0.671	1.1711	
15 minute summer	181	8.001	182	51.6	2.174	0.765	1.5376	
15 minute summer	182	8.002	183	44.6	2.006	0.297	0.5070	
15 minute summer	190	9.000	191	38.2	1.105	0.888	1.1522	
15 minute summer	191	9.001	183	39.0	1.103	0.905	0.5768	
15 minute summer	183	8.003	184	87.1	1.271	0.922	1.4568	
15 minute summer	184	8.004	177	109.6	1.556	0.885	2.8368	
15 minute summer	177	6.005	111	319.3	2.896	1.320	4.7284	
15 minute summer	111	1.011	112	1039.2	2.911	1.013	13.4477	
15 minute summer	112	1.012	113	1124.4	3.150	0.972	4.6993	
15 minute summer	200	10.000	201	29.0	1.142	0.470	0.4241	
15 minute summer	201	10.001	202	40.6	1.147	0.706	0.6501	

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	202	10	120.895	0.645	71.2	0.9900	0.0000	SURCHARGED
15 minute summer	203	10	120.704	0.754	61.4	0.8528	0.0000	SURCHARGED
15 minute summer	204	10	120.340	1.340	134.4	2.5742	0.0000	SURCHARGED
15 minute summer	113	10	118.748	1.423	1220.0	2.5144	0.0000	SURCHARGED
15 minute summer	114	10	118.306	1.106	1205.5	1.9547	0.0000	SURCHARGED
15 minute summer	115	10	117.976	1.101	1216.8	2.1510	0.0000	SURCHARGED
15 minute summer	116	10	117.562	1.362	1249.5	3.0883	0.0000	SURCHARGED
15 minute summer	210	10	121.144	1.143	27.2	1.7164	0.0000	FLOOD RISK
15 minute summer	211	10	121.102	1.202	89.2	2.2852	0.0000	SURCHARGED
15 minute summer	212	9	120.341	1.441	103.7	2.4223	4.4010	FLOOD
15 minute summer	220	9	120.486	1.436	95.2	3.4722	2.2995	FLOOD
15 minute summer	213	9	120.055	1.480	158.2	2.3561	0.0000	FLOOD RISK
15 minute summer	214	9	118.987	1.787	287.0	4.5944	6.6196	FLOOD
15 minute summer	215	9	117.553	1.103	283.9	2.6570	0.0000	SURCHARGED
30 minute summer	117	19	117.006	1.231	1472.0	3.1328	0.0000	SURCHARGED
30 minute summer	118	20	116.678	1.095	1465.5	0.0000	0.0000	OK
15 minute summer	270	10	124.575	1.075	34.0	1.6828	0.0000	SURCHARGED
15 minute summer	271	10	124.539	1.389	75.1	2.3051	0.0000	FLOOD RISK
15 minute summer	272	10	124.208	1.458	63.0	1.9129	0.5307	FLOOD
15 minute summer	290	9	124.760	1.510	31.2	2.2137	3.5533	FLOOD
15 minute summer	291	9	124.861	1.711	101.7	3.7564	0.0000	FLOOD RISK
15 minute summer	292	10	124.460	1.510	89.3	2.0783	0.0000	FLOOD RISK
15 minute summer	273	10	124.059	1.584	122.5	2.0499	0.0000	FLOOD RISK
15 minute summer	274	10	123.739	1.663	152.4	2.7364	0.0000	FLOOD RISK
15 minute summer	275	9	122.919	1.844	190.0	3.1422	3.8919	FLOOD

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	202	10.002	203	61.4	1.797	0.997	0.8516	
15 minute summer	203	10.003	204	57.9	1.506	0.747	1.7116	
15 minute summer	204	10.004	113	99.2	2.493	1.051	1.4926	
15 minute summer	113	1.014	114	1205.5	3.377	1.072	3.1050	
15 minute summer	114	1.015	115	1206.1	3.857	0.665	3.1253	
15 minute summer	115	1.016	116	1220.7	3.420	0.578	4.7703	
15 minute summer	116	1.017	117	1253.4	3.511	0.859	5.1887	
15 minute summer	210	11.000	211	22.2	0.755	0.498	0.5384	
15 minute summer	211	11.001	212	73.6	1.850	0.790	1.2474	
15 minute summer	212	11.002	213	77.4	1.947	1.185	0.6315	
15 minute summer	220	12.000	213	60.4	1.565	1.014	1.2142	
15 minute summer	213	11.003	214	154.5	2.195	0.801	3.2364	
15 minute summer	214	11.004	215	204.9	2.910	1.385	2.6912	
15 minute summer	215	11.005	117	278.6	2.526	1.105	2.0915	
30 minute summer	117	1.018	118	1465.5	3.330	1.098	3.7820	
30 minute summer	118	Flow through pond	119	1733.8	0.382	0.010	389.0602	
15 minute summer	270	15.000	271	32.1	0.940	0.505	0.9367	
15 minute summer	271	15.001	272	49.4	1.346	0.956	1.6075	
15 minute summer	272	15.002	273	49.2	1.455	0.815	0.5912	
15 minute summer	290	16.000	291	15.2	0.394	0.373	0.6411	
15 minute summer	291	16.002	292	68.9	1.733	1.530	1.0563	
15 minute summer	292	16.003	273	69.8	1.906	0.954	0.8064	
15 minute summer	273	15.003	274	121.7	2.042	0.645	0.9829	
15 minute summer	274	15.004	275	151.6	2.153	0.799	2.4292	
15 minute summer	275	15.005	277	157.0	2.230	1.022	2.0374	

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.52%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	277	9	122.165	1.640	221.7	3.1521	4.2268	FLOOD
15 minute summer	278	9	121.527	1.377	182.7	2.4325	0.0000	FLOOD RISK
15 minute summer	279	9	121.208	1.408	248.9	3.4517	0.0000	SURCHARGED
15 minute summer	300	10	123.264	1.064	40.8	1.7878	0.0000	SURCHARGED
15 minute summer	301	10	123.165	1.415	62.6	2.1558	0.0000	FLOOD RISK
15 minute summer	302	10	122.900	1.475	76.5	2.4161	0.8504	FLOOD
15 minute summer	303	10	122.588	1.313	105.4	2.3853	0.0000	FLOOD RISK
15 minute summer	304	10	121.737	0.612	88.8	0.6926	0.0000	SURCHARGED
15 minute summer	280	10	120.466	0.941	317.3	1.6624	0.0000	SURCHARGED
15 minute summer	281	9	119.314	0.614	440.0	0.9215	0.0000	OK
15 minute summer	282	9	118.475	1.025	439.0	0.0000	7.0794	FLOOD
30 minute summer	283	24	116.319	0.736	358.2	0.0000	0.0000	OK
30 minute summer	119	23	116.284	0.984	1733.8	0.0000	0.0000	FLOOD RISK
30 minute summer	240	24	115.243	0.243	1238.9	0.0000	0.0000	OK
30 minute winter	241	31	115.004	1.004	1234.1	0.0000	0.0000	SURCHARGED
30 minute winter	250	43	114.671	1.119	1166.0	0.0000	0.0000	OK
30 minute winter	251	44	114.671	1.121	793.4	0.0000	0.0000	SURCHARGED
30 minute winter	260	44	114.682	1.181	22.9	4.0927	0.0000	SURCHARGED
15 minute summer	261	1	112.441	0.000	2.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	277	15.006	278	182.7	2.594	1.259	1.2447	
15 minute summer	278	15.007	279	186.7	1.693	1.047	4.8494	
15 minute summer	279	15.008	280	242.0	2.194	1.464	4.4304	
15 minute summer	300	17.000	301	32.0	1.142	0.515	1.2537	
15 minute summer	301	17.001	302	47.7	1.201	0.867	1.1525	
15 minute summer	302	17.002	303	60.0	1.509	1.323	0.7808	
15 minute summer	303	17.003	304	88.8	2.233	2.194	0.9785	
15 minute summer	304	17.004	280	85.5	2.150	0.863	1.6049	
15 minute summer	280	14.010	281	318.7	2.890	2.057	2.2693	
15 minute summer	281	Orifice	282	439.0				
15 minute summer	282	14.012	283	358.2	2.262	1.180	4.1638	
30 minute summer	283	Flow through pond	119	1733.8	0.382	0.010	389.0602	
30 minute summer	119	1.021	240	1238.9	5.446	1.676	5.0607	
30 minute summer	119	Infiltration		5.7				
30 minute summer	240	1.022	241	1239.9	2.271	0.020	95.0252	
30 minute winter	241	1.023	250	1166.0	4.140	1.237	6.0287	
30 minute winter	250	Flow through pond	251	789.4	0.130	0.021	1544.3331	
30 minute winter	251	1.025	260	22.9	0.696	0.048	2.8824	
30 minute winter	251	Infiltration		10.8				
30 minute winter	260	Hydro-Brake®	261	2.3				34.3

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	9.000
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.925	Include Intermediate Ground	x
Time of Entry (mins)	2.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
100	0.086	2.00	126.242	1200	445487.285	238495.242	1.442
101	0.032	2.00	126.106	1200	445510.642	238490.652	1.456
102	0.070	2.00	125.902	1200	445527.568	238481.260	1.452
103	0.041	2.00	124.829	1200	445562.043	238454.534	1.479
104	0.015	2.00	123.929	1200	445588.207	238436.682	1.504
120	0.076	2.00	125.490	1200	445558.591	238573.190	1.490
121	0.006	2.00	125.878	1200	445553.153	238542.956	2.078
130	0.019	2.00	126.044	1200	445532.770	238493.760	1.444
131	0.004	2.00	126.199	1200	445542.356	238509.693	1.999
122	0.055	2.00	126.114	1200	445547.497	238524.742	2.464
123	0.029	2.00	125.337	1200	445569.200	238518.411	1.837
124	0.070	2.00	124.504	1200	445592.637	238508.593	1.554
125	0.026	2.00	123.806	1500	445613.833	238499.903	1.456
126	0.000	2.00	123.923	1500	445611.254	238490.391	1.748
127	0.021	2.00	124.000	1500	445602.243	238447.540	2.025
105	0.035	2.00	123.254	1500	445609.948	238428.432	1.654
106	0.106	2.00	122.522	1500	445630.958	238422.969	1.622
107	0.067	2.00	121.031	1500	445668.204	238409.589	1.706
108	0.012	2.00	120.859	1500	445676.235	238403.539	1.759
140	0.037	2.00	122.696	1200	445662.505	238474.032	1.696
141	0.092	2.00	122.088	1200	445684.198	238468.559	1.863
150	0.000	2.00	122.525	1200	445746.094	238491.814	1.675
151	0.090	2.00	122.194	1200	445734.255	238490.735	1.544
152	0.069	2.00	121.988	1200	445723.105	238468.185	1.638
142	0.056	2.00	121.712	1500	445710.738	238454.875	1.937
143	0.000	2.00	121.421	1500	445724.597	238434.717	2.021
144	0.067	2.00	121.200	1500	445717.284	238421.909	2.100
145	0.028	2.00	120.810	1500	445693.065	238403.206	1.860
109	0.102	2.00	120.714	1500	445682.404	238395.482	2.039
110	0.131	2.00	120.857	1500	445711.658	238352.330	2.482
160	0.075	2.00	121.553	1200	445737.725	238428.099	1.528
170	0.018	2.00	123.775	1200	445811.658	238458.826	1.550
171	0.098	2.00	123.550	1200	445794.790	238463.977	1.450
172	0.000	2.00	122.423	1200	445772.278	238417.889	2.323
173	0.007	2.00	122.273	1200	445769.397	238412.761	2.498
174	0.046	2.00	122.633	1200	445785.595	238405.354	3.008
175	0.050	2.00	122.187	1200	445773.001	238379.632	2.762
176	0.073	2.00	122.006	1500	445770.581	238364.913	2.906
180	0.031	2.00	123.310	1200	445811.510	238396.637	1.510
181	0.024	2.00	123.015	1200	445846.321	238380.349	1.615
182	0.000	2.00	122.236	1200	445833.853	238343.753	1.486

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
190	0.057	2.00	121.621	1200	445866.733	238308.336	1.621
191	0.010	2.00	122.171	1200	445843.345	238325.433	2.371
183	0.025	2.00	122.322	1200	445830.192	238331.541	2.697
184	0.049	2.00	122.171	1500	445810.078	238336.376	2.696
177	0.075	2.00	121.661	1500	445769.825	238337.955	2.761
111	0.045	2.00	121.115	1500	445726.967	238336.938	3.140
112	0.095	2.00	120.220	1500	445718.773	238300.169	2.695
200	0.027	2.00	122.053	1200	445815.484	238312.566	1.453
201	0.013	2.00	121.918	1200	445814.994	238301.913	1.468
202	0.027	2.00	121.715	1200	445817.202	238285.718	1.465
203	0.000	2.00	121.877	1200	445795.992	238282.778	1.927
204	0.070	2.00	120.949	1200	445752.981	238284.276	1.949
113	0.000	2.00	119.685	1500	445715.581	238287.398	2.360
114	0.000	2.00	119.236	1500	445712.991	238279.095	2.036
115	0.016	2.00	118.771	1500	445707.229	238272.503	1.896
116	0.043	2.00	118.093	1500	445694.489	238268.472	1.893
210	0.024	2.00	121.427	1200	445609.742	238344.943	1.427
211	0.065	2.00	121.757	1200	445611.008	238358.421	1.857
212	0.036	2.00	120.341	1200	445642.201	238355.139	1.441
220	0.084	2.00	120.486	1200	445683.336	238372.895	1.436
213	0.032	2.00	120.101	1200	445658.067	238355.761	1.526
214	0.117	2.00	118.987	1200	445666.870	238310.653	1.787
215	0.073	2.00	118.095	1350	445671.069	238272.667	1.645
117	0.000	2.00	117.850	1800	445683.804	238258.618	2.075
118	0.000		116.922		445687.337	238250.785	1.339
270	0.030	2.00	125.019	1200	445546.227	238452.922	1.519
271	0.038	2.00	124.730	1200	445533.573	238433.057	1.580
272	0.012	2.00	124.208	1200	445528.642	238392.939	1.458
290	0.023	2.00	124.760	1200	445468.119	238377.456	1.510
291	0.086	2.00	124.927	1200	445480.936	238387.232	1.777
292	0.018	2.00	124.567	1200	445506.734	238380.920	1.617
273	0.012	2.00	124.094	1200	445526.824	238378.187	1.619
274	0.043	2.00	123.917	1200	445524.996	238364.349	1.842
275	0.048	2.00	122.919	1200	445559.282	238360.544	1.844
277	0.059	2.00	122.165	1200	445588.118	238358.176	1.640
278	0.000	2.00	121.798	1500	445586.538	238340.571	1.648
279	0.072	2.00	122.114	1500	445582.310	238296.808	2.314
300	0.036	2.00	123.641	1200	445523.206	238348.941	1.441
301	0.027	2.00	123.260	1200	445519.129	238317.682	1.510
302	0.034	2.00	122.900	1200	445516.257	238288.847	1.475
303	0.041	2.00	122.590	1200	445515.230	238269.242	1.315
304	0.000	2.00	122.450	1200	445539.826	238268.614	1.325
280	0.000	2.00	121.550	1500	445578.420	238256.829	2.025
281	0.111	2.00	120.326		445598.334	238250.875	1.626
282	0.000	2.00	118.475		445637.154	238238.539	1.025
283	0.000		116.886		445659.014	238222.795	1.303
119	0.000	2.00	116.506		445680.400	238231.012	1.206
240	0.000		116.705		445698.981	238212.763	1.705
241	0.000	2.00	115.700		445692.988	238166.175	1.700
250	0.000		115.450		445690.621	238144.903	1.898
251	0.000	2.00	115.450		445691.441	238122.889	1.900
260	0.000		115.450	2100	445701.336	238120.282	1.950

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<u>Nodes</u>								
Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	
261	0.000		115.043	1500	445707.350	238123.844	2.602	
<u>Links (Results)</u>								
Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)
1.000	100	101	1.035	41.2	14.4	1.217	1.231	0.086
1.001	101	102	1.329	52.8	19.7	1.231	1.227	0.118
1.002	102	103	2.082	82.8	31.4	1.227	1.253	0.188
1.003	103	104	2.148	85.4	38.3	1.254	1.203	0.229
1.004	104	105	2.834	200.3	40.8	1.204	1.279	0.244
2.000	120	121	1.052	41.8	12.7	1.265	1.853	0.076
2.001	121	122	1.158	46.0	13.7	1.853	2.239	0.082
3.000	130	131	1.923	76.5	3.2	1.219	1.774	0.019
3.001	131	122	2.443	97.1	3.8	1.774	2.239	0.023
2.002	122	123	1.063	42.2	26.7	2.239	1.612	0.160
2.003	123	124	1.929	76.7	31.6	1.612	1.329	0.189
2.004	124	125	2.123	84.4	43.3	1.329	1.231	0.259
2.005	125	126	1.316	52.3	47.6	1.231	1.448	0.285
2.006	126	127	1.058	74.8	47.6	1.448	1.725	0.285
2.007	127	105	1.899	134.2	51.1	1.725	1.279	0.306
1.005	105	106	3.264	360.5	97.8	1.279	1.247	0.585
1.006	106	107	3.538	390.8	115.5	1.247	1.255	0.691
1.007	107	108	3.047	484.6	126.7	1.256	1.309	0.758
1.008	108	109	3.355	533.5	128.7	1.309	1.439	0.770
4.000	140	141	2.321	92.3	6.2	1.471	1.562	0.037
4.001	141	142	1.576	111.4	21.6	1.563	1.487	0.129
5.000	150	151	1.700	67.6	0.0	1.450	1.319	0.000
5.001	151	152	1.428	56.8	15.0	1.319	1.413	0.090
5.002	152	142	2.007	79.8	26.6	1.413	1.563	0.159
4.002	142	143	2.247	248.1	57.5	1.562	1.646	0.344
4.003	143	144	2.241	247.6	70.0	1.646	1.650	0.419
4.004	144	145	1.419	225.7	81.2	1.650	1.410	0.486
4.005	145	109	1.981	315.0	85.9	1.410	1.439	0.514
1.009	109	110	1.844	521.3	231.7	1.439	1.882	1.386
1.010	110	111	3.309	935.6	253.6	1.882	2.540	1.517
6.000	160	143	2.360	93.8	12.5	1.303	1.646	0.075
7.000	170	171	1.098	43.7	3.0	1.325	1.225	0.018
7.001	171	172	2.594	103.1	19.4	1.225	2.098	0.116
7.002	172	173	2.710	107.8	19.4	2.098	2.198	0.116
7.003	173	174	1.442	101.9	20.6	2.198	2.708	0.123
7.004	174	175	1.312	92.7	28.2	2.708	2.462	0.169
7.005	175	176	2.038	144.1	36.6	2.462	2.531	0.219
7.006	176	177	1.559	172.1	48.8	2.531	2.386	0.292
8.000	180	181	1.334	53.0	5.2	1.285	1.390	0.031
8.001	181	182	1.698	67.5	9.2	1.390	1.261	0.055
8.002	182	183	3.782	150.4	9.2	1.261	2.401	0.055
9.000	190	191	1.084	43.1	9.5	1.396	2.146	0.057
9.001	191	183	1.083	43.1	11.2	2.146	2.397	0.067
8.003	183	184	1.337	94.5	24.6	2.397	2.396	0.147
8.004	184	177	1.752	123.9	32.8	2.396	2.386	0.196

Links (Results)

Name	US Node	DS Node	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)
6.005	177	111	2.190	241.9	94.1	2.386	2.465	0.563
1.011	111	112	2.866	1025.5	355.2	2.465	2.020	2.125
1.012	112	113	3.234	1157.2	371.1	2.020	1.685	2.220
10.000	200	201	1.553	61.7	4.5	1.228	1.243	0.027
10.001	201	202	1.448	57.6	6.7	1.243	1.240	0.040
10.002	202	203	1.549	61.6	11.2	1.240	1.702	0.067
10.003	203	204	1.948	77.5	11.2	1.702	1.724	0.067
10.004	204	113	2.373	94.4	22.9	1.724	1.686	0.137
1.014	113	114	3.144	1125.0	394.0	1.685	1.361	2.357
1.015	114	115	5.065	1812.5	394.0	1.361	1.221	2.357
1.016	115	116	5.906	2113.3	396.6	1.221	1.218	2.373
1.017	116	117	4.075	1458.3	403.8	1.218	1.325	2.416
11.000	210	211	1.122	44.6	4.0	1.202	1.632	0.024
11.001	211	212	2.343	93.1	14.9	1.632	1.215	0.089
11.002	212	213	1.644	65.4	20.9	1.216	1.226	0.125
12.000	220	213	1.498	59.6	14.0	1.211	1.226	0.084
11.003	213	214	2.728	192.9	40.3	1.226	1.487	0.241
11.004	214	215	2.094	148.0	59.8	1.487	1.270	0.358
11.005	215	117	2.282	252.0	72.0	1.270	1.325	0.431
1.018	117	118	3.020	1334.3	475.9	1.325	0.497	2.847
15.000	270	271	1.596	63.5	5.0	1.294	1.355	0.030
15.001	271	272	1.301	51.7	11.4	1.355	1.233	0.068
15.002	272	273	1.518	60.4	13.4	1.233	1.319	0.080
16.000	290	291	1.027	40.8	3.8	1.285	1.552	0.023
16.002	291	292	1.133	45.0	18.2	1.552	1.392	0.109
16.003	292	273	1.841	73.2	21.2	1.392	1.319	0.127
15.003	273	274	2.670	188.7	36.6	1.319	1.542	0.219
15.004	274	275	2.685	189.8	43.8	1.542	1.544	0.262
15.005	275	277	2.172	153.5	51.8	1.544	1.340	0.310
15.006	277	278	2.052	145.1	61.7	1.340	1.273	0.369
15.007	278	279	1.615	178.4	61.7	1.273	1.939	0.369
15.008	279	280	1.497	165.3	73.7	1.939	1.650	0.441
17.000	300	301	1.564	62.2	6.0	1.216	1.285	0.036
17.001	301	302	1.385	55.1	10.5	1.285	1.250	0.063
17.002	302	303	1.141	45.4	16.2	1.250	1.090	0.097
17.003	303	304	1.018	40.5	23.1	1.090	1.100	0.138
17.004	304	280	2.491	99.0	23.1	1.100	1.652	0.138
14.010	280	281	1.403	155.0	96.8	1.650	0.551	0.579
14.011	281	282	3.605	14424.6	115.3	0.626	0.025	0.690
14.012	282	283	1.908	303.4	115.3	0.575	0.611	0.690
1.021	119	240	2.614	739.2	0.0	0.606	1.105	0.000
1.022	240	241	10.529	60662.5	0.0	0.505	0.500	0.000
1.023	241	250	3.334	942.6	0.0	1.100	1.250	0.000
1.025	251	260	1.698	480.1	0.0	1.300	1.350	0.000
1.026	260	261	7.089	783.0	0.0	1.575	2.227	0.000

Simulation Settings

Rainfall Methodology	FEH-13	Analysis Speed	Detailed	Additional Storage (m³/ha)	20.0
Summer CV	0.925	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	0.925	Drain Down Time (mins)	240	Check Discharge Volume	x

Storm Durations							
60	180	360	600	960	2880	10080	
120	240	480	720	1440	7200		

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	0	0	0
100	20	0	0
100	40	0	0
100	40	10	0

Node 260 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	113.500	Product Number	CTL-SHE-0069-2700-1750-2700
Design Depth (m)	1.750	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.7	Min Node Diameter (mm)	1200

Node 283 Online Orifice Control

Flap Valve	x	Invert Level (m)	115.583	Discharge Coefficient	1.000
Replaces Downstream Link	x	Diameter (m)	0.600		

Node 118 Online Orifice Control

Flap Valve	x	Invert Level (m)	115.583	Discharge Coefficient	1.000
Replaces Downstream Link	x	Diameter (m)	0.750		

Node 281 Online Orifice Control

Flap Valve	x	Invert Level (m)	118.700	Discharge Coefficient	1.000
Replaces Downstream Link	✓	Diameter (m)	0.450		

Node 251 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.25020	Porosity	1.00	Main Channel Length (m)	22.000
Side Inf Coefficient (m/hr)	0.25020	Invert Level (m)	113.550	Main Channel Slope (1:X)	10000.0
Safety Factor	10.0	Time to half empty (mins)		Main Channel n	0.030

Inlets

250

Depth (m)	Area (m²)	Inf Area (m²)									
0.000	878.0	407.0	0.800	1712.0	1241.0	1.550	2627.0	2373.0	1.900	3032.0	3032.0
0.750	1437.0	966.0	1.500	2392.0	1921.0	1.700	2827.0	2827.0			

Node 119 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.05508	Porosity	1.00	Main Channel Length (m)	17.000
Side Inf Coefficient (m/hr)	0.05508	Invert Level (m)	115.300	Main Channel Slope (1:X)	60.0
Safety Factor	2.0	Time to half empty (mins)	7	Main Channel n	0.030

Inlets

283 | 118

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	0.0	0.0	0.300	454.0	454.0	0.900	707.0	707.0	1.500	997.0	997.0
0.100	145.0	145.0	0.500	535.0	535.0	1.100	800.0	800.0			
0.200	416.0	416.0	0.700	619.0	619.0	1.300	897.0	897.0			

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	100	31	124.878	0.078	10.8	0.1817	0.0000	OK
60 minute summer	101	31	124.731	0.081	14.6	0.1269	0.0000	OK
60 minute summer	102	32	124.530	0.080	23.1	0.1684	0.0000	OK
60 minute summer	103	32	123.439	0.089	27.8	0.1498	0.0000	OK
60 minute summer	104	32	122.505	0.080	29.7	0.1061	0.0000	OK
60 minute summer	120	31	124.073	0.073	9.6	0.1567	0.0000	OK
60 minute summer	121	32	123.871	0.071	10.2	0.0843	0.0000	OK
60 minute summer	130	31	124.627	0.027	2.4	0.0381	0.0000	OK
60 minute summer	131	32	124.226	0.026	2.8	0.0307	0.0000	OK
60 minute summer	122	32	123.763	0.113	19.5	0.1786	0.0000	OK
60 minute summer	123	32	123.584	0.084	22.9	0.1213	0.0000	OK
60 minute summer	124	32	123.044	0.094	31.1	0.1911	0.0000	OK
60 minute summer	125	32	122.498	0.148	34.2	0.3139	0.0000	OK
60 minute summer	126	32	122.320	0.145	34.1	0.2553	0.0000	OK
60 minute summer	127	33	122.087	0.112	36.3	0.2219	0.0000	OK
60 minute summer	105	32	121.714	0.114	69.1	0.2499	0.0000	OK
60 minute summer	106	32	121.016	0.116	81.4	0.3562	0.0000	OK
60 minute summer	107	32	119.459	0.134	88.5	0.3432	0.0000	OK
60 minute summer	108	32	119.245	0.145	89.7	0.2758	0.0000	OK
60 minute summer	140	31	121.034	0.034	4.7	0.0536	0.0000	OK
60 minute summer	141	31	120.303	0.078	16.2	0.1655	0.0000	OK
60 minute summer	150	1	120.850	0.000	0.0	0.0000	0.0000	OK
60 minute summer	151	31	120.717	0.067	11.3	0.1540	0.0000	OK
60 minute summer	152	31	120.429	0.079	19.8	0.1564	0.0000	OK
60 minute summer	142	31	119.886	0.111	42.0	0.2592	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)
60 minute summer	100	1.000	101	10.6	0.845	0.257	0.2981	
60 minute summer	101	1.001	102	14.4	1.131	0.273	0.2465	
60 minute summer	102	1.002	103	22.9	1.696	0.276	0.5902	
60 minute summer	103	1.003	104	27.9	1.928	0.327	0.4583	
60 minute summer	104	1.004	105	29.7	2.023	0.148	0.3419	
60 minute summer	120	2.000	121	9.4	0.866	0.224	0.3319	
60 minute summer	121	2.001	122	10.0	0.658	0.218	0.2928	
60 minute summer	130	3.000	131	2.3	0.886	0.031	0.0493	
60 minute summer	131	3.001	122	2.8	0.273	0.029	0.1796	
60 minute summer	122	2.002	123	19.5	1.169	0.462	0.3784	
60 minute summer	123	2.003	124	22.9	1.573	0.299	0.3706	
60 minute summer	124	2.004	125	31.1	1.433	0.369	0.4965	
60 minute summer	125	2.005	126	34.1	1.321	0.652	0.2545	
60 minute summer	126	2.006	127	33.8	1.182	0.452	1.2541	
60 minute summer	127	2.007	105	36.3	1.572	0.270	0.4756	
60 minute summer	105	1.005	106	68.9	2.413	0.191	0.6210	
60 minute summer	106	1.006	107	80.6	2.820	0.206	1.1328	
60 minute summer	107	1.007	108	88.3	2.110	0.182	0.4210	
60 minute summer	108	1.008	109	89.2	2.269	0.167	0.4008	
60 minute summer	140	4.000	141	4.6	1.212	0.050	0.0844	
60 minute summer	141	4.001	142	15.7	1.109	0.141	0.4235	
60 minute summer	150	5.000	151	0.0	0.000	0.000	0.0588	
60 minute summer	151	5.001	152	11.1	0.992	0.195	0.2815	
60 minute summer	152	5.002	142	19.3	1.612	0.242	0.2185	
60 minute summer	142	4.002	143	41.9	1.415	0.169	0.7252	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	143	32	119.526	0.126	50.9	0.2218	0.0000	OK
60 minute summer	144	32	119.258	0.157	59.3	0.3788	0.0000	OK
60 minute summer	145	32	119.101	0.151	63.0	0.3125	0.0000	OK
60 minute summer	109	32	118.914	0.239	164.0	0.6627	0.0000	OK
60 minute summer	110	32	118.565	0.189	178.3	0.5349	0.0000	OK
60 minute summer	160	31	120.075	0.050	9.4	0.1046	0.0000	OK
60 minute summer	170	31	122.259	0.034	2.3	0.0468	0.0000	OK
60 minute summer	171	31	122.156	0.056	14.5	0.1396	0.0000	OK
60 minute summer	172	32	120.163	0.063	14.2	0.0712	0.0000	OK
60 minute summer	173	32	119.860	0.085	14.9	0.1012	0.0000	OK
60 minute summer	174	32	119.725	0.100	20.4	0.1441	0.0000	OK
60 minute summer	175	32	119.513	0.088	26.5	0.1318	0.0000	OK
60 minute summer	176	32	119.219	0.119	35.1	0.2699	0.0000	OK
60 minute summer	180	31	121.840	0.040	3.9	0.0623	0.0000	OK
60 minute summer	181	32	121.451	0.051	6.8	0.0728	0.0000	OK
60 minute summer	182	32	120.783	0.033	6.6	0.0374	0.0000	OK
60 minute summer	190	31	120.061	0.061	7.2	0.1119	0.0000	OK
60 minute summer	191	32	119.869	0.069	8.3	0.0842	0.0000	OK
60 minute summer	183	32	119.717	0.092	17.8	0.1206	0.0000	OK
60 minute summer	184	32	119.565	0.090	23.6	0.1925	0.0000	OK
60 minute summer	177	32	119.044	0.144	67.4	0.3318	0.0000	OK
60 minute summer	111	33	118.217	0.241	248.6	0.4960	0.0000	OK
60 minute summer	112	33	117.789	0.264	260.3	0.6529	0.0000	OK
60 minute summer	200	31	120.636	0.036	3.4	0.0534	0.0000	OK
60 minute summer	201	31	120.494	0.044	5.0	0.0576	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)
60 minute summer	143	4.003	144	51.4	1.693	0.208	0.4479	
60 minute summer	144	4.004	145	59.7	1.243	0.265	1.4701	
60 minute summer	145	4.005	109	62.8	1.458	0.199	0.5676	
60 minute summer	109	1.009	110	162.9	1.817	0.313	4.7203	
60 minute summer	110	1.010	111	178.1	1.960	0.190	1.9777	
60 minute summer	160	6.000	143	9.3	1.476	0.099	0.0923	
60 minute summer	170	7.000	171	2.2	0.391	0.051	0.1019	
60 minute summer	171	7.001	172	14.2	1.704	0.138	0.4280	
60 minute summer	172	7.002	173	14.1	1.710	0.131	0.0486	
60 minute summer	173	7.003	174	15.0	0.812	0.148	0.3302	
60 minute summer	174	7.004	175	20.6	1.087	0.222	0.5426	
60 minute summer	175	7.005	176	26.5	1.557	0.184	0.2539	
60 minute summer	176	7.006	177	35.2	1.025	0.204	0.9273	
60 minute summer	180	8.000	181	3.8	0.658	0.071	0.2210	
60 minute summer	181	8.001	182	6.6	1.299	0.098	0.2000	
60 minute summer	182	8.002	183	6.6	1.878	0.044	0.0451	
60 minute summer	190	9.000	191	7.0	0.745	0.163	0.2736	
60 minute summer	191	9.001	183	8.2	0.818	0.191	0.1455	
60 minute summer	183	8.003	184	17.8	0.989	0.189	0.3729	
60 minute summer	184	8.004	177	23.4	1.341	0.189	0.7035	
60 minute summer	177	6.005	111	66.5	1.812	0.275	1.5779	
60 minute summer	111	1.011	112	250.6	2.056	0.244	4.5939	
60 minute summer	112	1.012	113	261.5	1.979	0.226	1.7396	
60 minute summer	200	10.000	201	3.4	0.712	0.054	0.0505	
60 minute summer	201	10.001	202	4.9	0.727	0.085	0.1101	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	202	31	120.308	0.058	8.3	0.0864	0.0000	OK
60 minute summer	203	32	119.999	0.049	8.1	0.0556	0.0000	OK
60 minute summer	204	32	119.065	0.065	16.6	0.1198	0.0000	OK
60 minute summer	113	33	117.598	0.273	277.0	0.4818	0.0000	OK
60 minute summer	114	33	117.409	0.209	277.4	0.3684	0.0000	OK
60 minute summer	115	33	117.050	0.175	279.2	0.3395	0.0000	OK
60 minute summer	116	33	116.437	0.237	283.7	0.5267	0.0000	OK
60 minute summer	210	31	120.039	0.039	3.0	0.0572	0.0000	OK
60 minute summer	211	31	119.952	0.052	11.1	0.0950	0.0000	OK
60 minute summer	212	31	118.978	0.078	15.4	0.1267	0.0000	OK
60 minute summer	220	31	119.115	0.065	10.6	0.1487	0.0000	OK
60 minute summer	213	32	118.654	0.078	29.4	0.1216	0.0000	OK
60 minute summer	214	32	117.313	0.113	43.6	0.2764	0.0000	OK
60 minute summer	215	32	116.577	0.127	52.1	0.2952	0.0000	OK
60 minute summer	117	33	116.075	0.299	333.1	0.7621	0.0000	OK
60 minute summer	118	33	115.923	0.340	333.5	0.0000	0.0000	OK
60 minute summer	270	31	123.537	0.037	3.8	0.0562	0.0000	OK
60 minute summer	271	31	123.211	0.060	8.5	0.0975	0.0000	OK
60 minute summer	272	32	122.814	0.064	9.7	0.0826	0.0000	OK
60 minute summer	290	31	123.290	0.040	2.9	0.0573	0.0000	OK
60 minute summer	291	31	123.236	0.086	13.6	0.1809	0.0000	OK
60 minute summer	292	32	123.023	0.073	15.6	0.0989	0.0000	OK
60 minute summer	273	32	122.560	0.085	26.7	0.1088	0.0000	OK
60 minute summer	274	32	122.158	0.083	31.8	0.1325	0.0000	OK
60 minute summer	275	32	121.177	0.102	37.5	0.1689	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)
60 minute summer	202	10.002	203	8.1	1.142	0.132	0.1538	
60 minute summer	203	10.003	204	8.2	1.038	0.106	0.3408	
60 minute summer	204	10.004	113	16.5	1.774	0.175	0.3491	
60 minute summer	113	1.014	114	277.4	2.434	0.247	0.9940	
60 minute summer	114	1.015	115	277.6	3.328	0.153	0.7315	
60 minute summer	115	1.016	116	279.3	3.029	0.132	1.2380	
60 minute summer	116	1.017	117	283.8	2.648	0.195	1.5657	
60 minute summer	210	11.000	211	2.9	0.515	0.066	0.0777	
60 minute summer	211	11.001	212	10.9	1.172	0.117	0.2953	
60 minute summer	212	11.002	213	15.1	1.302	0.231	0.1852	
60 minute summer	220	12.000	213	10.2	1.114	0.172	0.2816	
60 minute summer	213	11.003	214	29.3	1.520	0.152	0.8958	
60 minute summer	214	11.004	215	43.5	1.820	0.294	0.9144	
60 minute summer	215	11.005	117	52.3	1.705	0.207	0.5817	
60 minute summer	117	1.018	118	333.5	2.292	0.250	1.2518	
60 minute summer	118	Flow through pond	119	411.9	0.269	0.002	44.2431	
60 minute summer	270	15.000	271	3.7	0.590	0.058	0.1506	
60 minute summer	271	15.001	272	8.3	0.938	0.160	0.3597	
60 minute summer	272	15.002	273	9.7	1.091	0.161	0.1328	
60 minute summer	290	16.000	291	2.8	0.311	0.069	0.1508	
60 minute summer	291	16.002	292	13.3	1.064	0.295	0.3315	
60 minute summer	292	16.003	273	15.5	1.434	0.212	0.2196	
60 minute summer	273	15.003	274	26.7	1.659	0.142	0.2249	
60 minute summer	274	15.004	275	31.9	1.729	0.168	0.6383	
60 minute summer	275	15.005	277	37.5	1.540	0.244	0.7060	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	277	32	120.650	0.125	44.4	0.2303	0.0000	OK
60 minute summer	278	32	120.275	0.125	44.2	0.2211	0.0000	OK
60 minute summer	279	32	119.948	0.148	52.4	0.3524	0.0000	OK
60 minute summer	300	31	122.240	0.040	4.5	0.0659	0.0000	OK
60 minute summer	301	32	121.806	0.056	7.8	0.0837	0.0000	OK
60 minute summer	302	32	121.504	0.079	11.8	0.1258	0.0000	OK
60 minute summer	303	32	121.381	0.106	16.6	0.1864	0.0000	OK
60 minute summer	304	32	121.188	0.063	16.7	0.0715	0.0000	OK
60 minute summer	280	33	119.710	0.185	68.3	0.3270	0.0000	OK
60 minute summer	281	33	118.873	0.173	79.9	0.2366	0.0000	OK
60 minute summer	282	33	117.608	0.158	79.9	0.0000	0.0000	OK
60 minute summer	283	33	115.761	0.177	79.9	0.0000	0.0000	OK
60 minute summer	119	35	115.598	0.297	411.9	0.0000	0.0000	OK
60 minute summer	240	35	115.156	0.156	380.8	0.0000	0.0000	OK
60 minute summer	241	35	114.260	0.260	381.6	0.0000	0.0000	OK
720 minute winter	250	690	114.190	0.638	168.2	0.0000	0.0000	OK
720 minute winter	251	705	114.190	0.640	171.0	0.0000	0.0000	SURCHARGED
720 minute winter	260	705	114.190	0.690	8.2	2.3911	0.0000	SURCHARGED
60 minute summer	261	1	112.441	0.000	2.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	277	15.006	278	44.2	1.709	0.305	0.4574	
60 minute summer	278	15.007	279	43.9	1.215	0.246	1.5909	
60 minute summer	279	15.008	280	52.1	1.106	0.315	1.8935	
60 minute summer	300	17.000	301	4.4	0.709	0.071	0.1969	
60 minute summer	301	17.001	302	7.6	0.761	0.138	0.2920	
60 minute summer	302	17.002	303	11.8	0.764	0.259	0.3028	
60 minute summer	303	17.003	304	16.7	1.222	0.412	0.3389	
60 minute summer	304	17.004	280	16.5	1.838	0.167	0.3629	
60 minute summer	280	14.010	281	68.6	1.327	0.442	1.0739	
60 minute summer	281	Orifice	282	79.9				
60 minute summer	282	14.012	283	79.9	1.608	0.263	1.3379	
60 minute summer	283	Flow through pond	119	411.9	0.269	0.002	44.2431	
60 minute summer	119	1.021	240	380.8	3.906	0.515	2.5724	
60 minute summer	119	Infiltration		3.5				
60 minute summer	240	1.022	241	381.6	2.240	0.006	8.6421	
60 minute summer	241	1.023	250	382.5	3.274	0.406	2.5013	
720 minute winter	250	Flow through pond	251	171.0	0.016	0.005	713.0477	
720 minute winter	251	1.025	260	8.2	0.228	0.017	2.8824	
720 minute winter	251	Infiltration		6.1				
720 minute winter	260	Hydro-Brake®	261	2.1				95.3

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	100	31	124.938	0.138	28.2	0.3203	0.0000	OK
60 minute summer	101	31	124.793	0.143	38.2	0.2248	0.0000	OK
60 minute summer	102	32	124.590	0.140	60.4	0.2935	0.0000	OK
60 minute summer	103	32	123.512	0.162	72.8	0.2729	0.0000	OK
60 minute summer	104	32	122.560	0.135	77.5	0.1799	0.0000	OK
60 minute summer	120	31	124.125	0.125	24.9	0.2682	0.0000	OK
60 minute summer	121	32	123.948	0.148	26.4	0.1756	0.0000	OK
60 minute summer	130	31	124.644	0.044	6.2	0.0607	0.0000	OK
60 minute summer	131	31	124.242	0.042	7.4	0.0489	0.0000	OK
60 minute summer	122	32	123.910	0.260	50.5	0.4098	0.0000	SURCHARGED
60 minute summer	123	33	123.669	0.169	56.1	0.2451	0.0000	OK
60 minute summer	124	33	123.409	0.459	76.5	0.9329	0.0000	SURCHARGED
60 minute summer	125	33	122.823	0.473	81.4	1.0052	0.0000	SURCHARGED
60 minute summer	126	33	122.441	0.266	81.5	0.4700	0.0000	OK
60 minute summer	127	33	122.168	0.193	86.9	0.3812	0.0000	OK
60 minute summer	105	32	121.793	0.193	172.3	0.4232	0.0000	OK
60 minute summer	106	32	121.094	0.194	204.5	0.5973	0.0000	OK
60 minute summer	107	32	119.560	0.235	224.6	0.5996	0.0000	OK
60 minute summer	108	32	119.361	0.261	228.3	0.4965	0.0000	OK
60 minute summer	140	31	121.055	0.055	12.1	0.0860	0.0000	OK
60 minute summer	141	31	120.358	0.133	42.1	0.2809	0.0000	OK
60 minute summer	150	1	120.850	0.000	0.0	0.0000	0.0000	OK
60 minute summer	151	31	120.766	0.116	29.5	0.2667	0.0000	OK
60 minute summer	152	31	120.493	0.143	51.6	0.2825	0.0000	OK
60 minute summer	142	31	119.975	0.200	109.8	0.4695	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)
60 minute summer	100	1.000	101	27.7	1.063	0.673	0.6203	
60 minute summer	101	1.001	102	37.5	1.433	0.710	0.5088	
60 minute summer	102	1.002	103	59.5	2.125	0.719	1.2295	
60 minute summer	103	1.003	104	72.9	2.412	0.854	0.9575	
60 minute summer	104	1.004	105	77.8	2.608	0.388	0.6937	
60 minute summer	120	2.000	121	24.4	1.106	0.584	0.7567	
60 minute summer	121	2.001	122	25.1	0.787	0.546	0.6426	
60 minute summer	130	3.000	131	6.1	1.176	0.080	0.0970	
60 minute summer	131	3.001	122	7.3	0.312	0.075	0.3564	
60 minute summer	122	2.002	123	47.2	1.379	1.118	0.8120	
60 minute summer	123	2.003	124	55.2	1.760	0.720	0.9127	
60 minute summer	124	2.004	125	74.4	1.872	0.882	0.9111	
60 minute summer	125	2.005	126	81.5	2.051	1.558	0.3880	
60 minute summer	126	2.006	127	81.3	1.425	1.086	2.4948	
60 minute summer	127	2.007	105	86.6	1.924	0.645	0.9275	
60 minute summer	105	1.005	106	172.1	3.006	0.478	1.2465	
60 minute summer	106	1.006	107	204.1	3.598	0.522	2.2455	
60 minute summer	107	1.007	108	224.6	2.515	0.463	0.8993	
60 minute summer	108	1.008	109	228.1	2.551	0.428	1.0170	
60 minute summer	140	4.000	141	12.0	1.574	0.130	0.1709	
60 minute summer	141	4.001	142	41.0	1.428	0.368	0.8607	
60 minute summer	150	5.000	151	0.0	0.000	0.000	0.1228	
60 minute summer	151	5.001	152	29.0	1.223	0.510	0.5951	
60 minute summer	152	5.002	142	50.5	2.021	0.633	0.4558	
60 minute summer	142	4.002	143	109.0	1.700	0.439	1.5702	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	143	32	119.625	0.225	133.0	0.3974	0.0000	OK
60 minute summer	144	32	119.380	0.280	154.1	0.6735	0.0000	OK
60 minute summer	145	32	119.235	0.285	164.4	0.5887	0.0000	OK
60 minute summer	109	32	119.109	0.434	424.1	1.2002	0.0000	OK
60 minute summer	110	32	118.743	0.368	463.9	1.0390	0.0000	OK
60 minute summer	160	31	120.109	0.083	24.6	0.1764	0.0000	OK
60 minute summer	170	31	122.280	0.055	5.9	0.0750	0.0000	OK
60 minute summer	171	31	122.193	0.093	37.9	0.2312	0.0000	OK
60 minute summer	172	32	120.214	0.114	37.3	0.1292	0.0000	OK
60 minute summer	173	32	119.929	0.154	38.8	0.1822	0.0000	OK
60 minute summer	174	32	119.800	0.175	53.4	0.2519	0.0000	OK
60 minute summer	175	32	119.576	0.151	69.2	0.2251	0.0000	OK
60 minute summer	176	32	119.313	0.213	91.9	0.4826	0.0000	OK
60 minute summer	180	31	121.866	0.065	10.1	0.1010	0.0000	OK
60 minute summer	181	31	121.484	0.084	17.8	0.1204	0.0000	OK
60 minute summer	182	32	120.802	0.052	17.4	0.0584	0.0000	OK
60 minute summer	190	31	120.103	0.103	18.7	0.1889	0.0000	OK
60 minute summer	191	32	119.920	0.120	21.6	0.1457	0.0000	OK
60 minute summer	183	32	119.785	0.160	46.5	0.2101	0.0000	OK
60 minute summer	184	32	119.627	0.152	61.9	0.3237	0.0000	OK
60 minute summer	177	32	119.172	0.272	177.7	0.6286	0.0000	OK
60 minute summer	111	32	118.440	0.465	652.5	0.9543	0.0000	OK
60 minute summer	112	32	118.042	0.517	677.9	1.2790	0.0000	OK
60 minute summer	200	31	120.657	0.057	8.8	0.0855	0.0000	OK
60 minute summer	201	31	120.524	0.074	13.0	0.0963	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)
60 minute summer	143	4.003	144	133.6	2.054	0.540	0.9632	
60 minute summer	144	4.004	145	155.8	1.488	0.690	3.2034	
60 minute summer	145	4.005	109	164.8	1.638	0.523	1.3883	
60 minute summer	109	1.009	110	423.9	2.129	0.813	10.4084	
60 minute summer	110	1.010	111	461.6	2.229	0.493	4.5088	
60 minute summer	160	6.000	143	24.3	1.904	0.259	0.1877	
60 minute summer	170	7.000	171	5.8	0.510	0.133	0.2029	
60 minute summer	171	7.001	172	37.3	2.090	0.362	0.9161	
60 minute summer	172	7.002	173	36.7	2.097	0.341	0.1031	
60 minute summer	173	7.003	174	39.2	0.992	0.384	0.7036	
60 minute summer	174	7.004	175	53.9	1.378	0.581	1.1196	
60 minute summer	175	7.005	176	69.6	2.009	0.483	0.5167	
60 minute summer	176	7.006	177	92.4	1.228	0.537	2.0239	
60 minute summer	180	8.000	181	9.9	0.858	0.187	0.4448	
60 minute summer	181	8.001	182	17.4	1.725	0.257	0.3940	
60 minute summer	182	8.002	183	17.5	2.051	0.116	0.1362	
60 minute summer	190	9.000	191	18.3	0.941	0.426	0.5652	
60 minute summer	191	9.001	183	21.4	1.045	0.497	0.2974	
60 minute summer	183	8.003	184	46.9	1.269	0.496	0.7643	
60 minute summer	184	8.004	177	62.4	1.505	0.504	1.7093	
60 minute summer	177	6.005	111	177.1	2.241	0.732	3.3854	
60 minute summer	111	1.011	112	648.9	2.343	0.633	10.4636	
60 minute summer	112	1.012	113	677.5	2.350	0.585	3.7945	
60 minute summer	200	10.000	201	8.7	0.916	0.141	0.1020	
60 minute summer	201	10.001	202	12.9	0.932	0.223	0.2259	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	202	31	120.347	0.097	21.6	0.1456	0.0000	OK
60 minute summer	203	32	120.030	0.080	21.3	0.0909	0.0000	OK
60 minute summer	204	32	119.111	0.111	43.8	0.2049	0.0000	OK
60 minute summer	113	33	117.824	0.499	717.6	0.8824	0.0000	OK
60 minute summer	114	33	117.577	0.377	719.5	0.6664	0.0000	OK
60 minute summer	115	33	117.201	0.326	724.9	0.6306	0.0000	OK
60 minute summer	116	33	116.675	0.475	737.5	1.0545	0.0000	OK
60 minute summer	210	31	120.066	0.065	7.9	0.0960	0.0000	OK
60 minute summer	211	31	119.985	0.085	29.0	0.1562	0.0000	OK
60 minute summer	212	31	119.040	0.140	40.5	0.2287	0.0000	OK
60 minute summer	220	31	119.161	0.111	27.5	0.2543	0.0000	OK
60 minute summer	213	31	118.705	0.130	77.2	0.2017	0.0000	OK
60 minute summer	214	32	117.405	0.205	114.8	0.5002	0.0000	OK
60 minute summer	215	32	116.681	0.231	136.3	0.5360	0.0000	OK
60 minute summer	117	33	116.385	0.610	866.4	1.5534	0.0000	OK
60 minute summer	118	33	116.228	0.645	867.1	0.0000	0.0000	OK
60 minute summer	270	31	123.559	0.059	9.8	0.0902	0.0000	OK
60 minute summer	271	31	123.251	0.101	22.1	0.1627	0.0000	OK
60 minute summer	272	32	122.860	0.110	25.4	0.1423	0.0000	OK
60 minute summer	290	31	123.314	0.064	7.5	0.0923	0.0000	OK
60 minute summer	291	31	123.303	0.153	35.6	0.3212	0.0000	OK
60 minute summer	292	32	123.078	0.128	40.7	0.1735	0.0000	OK
60 minute summer	273	32	122.629	0.154	69.6	0.1967	0.0000	OK
60 minute summer	274	32	122.217	0.142	82.9	0.2273	0.0000	OK
60 minute summer	275	32	121.262	0.187	98.1	0.3082	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)
60 minute summer	202	10.002	203	21.3	1.480	0.346	0.3093	
60 minute summer	203	10.003	204	21.4	1.334	0.276	0.6925	
60 minute summer	204	10.004	113	43.4	2.286	0.459	0.7120	
60 minute summer	113	1.014	114	719.5	2.935	0.640	2.1227	
60 minute summer	114	1.015	115	720.7	3.839	0.398	1.6434	
60 minute summer	115	1.016	116	726.1	3.316	0.344	2.9312	
60 minute summer	116	1.017	117	739.8	2.644	0.507	4.1563	
60 minute summer	210	11.000	211	7.8	0.667	0.174	0.1581	
60 minute summer	211	11.001	212	28.7	1.451	0.308	0.6206	
60 minute summer	212	11.002	213	39.9	1.636	0.610	0.3879	
60 minute summer	220	12.000	213	26.8	1.430	0.450	0.5732	
60 minute summer	213	11.003	214	76.5	1.907	0.397	1.8488	
60 minute summer	214	11.004	215	114.0	2.285	0.770	1.9066	
60 minute summer	215	11.005	117	136.9	2.097	0.543	1.3260	
60 minute summer	117	1.018	118	867.1	2.385	0.650	3.1428	
60 minute summer	118	Flow through pond	119	970.6	0.331	0.006	141.3074	
60 minute summer	270	15.000	271	9.7	0.766	0.152	0.3008	
60 minute summer	271	15.001	272	21.5	1.192	0.417	0.7327	
60 minute summer	272	15.002	273	25.4	1.393	0.421	0.2714	
60 minute summer	290	16.000	291	7.4	0.389	0.181	0.3070	
60 minute summer	291	16.002	292	34.8	1.336	0.772	0.6902	
60 minute summer	292	16.003	273	40.4	1.816	0.552	0.4514	
60 minute summer	273	15.003	274	69.8	2.016	0.370	0.4834	
60 minute summer	274	15.004	275	83.4	2.110	0.439	1.3617	
60 minute summer	275	15.005	277	98.5	1.833	0.642	1.5451	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	277	32	120.766	0.241	116.5	0.4466	0.0000	OK
60 minute summer	278	32	120.375	0.225	116.5	0.3970	0.0000	OK
60 minute summer	279	33	120.095	0.295	138.3	0.7044	0.0000	OK
60 minute summer	300	31	122.266	0.065	11.8	0.1068	0.0000	OK
60 minute summer	301	31	121.843	0.093	20.4	0.1383	0.0000	OK
60 minute summer	302	32	121.571	0.146	31.0	0.2329	0.0000	OK
60 minute summer	303	32	121.475	0.200	43.4	0.3508	0.0000	OK
60 minute summer	304	32	121.229	0.104	43.5	0.1173	0.0000	OK
60 minute summer	280	33	119.930	0.405	177.0	0.7155	0.0000	SURCHARGED
60 minute summer	281	33	119.025	0.325	205.4	0.4440	0.0000	OK
60 minute summer	282	33	117.723	0.273	205.5	0.0000	0.0000	OK
60 minute summer	283	35	115.930	0.347	206.2	0.0000	0.0000	OK
60 minute summer	119	35	115.863	0.563	970.6	0.0000	0.0000	OK
60 minute summer	240	36	115.209	0.209	830.5	0.0000	0.0000	OK
720 minute winter	241	705	114.649	0.649	112.0	0.0000	0.0000	SURCHARGED
720 minute winter	250	705	114.649	1.097	354.1	0.0000	0.0000	OK
720 minute winter	251	705	114.649	1.099	235.0	0.0000	0.0000	SURCHARGED
720 minute winter	260	705	114.649	1.149	9.2	3.9787	0.0000	SURCHARGED
60 minute summer	261	1	112.441	0.000	2.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	277	15.006	278	116.5	2.092	0.803	0.9799	
60 minute summer	278	15.007	279	116.3	1.472	0.652	3.4915	
60 minute summer	279	15.008	280	133.8	1.317	0.809	4.0825	
60 minute summer	300	17.000	301	11.6	0.932	0.187	0.3946	
60 minute summer	301	17.001	302	19.9	0.938	0.361	0.6190	
60 minute summer	302	17.002	303	30.7	0.937	0.677	0.6343	
60 minute summer	303	17.003	304	43.5	1.527	1.075	0.6785	
60 minute summer	304	17.004	280	43.4	2.018	0.439	1.1627	
60 minute summer	280	14.010	281	176.0	1.626	1.135	2.1513	
60 minute summer	281	Orifice	282	205.5				
60 minute summer	282	14.012	283	206.2	2.050	0.680	2.7097	
60 minute summer	283	Flow through pond	119	970.6	0.331	0.006	141.3074	
60 minute summer	119	1.021	240	830.5	4.571	1.124	4.7124	
60 minute summer	119	Infiltration		4.3				
60 minute summer	240	1.022	241	832.3	2.270	0.014	21.9701	
720 minute winter	241	1.023	250	354.1	1.490	0.376	6.0287	
720 minute winter	250	Flow through pond	251	235.0	0.027	0.006	1501.4880	
720 minute winter	251	1.025	260	9.2	0.247	0.019	2.8824	
720 minute winter	251	Infiltration		10.6				
720 minute winter	260	Hydro-Brake®	261	2.2				112.4

Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	100	33	125.309	0.509	44.2	1.1818	0.0000	SURCHARGED
60 minute summer	101	33	125.180	0.530	54.9	0.8324	0.0000	SURCHARGED
60 minute summer	102	33	124.979	0.529	86.1	1.1075	0.0000	SURCHARGED
60 minute summer	103	33	123.869	0.519	101.4	0.8748	0.0000	SURCHARGED
60 minute summer	104	32	122.586	0.161	104.1	0.2140	0.0000	OK
60 minute summer	120	34	125.000	0.999	39.1	2.1498	0.0000	SURCHARGED
60 minute summer	121	34	124.912	1.112	35.4	1.3227	0.0000	SURCHARGED
60 minute summer	130	34	124.846	0.246	9.8	0.3429	0.0000	SURCHARGED
60 minute summer	131	34	124.842	0.642	20.2	0.7516	0.0000	SURCHARGED
60 minute summer	122	34	124.836	1.185	60.3	1.8695	0.0000	SURCHARGED
60 minute summer	123	34	124.501	1.001	65.6	1.4478	0.0000	SURCHARGED
60 minute summer	124	33	124.056	1.106	94.3	2.2482	0.0000	SURCHARGED
60 minute summer	125	33	123.174	0.824	102.2	1.7493	0.0000	SURCHARGED
60 minute summer	126	34	122.604	0.429	101.8	0.7574	0.0000	SURCHARGED
60 minute summer	127	33	122.207	0.232	109.9	0.4572	0.0000	OK
60 minute summer	105	33	121.833	0.233	227.9	0.5105	0.0000	OK
60 minute summer	106	31	121.136	0.236	278.1	0.7240	0.0000	OK
60 minute summer	107	33	119.860	0.534	310.7	1.3645	0.0000	SURCHARGED
60 minute summer	108	33	119.743	0.643	307.7	1.2247	0.0000	SURCHARGED
60 minute summer	140	31	121.069	0.069	19.0	0.1077	0.0000	OK
60 minute summer	141	31	120.401	0.176	66.1	0.3729	0.0000	OK
60 minute summer	150	1	120.850	0.000	0.0	0.0000	0.0000	OK
60 minute summer	151	32	120.808	0.158	46.3	0.3619	0.0000	OK
60 minute summer	152	33	120.649	0.299	81.9	0.5897	0.0000	SURCHARGED
60 minute summer	142	33	120.228	0.453	168.1	1.0630	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)
60 minute summer	100	1.000	101	39.5	1.121	0.961	0.9467	
60 minute summer	101	1.001	102	52.5	1.485	0.994	0.7698	
60 minute summer	102	1.002	103	81.7	2.183	0.987	1.7349	
60 minute summer	103	1.003	104	97.5	2.499	1.142	1.2596	
60 minute summer	104	1.004	105	104.1	2.758	0.520	0.8832	
60 minute summer	120	2.000	121	32.3	1.117	0.773	1.2217	
60 minute summer	121	2.001	122	32.0	0.804	0.694	0.7585	
60 minute summer	130	3.000	131	10.9	1.311	0.143	0.7395	
60 minute summer	131	3.001	122	17.4	0.544	0.179	0.6325	
60 minute summer	122	2.002	123	57.2	1.438	1.354	0.8991	
60 minute summer	123	2.003	124	66.8	1.757	0.871	1.0106	
60 minute summer	124	2.004	125	91.5	2.300	1.084	0.9111	
60 minute summer	125	2.005	126	101.8	2.559	1.944	0.3919	
60 minute summer	126	2.006	127	101.6	1.482	1.357	2.8192	
60 minute summer	127	2.007	105	109.5	2.006	0.816	1.1236	
60 minute summer	105	1.005	106	228.2	3.232	0.633	1.5491	
60 minute summer	106	1.006	107	278.5	3.814	0.713	3.5640	
60 minute summer	107	1.007	108	301.5	2.554	0.622	1.5931	
60 minute summer	108	1.008	109	306.1	2.587	0.574	1.6079	
60 minute summer	140	4.000	141	18.9	1.632	0.204	0.3051	
60 minute summer	141	4.001	142	64.7	1.581	0.580	1.5701	
60 minute summer	150	5.000	151	0.0	0.000	0.000	0.1765	
60 minute summer	151	5.001	152	46.4	1.277	0.816	0.8737	
60 minute summer	152	5.002	142	77.5	2.108	0.971	0.7226	
60 minute summer	142	4.002	143	168.4	1.736	0.679	2.6982	

Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	143	33	120.006	0.606	206.7	1.0707	0.0000	SURCHARGED
60 minute summer	144	33	119.810	0.710	234.4	1.7076	0.0000	SURCHARGED
60 minute summer	145	33	119.666	0.716	221.8	1.4804	0.0000	SURCHARGED
60 minute summer	109	33	119.551	0.876	577.3	2.4238	0.0000	SURCHARGED
60 minute summer	110	33	119.085	0.710	636.6	2.0046	0.0000	SURCHARGED
60 minute summer	160	31	120.125	0.100	38.6	0.2105	0.0000	OK
60 minute summer	170	31	122.294	0.069	9.3	0.0946	0.0000	OK
60 minute summer	171	31	122.221	0.121	59.5	0.3000	0.0000	OK
60 minute summer	172	31	120.254	0.154	58.7	0.1744	0.0000	OK
60 minute summer	173	33	120.132	0.357	61.5	0.4234	0.0000	SURCHARGED
60 minute summer	174	33	120.049	0.424	84.0	0.6090	0.0000	SURCHARGED
60 minute summer	175	33	119.878	0.453	106.9	0.6761	0.0000	SURCHARGED
60 minute summer	176	33	119.752	0.652	132.5	1.4800	0.0000	SURCHARGED
60 minute summer	180	31	121.883	0.083	15.9	0.1281	0.0000	OK
60 minute summer	181	31	121.509	0.109	27.9	0.1552	0.0000	OK
60 minute summer	182	32	120.815	0.065	27.2	0.0733	0.0000	OK
60 minute summer	190	31	120.136	0.136	29.3	0.2486	0.0000	OK
60 minute summer	191	33	119.981	0.181	34.0	0.2203	0.0000	OK
60 minute summer	183	33	119.949	0.323	72.6	0.4257	0.0000	SURCHARGED
60 minute summer	184	33	119.868	0.393	96.3	0.8376	0.0000	SURCHARGED
60 minute summer	177	33	119.611	0.711	251.0	1.6414	0.0000	SURCHARGED
60 minute summer	111	33	118.776	0.801	880.9	1.6450	0.0000	SURCHARGED
60 minute summer	112	33	118.286	0.761	920.5	1.8807	0.0000	SURCHARGED
60 minute summer	200	31	120.673	0.073	13.9	0.1097	0.0000	OK
60 minute summer	201	31	120.546	0.096	20.5	0.1260	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)
60 minute summer	143	4.003	144	200.0	2.039	0.808	1.6268	
60 minute summer	144	4.004	145	209.2	1.506	0.927	4.8484	
60 minute summer	145	4.005	109	222.6	1.644	0.707	2.0859	
60 minute summer	109	1.009	110	569.7	2.132	1.093	14.6847	
60 minute summer	110	1.010	111	624.2	2.277	0.667	6.1149	
60 minute summer	160	6.000	143	38.4	1.935	0.409	0.4118	
60 minute summer	170	7.000	171	9.1	0.574	0.209	0.2831	
60 minute summer	171	7.001	172	58.7	2.309	0.569	1.3004	
60 minute summer	172	7.002	173	58.1	2.162	0.539	0.2005	
60 minute summer	173	7.003	174	60.4	1.049	0.593	1.2542	
60 minute summer	174	7.004	175	81.2	1.435	0.876	2.0168	
60 minute summer	175	7.005	176	95.0	2.015	0.660	1.0504	
60 minute summer	176	7.006	177	124.9	1.272	0.725	2.9746	
60 minute summer	180	8.000	181	15.6	0.969	0.295	0.6204	
60 minute summer	181	8.001	182	27.2	1.941	0.403	0.5470	
60 minute summer	182	8.002	183	27.4	2.024	0.182	0.3101	
60 minute summer	190	9.000	191	28.9	1.038	0.670	0.8102	
60 minute summer	191	9.001	183	33.2	1.138	0.772	0.5370	
60 minute summer	183	8.003	184	71.1	1.360	0.752	1.4568	
60 minute summer	184	8.004	177	89.6	1.511	0.724	2.8368	
60 minute summer	177	6.005	111	238.0	2.331	0.984	4.7284	
60 minute summer	111	1.011	112	881.0	2.468	0.859	13.4477	
60 minute summer	112	1.012	113	920.6	2.579	0.796	4.6846	
60 minute summer	200	10.000	201	13.8	1.010	0.223	0.1459	
60 minute summer	201	10.001	202	20.2	1.025	0.351	0.3219	

Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	202	31	120.377	0.127	34.1	0.1911	0.0000	OK
60 minute summer	203	32	120.053	0.103	33.6	0.1164	0.0000	OK
60 minute summer	204	31	119.142	0.142	68.9	0.2628	0.0000	OK
60 minute summer	113	33	117.984	0.659	982.3	1.1649	0.0000	OK
60 minute summer	114	33	117.686	0.486	982.8	0.8588	0.0000	OK
60 minute summer	115	33	117.358	0.483	989.5	0.9351	0.0000	OK
60 minute summer	116	33	117.014	0.814	1006.9	1.8083	0.0000	SURCHARGED
60 minute summer	210	31	120.085	0.085	12.3	0.1242	0.0000	OK
60 minute summer	211	31	120.010	0.110	45.5	0.2009	0.0000	OK
60 minute summer	212	32	119.106	0.206	63.6	0.3366	0.0000	OK
60 minute summer	220	31	119.199	0.149	43.2	0.3417	0.0000	OK
60 minute summer	213	32	118.763	0.188	119.9	0.2918	0.0000	OK
60 minute summer	214	33	117.920	0.719	177.2	1.7555	0.0000	SURCHARGED
60 minute summer	215	33	116.937	0.487	199.8	1.1303	0.0000	SURCHARGED
60 minute summer	117	33	116.638	0.863	1203.1	2.1962	0.0000	SURCHARGED
60 minute summer	118	36	116.401	0.817	1202.6	0.0000	0.0000	OK
60 minute summer	270	31	123.575	0.075	15.4	0.1139	0.0000	OK
60 minute summer	271	31	123.283	0.133	34.7	0.2143	0.0000	OK
60 minute summer	272	32	122.898	0.148	40.1	0.1915	0.0000	OK
60 minute summer	290	32	123.429	0.179	11.8	0.2568	0.0000	OK
60 minute summer	291	32	123.421	0.271	52.4	0.5697	0.0000	SURCHARGED
60 minute summer	292	32	123.124	0.174	60.9	0.2359	0.0000	OK
60 minute summer	273	33	122.705	0.230	106.5	0.2939	0.0000	OK
60 minute summer	274	33	122.510	0.435	126.7	0.6948	0.0000	SURCHARGED
60 minute summer	275	33	122.026	0.951	143.4	1.5707	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)
60 minute summer	202	10.002	203	33.6	1.654	0.545	0.4349	
60 minute summer	203	10.003	204	33.6	1.536	0.434	0.9439	
60 minute summer	204	10.004	113	68.1	2.420	0.722	1.1983	
60 minute summer	113	1.014	114	982.8	3.050	0.874	2.7392	
60 minute summer	114	1.015	115	982.8	3.838	0.542	2.4005	
60 minute summer	115	1.016	116	989.0	3.278	0.468	4.2111	
60 minute summer	116	1.017	117	1005.9	2.818	0.690	5.1887	
60 minute summer	210	11.000	211	12.1	0.740	0.272	0.2224	
60 minute summer	211	11.001	212	45.1	1.550	0.484	0.8938	
60 minute summer	212	11.002	213	62.2	1.747	0.952	0.5632	
60 minute summer	220	12.000	213	42.1	1.582	0.707	0.8151	
60 minute summer	213	11.003	214	118.2	1.968	0.613	2.6877	
60 minute summer	214	11.004	215	166.4	2.364	1.125	2.6912	
60 minute summer	215	11.005	117	198.0	2.102	0.786	2.0915	
60 minute summer	117	1.018	118	1202.6	2.733	0.901	3.7639	
60 minute summer	118	Flow through pond	119	1480.0	0.358	0.008	278.4640	
60 minute summer	270	15.000	271	15.2	0.852	0.240	0.4226	
60 minute summer	271	15.001	272	33.9	1.313	0.655	1.0434	
60 minute summer	272	15.002	273	40.0	1.529	0.663	0.4061	
60 minute summer	290	16.000	291	11.8	0.421	0.288	0.5933	
60 minute summer	291	16.002	292	52.3	1.419	1.161	0.9664	
60 minute summer	292	16.003	273	60.6	1.950	0.829	0.6296	
60 minute summer	273	15.003	274	106.1	2.091	0.562	0.8957	
60 minute summer	274	15.004	275	118.7	2.136	0.625	2.4292	
60 minute summer	275	15.005	277	134.4	1.908	0.875	2.0374	

Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	277	33	121.458	0.933	160.6	1.7259	0.0000	SURCHARGED
60 minute summer	278	33	120.912	0.762	157.8	1.3464	0.0000	SURCHARGED
60 minute summer	279	33	120.615	0.815	187.1	1.9481	0.0000	SURCHARGED
60 minute summer	300	31	122.283	0.083	18.5	0.1353	0.0000	OK
60 minute summer	301	33	121.981	0.231	32.1	0.3445	0.0000	SURCHARGED
60 minute summer	302	33	121.894	0.469	44.8	0.7464	0.0000	SURCHARGED
60 minute summer	303	32	121.723	0.448	61.0	0.7862	0.0000	SURCHARGED
60 minute summer	304	33	121.250	0.125	59.9	0.1418	0.0000	OK
60 minute summer	280	33	120.180	0.655	246.7	1.1576	0.0000	SURCHARGED
60 minute summer	281	33	119.112	0.412	292.8	0.5625	0.0000	OK
60 minute summer	282	33	117.806	0.356	292.9	0.0000	0.0000	OK
60 minute summer	283	37	116.142	0.558	293.6	0.0000	0.0000	OK
60 minute summer	119	38	116.114	0.814	1480.0	0.0000	0.0000	SURCHARGED
60 minute summer	240	38	115.235	0.235	1134.4	0.0000	0.0000	OK
720 minute winter	241	705	115.056	1.056	286.2	0.0000	0.0000	SURCHARGED
720 minute winter	250	705	115.056	1.504	197.8	0.0000	0.0000	OK
720 minute winter	251	705	115.056	1.506	181.6	0.0000	0.0000	SURCHARGED
720 minute winter	260	705	115.056	1.556	9.2	5.3912	0.0000	SURCHARGED
60 minute summer	261	1	112.441	0.000	2.3	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	277	15.006	278	157.8	2.241	1.088	1.2447	
60 minute summer	278	15.007	279	158.6	1.471	0.889	4.8494	
60 minute summer	279	15.008	280	186.8	1.694	1.130	4.4304	
60 minute summer	300	17.000	301	18.3	1.031	0.294	0.8126	
60 minute summer	301	17.001	302	28.7	0.950	0.521	1.1525	
60 minute summer	302	17.002	303	42.2	1.060	0.929	0.7808	
60 minute summer	303	17.003	304	59.9	1.702	1.481	0.7689	
60 minute summer	304	17.004	280	59.9	2.034	0.605	1.2611	
60 minute summer	280	14.010	281	246.6	2.236	1.591	2.2544	
60 minute summer	281	Orifice	282	292.9				
60 minute summer	282	14.012	283	293.6	2.167	0.968	3.7254	
60 minute summer	283	Flow through pond	119	1480.0	0.358	0.008	278.4640	
60 minute summer	119	1.021	240	1134.4	5.033	1.535	4.9997	
60 minute summer	119	Infiltration		5.1				
60 minute summer	240	1.022	241	1134.0	2.265	0.019	81.8077	
720 minute winter	241	1.023	250	193.7	1.573	0.205	6.0287	
720 minute winter	250	Flow through pond	251	181.6	0.021	0.005	2397.9937	
720 minute winter	251	1.025	260	9.2	0.283	0.019	2.8824	
720 minute winter	251	Infiltration		13.7				
720 minute winter	260	Hydro-Brake®	261	2.6				125.1

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	100	33	125.862	1.062	51.6	2.4670	0.0000	SURCHARGED
60 minute summer	101	33	125.704	1.054	57.9	1.6557	0.0000	SURCHARGED
60 minute summer	102	33	125.463	1.013	91.7	2.1230	0.0000	SURCHARGED
60 minute summer	103	33	124.123	0.773	108.3	1.3021	0.0000	SURCHARGED
60 minute summer	104	33	122.595	0.170	114.9	0.2266	0.0000	OK
60 minute summer	120	33	125.490	1.490	45.6	3.2050	1.0058	FLOOD
60 minute summer	121	34	125.426	1.626	37.1	1.9334	0.0000	SURCHARGED
60 minute summer	130	34	125.377	0.777	16.3	1.0830	0.0000	SURCHARGED
60 minute summer	131	34	125.372	1.172	22.8	1.3720	0.0000	SURCHARGED
60 minute summer	122	34	125.363	1.713	63.2	2.7016	0.0000	SURCHARGED
60 minute summer	123	34	124.985	1.485	71.7	2.1487	0.0000	SURCHARGED
60 minute summer	124	34	124.462	1.512	103.8	3.0718	0.0000	FLOOD RISK
60 minute summer	125	34	123.383	1.033	113.0	2.1949	0.0000	SURCHARGED
60 minute summer	126	34	122.691	0.515	112.1	0.9109	0.0000	SURCHARGED
60 minute summer	127	34	122.230	0.255	121.0	0.5033	0.0000	OK
60 minute summer	105	33	121.849	0.249	252.4	0.5458	0.0000	OK
60 minute summer	106	33	121.201	0.301	309.7	0.9245	0.0000	OK
60 minute summer	107	33	120.350	1.025	340.6	2.6156	0.0000	SURCHARGED
60 minute summer	108	33	120.208	1.108	338.2	2.1091	0.0000	SURCHARGED
60 minute summer	140	31	121.075	0.075	22.2	0.1168	0.0000	OK
60 minute summer	141	33	120.809	0.584	77.2	1.2374	0.0000	SURCHARGED
60 minute summer	150	34	121.309	0.459	9.7	0.5191	0.0000	SURCHARGED
60 minute summer	151	34	121.311	0.661	54.0	1.5174	0.0000	SURCHARGED
60 minute summer	152	34	121.135	0.785	85.5	1.5494	0.0000	SURCHARGED
60 minute summer	142	34	120.702	0.926	175.8	2.1726	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)
60 minute summer	100	1.000	101	40.3	1.123	0.979	0.9467	
60 minute summer	101	1.001	102	55.4	1.482	1.049	0.7698	
60 minute summer	102	1.002	103	87.8	2.208	1.061	1.7349	
60 minute summer	103	1.003	104	107.6	2.707	1.260	1.2596	
60 minute summer	104	1.004	105	115.0	2.754	0.574	0.9734	
60 minute summer	120	2.000	121	33.7	1.120	0.806	1.2217	
60 minute summer	121	2.001	122	32.4	0.816	0.705	0.7585	
60 minute summer	130	3.000	131	10.6	1.316	0.138	0.7395	
60 minute summer	131	3.001	122	17.7	0.513	0.183	0.6325	
60 minute summer	122	2.002	123	61.2	1.539	1.449	0.8991	
60 minute summer	123	2.003	124	72.5	1.823	0.945	1.0106	
60 minute summer	124	2.004	125	101.0	2.540	1.197	0.9111	
60 minute summer	125	2.005	126	112.1	2.820	2.142	0.3919	
60 minute summer	126	2.006	127	112.1	1.603	1.499	2.9383	
60 minute summer	127	2.007	105	121.1	2.028	0.902	1.2258	
60 minute summer	105	1.005	106	252.6	3.266	0.701	1.8726	
60 minute summer	106	1.006	107	303.1	3.786	0.776	4.0575	
60 minute summer	107	1.007	108	332.4	2.552	0.686	1.5931	
60 minute summer	108	1.008	109	336.8	2.620	0.631	1.6079	
60 minute summer	140	4.000	141	22.0	1.565	0.239	0.5682	
60 minute summer	141	4.001	142	68.6	1.595	0.615	2.1027	
60 minute summer	150	5.000	151	-9.7	-0.332	-0.144	0.4728	
60 minute summer	151	5.001	152	46.9	1.279	0.826	1.0005	
60 minute summer	152	5.002	142	75.8	2.107	0.950	0.7226	
60 minute summer	142	4.002	143	174.0	1.736	0.701	2.6982	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	143	34	120.465	1.065	215.5	1.8817	0.0000	SURCHARGED
60 minute summer	144	33	120.254	1.154	224.8	2.7760	0.0000	SURCHARGED
60 minute summer	145	33	120.098	1.148	230.5	2.3747	0.0000	SURCHARGED
60 minute summer	109	33	119.975	1.300	614.9	3.5971	0.0000	SURCHARGED
60 minute summer	110	33	119.434	1.059	676.7	2.9894	0.0000	SURCHARGED
60 minute summer	160	33	120.549	0.524	45.0	1.1081	0.0000	SURCHARGED
60 minute summer	170	31	122.300	0.075	10.8	0.1024	0.0000	OK
60 minute summer	171	31	122.233	0.133	69.5	0.3305	0.0000	OK
60 minute summer	172	33	120.751	0.651	68.5	0.7366	0.0000	SURCHARGED
60 minute summer	173	34	120.623	0.847	64.8	1.0060	0.0000	SURCHARGED
60 minute summer	174	34	120.531	0.906	88.7	1.3019	0.0000	SURCHARGED
60 minute summer	175	33	120.342	0.916	111.6	1.3683	0.0000	SURCHARGED
60 minute summer	176	33	120.199	1.099	138.1	2.4937	0.0000	SURCHARGED
60 minute summer	180	31	121.890	0.090	18.6	0.1395	0.0000	OK
60 minute summer	181	31	121.519	0.119	32.7	0.1704	0.0000	OK
60 minute summer	182	32	120.820	0.070	31.8	0.0794	0.0000	OK
60 minute summer	190	34	120.599	0.599	34.2	1.0981	0.0000	SURCHARGED
60 minute summer	191	34	120.526	0.726	40.1	0.8818	0.0000	SURCHARGED
60 minute summer	183	34	120.459	0.834	76.3	1.0973	0.0000	SURCHARGED
60 minute summer	184	34	120.355	0.879	100.7	1.8742	0.0000	SURCHARGED
60 minute summer	177	34	120.037	1.137	257.5	2.6270	0.0000	SURCHARGED
60 minute summer	111	34	119.075	1.100	952.7	2.2600	0.0000	SURCHARGED
60 minute summer	112	34	118.513	0.988	997.9	2.4411	0.0000	SURCHARGED
60 minute summer	200	31	120.680	0.080	16.2	0.1198	0.0000	OK
60 minute summer	201	31	120.556	0.106	23.9	0.1390	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)
60 minute summer	143	4.003	144	189.8	2.036	0.767	1.6268	
60 minute summer	144	4.004	145	219.8	1.507	0.974	4.8484	
60 minute summer	145	4.005	109	235.8	1.643	0.749	2.0859	
60 minute summer	109	1.009	110	613.7	2.179	1.177	14.6847	
60 minute summer	110	1.010	111	675.3	2.398	0.722	6.1149	
60 minute summer	160	6.000	143	41.5	1.934	0.443	0.5847	
60 minute summer	170	7.000	171	10.7	0.594	0.244	0.3178	
60 minute summer	171	7.001	172	68.5	2.353	0.664	1.6354	
60 minute summer	172	7.002	173	60.9	2.162	0.565	0.2339	
60 minute summer	173	7.003	174	62.9	1.048	0.617	1.2542	
60 minute summer	174	7.004	175	83.6	1.434	0.902	2.0168	
60 minute summer	175	7.005	176	100.5	2.015	0.698	1.0504	
60 minute summer	176	7.006	177	133.7	1.273	0.777	2.9746	
60 minute summer	180	8.000	181	18.3	1.009	0.345	0.6972	
60 minute summer	181	8.001	182	31.8	2.018	0.471	0.6147	
60 minute summer	182	8.002	183	32.0	2.031	0.213	0.3208	
60 minute summer	190	9.000	191	34.1	1.055	0.792	1.1522	
60 minute summer	191	9.001	183	37.2	1.142	0.865	0.5768	
60 minute summer	183	8.003	184	73.3	1.334	0.776	1.4568	
60 minute summer	184	8.004	177	91.7	1.509	0.741	2.8368	
60 minute summer	177	6.005	111	255.7	2.360	1.057	4.7284	
60 minute summer	111	1.011	112	951.8	2.666	0.928	13.4477	
60 minute summer	112	1.012	113	997.0	2.793	0.862	4.6993	
60 minute summer	200	10.000	201	16.1	1.038	0.260	0.1654	
60 minute summer	201	10.001	202	23.5	1.054	0.409	0.3642	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	202	31	120.391	0.141	39.7	0.2111	0.0000	OK
60 minute summer	203	32	120.062	0.112	39.1	0.1272	0.0000	OK
60 minute summer	204	32	119.160	0.160	80.4	0.2958	0.0000	OK
60 minute summer	113	34	118.166	0.841	1069.5	1.4856	0.0000	SURCHARGED
60 minute summer	114	34	117.786	0.586	1068.0	1.0360	0.0000	OK
60 minute summer	115	34	117.553	0.678	1072.6	1.3132	0.0000	SURCHARGED
60 minute summer	116	34	117.248	1.048	1084.4	2.3273	0.0000	SURCHARGED
60 minute summer	210	31	120.093	0.093	14.4	0.1366	0.0000	OK
60 minute summer	211	31	120.021	0.121	53.2	0.2219	0.0000	OK
60 minute summer	212	33	119.350	0.450	73.6	0.7346	0.0000	SURCHARGED
60 minute summer	220	31	119.218	0.167	50.4	0.3853	0.0000	OK
60 minute summer	213	33	119.021	0.446	137.6	0.6916	0.0000	SURCHARGED
60 minute summer	214	33	118.339	1.139	200.7	2.7800	0.0000	SURCHARGED
60 minute summer	215	33	117.158	0.708	225.1	1.6416	0.0000	SURCHARGED
60 minute summer	117	35	116.830	1.055	1302.6	2.6849	0.0000	SURCHARGED
60 minute summer	118	36	116.563	0.980	1302.4	0.0000	0.0000	OK
60 minute summer	270	31	123.581	0.081	18.0	0.1236	0.0000	OK
60 minute summer	271	34	123.320	0.170	40.6	0.2733	0.0000	OK
60 minute summer	272	34	123.213	0.463	46.8	0.5995	0.0000	SURCHARGED
60 minute summer	290	33	123.749	0.499	13.8	0.7161	0.0000	SURCHARGED
60 minute summer	291	33	123.740	0.590	63.2	1.2378	0.0000	SURCHARGED
60 minute summer	292	33	123.448	0.498	70.5	0.6748	0.0000	SURCHARGED
60 minute summer	273	33	123.121	0.646	120.1	0.8266	0.0000	SURCHARGED
60 minute summer	274	33	122.903	0.828	129.6	1.3233	0.0000	SURCHARGED
60 minute summer	275	33	122.398	1.323	148.5	2.1848	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)
60 minute summer	202	10.002	203	39.1	1.711	0.635	0.4891	
60 minute summer	203	10.003	204	39.2	1.563	0.505	1.0764	
60 minute summer	204	10.004	113	79.0	2.424	0.837	1.3130	
60 minute summer	113	1.014	114	1068.0	3.048	0.949	2.9843	
60 minute summer	114	1.015	115	1064.8	3.850	0.588	3.0031	
60 minute summer	115	1.016	116	1063.5	3.276	0.503	4.7691	
60 minute summer	116	1.017	117	1085.8	3.042	0.745	5.1887	
60 minute summer	210	11.000	211	14.2	0.763	0.319	0.2524	
60 minute summer	211	11.001	212	52.0	1.555	0.559	0.9653	
60 minute summer	212	11.002	213	69.3	1.760	1.061	0.6315	
60 minute summer	220	12.000	213	49.1	1.608	0.824	1.0810	
60 minute summer	213	11.003	214	130.5	1.968	0.677	3.2364	
60 minute summer	214	11.004	215	184.2	2.616	1.244	2.6912	
60 minute summer	215	11.005	117	222.1	2.100	0.881	2.0915	
60 minute summer	117	1.018	118	1302.4	2.959	0.976	3.7820	
60 minute summer	118	Flow through pond	119	1541.7	0.354	0.009	351.5723	
60 minute summer	270	15.000	271	17.8	0.878	0.280	0.4978	
60 minute summer	271	15.001	272	39.6	1.344	0.766	1.4526	
60 minute summer	272	15.002	273	45.0	1.529	0.746	0.5912	
60 minute summer	290	16.000	291	12.8	0.419	0.314	0.6411	
60 minute summer	291	16.002	292	59.7	1.504	1.326	1.0563	
60 minute summer	292	16.003	273	67.8	1.939	0.927	0.8064	
60 minute summer	273	15.003	274	105.7	2.090	0.560	0.9829	
60 minute summer	274	15.004	275	121.6	2.135	0.641	2.4292	
60 minute summer	275	15.005	277	141.6	2.011	0.922	2.0374	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	277	33	121.773	1.248	170.8	2.3080	0.0000	SURCHARGED
60 minute summer	278	33	121.144	0.994	169.5	1.7568	0.0000	SURCHARGED
60 minute summer	279	33	120.803	1.003	205.1	2.3955	0.0000	SURCHARGED
60 minute summer	300	31	122.290	0.090	21.6	0.1472	0.0000	OK
60 minute summer	301	33	122.242	0.492	37.5	0.7326	0.0000	SURCHARGED
60 minute summer	302	33	122.120	0.695	50.1	1.1068	0.0000	SURCHARGED
60 minute summer	303	33	121.883	0.608	71.0	1.0673	0.0000	SURCHARGED
60 minute summer	304	33	121.275	0.150	69.8	0.1696	0.0000	OK
60 minute summer	280	33	120.283	0.758	274.0	1.3396	0.0000	SURCHARGED
60 minute summer	281	32	119.145	0.445	328.6	0.6072	0.0000	OK
60 minute summer	282	33	117.973	0.523	328.4	0.0000	0.0000	SURCHARGED
60 minute summer	283	39	116.261	0.678	323.7	0.0000	0.0000	OK
60 minute summer	119	39	116.225	0.925	1541.7	0.0000	0.0000	FLOOD RISK
960 minute winter	240	945	115.241	0.241	367.8	0.0000	0.0000	OK
720 minute winter	241	720	115.231	1.231	412.9	0.0000	0.0000	SURCHARGED
720 minute winter	250	705	115.200	1.648	417.9	0.0000	0.0000	OK
720 minute winter	251	705	115.200	1.650	168.3	0.0000	0.0000	FLOOD RISK
720 minute winter	260	705	115.200	1.700	8.7	5.8894	0.0000	FLOOD RISK
60 minute summer	261	1	112.441	0.000	2.4	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	277	15.006	278	169.5	2.407	1.168	1.2447	
60 minute summer	278	15.007	279	169.9	1.541	0.953	4.8494	
60 minute summer	279	15.008	280	204.3	1.852	1.236	4.4304	
60 minute summer	300	17.000	301	21.3	1.036	0.343	0.8613	
60 minute summer	301	17.001	302	32.2	0.950	0.585	1.1525	
60 minute summer	302	17.002	303	49.2	1.238	1.085	0.7808	
60 minute summer	303	17.003	304	69.8	1.879	1.725	0.8351	
60 minute summer	304	17.004	280	69.8	2.025	0.704	1.3696	
60 minute summer	280	14.010	281	273.7	2.482	1.766	2.2672	
60 minute summer	281	Orifice	282	328.4				
60 minute summer	282	14.012	283	323.7	2.166	1.067	4.1141	
60 minute summer	283	Flow through pond	119	1541.7	0.354	0.009	351.5723	
60 minute summer	119	1.021	240	1206.1	5.317	1.632	5.0416	
60 minute summer	119	Infiltration		5.5				
960 minute winter	240	1.022	241	446.3	1.974	0.007	141.9064	
720 minute winter	241	1.023	250	417.9	1.648	0.443	6.0287	
720 minute winter	250	Flow through pond	251	168.3	0.018	0.005	2778.1328	
720 minute winter	251	1.025	260	8.7	0.244	0.018	2.8824	
720 minute winter	251	Infiltration		18.6				
720 minute winter	260	Hydro-Brake®	261	2.7				129.9

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	100	33	126.237	1.437	56.7	3.5102	0.0000	FLOOD RISK
60 minute summer	101	33	126.060	1.410	61.8	2.2759	0.0000	FLOOD RISK
60 minute summer	102	33	125.794	1.344	98.1	2.9452	0.0000	FLOOD RISK
60 minute summer	103	33	124.298	0.948	115.0	1.6504	0.0000	SURCHARGED
60 minute summer	104	32	122.600	0.175	122.1	0.2360	0.0000	OK
60 minute summer	120	32	125.490	1.490	50.1	3.3570	4.5908	FLOOD
60 minute summer	121	33	125.480	1.680	41.7	2.0057	0.0000	SURCHARGED
60 minute summer	130	33	125.489	0.889	12.5	1.2618	0.0000	SURCHARGED
60 minute summer	131	33	125.478	1.278	15.5	1.5014	0.0000	SURCHARGED
60 minute summer	122	33	125.461	1.811	68.1	2.9368	0.0000	SURCHARGED
60 minute summer	123	33	125.082	1.582	74.4	2.3381	0.0000	FLOOD RISK
60 minute summer	124	32	124.504	1.554	112.3	3.2976	1.8282	FLOOD
60 minute summer	125	35	123.501	1.150	117.0	2.4851	0.0000	SURCHARGED
60 minute summer	126	35	122.853	0.678	114.6	1.1982	0.0000	SURCHARGED
60 minute summer	127	34	122.384	0.409	125.6	0.8164	0.0000	SURCHARGED
60 minute summer	105	34	122.080	0.480	266.7	1.0726	0.0000	SURCHARGED
60 minute summer	106	34	121.641	0.741	323.3	2.3763	0.0000	SURCHARGED
60 minute summer	107	34	120.671	1.346	352.4	3.5407	0.0000	SURCHARGED
60 minute summer	108	34	120.529	1.429	337.7	2.7397	0.0000	SURCHARGED
60 minute summer	140	34	121.228	0.228	24.4	0.3674	0.0000	SURCHARGED
60 minute summer	141	34	121.197	0.972	84.9	2.1555	0.0000	SURCHARGED
60 minute summer	150	34	121.756	0.906	6.0	1.0243	0.0000	SURCHARGED
60 minute summer	151	34	121.754	1.104	59.4	2.6640	0.0000	SURCHARGED
60 minute summer	152	34	121.565	1.215	83.8	2.4996	0.0000	SURCHARGED
60 minute summer	142	34	121.086	1.311	191.6	3.1507	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)
60 minute summer	100	1.000	101	42.7	1.117	1.036	0.9467	
60 minute summer	101	1.001	102	58.4	1.515	1.106	0.7698	
60 minute summer	102	1.002	103	93.1	2.341	1.124	1.7349	
60 minute summer	103	1.003	104	114.1	2.870	1.336	1.2594	
60 minute summer	104	1.004	105	121.5	2.768	0.607	1.3137	
60 minute summer	120	2.000	121	37.7	1.114	0.900	1.2217	
60 minute summer	121	2.001	122	32.8	0.826	0.713	0.7585	
60 minute summer	130	3.000	131	12.1	1.295	0.158	0.7395	
60 minute summer	131	3.001	122	18.9	0.633	0.195	0.6325	
60 minute summer	122	2.002	123	60.8	1.529	1.440	0.8991	
60 minute summer	123	2.003	124	74.8	1.881	0.975	1.0106	
60 minute summer	124	2.004	125	101.0	2.541	1.197	0.9111	
60 minute summer	125	2.005	126	114.6	2.883	2.190	0.3919	
60 minute summer	126	2.006	127	114.1	1.620	1.525	3.0835	
60 minute summer	127	2.007	105	126.5	2.035	0.942	1.4508	
60 minute summer	105	1.005	106	270.9	3.267	0.751	2.3944	
60 minute summer	106	1.006	107	308.2	3.794	0.789	4.3651	
60 minute summer	107	1.007	108	333.6	2.509	0.688	1.5931	
60 minute summer	108	1.008	109	342.1	2.630	0.641	1.6079	
60 minute summer	140	4.000	141	24.2	1.584	0.263	0.8898	
60 minute summer	141	4.001	142	79.6	1.576	0.715	2.1027	
60 minute summer	150	5.000	151	10.2	0.281	0.151	0.4728	
60 minute summer	151	5.001	152	46.9	1.287	0.826	1.0005	
60 minute summer	152	5.002	142	77.4	2.221	0.970	0.7226	
60 minute summer	142	4.002	143	168.5	1.737	0.679	2.6982	

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	143	34	120.830	1.430	208.2	2.5265	0.0000	SURCHARGED
60 minute summer	144	34	120.601	1.501	234.8	3.7055	0.0000	SURCHARGED
60 minute summer	145	34	120.431	1.481	240.4	3.1063	0.0000	SURCHARGED
60 minute summer	109	34	120.294	1.619	627.6	4.6427	0.0000	SURCHARGED
60 minute summer	110	34	119.729	1.354	694.4	3.9658	0.0000	SURCHARGED
60 minute summer	160	34	120.921	0.896	49.5	1.9815	0.0000	SURCHARGED
60 minute summer	170	31	122.304	0.079	11.9	0.1096	0.0000	OK
60 minute summer	171	32	122.249	0.149	76.3	0.3895	0.0000	OK
60 minute summer	172	34	121.205	1.105	75.1	1.2501	0.0000	SURCHARGED
60 minute summer	173	34	121.061	1.286	69.3	1.5340	0.0000	SURCHARGED
60 minute summer	174	34	120.960	1.335	84.2	1.9581	0.0000	SURCHARGED
60 minute summer	175	34	120.749	1.324	108.1	2.0237	0.0000	SURCHARGED
60 minute summer	176	34	120.590	1.490	146.5	3.4562	0.0000	SURCHARGED
60 minute summer	180	31	121.895	0.095	20.5	0.1510	0.0000	OK
60 minute summer	181	31	121.527	0.127	35.9	0.1844	0.0000	OK
60 minute summer	182	34	120.877	0.127	35.3	0.1438	0.0000	OK
60 minute summer	190	34	121.008	1.008	37.6	1.9207	0.0000	SURCHARGED
60 minute summer	191	34	120.927	1.127	40.2	1.3796	0.0000	SURCHARGED
60 minute summer	183	34	120.856	1.231	83.9	1.6435	0.0000	SURCHARGED
60 minute summer	184	34	120.746	1.270	98.3	2.7531	0.0000	SURCHARGED
60 minute summer	177	34	120.410	1.510	269.3	3.5722	0.0000	SURCHARGED
60 minute summer	111	34	119.354	1.379	980.3	2.8703	0.0000	SURCHARGED
60 minute summer	112	34	118.751	1.226	1030.0	3.1176	0.0000	SURCHARGED
60 minute summer	200	31	120.684	0.084	17.8	0.1298	0.0000	OK
60 minute summer	201	31	120.563	0.113	26.2	0.1503	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)
60 minute summer	143	4.003	144	199.0	2.042	0.804	1.6268	
60 minute summer	144	4.004	145	227.6	1.510	1.008	4.8484	
60 minute summer	145	4.005	109	242.2	1.628	0.769	2.0859	
60 minute summer	109	1.009	110	628.0	2.230	1.205	14.6847	
60 minute summer	110	1.010	111	690.9	2.453	0.738	6.1149	
60 minute summer	160	6.000	143	42.9	1.903	0.457	0.5847	
60 minute summer	170	7.000	171	11.7	0.606	0.269	0.3519	
60 minute summer	171	7.001	172	75.1	2.388	0.728	1.7343	
60 minute summer	172	7.002	173	65.0	2.155	0.603	0.2339	
60 minute summer	173	7.003	174	61.5	1.046	0.604	1.2542	
60 minute summer	174	7.004	175	82.6	1.445	0.891	2.0168	
60 minute summer	175	7.005	176	105.8	2.022	0.734	1.0504	
60 minute summer	176	7.006	177	140.5	1.277	0.816	2.9746	
60 minute summer	180	8.000	181	20.1	1.033	0.380	0.7492	
60 minute summer	181	8.001	182	35.3	2.058	0.522	0.7759	
60 minute summer	182	8.002	183	34.6	2.051	0.230	0.4008	
60 minute summer	190	9.000	191	34.0	1.063	0.789	1.1522	
60 minute summer	191	9.001	183	37.6	1.132	0.873	0.5768	
60 minute summer	183	8.003	184	72.2	1.377	0.764	1.4568	
60 minute summer	184	8.004	177	95.2	1.505	0.769	2.8368	
60 minute summer	177	6.005	111	267.9	2.429	1.108	4.7284	
60 minute summer	111	1.011	112	978.6	2.742	0.954	13.4477	
60 minute summer	112	1.012	113	1025.3	2.873	0.886	4.6993	
60 minute summer	200	10.000	201	17.6	1.052	0.286	0.1791	
60 minute summer	201	10.001	202	25.9	1.071	0.449	0.3938	

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	202	31	120.400	0.150	43.6	0.2307	0.0000	OK
60 minute summer	203	32	120.069	0.119	43.0	0.1345	0.0000	OK
60 minute summer	204	32	119.193	0.193	88.4	0.3703	0.0000	OK
60 minute summer	113	34	118.378	1.053	1109.8	1.8603	0.0000	SURCHARGED
60 minute summer	114	34	118.011	0.810	1102.1	1.4321	0.0000	SURCHARGED
60 minute summer	115	34	117.738	0.863	1108.9	1.6857	0.0000	SURCHARGED
60 minute summer	116	34	117.400	1.200	1130.2	2.7211	0.0000	SURCHARGED
60 minute summer	210	31	120.097	0.097	15.8	0.1460	0.0000	OK
60 minute summer	211	32	120.054	0.154	58.6	0.2933	0.0000	OK
60 minute summer	212	33	119.715	0.815	80.0	1.3693	0.0000	SURCHARGED
60 minute summer	220	33	119.621	0.571	55.4	1.3816	0.0000	SURCHARGED
60 minute summer	213	33	119.354	0.779	135.6	1.2400	0.0000	SURCHARGED
60 minute summer	214	33	118.615	1.415	199.5	3.6377	0.0000	SURCHARGED
60 minute summer	215	34	117.312	0.862	237.1	2.0747	0.0000	SURCHARGED
60 minute summer	117	35	116.944	1.169	1358.2	2.9749	0.0000	SURCHARGED
60 minute summer	118	36	116.659	1.075	1356.2	0.0000	0.0000	OK
60 minute summer	270	34	123.652	0.152	19.8	0.2375	0.0000	OK
60 minute summer	271	34	123.648	0.498	44.7	0.8273	0.0000	SURCHARGED
60 minute summer	272	34	123.502	0.752	51.7	0.9871	0.0000	SURCHARGED
60 minute summer	290	34	124.093	0.843	15.2	1.2364	0.0000	SURCHARGED
60 minute summer	291	34	124.083	0.933	64.0	2.0487	0.0000	SURCHARGED
60 minute summer	292	34	123.769	0.819	68.6	1.1268	0.0000	SURCHARGED
60 minute summer	273	34	123.408	0.933	116.8	1.2070	0.0000	SURCHARGED
60 minute summer	274	34	123.169	1.094	140.0	1.8001	0.0000	SURCHARGED
60 minute summer	275	33	122.633	1.558	146.8	2.6547	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	202	10.002	203	43.0	1.746	0.698	0.5263	
60 minute summer	203	10.003	204	43.0	1.540	0.556	1.2375	
60 minute summer	204	10.004	113	85.1	2.414	0.901	1.4261	
60 minute summer	113	1.014	114	1102.1	3.088	0.980	3.1050	
60 minute summer	114	1.015	115	1100.4	3.826	0.607	3.1253	
60 minute summer	115	1.016	116	1107.2	3.272	0.524	4.7703	
60 minute summer	116	1.017	117	1128.4	3.161	0.774	5.1887	
60 minute summer	210	11.000	211	15.7	0.766	0.353	0.2972	
60 minute summer	211	11.001	212	56.3	1.555	0.604	1.0788	
60 minute summer	212	11.002	213	67.8	1.729	1.037	0.6315	
60 minute summer	220	12.000	213	49.1	1.614	0.824	1.2142	
60 minute summer	213	11.003	214	129.4	1.979	0.671	3.2364	
60 minute summer	214	11.004	215	192.1	2.728	1.298	2.6912	
60 minute summer	215	11.005	117	231.2	2.100	0.917	2.0915	
60 minute summer	117	1.018	118	1356.2	3.082	1.016	3.7820	
60 minute summer	118	Flow through pond	119	1537.1	0.355	0.009	400.4052	
60 minute summer	270	15.000	271	19.6	0.896	0.309	0.8039	
60 minute summer	271	15.001	272	43.8	1.346	0.847	1.6075	
60 minute summer	272	15.002	273	44.6	1.512	0.739	0.5912	
60 minute summer	290	16.000	291	14.6	0.464	0.357	0.6411	
60 minute summer	291	16.002	292	57.5	1.460	1.277	1.0563	
60 minute summer	292	16.003	273	64.8	1.949	0.885	0.8064	
60 minute summer	273	15.003	274	113.5	2.100	0.601	0.9829	
60 minute summer	274	15.004	275	125.4	2.143	0.661	2.4292	
60 minute summer	275	15.005	277	147.0	2.087	0.957	2.0374	

Results for 100 year +40% CC +10% A Critical Storm Duration. Lowest mass balance: 99.22%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	277	33	121.970	1.445	178.5	2.7766	0.0000	FLOOD RISK
60 minute summer	278	33	121.290	1.140	176.2	2.0144	0.0000	SURCHARGED
60 minute summer	279	33	120.920	1.120	215.6	2.7467	0.0000	SURCHARGED
60 minute summer	300	33	122.393	0.193	23.7	0.3241	0.0000	OK
60 minute summer	301	33	122.356	0.606	41.2	0.9241	0.0000	SURCHARGED
60 minute summer	302	33	122.226	0.801	53.2	1.3113	0.0000	SURCHARGED
60 minute summer	303	32	121.969	0.694	76.0	1.2603	0.0000	SURCHARGED
60 minute summer	304	33	121.291	0.166	74.5	0.1880	0.0000	OK
60 minute summer	280	33	120.345	0.820	289.4	1.4495	0.0000	SURCHARGED
60 minute summer	281	32	119.174	0.473	351.4	0.7112	0.0000	OK
60 minute summer	282	33	118.345	0.895	351.2	0.0000	0.0000	FLOOD RISK
60 minute summer	283	39	116.337	0.754	350.0	0.0000	0.0000	OK
60 minute summer	119	40	116.300	1.000	1537.1	0.0000	0.0000	FLOOD RISK
960 minute winter	240	930	115.370	0.370	785.4	0.0000	0.0000	OK
720 minute winter	241	705	115.364	1.364	993.8	0.0000	0.0000	SURCHARGED
720 minute winter	250	705	115.298	1.746	409.4	0.0000	0.0000	OK
720 minute winter	251	720	115.298	1.748	240.5	0.0000	0.0000	FLOOD RISK
720 minute winter	260	720	115.298	1.798	8.5	6.2268	0.0000	FLOOD RISK
60 minute summer	261	1	112.441	0.000	2.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	277	15.006	278	176.2	2.502	1.215	1.2447	
60 minute summer	278	15.007	279	177.5	1.609	0.995	4.8494	
60 minute summer	279	15.008	280	214.9	1.948	1.300	4.4304	
60 minute summer	300	17.000	301	23.4	1.025	0.377	1.1980	
60 minute summer	301	17.001	302	35.0	0.959	0.636	1.1525	
60 minute summer	302	17.002	303	51.7	1.299	1.139	0.7808	
60 minute summer	303	17.003	304	74.5	1.963	1.840	0.8762	
60 minute summer	304	17.004	280	74.5	2.007	0.753	1.4371	
60 minute summer	280	14.010	281	289.5	2.625	1.868	2.2693	
60 minute summer	281	Orifice	282	351.2				
60 minute summer	282	14.012	283	350.0	2.211	1.154	4.2683	
60 minute summer	283	Flow through pond	119	1537.1	0.355	0.009	400.4052	
60 minute summer	119	1.021	240	1249.9	5.490	1.691	5.0664	
60 minute summer	119	Infiltration		5.8				
960 minute winter	240	1.022	241	978.0	1.971	0.016	172.4547	
720 minute winter	241	1.023	250	409.4	1.694	0.434	6.0287	
720 minute winter	250	Flow through pond	251	240.5	0.017	0.007	3052.7754	
720 minute winter	251	1.025	260	8.5	0.221	0.018	2.8824	
720 minute winter	251	Infiltration		20.0				
720 minute winter	260	Hydro-Brake®	261	2.7				132.8

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 19 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	122.979	0.429		16.6	28.0 O K
30 min Summer	125.017	2.467		16.6	30.8 O K
60 min Summer	123.787	1.237		16.6	29.6 O K
120 min Summer	122.908	0.358		16.3	23.8 O K
180 min Summer	122.822	0.272		15.6	18.1 O K
240 min Summer	122.749	0.199		15.1	13.2 O K
360 min Summer	122.648	0.098		14.3	6.5 O K
480 min Summer	122.602	0.052		14.0	3.5 O K
600 min Summer	122.593	0.043		12.1	2.9 O K
720 min Summer	122.588	0.038		10.6	2.5 O K
960 min Summer	122.580	0.030		8.5	2.0 O K
1440 min Summer	122.572	0.022		6.1	1.4 O K
2160 min Summer	122.566	0.016		4.4	1.0 O K
2880 min Summer	122.563	0.013		3.6	0.8 O K
4320 min Summer	122.559	0.009		2.6	0.6 O K
5760 min Summer	122.557	0.007		2.0	0.5 O K
7200 min Summer	122.556	0.006		1.7	0.4 O K
8640 min Summer	122.555	0.005		1.5	0.4 O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	137.234	0.0	15
30 min Summer	89.929	0.0	24
60 min Summer	56.129	0.0	42
120 min Summer	33.850	0.0	74
180 min Summer	24.849	0.0	106
240 min Summer	19.839	0.0	136
360 min Summer	14.389	0.0	194
480 min Summer	11.459	0.0	246
600 min Summer	9.597	0.0	306
720 min Summer	8.298	0.0	366
960 min Summer	6.593	0.0	488
1440 min Summer	4.760	0.0	734
2160 min Summer	3.431	0.0	1096
2880 min Summer	2.717	0.0	1436
4320 min Summer	1.953	0.0	2196
5760 min Summer	1.544	0.0	2912
7200 min Summer	1.286	0.0	3584
8640 min Summer	1.107	0.0	4264

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	122.555	0.005		1.3	O K
15 min Winter	122.980	0.430		16.6	O K
30 min Winter	124.744	2.194		16.6	O K
60 min Winter	122.972	0.422		16.6	O K
120 min Winter	122.834	0.284		15.7	O K
180 min Winter	122.717	0.167		14.9	O K
240 min Winter	122.633	0.083		14.2	O K
360 min Winter	122.592	0.042		11.8	O K
480 min Winter	122.584	0.034		9.4	O K
600 min Winter	122.578	0.028		7.9	O K
720 min Winter	122.574	0.024		6.8	O K
960 min Winter	122.569	0.019		5.4	O K
1440 min Winter	122.564	0.014		4.0	O K
2160 min Winter	122.560	0.010		2.9	O K
2880 min Winter	122.558	0.008		2.3	O K
4320 min Winter	122.556	0.006		1.6	O K
5760 min Winter	122.555	0.005		1.3	O K
7200 min Winter	122.554	0.004		1.2	O K
8640 min Winter	122.553	0.003		0.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Summer	0.975	0.0	5032
15 min Winter	137.234	0.0	15
30 min Winter	89.929	0.0	25
60 min Winter	56.129	0.0	44
120 min Winter	33.850	0.0	78
180 min Winter	24.849	0.0	110
240 min Winter	19.839	0.0	136
360 min Winter	14.389	0.0	184
480 min Winter	11.459	0.0	244
600 min Winter	9.597	0.0	302
720 min Winter	8.298	0.0	368
960 min Winter	6.593	0.0	490
1440 min Winter	4.760	0.0	734
2160 min Winter	3.431	0.0	1084
2880 min Winter	2.717	0.0	1448
4320 min Winter	1.953	0.0	2156
5760 min Winter	1.544	0.0	2904
7200 min Winter	1.286	0.0	3568
8640 min Winter	1.107	0.0	4216

Infrastructure Design Limited

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Micro Drainage

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
-------------	---------------	---------------	------------------------	-----------------	--------

10080 min Winter	122.553	0.003		0.9	0.2 O K
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Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

10080 min Winter	0.975	0.0	5032
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.800	Shortest Storm (mins)	15
Ratio R	0.405	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.123

Time (mins) Area
From: To: (ha)

0 4 0.123

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Model Details

Storage is Online Cover Level (m) 125.400

Cellular Storage Structure

Invert Level (m) 122.550 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 2.10240 Porosity 0.95
Infiltration Coefficient Side (m/hr) 2.10240

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	70.0	70.0	0.500	0.0	85.2
0.400	70.0	85.2			

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 42 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	124.506	0.356		4.2	O K
30 min Summer	124.573	0.423		4.3	O K
60 min Summer	124.759	0.609		4.3	17.4 O K
120 min Summer	124.558	0.408		4.3	O K
180 min Summer	124.516	0.366		4.2	O K
240 min Summer	124.474	0.324		4.1	O K
360 min Summer	124.401	0.251		3.9	O K
480 min Summer	124.342	0.192		3.7	O K
600 min Summer	124.295	0.145		3.5	O K
720 min Summer	124.258	0.108		3.4	O K
960 min Summer	124.212	0.062		3.2	O K
1440 min Summer	124.191	0.041		2.6	O K
2160 min Summer	124.179	0.029		1.9	O K
2880 min Summer	124.173	0.023		1.5	O K
4320 min Summer	124.167	0.017		1.1	O K
5760 min Summer	124.163	0.013		0.8	O K
7200 min Summer	124.161	0.011		0.7	O K
8640 min Summer	124.160	0.010		0.6	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	137.234	0.0	17
30 min Summer	89.929	0.0	30
60 min Summer	56.129	0.0	46
120 min Summer	33.850	0.0	80
180 min Summer	24.849	0.0	114
240 min Summer	19.839	0.0	148
360 min Summer	14.389	0.0	212
480 min Summer	11.459	0.0	274
600 min Summer	9.597	0.0	332
720 min Summer	8.298	0.0	390
960 min Summer	6.593	0.0	500
1440 min Summer	4.760	0.0	734
2160 min Summer	3.431	0.0	1100
2880 min Summer	2.717	0.0	1468
4320 min Summer	1.953	0.0	2200
5760 min Summer	1.544	0.0	2936
7200 min Summer	1.286	0.0	3640
8640 min Summer	1.107	0.0	4384

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	124.159	0.009		0.6	O K
15 min Winter	124.507	0.357		4.2	O K
30 min Winter	124.578	0.428		4.3	O K
60 min Winter	124.675	0.525		4.3	O K
120 min Winter	124.537	0.387		4.3	O K
180 min Winter	124.476	0.326		4.1	O K
240 min Winter	124.418	0.268		3.9	O K
360 min Winter	124.321	0.171		3.6	O K
480 min Winter	124.250	0.100		3.4	O K
600 min Winter	124.206	0.056		3.2	O K
720 min Winter	124.196	0.046		2.9	O K
960 min Winter	124.186	0.036		2.3	O K
1440 min Winter	124.176	0.026		1.7	O K
2160 min Winter	124.169	0.019		1.2	O K
2880 min Winter	124.165	0.015		1.0	O K
4320 min Winter	124.161	0.011		0.7	O K
5760 min Winter	124.159	0.009		0.6	O K
7200 min Winter	124.157	0.007		0.5	O K
8640 min Winter	124.156	0.006		0.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

10080 min Summer	0.975	0.0	5120
15 min Winter	137.234	0.0	17
30 min Winter	89.929	0.0	30
60 min Winter	56.129	0.0	48
120 min Winter	33.850	0.0	86
180 min Winter	24.849	0.0	122
240 min Winter	19.839	0.0	156
360 min Winter	14.389	0.0	220
480 min Winter	11.459	0.0	276
600 min Winter	9.597	0.0	322
720 min Winter	8.298	0.0	368
960 min Winter	6.593	0.0	492
1440 min Winter	4.760	0.0	736
2160 min Winter	3.431	0.0	1096
2880 min Winter	2.717	0.0	1444
4320 min Winter	1.953	0.0	2180
5760 min Winter	1.544	0.0	2912
7200 min Winter	1.286	0.0	3568
8640 min Winter	1.107	0.0	4328

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
-------------	---------------	---------------	------------------------	-----------------	--------

10080 min Winter	124.156	0.006		0.4	0.2 O K
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Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Winter	0.975	0.0	5048
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.800	Shortest Storm (mins)	15
Ratio R	0.405	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.053

Time (mins) Area
From: To: (ha)

0 4 0.053

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Micro Drainage

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Model Details

Storage is Online Cover Level (m) 125.400

Cellular Storage Structure

Invert Level (m) 124.150 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.77760 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.77760

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	42.0	42.0	0.500	0.0	60.4
0.400	42.0	60.4			

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 22 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	124.213	0.413		8.9	O K
30 min Summer	125.377	1.577		8.9	Flood Risk
60 min Summer	125.019	1.219		8.9	O K
120 min Summer	124.178	0.378		8.8	O K
180 min Summer	124.103	0.303		8.5	O K
240 min Summer	124.035	0.235		8.2	O K
360 min Summer	123.933	0.133		7.7	O K
480 min Summer	123.873	0.073		7.5	O K
600 min Summer	123.849	0.049		7.2	O K
720 min Summer	123.843	0.043		6.3	O K
960 min Summer	123.834	0.034		5.1	O K
1440 min Summer	123.825	0.025		3.7	O K
2160 min Summer	123.818	0.018		2.6	O K
2880 min Summer	123.814	0.014		2.1	O K
4320 min Summer	123.810	0.010		1.5	O K
5760 min Summer	123.808	0.008		1.2	O K
7200 min Summer	123.807	0.007		1.0	O K
8640 min Summer	123.806	0.006		0.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	137.234	0.0	16
30 min Summer	89.929	0.0	25
60 min Summer	56.129	0.0	42
120 min Summer	33.850	0.0	76
180 min Summer	24.849	0.0	108
240 min Summer	19.839	0.0	140
360 min Summer	14.389	0.0	198
480 min Summer	11.459	0.0	252
600 min Summer	9.597	0.0	306
720 min Summer	8.298	0.0	366
960 min Summer	6.593	0.0	486
1440 min Summer	4.760	0.0	720
2160 min Summer	3.431	0.0	1100
2880 min Summer	2.717	0.0	1452
4320 min Summer	1.953	0.0	2160
5760 min Summer	1.544	0.0	2936
7200 min Summer	1.286	0.0	3600
8640 min Summer	1.107	0.0	4248

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	123.805	0.005	0.8	0.2	O K
15 min Winter	124.214	0.414	8.9	17.6	O K
30 min Winter	125.311	1.511	8.9	19.5	Flood Risk
60 min Winter	124.257	0.457	8.9	18.4	O K
120 min Winter	124.118	0.318	8.6	13.6	O K
180 min Winter	124.012	0.212	8.1	9.1	O K
240 min Winter	123.927	0.127	7.7	5.4	O K
360 min Winter	123.848	0.048	7.0	2.0	O K
480 min Winter	123.838	0.038	5.6	1.6	O K
600 min Winter	123.832	0.032	4.8	1.4	O K
720 min Winter	123.828	0.028	4.1	1.2	O K
960 min Winter	123.822	0.022	3.3	0.9	O K
1440 min Winter	123.816	0.016	2.4	0.7	O K
2160 min Winter	123.812	0.012	1.7	0.5	O K
2880 min Winter	123.809	0.009	1.4	0.4	O K
4320 min Winter	123.807	0.007	1.0	0.3	O K
5760 min Winter	123.805	0.005	0.8	0.2	O K
7200 min Winter	123.805	0.005	0.7	0.2	O K
8640 min Winter	123.804	0.004	0.6	0.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
10080 min Summer	0.975	0.0	5048
15 min Winter	137.234	0.0	16
30 min Winter	89.929	0.0	26
60 min Winter	56.129	0.0	46
120 min Winter	33.850	0.0	80
180 min Winter	24.849	0.0	112
240 min Winter	19.839	0.0	142
360 min Winter	14.389	0.0	186
480 min Winter	11.459	0.0	246
600 min Winter	9.597	0.0	304
720 min Winter	8.298	0.0	366
960 min Winter	6.593	0.0	480
1440 min Winter	4.760	0.0	732
2160 min Winter	3.431	0.0	1100
2880 min Winter	2.717	0.0	1464
4320 min Winter	1.953	0.0	2172
5760 min Winter	1.544	0.0	2936
7200 min Winter	1.286	0.0	3624
8640 min Winter	1.107	0.0	4296

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
-------------	---------------	---------------	------------------------	-----------------	--------

10080 min Winter	123.803	0.003		0.5	0.2 O K
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Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Winter	0.975	0.0	4856
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Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.800	Shortest Storm (mins)	15
Ratio R	0.405	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.074

Time (mins) Area
From: To: (ha)

0 4 0.074

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Micro Drainage

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Model Details

Storage is Online Cover Level (m) 125.400

Cellular Storage Structure

Invert Level (m) 123.800 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 1.71720 Porosity 0.95
Infiltration Coefficient Side (m/hr) 1.71720

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	45.0	45.0	0.500	0.0	56.2
0.400	45.0	56.2			

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Micro Drainage	Source Control 2017.1.2	

Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 10 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	124.120	1.120		10.1	O K
30 min Summer	124.589	1.589		10.1	O K
60 min Summer	123.464	0.464		10.1	O K
120 min Summer	123.309	0.309		9.0	O K
180 min Summer	123.215	0.215		8.0	O K
240 min Summer	123.146	0.146		7.2	O K
360 min Summer	123.065	0.065		6.2	O K
480 min Summer	123.045	0.045		5.4	O K
600 min Summer	123.038	0.038		4.6	O K
720 min Summer	123.033	0.033		4.0	O K
960 min Summer	123.026	0.026		3.1	O K
1440 min Summer	123.019	0.019		2.3	O K
2160 min Summer	123.014	0.014		1.7	O K
2880 min Summer	123.011	0.011		1.3	O K
4320 min Summer	123.008	0.008		0.9	O K
5760 min Summer	123.006	0.006		0.8	O K
7200 min Summer	123.005	0.005		0.6	O K
8640 min Summer	123.005	0.005		0.6	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

15 min Summer	137.234	0.0	13
30 min Summer	89.929	0.0	22
60 min Summer	56.129	0.0	38
120 min Summer	33.850	0.0	70
180 min Summer	24.849	0.0	100
240 min Summer	19.839	0.0	130
360 min Summer	14.389	0.0	188
480 min Summer	11.459	0.0	244
600 min Summer	9.597	0.0	304
720 min Summer	8.298	0.0	366
960 min Summer	6.593	0.0	490
1440 min Summer	4.760	0.0	726
2160 min Summer	3.431	0.0	1092
2880 min Summer	2.717	0.0	1468
4320 min Summer	1.953	0.0	2168
5760 min Summer	1.544	0.0	2936
7200 min Summer	1.286	0.0	3656
8640 min Summer	1.107	0.0	4344

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	123.004	0.004		0.5	O K
15 min Winter	124.058	1.058		10.1	O K
30 min Winter	124.126	1.126		10.1	O K
60 min Winter	123.372	0.372		9.8	O K
120 min Winter	123.211	0.211		7.9	O K
180 min Winter	123.106	0.106		6.7	O K
240 min Winter	123.050	0.050		6.0	O K
360 min Winter	123.036	0.036		4.4	O K
480 min Winter	123.029	0.029		3.5	O K
600 min Winter	123.024	0.024		2.9	O K
720 min Winter	123.021	0.021		2.6	O K
960 min Winter	123.017	0.017		2.0	O K
1440 min Winter	123.012	0.012		1.5	O K
2160 min Winter	123.009	0.009		1.1	O K
2880 min Winter	123.007	0.007		0.9	O K
4320 min Winter	123.005	0.005		0.6	O K
5760 min Winter	123.004	0.004		0.5	O K
7200 min Winter	123.004	0.004		0.5	O K
8640 min Winter	123.003	0.003		0.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

10080 min Summer	0.975	0.0	5072
15 min Winter	137.234	0.0	14
30 min Winter	89.929	0.0	23
60 min Winter	56.129	0.0	40
120 min Winter	33.850	0.0	72
180 min Winter	24.849	0.0	102
240 min Winter	19.839	0.0	124
360 min Winter	14.389	0.0	186
480 min Winter	11.459	0.0	244
600 min Winter	9.597	0.0	306
720 min Winter	8.298	0.0	372
960 min Winter	6.593	0.0	484
1440 min Winter	4.760	0.0	734
2160 min Winter	3.431	0.0	1064
2880 min Winter	2.717	0.0	1468
4320 min Winter	1.953	0.0	2220
5760 min Winter	1.544	0.0	2664
7200 min Winter	1.286	0.0	3712
8640 min Winter	1.107	0.0	4440

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
-------------	---------------	---------------	------------------------	-----------------	--------

10080 min Winter	123.003	0.003		0.3	0.1 O K
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Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Winter	0.975	0.0	4496
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.800	Shortest Storm (mins)	15
Ratio R	0.405	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.046

Time (mins) Area
From: To: (ha)

0 4 0.046

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Model Details

Storage is Online Cover Level (m) 124.700

Cellular Storage Structure

Invert Level (m) 123.000 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 2.96280 Porosity 0.95
Infiltration Coefficient Side (m/hr) 2.96280

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	20.0	20.0	0.500	0.0	36.8
0.400	20.0	36.8			

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 16 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	124.161	0.411		3.2	O K
30 min Summer	124.404	0.654		3.2	5.1 O K
60 min Summer	124.185	0.435		3.2	O K
120 min Summer	124.089	0.339		3.1	O K
180 min Summer	124.008	0.258		2.9	O K
240 min Summer	123.942	0.192		2.7	O K
360 min Summer	123.850	0.100		2.5	O K
480 min Summer	123.804	0.054		2.3	O K
600 min Summer	123.794	0.044		2.1	O K
720 min Summer	123.788	0.038		1.8	O K
960 min Summer	123.781	0.031		1.4	O K
1440 min Summer	123.772	0.022		1.0	O K
2160 min Summer	123.766	0.016		0.8	O K
2880 min Summer	123.763	0.013		0.6	O K
4320 min Summer	123.759	0.009		0.4	O K
5760 min Summer	123.757	0.007		0.3	O K
7200 min Summer	123.756	0.006		0.3	O K
8640 min Summer	123.755	0.005		0.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	137.234	0.0	15
30 min Summer	89.929	0.0	23
60 min Summer	56.129	0.0	40
120 min Summer	33.850	0.0	74
180 min Summer	24.849	0.0	106
240 min Summer	19.839	0.0	136
360 min Summer	14.389	0.0	194
480 min Summer	11.459	0.0	248
600 min Summer	9.597	0.0	306
720 min Summer	8.298	0.0	366
960 min Summer	6.593	0.0	484
1440 min Summer	4.760	0.0	718
2160 min Summer	3.431	0.0	1092
2880 min Summer	2.717	0.0	1456
4320 min Summer	1.953	0.0	2132
5760 min Summer	1.544	0.0	2848
7200 min Summer	1.286	0.0	3592
8640 min Summer	1.107	0.0	4312

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	123.755	0.005		0.2	O K
15 min Winter	124.161	0.411		3.2	O K
30 min Winter	124.330	0.580		3.2	O K
60 min Winter	124.144	0.394		3.2	O K
120 min Winter	124.017	0.267		2.9	O K
180 min Winter	123.912	0.162		2.6	O K
240 min Winter	123.837	0.087		2.4	O K
360 min Winter	123.793	0.043		2.0	O K
480 min Winter	123.784	0.034		1.6	O K
600 min Winter	123.779	0.029		1.3	O K
720 min Winter	123.775	0.025		1.2	O K
960 min Winter	123.770	0.020		0.9	O K
1440 min Winter	123.764	0.014		0.7	O K
2160 min Winter	123.760	0.010		0.5	O K
2880 min Winter	123.758	0.008		0.4	O K
4320 min Winter	123.756	0.006		0.3	O K
5760 min Winter	123.755	0.005		0.2	O K
7200 min Winter	123.754	0.004		0.2	O K
8640 min Winter	123.754	0.004		0.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Summer	0.975	0.0	5072
15 min Winter	137.234	0.0	15
30 min Winter	89.929	0.0	25
60 min Winter	56.129	0.0	44
120 min Winter	33.850	0.0	78
180 min Winter	24.849	0.0	108
240 min Winter	19.839	0.0	136
360 min Winter	14.389	0.0	186
480 min Winter	11.459	0.0	246
600 min Winter	9.597	0.0	306
720 min Winter	8.298	0.0	368
960 min Winter	6.593	0.0	490
1440 min Winter	4.760	0.0	734
2160 min Winter	3.431	0.0	1100
2880 min Winter	2.717	0.0	1420
4320 min Winter	1.953	0.0	2228
5760 min Winter	1.544	0.0	2912
7200 min Winter	1.286	0.0	3744
8640 min Winter	1.107	0.0	4400

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
-------------	---------------	---------------	------------------------	-----------------	--------

10080 min Winter	123.753	0.003		0.2	0.0 O K
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Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Winter	0.975	0.0	5376
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.800	Shortest Storm (mins)	15
Ratio R	0.405	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.021

Time (mins) Area
From: To: (ha)

0 4 0.021

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Micro Drainage

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Model Details

Storage is Online Cover Level (m) 125.350

Cellular Storage Structure

Invert Level (m) 123.750 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 1.98720 Porosity 0.95
Infiltration Coefficient Side (m/hr) 1.98720

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	12.0	12.0	0.500	0.0	17.6
0.400	12.0	17.6			

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 45 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	121.810	0.310		21.1	O K
30 min Summer	121.856	0.356		22.8	O K
60 min Summer	121.872	0.372		23.4	96.1 O K
120 min Summer	121.860	0.360		22.9	O K
180 min Summer	121.836	0.336		22.0	O K
240 min Summer	121.811	0.311		21.1	O K
360 min Summer	121.766	0.266		19.4	O K
480 min Summer	121.727	0.227		18.0	O K
600 min Summer	121.694	0.194		16.9	O K
720 min Summer	121.666	0.166		15.9	O K
960 min Summer	121.621	0.121		14.3	O K
1440 min Summer	121.564	0.064		12.3	O K
2160 min Summer	121.542	0.042		9.7	O K
2880 min Summer	121.534	0.034		7.8	O K
4320 min Summer	121.525	0.025		5.6	O K
5760 min Summer	121.520	0.020		4.4	O K
7200 min Summer	121.517	0.017		3.7	O K
8640 min Summer	121.514	0.014		3.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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15 min Summer	136.827	0.0	17
30 min Summer	89.559	0.0	30
60 min Summer	55.837	0.0	46
120 min Summer	33.645	0.0	80
180 min Summer	24.691	0.0	114
240 min Summer	19.711	0.0	148
360 min Summer	14.285	0.0	214
480 min Summer	11.371	0.0	276
600 min Summer	9.521	0.0	338
720 min Summer	8.231	0.0	398
960 min Summer	6.537	0.0	518
1440 min Summer	4.717	0.0	750
2160 min Summer	3.398	0.0	1100
2880 min Summer	2.690	0.0	1468
4320 min Summer	1.933	0.0	2156
5760 min Summer	1.528	0.0	2912
7200 min Summer	1.272	0.0	3600
8640 min Summer	1.095	0.0	4272

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	121.513	0.013		2.8	O K
15 min Winter	121.811	0.311		21.1	O K
30 min Winter	121.858	0.358		22.8	O K
60 min Winter	121.871	0.371		23.3	O K
120 min Winter	121.850	0.350		22.5	O K
180 min Winter	121.815	0.315		21.2	O K
240 min Winter	121.780	0.280		19.9	O K
360 min Winter	121.718	0.218		17.7	O K
480 min Winter	121.669	0.169		15.9	O K
600 min Winter	121.628	0.128		14.5	O K
720 min Winter	121.596	0.096		13.4	O K
960 min Winter	121.552	0.052		11.9	O K
1440 min Winter	121.538	0.038		8.7	O K
2160 min Winter	121.528	0.028		6.3	O K
2880 min Winter	121.522	0.022		5.0	O K
4320 min Winter	121.516	0.016		3.6	O K
5760 min Winter	121.513	0.013		2.9	O K
7200 min Winter	121.511	0.011		2.4	O K
8640 min Winter	121.509	0.009		2.0	O K

Storm Rain Flooded Time-Peak

Event	(mm/hr)	Volume (m³)	(mins)
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10080 min Summer	0.964	0.0	4984
15 min Winter	136.827	0.0	17
30 min Winter	89.559	0.0	30
60 min Winter	55.837	0.0	48
120 min Winter	33.645	0.0	86
180 min Winter	24.691	0.0	122
240 min Winter	19.711	0.0	158
360 min Winter	14.285	0.0	224
480 min Winter	11.371	0.0	286
600 min Winter	9.521	0.0	348
720 min Winter	8.231	0.0	406
960 min Winter	6.537	0.0	502
1440 min Winter	4.717	0.0	736
2160 min Winter	3.398	0.0	1104
2880 min Winter	2.690	0.0	1468
4320 min Winter	1.933	0.0	2172
5760 min Winter	1.528	0.0	2904
7200 min Winter	1.272	0.0	3672
8640 min Winter	1.095	0.0	4408

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
-------------	---------------	---------------	------------------------	-----------------	--------

10080 min Winter 121.508 0.008 1.8 1.6 O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Winter 0.964 0.0 4992

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Micro Drainage	Source Control 2017.1.2	

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.700	Shortest Storm (mins)	15
Ratio R	0.408	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.280

Time (mins) Area
From: To: (ha)

0 4 0.280

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Micro Drainage

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Model Details

Storage is Offline Dividing Weir Level (m) 121.500
Cover Level (m) 122.300

Infiltration Basin Structure

Invert Level (m) 121.500 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.54720 Porosity 1.00
Infiltration Coefficient Side (m/hr) 0.54720

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	199.7	0.800	496.7

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 31 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	121.778	0.278		13.5	O K
30 min Summer	121.810	0.310		14.6	O K
60 min Summer	121.819	0.319		14.9	43.4 O K
120 min Summer	121.802	0.302		14.3	O K
180 min Summer	121.778	0.278		13.5	O K
240 min Summer	121.755	0.255		12.7	O K
360 min Summer	121.714	0.214		11.4	O K
480 min Summer	121.681	0.181		10.3	O K
600 min Summer	121.654	0.154		9.4	O K
720 min Summer	121.632	0.132		8.7	O K
960 min Summer	121.596	0.096		7.6	O K
1440 min Summer	121.555	0.055		6.3	O K
2160 min Summer	121.540	0.040		4.8	O K
2880 min Summer	121.532	0.032		3.8	O K
4320 min Summer	121.524	0.024		2.8	O K
5760 min Summer	121.519	0.019		2.2	O K
7200 min Summer	121.516	0.016		1.8	O K
8640 min Summer	121.514	0.014		1.6	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	136.827	0.0	16
30 min Summer	89.559	0.0	26
60 min Summer	55.837	0.0	44
120 min Summer	33.645	0.0	78
180 min Summer	24.691	0.0	112
240 min Summer	19.711	0.0	144
360 min Summer	14.285	0.0	206
480 min Summer	11.371	0.0	268
600 min Summer	9.521	0.0	328
720 min Summer	8.231	0.0	390
960 min Summer	6.537	0.0	510
1440 min Summer	4.717	0.0	736
2160 min Summer	3.398	0.0	1100
2880 min Summer	2.690	0.0	1468
4320 min Summer	1.933	0.0	2196
5760 min Summer	1.528	0.0	2864
7200 min Summer	1.272	0.0	3656
8640 min Summer	1.095	0.0	4408

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	121.513	0.013		1.4	O K
15 min Winter	121.779	0.279		13.5	O K
30 min Winter	121.810	0.310		14.6	O K
60 min Winter	121.816	0.316		14.8	O K
120 min Winter	121.788	0.288		13.8	O K
180 min Winter	121.753	0.253		12.7	O K
240 min Winter	121.722	0.222		11.6	O K
360 min Winter	121.669	0.169		9.9	O K
480 min Winter	121.629	0.129		8.7	O K
600 min Winter	121.598	0.098		7.7	O K
720 min Winter	121.574	0.074		6.9	O K
960 min Winter	121.548	0.048		6.0	O K
1440 min Winter	121.536	0.036		4.3	O K
2160 min Winter	121.527	0.027		3.1	O K
2880 min Winter	121.522	0.022		2.5	O K
4320 min Winter	121.516	0.016		1.8	O K
5760 min Winter	121.513	0.013		1.4	O K
7200 min Winter	121.511	0.011		1.2	O K
8640 min Winter	121.509	0.009		1.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

10080 min Summer	0.964	0.0	5104
15 min Winter	136.827	0.0	16
30 min Winter	89.559	0.0	28
60 min Winter	55.837	0.0	46
120 min Winter	33.645	0.0	82
180 min Winter	24.691	0.0	118
240 min Winter	19.711	0.0	150
360 min Winter	14.285	0.0	214
480 min Winter	11.371	0.0	276
600 min Winter	9.521	0.0	336
720 min Winter	8.231	0.0	392
960 min Winter	6.537	0.0	498
1440 min Winter	4.717	0.0	732
2160 min Winter	3.398	0.0	1100
2880 min Winter	2.690	0.0	1468
4320 min Winter	1.933	0.0	2204
5760 min Winter	1.528	0.0	2912
7200 min Winter	1.272	0.0	3608
8640 min Winter	1.095	0.0	4272

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
-------------	---------------	---------------	------------------------	-----------------	--------

10080 min Winter	121.508	0.008		0.9	0.8 O K
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Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Winter	0.964	0.0	4976
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.700	Shortest Storm (mins)	15
Ratio R	0.408	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.137

Time (mins) Area
From: To: (ha)

0 4 0.137

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Micro Drainage

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Model Details

Storage is Offline Dividing Weir Level (m) 121.500
Cover Level (m) 122.200

Infiltration Basin Structure

Invert Level (m) 121.500 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.54720 Porosity 1.00
Infiltration Coefficient Side (m/hr) 0.54720

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	92.9	0.700	333.0

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 24 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	125.844	1.444		6.9	O K
30 min Summer	125.990	1.590		7.6	O K
60 min Summer	126.005	1.605		7.7	13.2 Flood Risk
120 min Summer	125.860	1.460		7.0	O K
180 min Summer	125.710	1.310		6.3	O K
240 min Summer	125.584	1.184		5.7	O K
360 min Summer	125.398	0.998		4.8	O K
480 min Summer	125.269	0.869		4.2	O K
600 min Summer	125.174	0.774		3.7	O K
720 min Summer	125.100	0.700		3.4	O K
960 min Summer	124.998	0.598		2.9	O K
1440 min Summer	124.894	0.494		2.2	O K
2160 min Summer	124.800	0.400		1.6	O K
2880 min Summer	124.741	0.341		1.3	O K
4320 min Summer	124.667	0.267		0.9	O K
5760 min Summer	124.622	0.222		0.7	O K
7200 min Summer	124.592	0.192		0.6	O K
8640 min Summer	124.570	0.170		0.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

15 min Summer	136.827	0.0	15
30 min Summer	89.559	0.0	23
60 min Summer	55.837	0.0	40
120 min Summer	33.645	0.0	74
180 min Summer	24.691	0.0	106
240 min Summer	19.711	0.0	138
360 min Summer	14.285	0.0	200
480 min Summer	11.371	0.0	260
600 min Summer	9.521	0.0	320
720 min Summer	8.231	0.0	380
960 min Summer	6.537	0.0	500
1440 min Summer	4.717	0.0	736
2160 min Summer	3.398	0.0	1100
2880 min Summer	2.690	0.0	1468
4320 min Summer	1.933	0.0	2200
5760 min Summer	1.528	0.0	2936
7200 min Summer	1.272	0.0	3656
8640 min Summer	1.095	0.0	4392

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	124.553	0.153		0.5	O K
15 min Winter	125.847	1.447		7.0	O K
30 min Winter	125.976	1.576		7.6	O K
60 min Winter	125.945	1.545		7.4	O K
120 min Winter	125.735	1.335		6.4	O K
180 min Winter	125.550	1.150		5.5	O K
240 min Winter	125.405	1.005		4.8	O K
360 min Winter	125.205	0.805		3.9	O K
480 min Winter	125.077	0.677		3.3	O K
600 min Winter	124.991	0.591		2.9	O K
720 min Winter	124.939	0.539		2.5	O K
960 min Winter	124.865	0.465		2.0	O K
1440 min Winter	124.772	0.372		1.5	O K
2160 min Winter	124.693	0.293		1.1	O K
2880 min Winter	124.646	0.246		0.9	O K
4320 min Winter	124.589	0.189		0.6	O K
5760 min Winter	124.556	0.156		0.5	O K
7200 min Winter	124.534	0.134		0.4	O K
8640 min Winter	124.518	0.118		0.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

10080 min Summer	0.964	0.0	5008
15 min Winter	136.827	0.0	15
30 min Winter	89.559	0.0	24
60 min Winter	55.837	0.0	42
120 min Winter	33.645	0.0	78
180 min Winter	24.691	0.0	110
240 min Winter	19.711	0.0	142
360 min Winter	14.285	0.0	204
480 min Winter	11.371	0.0	266
600 min Winter	9.521	0.0	322
720 min Winter	8.231	0.0	382
960 min Winter	6.537	0.0	500
1440 min Winter	4.717	0.0	736
2160 min Winter	3.398	0.0	1100
2880 min Winter	2.690	0.0	1464
4320 min Winter	1.933	0.0	2164
5760 min Winter	1.528	0.0	2880
7200 min Winter	1.272	0.0	3600
8640 min Winter	1.095	0.0	4328

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Winter	124.506	0.106		0.3	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
10080 min Winter	0.964	0.0	5008

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.900
Region	England and Wales	Cv (Winter)	0.900
M5-60 (mm)	19.700	Shortest Storm (mins)	15
Ratio R	0.408	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.050

Time (mins) Area
From: To: (ha)

0 4 0.050

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Model Details

Storage is Online Cover Level (m) 126.100

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.45720	Trench Width (m)	0.6
Infiltration Coefficient Side (m/hr)	0.45720	Trench Length (m)	56.0
Safety Factor	3.0	Slope (1:X)	96.0
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	124.400	Cap Infiltration Depth (m)	0.000

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 9 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	1.449	1.449		21.6	O K
30 min Summer	1.495	1.495		22.5	15.3 O K
60 min Summer	1.401	1.401		20.7	O K
120 min Summer	1.217	1.217		17.2	O K
180 min Summer	1.089	1.089		14.4	O K
240 min Summer	0.992	0.992		12.4	O K
360 min Summer	0.853	0.853		9.7	O K
480 min Summer	0.758	0.758		8.1	O K
600 min Summer	0.687	0.687		6.9	O K
720 min Summer	0.631	0.631		6.1	O K
960 min Summer	0.549	0.549		5.0	O K
1440 min Summer	0.443	0.443		3.6	O K
2160 min Summer	0.352	0.352		2.6	O K
2880 min Summer	0.296	0.296		2.1	O K
4320 min Summer	0.230	0.230		1.5	O K
5760 min Summer	0.190	0.190		1.2	O K
7200 min Summer	0.164	0.164		1.0	O K
8640 min Summer	0.145	0.145		0.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

15 min Summer	136.827	0.0	13
30 min Summer	89.559	0.0	21
60 min Summer	55.837	0.0	38
120 min Summer	33.645	0.0	68
180 min Summer	24.691	0.0	98
240 min Summer	19.711	0.0	128
360 min Summer	14.285	0.0	190
480 min Summer	11.371	0.0	250
600 min Summer	9.521	0.0	308
720 min Summer	8.231	0.0	370
960 min Summer	6.537	0.0	490
1440 min Summer	4.717	0.0	734
2160 min Summer	3.398	0.0	1100
2880 min Summer	2.690	0.0	1448
4320 min Summer	1.933	0.0	2172
5760 min Summer	1.528	0.0	2928
7200 min Summer	1.272	0.0	3552
8640 min Summer	1.095	0.0	4280

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	0.130	0.130		0.7	O K
15 min Winter	1.433	1.433		21.3	O K
30 min Winter	1.441	1.441		21.5	O K
60 min Winter	1.296	1.296		18.7	O K
120 min Winter	1.077	1.077		14.1	O K
180 min Winter	0.931	0.931		11.2	O K
240 min Winter	0.826	0.826		9.2	O K
360 min Winter	0.685	0.685		6.9	O K
480 min Winter	0.595	0.595		5.6	O K
600 min Winter	0.530	0.530		4.7	O K
720 min Winter	0.481	0.481		4.1	O K
960 min Winter	0.410	0.410		3.3	O K
1440 min Winter	0.324	0.324		2.4	O K
2160 min Winter	0.253	0.253		1.7	O K
2880 min Winter	0.211	0.211		1.3	O K
4320 min Winter	0.161	0.161		1.0	O K
5760 min Winter	0.133	0.133		0.8	O K
7200 min Winter	0.113	0.113		0.6	O K
8640 min Winter	0.099	0.099		0.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

10080 min Summer	0.964	0.0	5008
15 min Winter	136.827	0.0	13
30 min Winter	89.559	0.0	22
60 min Winter	55.837	0.0	38
120 min Winter	33.645	0.0	70
180 min Winter	24.691	0.0	100
240 min Winter	19.711	0.0	132
360 min Winter	14.285	0.0	190
480 min Winter	11.371	0.0	250
600 min Winter	9.521	0.0	310
720 min Winter	8.231	0.0	370
960 min Winter	6.537	0.0	490
1440 min Winter	4.717	0.0	734
2160 min Winter	3.398	0.0	1084
2880 min Winter	2.690	0.0	1448
4320 min Winter	1.933	0.0	2184
5760 min Winter	1.528	0.0	2856
7200 min Winter	1.272	0.0	3584
8640 min Winter	1.095	0.0	4304

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
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10080 min Winter	0.089	0.089		0.5	0 K
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Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Winter	0.964	0.0	5128
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.900
Region	England and Wales	Cv (Winter)	0.900
M5-60 (mm)	19.700	Shortest Storm (mins)	15
Ratio R	0.408	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.079

Time (mins) Area
From: To: (ha)

0 4 0.079

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Model Details

Storage is Online Cover Level (m) 1.600

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	1.06320	Trench Width (m)	0.6
Infiltration Coefficient Side (m/hr)	1.06320	Trench Length (m)	95.0
Safety Factor	3.0	Slope (1:X)	79.2
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	0.000	Cap Infiltration Depth (m)	0.000

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 6 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	123.026	1.426		21.4	10.4 Flood Risk
30 min Summer	123.042	1.442		21.7	10.6 Flood Risk
60 min Summer	122.914	1.314		19.4	O K
120 min Summer	122.702	1.102		15.5	O K
180 min Summer	122.572	0.972		12.6	O K
240 min Summer	122.475	0.875		10.7	O K
360 min Summer	122.342	0.742		8.2	O K
480 min Summer	122.252	0.652		6.8	O K
600 min Summer	122.188	0.588		5.8	O K
720 min Summer	122.136	0.536		5.1	O K
960 min Summer	122.061	0.461		4.1	O K
1440 min Summer	121.968	0.368		3.0	O K
2160 min Summer	121.889	0.289		2.1	O K
2880 min Summer	121.841	0.241		1.7	O K
4320 min Summer	121.786	0.186		1.2	O K
5760 min Summer	121.753	0.153		1.0	O K
7200 min Summer	121.731	0.131		0.8	O K
8640 min Summer	121.715	0.115		0.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	136.827	0.0	12
30 min Summer	89.559	0.0	20
60 min Summer	55.837	0.0	36
120 min Summer	33.645	0.0	66
180 min Summer	24.691	0.0	98
240 min Summer	19.711	0.0	128
360 min Summer	14.285	0.0	188
480 min Summer	11.371	0.0	248
600 min Summer	9.521	0.0	308
720 min Summer	8.231	0.0	368
960 min Summer	6.537	0.0	490
1440 min Summer	4.717	0.0	734
2160 min Summer	3.398	0.0	1092
2880 min Summer	2.690	0.0	1436
4320 min Summer	1.933	0.0	2156
5760 min Summer	1.528	0.0	2840
7200 min Summer	1.272	0.0	3544
8640 min Summer	1.095	0.0	4384

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	121.704	0.104		0.6	O K
15 min Winter	123.001	1.401		21.0	10.1 Flood Risk
30 min Winter	122.968	1.368		20.3	O K
60 min Winter	122.783	1.183		17.0	O K
120 min Winter	122.550	0.950		12.2	O K
180 min Winter	122.408	0.808		9.4	O K
240 min Winter	122.309	0.709		7.7	O K
360 min Winter	122.180	0.580		5.7	O K
480 min Winter	122.100	0.500		4.6	O K
600 min Winter	122.043	0.443		3.8	O K
720 min Winter	122.000	0.400		3.3	O K
960 min Winter	121.939	0.339		2.6	O K
1440 min Winter	121.865	0.265		1.9	O K
2160 min Winter	121.805	0.205		1.4	O K
2880 min Winter	121.770	0.170		1.1	O K
4320 min Winter	121.729	0.129		0.8	O K
5760 min Winter	121.705	0.105		0.6	O K
7200 min Winter	121.690	0.090		0.5	O K
8640 min Winter	121.679	0.079		0.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Summer	0.964	0.0	4976
15 min Winter	136.827	0.0	13
30 min Winter	89.559	0.0	21
60 min Winter	55.837	0.0	38
120 min Winter	33.645	0.0	68
180 min Winter	24.691	0.0	98
240 min Winter	19.711	0.0	128
360 min Winter	14.285	0.0	188
480 min Winter	11.371	0.0	248
600 min Winter	9.521	0.0	308
720 min Winter	8.231	0.0	368
960 min Winter	6.537	0.0	490
1440 min Winter	4.717	0.0	734
2160 min Winter	3.398	0.0	1080
2880 min Winter	2.690	0.0	1440
4320 min Winter	1.933	0.0	2188
5760 min Winter	1.528	0.0	2872
7200 min Winter	1.272	0.0	3672
8640 min Winter	1.095	0.0	4296

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Winter	121.670	0.070		0.4	0.0 O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
10080 min Winter	0.964	0.0	5096

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.900
Region	England and Wales	Cv (Winter)	0.900
M5-60 (mm)	19.700	Shortest Storm (mins)	15
Ratio R	0.408	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.064

Time (mins) Area
From: To: (ha)

0 4 0.064

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Model Details

Storage is Online Cover Level (m) 123.100

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	1.47960	Trench Width (m)	0.6
Infiltration Coefficient Side (m/hr)	1.47960	Trench Length (m)	66.0
Safety Factor	3.0	Slope (1:X)	60.0
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	121.600	Cap Infiltration Depth (m)	0.000

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 16 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	125.437	0.137		6.7	O K
30 min Summer	125.451	0.151		7.1	11.3 O K
60 min Summer	125.449	0.149		7.0	11.2 O K
120 min Summer	125.429	0.129		6.5	9.4 O K
180 min Summer	125.409	0.109		6.0	7.7 O K
240 min Summer	125.392	0.092		5.5	6.4 O K
360 min Summer	125.367	0.067		4.9	4.5 O K
480 min Summer	125.352	0.052		4.5	3.4 O K
600 min Summer	125.345	0.045		4.0	2.9 O K
720 min Summer	125.340	0.040		3.5	2.6 O K
960 min Summer	125.333	0.033		2.8	2.1 O K
1440 min Summer	125.325	0.025		2.1	1.6 O K
2160 min Summer	125.319	0.019		1.5	1.2 O K
2880 min Summer	125.315	0.015		1.2	0.9 O K
4320 min Summer	125.311	0.011		0.9	0.7 O K
5760 min Summer	125.309	0.009		0.7	0.6 O K
7200 min Summer	125.308	0.008		0.6	0.5 O K
8640 min Summer	125.307	0.007		0.5	0.4 O K
10080 min Summer	125.306	0.006		0.4	0.3 O K
15 min Winter	125.438	0.138		6.7	10.1 O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	136.827	0.0	15
30 min Summer	89.559	0.0	23
60 min Summer	55.837	0.0	40
120 min Summer	33.645	0.0	74
180 min Summer	24.691	0.0	106
240 min Summer	19.711	0.0	136
360 min Summer	14.285	0.0	194
480 min Summer	11.371	0.0	250
600 min Summer	9.521	0.0	310
720 min Summer	8.231	0.0	370
960 min Summer	6.537	0.0	492
1440 min Summer	4.717	0.0	736
2160 min Summer	3.398	0.0	1100
2880 min Summer	2.690	0.0	1440
4320 min Summer	1.933	0.0	2164
5760 min Summer	1.528	0.0	2936
7200 min Summer	1.272	0.0	3656
8640 min Summer	1.095	0.0	4392
10080 min Summer	0.964	0.0	5088
15 min Winter	136.827	0.0	15

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	125.449	0.149		7.0	O K
60 min Winter	125.441	0.141		6.8	O K
120 min Winter	125.411	0.111		6.0	O K
180 min Winter	125.385	0.085		5.4	O K
240 min Winter	125.364	0.064		4.8	O K
360 min Winter	125.345	0.045		4.0	O K
480 min Winter	125.337	0.037		3.2	O K
600 min Winter	125.332	0.032		2.7	O K
720 min Winter	125.328	0.028		2.3	O K
960 min Winter	125.323	0.023		1.9	O K
1440 min Winter	125.317	0.017		1.4	O K
2160 min Winter	125.313	0.013		1.0	O K
2880 min Winter	125.310	0.010		0.8	O K
4320 min Winter	125.307	0.007		0.6	O K
5760 min Winter	125.306	0.006		0.4	O K
7200 min Winter	125.305	0.005		0.4	O K
8640 min Winter	125.304	0.004		0.3	O K
10080 min Winter	125.304	0.004		0.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

30 min Winter	89.559	0.0	24
60 min Winter	55.837	0.0	42
120 min Winter	33.645	0.0	78
180 min Winter	24.691	0.0	108
240 min Winter	19.711	0.0	138
360 min Winter	14.285	0.0	190
480 min Winter	11.371	0.0	252
600 min Winter	9.521	0.0	310
720 min Winter	8.231	0.0	372
960 min Winter	6.537	0.0	488
1440 min Winter	4.717	0.0	734
2160 min Winter	3.398	0.0	1096
2880 min Winter	2.690	0.0	1464
4320 min Winter	1.933	0.0	2204
5760 min Winter	1.528	0.0	2944
7200 min Winter	1.272	0.0	3672
8640 min Winter	1.095	0.0	4272
10080 min Winter	0.964	0.0	5024

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.700	Shortest Storm (mins)	15
Ratio R	0.408	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.043

Time (mins) Area
From: To: (ha)

0 4 0.043

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Model Details

Storage is Online Cover Level (m) 125.900

Infiltration Basin Structure

Invert Level (m) 125.300 Safety Factor 3.0
 Infiltration Coefficient Base (m/hr) 0.57600 Porosity 1.00
 Infiltration Coefficient Side (m/hr) 0.57600

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	60.0	0.600	224.0

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 15 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	124.792	0.292		5.9	O K
30 min Summer	124.810	0.310		6.2	9.1 O K
60 min Summer	124.807	0.307		6.2	8.9 O K
120 min Summer	124.779	0.279		5.6	7.5 O K
180 min Summer	124.751	0.251		5.1	6.3 O K
240 min Summer	124.727	0.227		4.6	5.3 O K
360 min Summer	124.690	0.190		3.9	4.0 O K
480 min Summer	124.662	0.162		3.4	3.1 O K
600 min Summer	124.640	0.140		3.0	2.5 O K
720 min Summer	124.623	0.123		2.7	2.1 O K
960 min Summer	124.597	0.097		2.2	1.5 O K
1440 min Summer	124.565	0.065		1.7	0.9 O K
2160 min Summer	124.545	0.045		1.2	0.6 O K
2880 min Summer	124.538	0.038		1.0	0.5 O K
4320 min Summer	124.530	0.030		0.7	0.4 O K
5760 min Summer	124.525	0.025		0.6	0.3 O K
7200 min Summer	124.521	0.021		0.5	0.3 O K
8640 min Summer	124.519	0.019		0.4	0.2 O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	136.827	0.0	14
30 min Summer	89.559	0.0	23
60 min Summer	55.837	0.0	40
120 min Summer	33.645	0.0	72
180 min Summer	24.691	0.0	104
240 min Summer	19.711	0.0	134
360 min Summer	14.285	0.0	196
480 min Summer	11.371	0.0	256
600 min Summer	9.521	0.0	314
720 min Summer	8.231	0.0	376
960 min Summer	6.537	0.0	494
1440 min Summer	4.717	0.0	736
2160 min Summer	3.398	0.0	1080
2880 min Summer	2.690	0.0	1464
4320 min Summer	1.933	0.0	2168
5760 min Summer	1.528	0.0	2864
7200 min Summer	1.272	0.0	3600
8640 min Summer	1.095	0.0	4400

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	124.517	0.017		0.4	O K
15 min Winter	124.792	0.292		5.9	O K
30 min Winter	124.807	0.307		6.2	O K
60 min Winter	124.796	0.296		6.0	O K
120 min Winter	124.755	0.255		5.1	O K
180 min Winter	124.718	0.218		4.4	O K
240 min Winter	124.688	0.188		3.8	O K
360 min Winter	124.644	0.144		3.0	O K
480 min Winter	124.615	0.115		2.5	O K
600 min Winter	124.594	0.094		2.1	O K
720 min Winter	124.578	0.078		1.9	O K
960 min Winter	124.556	0.056		1.5	O K
1440 min Winter	124.542	0.042		1.1	O K
2160 min Winter	124.533	0.033		0.8	O K
2880 min Winter	124.527	0.027		0.6	O K
4320 min Winter	124.521	0.021		0.5	O K
5760 min Winter	124.517	0.017		0.4	O K
7200 min Winter	124.515	0.015		0.3	O K
8640 min Winter	124.513	0.013		0.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

10080 min Summer	0.964	0.0	5112
15 min Winter	136.827	0.0	15
30 min Winter	89.559	0.0	24
60 min Winter	55.837	0.0	42
120 min Winter	33.645	0.0	76
180 min Winter	24.691	0.0	108
240 min Winter	19.711	0.0	138
360 min Winter	14.285	0.0	200
480 min Winter	11.371	0.0	258
600 min Winter	9.521	0.0	318
720 min Winter	8.231	0.0	376
960 min Winter	6.537	0.0	494
1440 min Winter	4.717	0.0	736
2160 min Winter	3.398	0.0	1100
2880 min Winter	2.690	0.0	1456
4320 min Winter	1.933	0.0	2152
5760 min Winter	1.528	0.0	2920
7200 min Winter	1.272	0.0	3624
8640 min Winter	1.095	0.0	4368

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Winter	124.512	0.012		0.2	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
10080 min Winter	0.964	0.0	5112

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.700	Shortest Storm (mins)	15
Ratio R	0.408	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.035

Time (mins) Area
From: To: (ha)

0 4 0.035

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Model Details

Storage is Online Cover Level (m) 125.300

Infiltration Basin Structure

Invert Level (m) 124.500 Safety Factor 3.0
 Infiltration Coefficient Base (m/hr) 0.58320 Porosity 1.00
 Infiltration Coefficient Side (m/hr) 0.58320

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	11.4	0.800	175.0

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 94 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	0.247	0.247		2.1	14.5 O K
30 min Summer	0.294	0.294		2.3	18.0 O K
60 min Summer	0.321	0.321		2.4	20.1 O K
120 min Summer	0.327	0.327		2.4	20.6 O K
180 min Summer	0.321	0.321		2.4	20.1 O K
240 min Summer	0.310	0.310		2.3	19.2 O K
360 min Summer	0.287	0.287		2.2	17.5 O K
480 min Summer	0.265	0.265		2.1	15.9 O K
600 min Summer	0.246	0.246		2.1	14.4 O K
720 min Summer	0.227	0.227		2.0	13.2 O K
960 min Summer	0.195	0.195		1.8	11.0 O K
1440 min Summer	0.144	0.144		1.6	7.8 O K
2160 min Summer	0.092	0.092		1.4	4.7 O K
2880 min Summer	0.060	0.060		1.2	3.0 O K
4320 min Summer	0.041	0.041		1.0	2.0 O K
5760 min Summer	0.034	0.034		0.8	1.6 O K
7200 min Summer	0.028	0.028		0.6	1.4 O K
8640 min Summer	0.025	0.025		0.6	1.2 O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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15 min Summer	136.827	0.0	18
30 min Summer	89.559	0.0	32
60 min Summer	55.837	0.0	60
120 min Summer	33.645	0.0	90
180 min Summer	24.691	0.0	124
240 min Summer	19.711	0.0	158
360 min Summer	14.285	0.0	228
480 min Summer	11.371	0.0	294
600 min Summer	9.521	0.0	360
720 min Summer	8.231	0.0	426
960 min Summer	6.537	0.0	550
1440 min Summer	4.717	0.0	794
2160 min Summer	3.398	0.0	1148
2880 min Summer	2.690	0.0	1496
4320 min Summer	1.933	0.0	2204
5760 min Summer	1.528	0.0	2936
7200 min Summer	1.272	0.0	3672
8640 min Summer	1.095	0.0	4400

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	0.022	0.022		0.5	O K
15 min Winter	0.247	0.247		2.1	O K
30 min Winter	0.295	0.295		2.3	O K
60 min Winter	0.323	0.323		2.4	O K
120 min Winter	0.326	0.326		2.4	O K
180 min Winter	0.316	0.316		2.4	O K
240 min Winter	0.301	0.301		2.3	O K
360 min Winter	0.269	0.269		2.2	O K
480 min Winter	0.239	0.239		2.0	O K
600 min Winter	0.212	0.212		1.9	O K
720 min Winter	0.188	0.188		1.8	O K
960 min Winter	0.147	0.147		1.6	O K
1440 min Winter	0.086	0.086		1.3	O K
2160 min Winter	0.047	0.047		1.1	O K
2880 min Winter	0.038	0.038		0.9	O K
4320 min Winter	0.028	0.028		0.6	O K
5760 min Winter	0.022	0.022		0.5	O K
7200 min Winter	0.019	0.019		0.4	O K
8640 min Winter	0.016	0.016		0.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
10080 min Summer	0.964	0.0	5104
15 min Winter	136.827	0.0	17
30 min Winter	89.559	0.0	31
60 min Winter	55.837	0.0	58
120 min Winter	33.645	0.0	94
180 min Winter	24.691	0.0	132
240 min Winter	19.711	0.0	170
360 min Winter	14.285	0.0	242
480 min Winter	11.371	0.0	312
600 min Winter	9.521	0.0	380
720 min Winter	8.231	0.0	444
960 min Winter	6.537	0.0	570
1440 min Winter	4.717	0.0	808
2160 min Winter	3.398	0.0	1124
2880 min Winter	2.690	0.0	1468
4320 min Winter	1.933	0.0	2200
5760 min Winter	1.528	0.0	2904
7200 min Winter	1.272	0.0	3648
8640 min Winter	1.095	0.0	4344

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
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10080 min Winter	0.014	0.014		0.3	0 K
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Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Winter	0.964	0.0	4960
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.700	Shortest Storm (mins)	15
Ratio R	0.408	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.049

Time (mins) Area
From: To: (ha)

0 4 0.049

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Model Details

Storage is Offline Dividing Weir Level (m) 0.000
 Cover Level (m) 0.600

Infiltration Basin Structure

Invert Level (m) 0.000 Safety Factor 3.0
 Infiltration Coefficient Base (m/hr) 0.222356 Porosity 1.00
 Infiltration Coefficient Side (m/hr) 0.222356

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	47.4	0.600	113.6

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 64 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	122.714	0.314		2.7	O K
30 min Summer	122.757	0.357		3.0	O K
60 min Summer	122.778	0.378		3.2	O K
120 min Summer	122.781	0.381		3.2	18.6 O K
180 min Summer	122.770	0.370		3.1	O K
240 min Summer	122.756	0.356		3.0	O K
360 min Summer	122.728	0.328		2.8	O K
480 min Summer	122.704	0.304		2.6	O K
600 min Summer	122.682	0.282		2.5	O K
720 min Summer	122.663	0.263		2.3	O K
960 min Summer	122.630	0.230		2.1	O K
1440 min Summer	122.579	0.179		1.8	O K
2160 min Summer	122.527	0.127		1.4	O K
2880 min Summer	122.493	0.093		1.2	O K
4320 min Summer	122.453	0.053		0.9	O K
5760 min Summer	122.442	0.042		0.8	O K
7200 min Summer	122.436	0.036		0.6	O K
8640 min Summer	122.432	0.032		0.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

15 min Summer	136.827	0.0	17
30 min Summer	89.559	0.0	31
60 min Summer	55.837	0.0	50
120 min Summer	33.645	0.0	84
180 min Summer	24.691	0.0	118
240 min Summer	19.711	0.0	152
360 min Summer	14.285	0.0	218
480 min Summer	11.371	0.0	284
600 min Summer	9.521	0.0	348
720 min Summer	8.231	0.0	410
960 min Summer	6.537	0.0	532
1440 min Summer	4.717	0.0	778
2160 min Summer	3.398	0.0	1128
2880 min Summer	2.690	0.0	1496
4320 min Summer	1.933	0.0	2204
5760 min Summer	1.528	0.0	2936
7200 min Summer	1.272	0.0	3672
8640 min Summer	1.095	0.0	4368

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	122.429	0.029		0.5	O K
15 min Winter	122.714	0.314		2.7	O K
30 min Winter	122.759	0.359		3.0	O K
60 min Winter	122.778	0.378		3.2	O K
120 min Winter	122.776	0.376		3.2	O K
180 min Winter	122.760	0.360		3.1	O K
240 min Winter	122.741	0.341		2.9	O K
360 min Winter	122.703	0.303		2.6	O K
480 min Winter	122.671	0.271		2.4	O K
600 min Winter	122.643	0.243		2.2	O K
720 min Winter	122.618	0.218		2.0	O K
960 min Winter	122.578	0.178		1.8	O K
1440 min Winter	122.521	0.121		1.4	O K
2160 min Winter	122.469	0.069		1.0	O K
2880 min Winter	122.447	0.047		0.9	O K
4320 min Winter	122.436	0.036		0.6	O K
5760 min Winter	122.429	0.029		0.5	O K
7200 min Winter	122.425	0.025		0.4	O K
8640 min Winter	122.422	0.022		0.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

10080 min Summer	0.964	0.0	5128
15 min Winter	136.827	0.0	17
30 min Winter	89.559	0.0	31
60 min Winter	55.837	0.0	52
120 min Winter	33.645	0.0	90
180 min Winter	24.691	0.0	126
240 min Winter	19.711	0.0	162
360 min Winter	14.285	0.0	232
480 min Winter	11.371	0.0	298
600 min Winter	9.521	0.0	362
720 min Winter	8.231	0.0	426
960 min Winter	6.537	0.0	550
1440 min Winter	4.717	0.0	792
2160 min Winter	3.398	0.0	1144
2880 min Winter	2.690	0.0	1464
4320 min Winter	1.933	0.0	2200
5760 min Winter	1.528	0.0	2928
7200 min Winter	1.272	0.0	3656
8640 min Winter	1.095	0.0	4352

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Winter	122.419	0.019		0.3 0.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
10080 min Winter	0.964	0.0	5120

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.700	Shortest Storm (mins)	15
Ratio R	0.408	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.048

Time (mins) Area
From: To: (ha)

0 4 0.048

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Model Details

Storage is Online Cover Level (m) 123.000

Infiltration Basin Structure

Invert Level (m) 122.400 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 0.25812 Porosity 1.00
Infiltration Coefficient Side (m/hr) 0.25812

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	26.0	0.600	116.8

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 6 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	122.933	0.133		14.6	6.5 O K
30 min Summer	122.932	0.132		14.5	6.5 O K
60 min Summer	122.910	0.110		13.1	5.2 O K
120 min Summer	122.872	0.072		10.8	3.2 O K
180 min Summer	122.850	0.050		9.6	2.2 O K
240 min Summer	122.842	0.042		7.9	1.8 O K
360 min Summer	122.833	0.033		5.9	1.4 O K
480 min Summer	122.827	0.027		4.8	1.1 O K
600 min Summer	122.823	0.023		4.0	1.0 O K
720 min Summer	122.820	0.020		3.5	0.8 O K
960 min Summer	122.817	0.017		2.8	0.7 O K
1440 min Summer	122.812	0.012		2.0	0.5 O K
2160 min Summer	122.809	0.009		1.5	0.4 O K
2880 min Summer	122.807	0.007		1.2	0.3 O K
4320 min Summer	122.805	0.005		0.8	0.2 O K
5760 min Summer	122.804	0.004		0.7	0.2 O K
7200 min Summer	122.804	0.004		0.6	0.1 O K
8640 min Summer	122.803	0.003		0.5	0.1 O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
-------------	--------------	---------------------	------------------

15 min Summer	136.827	0.0	12
30 min Summer	89.559	0.0	20
60 min Summer	55.837	0.0	36
120 min Summer	33.645	0.0	66
180 min Summer	24.691	0.0	94
240 min Summer	19.711	0.0	124
360 min Summer	14.285	0.0	186
480 min Summer	11.371	0.0	246
600 min Summer	9.521	0.0	306
720 min Summer	8.231	0.0	368
960 min Summer	6.537	0.0	488
1440 min Summer	4.717	0.0	732
2160 min Summer	3.398	0.0	1088
2880 min Summer	2.690	0.0	1428
4320 min Summer	1.933	0.0	2200
5760 min Summer	1.528	0.0	2928
7200 min Summer	1.272	0.0	3568
8640 min Summer	1.095	0.0	4400

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	122.803	0.003		0.4	O K
15 min Winter	122.929	0.129		14.3	O K
30 min Winter	122.920	0.120		13.8	O K
60 min Winter	122.885	0.085		11.7	O K
120 min Winter	122.847	0.047		8.8	O K
180 min Winter	122.837	0.037		6.7	O K
240 min Winter	122.830	0.030		5.4	O K
360 min Winter	122.823	0.023		3.9	O K
480 min Winter	122.818	0.018		3.1	O K
600 min Winter	122.816	0.016		2.6	O K
720 min Winter	122.814	0.014		2.3	O K
960 min Winter	122.811	0.011		1.8	O K
1440 min Winter	122.808	0.008		1.3	O K
2160 min Winter	122.806	0.006		0.9	O K
2880 min Winter	122.805	0.005		0.8	O K
4320 min Winter	122.804	0.004		0.6	O K
5760 min Winter	122.803	0.003		0.4	O K
7200 min Winter	122.802	0.002		0.4	O K
8640 min Winter	122.802	0.002		0.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
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10080 min Summer	0.964	0.0	5024
15 min Winter	136.827	0.0	13
30 min Winter	89.559	0.0	21
60 min Winter	55.837	0.0	38
120 min Winter	33.645	0.0	66
180 min Winter	24.691	0.0	94
240 min Winter	19.711	0.0	126
360 min Winter	14.285	0.0	184
480 min Winter	11.371	0.0	248
600 min Winter	9.521	0.0	300
720 min Winter	8.231	0.0	362
960 min Winter	6.537	0.0	482
1440 min Winter	4.717	0.0	710
2160 min Winter	3.398	0.0	1104
2880 min Winter	2.690	0.0	1444
4320 min Winter	1.933	0.0	2196
5760 min Winter	1.528	0.0	2872
7200 min Winter	1.272	0.0	3656
8640 min Winter	1.095	0.0	4136

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Winter	122.802	0.002		0.3	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
10080 min Winter	0.964	0.0	5088

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.950
Region	England and Wales	Cv (Winter)	0.950
M5-60 (mm)	19.700	Shortest Storm (mins)	15
Ratio R	0.408	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.041

Time (mins) Area
From: To: (ha)

0 4 0.041

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Model Details

Storage is Online Cover Level (m) 123.400

Infiltration Basin Structure

Invert Level (m) 122.800 Safety Factor 3.0
Infiltration Coefficient Base (m/hr) 1.82880 Porosity 1.00
Infiltration Coefficient Side (m/hr) 1.82880

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	39.4	0.600	159.8

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.950	Include Intermediate Ground	✓
Time of Entry (mins)	2.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
IB 9	0.078	2.00	122.100	38.907	80.167	0.200
IB 20	0.037	2.00	121.400	49.450	58.873	0.200
IB 21	0.000	2.00	121.100			0.400

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	20.000	Drain Down Time (mins)	240
Ratio-R	0.400	Additional Storage (m³/ha)	20.0
Summer CV	0.950	Check Discharge Rate(s)	x
Winter CV	0.950	Check Discharge Volume	x

Storm Durations

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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	40	0	0

Node IB 9 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.34992	Safety Factor	3.0	Invert Level (m)	121.500
Side Inf Coefficient (m/hr)	0.34992	Porosity	1.00	Time to half empty (mins)	68

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	8.9	8.9	0.200	36.2	36.2	0.400	77.0	77.0
0.100	20.1	20.1	0.300	55.0	55.0	0.500	102.0	102.0

Node IB 20 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.34992	Safety Factor	3.0	Invert Level (m)	121.000
Side Inf Coefficient (m/hr)	0.34992	Porosity	1.00	Time to half empty (mins)	64



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IB7 & IB8

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	26.4	26.4	0.300	148.8	148.8

Node IB 21 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.34992	Safety Factor	3.0	Invert Level (m)	120.700
Side Inf Coefficient (m/hr)	0.34992	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	6.2	0.0	0.400	70.1	0.0

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.61%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	IB 9	80	121.756	-0.144	6.2	6.6045	0.0000	OK
60 minute summer	IB 20	40	121.067	-0.133	4.7	2.6904	0.0000	OK
15 minute summer	IB 21	1	120.700	0.000	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	
120 minute summer	IB 9	1.000	IB 20	0.0	0.000	0.000	0.0000	
120 minute summer	IB 9	Infiltration		1.5				
60 minute summer	IB 20	1.001	IB 21	0.0	0.000	0.000	0.0000	
60 minute summer	IB 20	Infiltration		1.1				
15 minute summer	IB 21	Infiltration		0.0				

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.61%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	IB 9	80	121.918	0.018	14.5	16.9588	0.0000	OK
120 minute summer	IB 20	84	121.133	-0.067	6.9	7.1240	0.0000	OK
15 minute summer	IB 21	1	120.700	0.000	0.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	
120 minute summer	IB 9	1.000	IB 20	1.0	0.837	0.029	0.0230	
120 minute summer	IB 9	Infiltration		2.6				
120 minute summer	IB 20	1.001	IB 21	0.0	0.000	0.000	0.0000	
120 minute summer	IB 20	Infiltration		2.2				
15 minute summer	IB 21	Infiltration		0.0				

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.61%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	IB 9	36	121.983	0.083	44.2	23.2870	0.0000	OK
120 minute summer	IB 20	76	121.268	0.068	25.6	21.9652	0.0000	OK
120 minute summer	IB 21	126	121.054	0.354	9.0	12.2053	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	
60 minute summer	IB 9	1.000	IB 20	19.6	1.973	0.587	0.1988	
60 minute summer	IB 9	Infiltration		3.2				
120 minute summer	IB 20	1.001	IB 21	9.0	1.049	0.422	0.4385	
120 minute summer	IB 20	Infiltration		4.3				
120 minute summer	IB 21	Infiltration		0.0				