East Midlands Gateway
Phase 2 (EMG2)

Document DCO 6.13K/MCO 6.13K

ENVIRONMENTAL STATEMENT

Technical Appendices

Appendix 13K

Sustainable Drainage Statement – Highway Works

August 2025

13

The East Midlands Gateway Phase 2 and Highway Order 202X and The East Midlands Gateway Rail Freight and Highway (Amendment) Order 202X

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ENVIRONMENT

SEGRO (Properties) Ltd
East Midlands Gateway 2
Diseworth
Sustainable Drainage Statement – Highway Works

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1. INTRODUCTION

1.1 A Sustainable Drainage Statement (SDS) sets out the principles of drainage design for a development and summarises the reasoning behind the chosen design. This includes justification of specific flow rates, volumes of attenuated storage, as well as the appropriate level of treatment to be provided to surface water runoff.

1.2 This SDS has been produced by BWB Consulting on behalf of SEGRO (Properties) Ltd in respect of a Development Consent Order (DCO) for East Midlands Gateway 2 (EMG2), with this SDS report forming an appendix to the Environmental Statement (ES) submitted in support of the DCO.

1.3 A Flood Risk Screening Report (FRSR) has been developed for the study areas (reference: EMG2-BWB-ZZ-XX-T-W-0007) and this SDS accompanies the FRSR.

1.4 The proposed development is to be submitted for a DCO, and as such the details have been developed in consultation with the relevant statutory bodies relating to flood risk and drainage for the study areas.

1.5 The Lead Local Flood Authority (LLFA) for the study areas are Leicestershire County Council (LCC). The LLFA are not the prescribed consultee under the DCO process; however North West Leicestershire District Council, the Local Planning Authority (LPA), are. As the LPA is not the LLFA for the study areas, the Environment Agency (EA) have been deferred to as the relevant body to comment on the surface water drainage strategy. Despite this, as the LLFA is the body responsible for surface water flood risk in relation to planning, LCC have been consulted through the DCO consultation stage and will comment of the surface water drainage proposals, via the EA.

Situational Context & Associated Development

1.6 The proposed development comprises a number of interrelated component parts as follows, and collectively they are referred to as the EMG2 Project:

- **EMG2 Works:**
  - Construction of logistics and advanced manufacturing development and ancillary buildings (DCO, Works No. 1);
  - Construction of road infrastructure (DCO, Works No. 2);
  - Construction of bus interchange (DCO, Works No. 3);
  - Construction of HGV parking (DCO Works No. 4);
  - Provision of hard and soft landscaping (DCO Works No. 5);
  - Creation of a Community Park (DCO, Work No. 21); and
  - Upgrade of the EMG1 substation (DCO, Work No. 20)[1].
- **Highways Works**
  - A453 access junction works to the EMG2 Main Site (Works No. 6);

[1] Note – As the existing substation is drained via the existing EMG1 drainage system, these specific works have been assessed within the EMG1 Works SDS report (reference: EMG2-BWB-ZZ-XX-RP-CD-0002_SDS (EMG1 Works))

- Hyam's Lane works (Works No. 7);
- Works to the M1 northbound (Works No. 8);
- Construction of link road from the M1 northbound to the A50 westbound (Works No. 9);
- Works to the A50 westbound (Works No. 10);
- Works to the link road from the M1 southbound and A50 eastbound to M1 Junction 24 (Works No. 11);
- Works to the west side of the M1 Junction 24 roundabout and A453 northbound approach (Works No. 12a);
- Works to the east side of the M1 Junction 24 roundabout and A453 southbound approach (Works No. 12b);
- Improvements to the EMG1 access junction (Works No. 13);
- Construction of the Active Travel Link between the EMG1 access junction and the A453 west of Finger Farm roundabout (Works No. 14);
- Provision of an uncontrolled crossing of the A453 at the East Midland Airport signalised access junction (Works No. 15);
- Works to M1 northbound signage on the approach to M1 Junction 23A (Works No. 16);
- Works to Long Holden (Works No. 17);
- Works to the A42/A453 Finger Farm roundabout (Works No. 18); and
- Upgrade to public footpath L57 to a cycle track (Works No. 19).

- **EMG1 Works**
  - Construction of a new rail-served warehouse building on land adjacent to the rail-freight terminal referred to as Plot 16 (MCO, Works No. 3A) together with associated access and drainage infrastructure, (MCO, Works No. 5A) and landscaping (MCO, Works No. 6A).
  - Alterations to the maximum permitted height of gantry cranes at the rail freight interchange by 4m, to 24m overall;
  - An expansion of the EMG1 Management Suite by the EMG1 site entrance to cater for the additional demand on management facilities resulting from EMG1 (MCO, Works No. 3B);
  - Enhancements to the Public Transport Interchange by way of the installation of EV charging infrastructure for buses and provision of a drop-off layby adjacent to the transport hub (MCO, Works No. 5B and 5C); and
  - Provision of a signalised crossing over the EMG1 exit road approach to the access junction to EMG1 (MCO, Works No. 8A) connecting to the drop-off layby.

1.7 An illustrative site location plan is provided as **Figure 1.1**, which also identifies the approximate extent of the development component parts. This SDS has been prepared in relation to the 'Highways Works'.

1.8 The EMG1 Works and EMG2 Works have been reviewed under separate cover (references: EMG2-BWB-ZZ-XX-RP-CD-0002_SDS (EMG1 Works) and EMG2-BWB-ZZ-XX-RP-CD-0001_SDS (EMG2 Works), respectively).

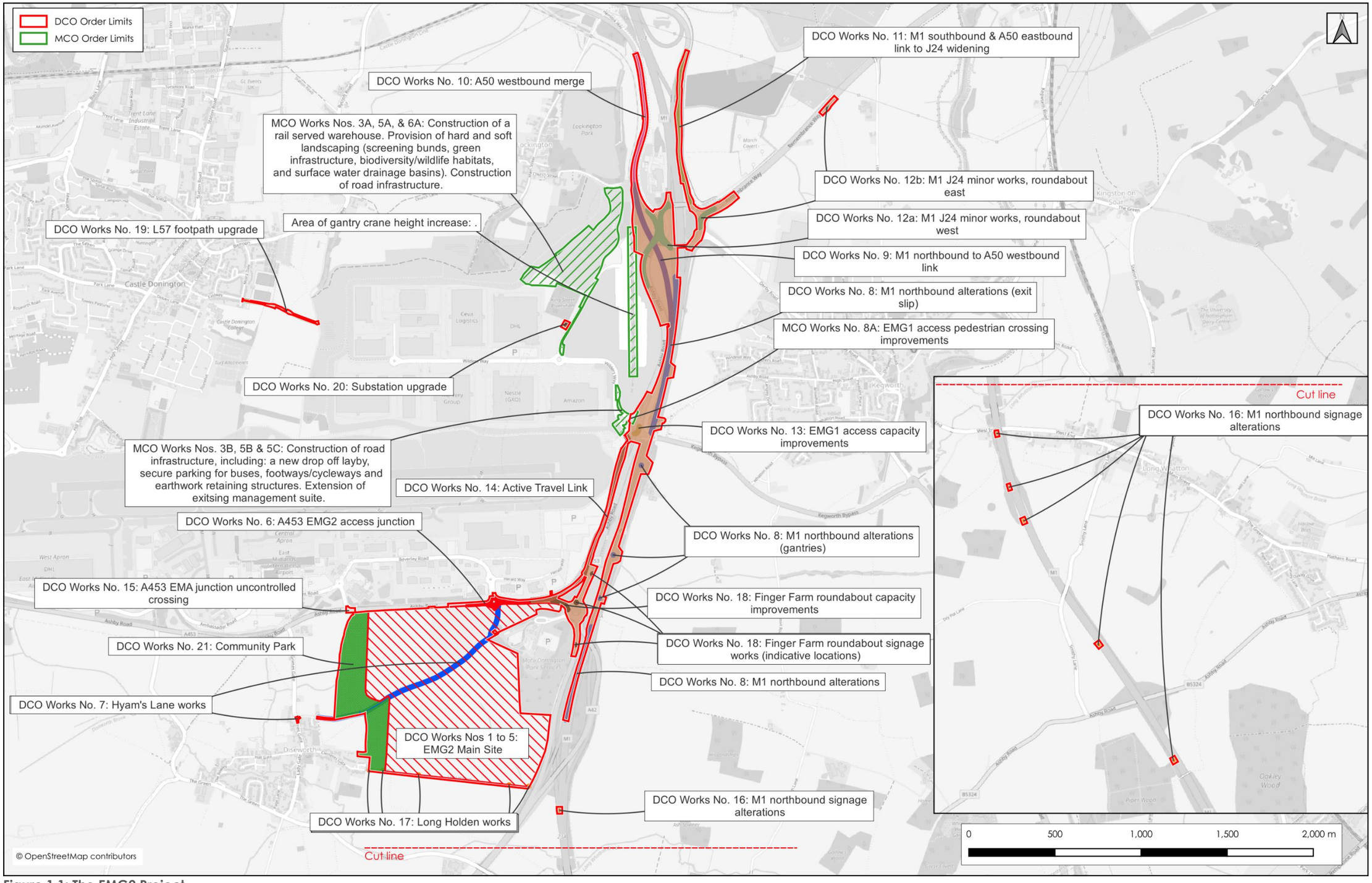


Figure 1.1: The EMG2 Project

1.9 Refer to the following DCO Documents for the proposed highways general arrangement drawings:

- DCO Document 2.8;
- DCO Document 2.8A;
- DCO Document 2.8B;
- DCO Document 2.8C; and
- DCO Document 2.8D.

1.10 Contextual information for the site is provided within **Table 1.1**.

Table 1.1: Site Details

Site Name	Highway Works
NGR (approx.)	SK470270
Proposed Contributing Area (ha)	10.33
Development Type	Highway
Lead Local Flood Authority	LCC
EA Area	East Midlands

Sustainable Drainage Guidance

Guidance Documents

1.11 This SDS and associated drainage strategy has been written with reference to the following guidance documents:

- LCC's Interim LLFA Guidance Note: Planning and Development in Leicestershire[2];
- The DEFRA Non-Statutory Technical Standards for SuDS[3];
- The National Policy Statement for National Networks[4] (NPSNN); and
- The Department for Transport (DfT) and National Highways (NH) Strategic Road network and the delivery of sustainable development guidance (reference: DfT Circular 01/2022)[5]; and
- The CIRIA C753 SuDS Manual[6].

[2] Interim LLFA Guidance Note: Planning and Development in Leicestershire -Rev A (Leicestershire County Council, October 2018)
[3] 2015, DEFRA. Non-statutory technical standards for sustainable drainage systems
[4] National Policy Statement for National Networks, Department for Transport, March 2024
[5] Strategic road network and the delivery of sustainable development guidance (Department for Transport and National Highways, December 2022)
[6] The SuDS Manual Version 6 (CIRIA, 2019)

Climate Change and Urban Creep Allowances

1.12 The study areas is located within the Soar Management Catchment within the Humber River Basin District. Table 2 from the EA's 'Flood risk assessments: climate change allowances', included as **Table 1.2**, shows the anticipated changes in peak rainfall intensity for the study areas.

Table 1.2: Soar Management Catchment Peak Rainfall Allowances

Soar Management Catchment Allowance	Total Potential Change Anticipated for the '2050s' (Lifetime up to 2060)	Total Potential Change Anticipated for the '2070s' (2061 to 2125)
1 in 30-Year Rainfall Event		
Upper End	35%	35%
Central	20%	25%
1 in 100-Year Rainfall Event		
Upper End	40%	40%
Central	20%	25%

1.13 The proposed development is anticipated to have a lifespan of up to 75 years, therefore the 2070's epoch central allowance will be used to assess the impacts of climate change for the proposed surface water drainage strategy. Sensitivity testing has been undertaken using the 2070's epoch upper end allowance to ensure that there is no increase in flood risk elsewhere and the built development will be safe from surface water flooding over the anticipated lifetime of the proposed development.

1.14 Based on the above guidance, an allowance of 25% will be applied to the 1 in 100-year return period within the drainage design calculations, with sensitivity testing using a 40% allowance to the 1 in 100-year return period. During the detailed design stage a 25% climate change allowance, with a 35% sensitivity test, should be applied to the 1 in 30-year return period within the drainage design calculations. As the development is built out, the latest EA climate change allowance should be reviewed and used for the detailed design calculations for each phase of the development.

1.15 Based on the proposed development use, no urban creep allowance has been applied to the drainage design calculations.

2. EXISTING CONDITIONS

2.1 The proposed Highway Works are detailed across the EMG2 Works Flood Risk Assessment (reference: EMG2-BWB-ZZ-XX-T-W-0001) and the Highway Works FRSR (reference EMG2-BWB-ZZ-XX-T-W_0007). It is important to note that the study areas considered within this assessment are limited to those that influence existing surface water runoff. Specifically, the assessment focuses solely on locations where the proposed works are expected to have an impact on current surface water drainage patterns:

- DCO Works No.6: A453 EMG2 access junction
- DCO Works No.9: M1 northbound to A50 westbound link
- DCO Works No.10: A50 westbound merge
- DCO Works No.11: M1 southbound & A50 eastbound link to J24 widening
- DCO Works No.13: EMG1 access capacity improvements
- DCO Works No.14: Active Travel Link

2.2 The accompanying flood risk reports identify that the study areas are generally at low risk of flooding, although there are several potential surface water flow pathways that could form across the Highways Works. These potential flow paths are relatively shallow and generally originate from within the highways. More details on the potential flood risk sources to the study areas and the proposed mitigation measures are outlined in the accompanying flood risk reports.

Existing Runoff Rates

2.3 To determine the existing discharge rates network models of the existing surface water drainage systems, using Causeway Flow, have been created of the catchments effected in by the proposed works.

2.4 Simulations have been run to identify the existing discharge rates for each catchment using FEH-22 rainfall data.

DCO Works No.6: A453 EMG2 access junction

2.5 The existing impermeable area 0.448 ha is drained by two drain networks the run on the north and south of the A453 (impermeable area north 0.158ha south 0.29ha), the results are summarised **Table 2.1 & Table 2.2**, the calculations are included as **Appendix 2**.

Table 2.1: Existing Runoff Rate DCO Works No.6 (North Catchment)

Return Period (Yrs.)	Runoff Rate (l/s)
1	8.2
30	44.3
30 +25%	58.2

Return Period (Yrs.)	Runoff Rate (l/s)
100	61.8
100 + 25%	80.1
100 + 40%	90.4

Table 2.2: Existing Runoff Rate DCO Works No.6 (South Catchment)

Return Period (Yrs.)	Runoff Rate (l/s)
1	13.3
30	27.1
30 +25%	29.1
100	29.6
100 +25%	31.3
100 +40%	32.1

DCO Works No.9: M1 northbound to A50 westbound link

2.6 Existing impermeable area 3.185 ha is drained by two drain networks the run on the north and south of the A453 (impermeable area north 0.688ha south 2.497ha), the results are summarised in **Table 2.3 & Table 2.4** the calculations are included as **Appendix 3**.

Table 2.3: Existing Runoff Rate DCO Works No.9 (North Catchment)

Return Period (Yrs.)	Runoff Rate (l/s)
1	12.5
30	18.0
30 +25%	19.4
100	19.7
100 +25%	19.8
100 +40%	19.9

Table 2.4: Existing Runoff Rate DCO Works No.9 (South Catchment)

Return Period (Yrs.)	Runoff Rate (l/s)
1	187.7
30	768.4
30 +25%	975.0
100	1016.6
100 +25%	1286.6
100 +40%	1461.5

DCO Works No.10: A50 westbound merge

2.7 Existing impermeable area 0.755ha, the results are summarised in **Table 2.5** the calculations are included as **Appendix 4**.

Table 2.5: Existing Runoff Rate DCO Works No.10

Return Period (Yrs.)	Runoff Rate (l/s)
1	73.2
30	239.4
30 +25%	291.1
100	301.9
100 +25%	363.8
100 +40%	397.0

DCO Works No.11: M1 southbound & A50 eastbound link to J24 widening

2.8 Existing impermeable area 2.201ha, the results are summarised in **Table 2.6** the calculations are included as **Appendix 5**.

Table 2.6: Existing Runoff Rate DCO Works No.11

Return Period (Yrs.)	Runoff Rate (l/s)
1	11.2
30	12.8
30 +25%	12.8

Return Period (Yrs.)	Runoff Rate (l/s)
100	12.8
100 +25%	12.8
100 +40%	12.8

DCO Works No.13: EMG1 access capacity improvements

2.9 Existing impermeable area 2.230ha, the results are summarised in **Table 2.7** the calculations are included as **Appendix 6**.

Table 2.7: Existing Runoff Rate DCO Works No.13

Return Period (Yrs.)	Runoff Rate (l/s)
1	100.9
30	360.4
30 +25%	411.2
100	428.3
100 +25%	438.2
100 +40%	459.9

DCO Works No.14: Active Travel Link

2.10 The proposed improvements in this location include a new shared use foot/cycle way connecting EMG1 with EMG2, the major of the route is already paved and drained. However, there is a section approximately 0.291ha that is greenfield in character.

2.11 The runoff rates have been estimated using the Flood Estimation Handbook (FEH) statistical method. This was undertaken using the UKSUDS Greenfield Runoff Rate Estimation Tool, summarised within **Table 2.8.**

Table 2.8: Existing Runoff Rate per hectare from the Site

Return Period (Yrs.)	Runoff Rate (l/s/ha)
1	1.5
30	3.6
100	4.6

2.12 The current runoff rates from the area of proposed Link is summarised within **Table 2.9**.

Table 2.9: Existing Runoff Rate from Works No.14 Greenfield areas

Return Period (Yrs.)	Runoff Rate (l/s)
1	0.4
30	1.1
100	1.3

3. SURFACE WATER DRAINAGE STRATEGY

3.1 The proposed contributing impermeable areas have been measured from the highway works general arrangement drawings (DCO Documents 2.8, 2.8A, 2.8B, 2.8C and 2.8D).

3.2 Given the nature of the DCO applications being approved based on the parameters plan, as the development is built out, the contributing areas may change and therefore the final drainage requirements and discharge rates from the proposed highway works may differ from the calculations outlined within this SDS. The principles set out within this report should be carried through as the development is built out.

Drainage Hierarchy

3.3 The Planning Policy Guidance[7] and the SuDS Manual[8] identify that surface water runoff from a development should be disposed of as high up the following hierarchy as reasonably practicable:

i. into the ground (infiltration).
ii. to a surface water body.
iii. to a surface water sewer, highway drain, or another drainage system.
iv. to a combined sewer.

3.4 The aim of this is approach is to manage surface water runoff close to where it falls and mimic natural drainage as closely as possible.

Infiltration

3.5 As all the areas of works are alteration to existing highway drainage networks, and due to unfavourable ground conditions, it is not practicable to utilise infiltration to dispose of surface water runoff.

Surface water body

3.6 As all the areas of works are alteration to existing highway drainage networks it is not practicable to make new outfall to a surface water body.

Surface water sewer, highway drain, or another drainage system.

3.7 All study areas will discharge to existing highway drains.

Peak Flow Control

3.8 In order to comply with the Non-Statutory Technical Standards for Sustainable Drainage Systems S2-S3[9], runoff from developments should not exceed the equivalent greenfield rates for the 1 and 100-year return period events. Additionally, to comply with the NH

[7] Planning Practice Guidance. http://planningguidance.planningportal.gov.uk/.
[8] The SuDS Manual (C753). CIRIA 2015.
[9] 2015, DEFRA. Non-statutory technical standards for sustainable drainage systems

DfT Circular 01/2022, the existing flow rates from the catchments into culverts should not increase post-development.

DCO Works No.6: A453 EMG2 access junction

3.9 Proposed additional impermeable area 0.215ha, equivalent greenfield rates are summarised in **Table 3.1**

Table 3.1: Greenfield Runoff Rate Works No.6

Return Period (Yrs.)	Runoff Rate (l/s)
1	0.3
30	0.8
100	1.0

3.10 It is proposed that the new impermeable areas will be drained to the existing drainage network with no increase in end of system discharge rates for all return periods up to 1 in 100-year storm plus 40% allowance for climate change.

3.11 The Causeway Flow models of the existing network has been updated and amended where needed with the proposals, the results are summarised in **Table 3.2 & Table 3.3** the calculations are included as **Appendix 7**.

Table 3.2: Proposed Runoff Rate DCO Works No.6 (North Catchment)

Return Period (Yrs.)	Existing Runoff Rate (l/s)	Proposed Runoff Rate (l/s)	Betterment (l/s)
1	8.2	4.7	-3.5
30	44.3	20.4	-23.9
30 +25%	58.2	27.7	-30.5
100	61.8	30.0	-31.8
100 + 25%	80.1	39.9	-40.2
100 + 40%	90.4	47.2	-43.2

Table 3.3: Proposed Runoff Rate DCO Works No.6 (South Catchment)

Return Period (Yrs.)	Existing Runoff Rate (l/s)	Proposed Runoff Rate (l/s)	Betterment (l/s)
1	13.3	9.4	-3.9
30	27.1	20.3	-6.8
30 +25%	29.1	21.5	-7.6
100	29.6	21.8	-7.8
100 +25%	31.3	23.8	-7.5
100 +40%	32.1	25.2	-6.9

DCO Works No.9: M1 northbound to A50 westbound link

3.12 Proposed additional impermeable area 1.361ha, equivalent greenfield rates are summarised in **Table 3.4**

Table 3.4: Greenfield Runoff Rate Works No.9

Return Period (Yrs.)	Runoff Rate (l/s)
1	2.0
30	4.9
100	6.3

3.13 It is proposed that the new impermeable areas will be drained to the existing drainage network with no increase in end of system discharge rates for all return periods up to 1 in 100-year storm plus 40% allowance for climate change.

3.14 The Causeway Flow models of the existing network has been updated and amended where needed with the proposals, the results are summarised in **Table 3.5 & Table 3.6** the calculations are included as **Appendix 8**.

Table 3.5: Proposed Runoff Rate DCO Works No.9 (North Catchment)

Return Period (Yrs.)	Existing Runoff Rate (l/s)	Proposed Runoff Rate (l/s)	Betterment
1	12.5	6.5	-6
30	18	10.7	-7.3
30 +25%	19.4	12.1	-7.3
100	19.7	12.5	-7.5
100 + 25%	19.8	14.5	-5.3
100 + 40%	19.9	17.3	-2.6

Table 3.6: Proposed Runoff Rate DCO Works No.9 (South Catchment)

Return Period (Yrs.)	Existing Runoff Rate (l/s)	Proposed Runoff Rate (l/s)	Betterment
1	187.7	193.7	+6.0
30	768.4	700.6	-67.8
30 +25%	975.0	864.0	-111.0
100	1016.6	898.9	-117.7
100 +25%	1286.6	1112.2	-174.4
100 +40%	1461.5	1240.0	-221.5

DCO Works No.10: A50 westbound merge

3.15 Proposed additional impermeable area 0.327ha, equivalent greenfield rates are summarised in **Table 3.7**.

Table 3.7: Greenfield Runoff Rate Works No.10

Return Period (Yrs.)	Runoff Rate (l/s)
1	0.5
30	1.2
100	1.5

3.16 It is proposed that the new impermeable areas will be drained to the existing drainage network with no increase in end of system discharge rates for all return periods up to 1 in 100-year storm plus 40% allowance for climate change.

3.17 The Causeway Flow models of the existing network has been updated and amended where needed with the proposals, the results are summarised in **Table 3.8** the calculations are included as **Appendix 9**.

Table 3.8: Proposed Runoff Rate DCO Works No.10

Return Period (Yrs.)	Existing Runoff Rate (l/s)	Proposed Runoff Rate (l/s)	Betterment
1	73.2	75.0	+1.8
30	239.4	240.5	+1.1
30 +25%	291.1	252.0	-39.1
100	301.9	253.2	-48.7
100 + 25%	363.8	265.1	-98.7
100 + 40%	397	270.7	-126.3

DCO Works No.11: M1 southbound & A50 eastbound link to J24 widening

3.18 Proposed additional impermeable area 0.377ha, equivalent greenfield rates are summarised in **Table 3.9.**

Table 3.9: Greenfield Runoff Rate Works No.11

Return Period (Yrs.)	Runoff Rate (l/s)
1	0.57
30	1.36
100	1.73

3.19 It is proposed that the new impermeable areas will be drained to the existing drainage network with no increase in end of system discharge rates for all return periods up to 1 in 100-year storm plus 40% allowance for climate change.

3.20 The Causeway Flow models of the existing network has been updated and amended where needed with the proposals, the results are summarised in **Table 3.10** the calculations are included as **Appendix 10**.

Table 3.10: Proposed Runoff Rate DCO Works No.11

Return Period (Yrs.)	Existing Runoff Rate (l/s)	Proposed Runoff Rate (l/s)	Betterment
1	9.5	11.2	+1.7
30	12.8	12.8	0
30 +25%	12.8	12.8	0
100	12.8	12.8	0
100 + 25%	12.8	12.8	0
100 + 40%	12.8	12.8	0

DCO Works No.13: EMG1 access capacity improvements

3.21 Proposed additional impermeable area 0.215ha, equivalent greenfield rates are summarised in **Table 3.11**Table 3.1

Table 3.11: Greenfield Runoff Rate Works No.13

Return Period (Yrs.)	Runoff Rate (l/s)
1	0.03
30	0.08
100	0.11

3.22 It is proposed that the new impermeable areas will be drained to the existing drainage network with no increase in end of system discharge rates for all return periods up to 1 in 100-year storm plus 40% allowance for climate change.

3.23 The Causeway Flow models of the existing network has been updated and amended where needed with the proposals, the results are summarised in **Table 3.12** the calculations are included as **Appendix 11**.

Table 3.12: Proposed Runoff Rate DCO Works No.13

Return Period (Yrs.)	Existing Runoff Rate (l/s)	Proposed Runoff Rate (l/s)	Betterment
1	100.9	100.6	-0.3
30	360.4	360.2	-0.2
30 +25%	411.2	414.9	+3.7
100	428.3	414.9	-13.4
100 + 25%	438.4	427.7	-10.7
100 + 40%	459.9	459.5	*0.4

DCO Works No.14: Active Travel Link

3.24 Proposed additional impermeable area 0.2ha, equivalent greenfield rates are summarised in **Table 3.13.**

Table 3.13: Greenfield Runoff Rate Works No.14

Return Period (Yrs.)	Runoff Rate (l/s)
1	0.44
30	1.05
100	1.34

3.25 It is proposed that the new impermeable areas will be drained via new swales and drains to the existing culvert flowing under the motorway, however it is not practicable to limit the new Link to greenfield rate, therefore the discharge rate is proposed to be limited to less than 5l/s for all return periods up to 1 in 100-year storm plus 40% allowance for climate change.

3.26 A Causeway Flow model of the proposed network has been produced, the results are summarised in **Table 3.14** the calculations are included as **Appendix 12**.

Table 3.14: Proposed Runoff Rate DCO Works No.14

Return Period (Yrs.)	Existing Runoff Rate (l/s)	Proposed Runoff Rate (l/s)	Betterment
1	0.4	2.9	*2.5
30	1.1	3.9	+2.9
30 +25%	1.1	4.2	+3.2
100	1.3	4.2	+2.9
100 + 25%	1.3	4.5	+3.2
100 + 40%	1.3	4.6	+3.3

3.27 The discharge rates for each Works Area pre and post development are summarised in **Table 3.15 and Table 3.16** and demonstrate the proposed highway works will offer a reduction is total discharge rate.

Table 3.15: Pre Development Discharge (l/s)

Return Period (Yrs.)	No.6 North	No6 South	No.9 North	No.9 South	No.10	No.11	No.13	No.14	Total
1	8.2	13.3	12.5	187.7	73.2	9.5	100.9	0.44	405.7
30	44.3	27.1	18	768.4	239.4	12.8	360.4	1.05	1471.4
30 +25%	58.2	29.1	19.4	975	291.1	12.8	411.2	1.05	1797.8
100	61.8	29.6	19.7	1016.6	301.9	12.8	428.3	1.34	1872.0
100 + 25%	80.1	31.3	19.8	1286.6	363.8	12.8	438.4	1.34	2234.1
100 + 40%	90.4	32.1	19.9	1461.5	397	12.8	459.9	1.34	2474.9

Table 3.16: Post Development Discharge (l/s)

Return Period (Yrs.)	No.6 North	No6 South	No.9 North	No.9 South	No.10	No.11	No.13	No.14	Total
1	4.7	9.4	6.5	193.7	75.0	11.2	100.6	2.9	404.0
30	20.4	20.3	10.7	700.6	240.5	12.8	360.2	3.9	1369.4
30 +25%	27.7	21.5	12.1	864.0	252.0	12.8	414.9	4.2	1609.2
100	30	21.8	12.5	898.9	253.2	12.8	414.9	4.2	1648.3
100 + 25%	39.9	23.8	14.5	1112.2	265.1	12.8	427.7	4.5	1900.5
100 + 40%	47.2	25.2	17.3	1240.0	270.7	12.8	459.5	4.6	2077.3

Sustainable Drainage Systems

3.28 The drainage strategy proposes to utilise detention basins, conveyance swales, and ditches within the study areas to provide conveyance, storage, and water quality treatment to surface water flows prior to discharge from the study areas where space allows.

3.29 The detention basins and swales within the study areas will be lined with an impermeable membrane to mitigate the risk of any potential pollutants infiltrating into the ground and contaminating the groundwater recharge in the vicinity of the study areas.

3.30 Based on the study areas proximity to East Midland Airport, the detention basins will be formed with a ridged base in a 'crinkle-cut' style to promote faster drain down times and discourage birds gathering during the lower return periods.

3.31 Flow rates are proposed to be controlled be a series of v-notch or slot weirs within swales and ditches and orifice plates and vortex flow controls at chambers and headwall.

4. SUMMARY

4.1 This statement and supporting appendices demonstrate that the drainage design for the highway works will comply with the relevant local and national standards, specifically the hierarchy of discharge, runoff rate and volume criterion.

4.2 This SDS is intended to support a DCO and as such the level of detail included is commensurate and subject to the nature of the proposals.

Table 4.1: Sustainable Drainage Statement Summary

		Existing Site	Proposed Development
Impermeable Area (Ha)		9.11	11.41
Outfall Location		Watercourse	Watercourse
	1 in 1-Year	405.7	399.1
	1 in 30-Year	1471.4	1389.1
	1 in 100-Year	1872.0	1671.7
	1 in 100-Year + CC	2474.9	2101.1
Flow Control Type		Work No.9 North – Orifice Work No.11 – Vortex Control	Vortex Controls, V-Notch Weirs, Slot Weirs, and Orifice plates
SuDS Features		Work No.11 – Wetlands	Detention Basins, Swales, Wetlands and Ditches
Maintenance Responsibility		Local Highway Authority and/or National Highways	Local Highway Authority and/or National Highways

4.3 It is envisaged that the final drainage strategy will be determined during the detailed design stage, as the development layout is finalised.

APPENDICES

Appendix 1: Greenfield Runoff Calculation

Greenfield runoff rate estimation tool

www.uksuds.com | Greenfield runoff rate estimation tool (https://www.uksuds.com/)

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

Project details

Date	02/06/2025
Calculated by	Matthew Bailey
Reference	EMG1 MCO
Model version	2.0.1

Location

Site name	East Midlands Gateway MCO
Site location	East Midlands Gateway



Site easting	446972
Site northing	327431

Site details

Total site area (ha)	1 ha

Greenfield runoff

Method

Method	FEH statistical

FEH statistical

	My value		Map value
SAAR (mm)	628 mm		624
BFIHOST	0.591		
QMed-QBar conversion	1.124		1.124
QMed (l/s)	1.59 l/s		
QBar (FEH statistical) (l/s)	1.8 l/s		

Growth curve factors

	My value		Map value
Hydrological region	4		4
1 year growth factor	0.83		
2 year growth factor	0.89		
10 year growth factor	1.49		
30 year growth factor	2		
100 year growth factor	2.57		
200 year growth factor	3.04		

Results

Method	FEH statistical
Flow rate 1 year (l/s)	1.5 l/s
Flow rate 2 year (l/s)	1.6 l/s
Flow rate 10 years (l/s)	2.7 l/s
Flow rate 30 years (l/s)	3.6 l/s
Flow rate 100 years (l/s)	4.6 l/s
Flow rate 200 years (l/s)	5.4 l/s

Disclaimer

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

Appendix 2: DCO Works No.6 Existing Drainage

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	0.100
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	x
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	4.00	Minimum Backdrop Height (m)	0.200		

Circular Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

Ditch Link Type

Shape	Trapezoidal	Height (mm)	500	Auto Increment (mm)	100	Velocity	Manning
Barrels	1	Side Slope (1:X)	1.0	Follow Ground	x	ks (mm) / n	0.040

Available Diameters (mm)

500

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.051	4.00	86.690		446454.898	325451.551	0.600
2			87.180	1200	446415.634	325437.913	1.580
3	0.041	4.00	86.630	1200	446370.997	325425.368	1.130
4			86.200		446359.379	325430.366	0.800
5	0.027	4.00	86.530	1200	446314.548	325421.354	0.630
6			86.200		446313.396	325427.584	0.850
7	0.011	4.00	86.060	1200	446290.360	325419.527	0.660
8			86.060		446289.208	325425.757	0.750
9	0.028	4.00	85.670	1200	446231.497	325417.219	0.200

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
10			85.550		446230.975	325423.499	0.570
11			85.250		446204.887	325422.029	0.310

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Normal	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
30	0	0	0	100	25	0	0
30	25	0	0	100	40	0	0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	76.777	21.725	1 year 180 minute winter	13.189	5.221
1 year 15 minute winter	53.878	21.725	1 year 240 minute summer	16.663	4.404
1 year 30 minute summer	48.990	13.863	1 year 240 minute winter	11.071	4.404
1 year 30 minute winter	34.379	13.863	1 year 360 minute summer	13.157	3.386
1 year 60 minute summer	32.661	8.631	1 year 360 minute winter	8.552	3.386
1 year 60 minute winter	21.699	8.631	1 year 480 minute summer	10.463	2.765
1 year 120 minute summer	24.515	6.479	1 year 480 minute winter	6.951	2.765
1 year 120 minute winter	16.287	6.479	1 year 600 minute summer	8.578	2.346
1 year 180 minute summer	20.290	5.221	1 year 600 minute winter	5.861	2.346

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 720 minute summer	7.626	2.044	30 year +25% CC 30 minute summer	228.334	64.611
1 year 720 minute winter	5.125	2.044	30 year +25% CC 30 minute winter	160.234	64.611
1 year 960 minute summer	6.203	1.634	30 year +25% CC 60 minute summer	152.248	40.235
1 year 960 minute winter	4.109	1.634	30 year +25% CC 60 minute winter	101.150	40.235
1 year 1440 minute summer	4.409	1.182	30 year +25% CC 120 minute summer	94.691	25.024
1 year 1440 minute winter	2.963	1.182	30 year +25% CC 120 minute winter	62.911	25.024
30 year 15 minute summer	279.897	79.201	30 year +25% CC 180 minute summer	72.803	18.735
30 year 15 minute winter	196.419	79.201	30 year +25% CC 180 minute winter	47.324	18.735
30 year 30 minute summer	182.667	51.688	30 year +25% CC 240 minute summer	57.349	15.156
30 year 30 minute winter	128.187	51.688	30 year +25% CC 240 minute winter	38.101	15.156
30 year 60 minute summer	121.798	32.188	30 year +25% CC 360 minute summer	43.182	11.112
30 year 60 minute winter	80.920	32.188	30 year +25% CC 360 minute winter	28.069	11.112
30 year 120 minute summer	75.753	20.019	30 year +25% CC 480 minute summer	33.398	8.826
30 year 120 minute winter	50.329	20.019	30 year +25% CC 480 minute winter	22.189	8.826
30 year 180 minute summer	58.243	14.988	30 year +25% CC 600 minute summer	26.867	7.349
30 year 180 minute winter	37.859	14.988	30 year +25% CC 600 minute winter	18.357	7.349
30 year 240 minute summer	45.879	12.124	30 year +25% CC 720 minute summer	23.550	6.312
30 year 240 minute winter	30.481	12.124	30 year +25% CC 720 minute winter	15.827	6.312
30 year 360 minute summer	34.546	8.890	30 year +25% CC 960 minute summer	18.780	4.945
30 year 360 minute winter	22.456	8.890	30 year +25% CC 960 minute winter	12.440	4.945
30 year 480 minute summer	26.718	7.061	30 year +25% CC 1440 minute summer	13.004	3.485
30 year 480 minute winter	17.751	7.061	30 year +25% CC 1440 minute winter	8.739	3.485
30 year 600 minute summer	21.494	5.879	100 year 15 minute summer	364.661	103.186
30 year 600 minute winter	14.686	5.879	100 year 15 minute winter	255.902	103.186
30 year 720 minute summer	18.840	5.049	100 year 30 minute summer	239.884	67.879
30 year 720 minute winter	12.662	5.049	100 year 30 minute winter	168.340	67.879
30 year 960 minute summer	15.024	3.956	100 year 60 minute summer	160.969	42.539
30 year 960 minute winter	9.952	3.956	100 year 60 minute winter	106.944	42.539
30 year 1440 minute summer	10.403	2.788	100 year 120 minute summer	100.180	26.475
30 year 1440 minute winter	6.992	2.788	100 year 120 minute winter	66.557	26.475
30 year +25% CC 15 minute summer	349.871	99.002	100 year 180 minute summer	77.199	19.866
30 year +25% CC 15 minute winter	245.524	99.002	100 year 180 minute winter	50.182	19.866

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year 240 minute summer	60.869	16.086
100 year 240 minute winter	40.440	16.086
100 year 360 minute summer	45.775	11.779
100 year 360 minute winter	29.755	11.779
100 year 480 minute summer	35.370	9.347
100 year 480 minute winter	23.499	9.347
100 year 600 minute summer	28.397	7.767
100 year 600 minute winter	19.403	7.767
100 year 720 minute summer	24.828	6.654
100 year 720 minute winter	16.686	6.654
100 year 960 minute summer	19.675	5.181
100 year 960 minute winter	13.033	5.181
100 year 1440 minute summer	13.466	3.609
100 year 1440 minute winter	9.050	3.609
100 year +25% CC 15 minute summer	455.826	128.983
100 year +25% CC 15 minute winter	319.878	128.983
100 year +25% CC 30 minute summer	299.855	84.849
100 year +25% CC 30 minute winter	210.424	84.849
100 year +25% CC 60 minute summer	201.211	53.174
100 year +25% CC 60 minute winter	133.680	53.174
100 year +25% CC 120 minute summer	125.225	33.093
100 year +25% CC 120 minute winter	83.197	33.093
100 year +25% CC 180 minute summer	96.499	24.833
100 year +25% CC 180 minute winter	62.727	24.833
100 year +25% CC 240 minute summer	76.086	20.107
100 year +25% CC 240 minute winter	50.550	20.107
100 year +25% CC 360 minute summer	57.219	14.724
100 year +25% CC 360 minute winter	37.194	14.724
100 year +25% CC 480 minute summer	44.213	11.684
100 year +25% CC 480 minute winter	29.374	11.684
100 year +25% CC 600 minute summer	35.497	9.709
100 year +25% CC 600 minute winter	24.253	9.709
100 year +25% CC 720 minute summer	31.035	8.318
100 year +25% CC 720 minute winter	20.858	8.318
100 year +25% CC 960 minute summer	24.593	6.476
100 year +25% CC 960 minute winter	16.291	6.476
100 year +25% CC 1440 minute summer	16.832	4.511
100 year +25% CC 1440 minute winter	11.312	4.511
100 year +40% CC 15 minute summer	510.525	144.461
100 year +40% CC 15 minute winter	358.263	144.461
100 year +40% CC 30 minute summer	335.837	95.030
100 year +40% CC 30 minute winter	235.675	95.030
100 year +40% CC 60 minute summer	225.357	59.555
100 year +40% CC 60 minute winter	149.722	59.555
100 year +40% CC 120 minute summer	140.252	37.065
100 year +40% CC 120 minute winter	93.180	37.065
100 year +40% CC 180 minute summer	108.079	27.812
100 year +40% CC 180 minute winter	70.254	27.812
100 year +40% CC 240 minute summer	85.216	22.520
100 year +40% CC 240 minute winter	56.616	22.520
100 year +40% CC 360 minute summer	64.085	16.491
100 year +40% CC 360 minute winter	41.657	16.491
100 year +40% CC 480 minute summer	49.518	13.086
100 year +40% CC 480 minute winter	32.899	13.086
100 year +40% CC 600 minute summer	39.756	10.874
100 year +40% CC 600 minute winter	27.164	10.874
100 year +40% CC 720 minute summer	34.760	9.316
100 year +40% CC 720 minute winter	23.361	9.316
100 year +40% CC 960 minute summer	27.544	7.253
100 year +40% CC 960 minute winter	18.246	7.253
100 year +40% CC 1440 minute summer	18.852	5.053
100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.152	0.062	7.1	0.0000	0.0000	OK
15 minute summer	2	11	85.664	0.064	6.9	0.0724	0.0000	OK
15 minute summer	3	10	85.564	0.064	5.7	0.0721	0.0000	OK
15 minute summer	4	12	85.497	0.097	12.0	0.0000	0.0000	OK
15 minute summer	5	10	85.940	0.040	3.7	0.0448	0.0000	OK
30 minute summer	6	21	85.442	0.092	10.2	0.0000	0.0000	OK
15 minute summer	7	9	85.429	0.029	1.5	0.0333	0.0000	OK
30 minute summer	8	23	85.370	0.060	9.5	0.0000	0.0000	OK
15 minute summer	9	10	85.509	0.039	4.0	0.0443	0.0000	OK
120 minute summer	10	70	85.080	0.100	8.6	0.0000	0.0000	OK
120 minute summer	11	70	84.970	0.030	8.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	6.9	0.789	0.163	0.3635	
15 minute summer	2	1.001	4	6.7	0.522	0.102	0.8462	
15 minute summer	3	2.000	4	5.7	0.907	0.362	0.1093	
15 minute summer	4	1.002	6	8.4	0.160	0.050	2.5160	
15 minute summer	5	3.000	6	3.7	1.308	0.312	0.0179	
30 minute summer	6	1.003	8	9.0	0.212	0.043	1.0498	
15 minute summer	7	4.000	8	1.5	1.034	0.072	0.0210	
30 minute summer	8	1.004	10	8.6	0.197	0.022	2.6819	
15 minute summer	9	5.000	10	4.0	1.434	0.306	0.0176	
120 minute summer	10	1.005	11	8.2	0.224	0.041	0.9969	20.5

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Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.219	0.129	26.1	0.0000	0.0000	OK
15 minute summer	2	10	85.727	0.127	26.0	0.1433	0.0000	OK
15 minute summer	3	10	85.787	0.287	20.9	0.3243	0.0000	SURCHARGED
15 minute summer	4	12	85.617	0.217	45.2	0.0000	0.0000	OK
15 minute summer	5	10	86.090	0.190	13.5	0.2145	0.0000	SURCHARGED
15 minute summer	6	12	85.555	0.205	49.5	0.0000	0.0000	OK
30 minute summer	7	21	85.456	0.056	4.8	0.0628	0.0000	OK
15 minute summer	8	13	85.461	0.151	46.4	0.0000	0.0000	OK
15 minute summer	9	10	85.652	0.182	14.4	0.2055	0.0000	FLOOD RISK
30 minute summer	10	22	85.203	0.223	47.5	0.0000	0.0000	OK
30 minute summer	11	22	85.027	0.087	44.3	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)
15 minute summer	1	1.000	2	26.0	1.121	0.613	0.9633	
15 minute summer	2	1.001	4	25.0	0.659	0.381	2.3356	
15 minute summer	3	2.000	4	20.2	1.147	1.281	0.2226	
15 minute summer	4	1.002	6	37.1	0.260	0.221	6.9170	
15 minute summer	5	3.000	6	12.9	1.650	1.090	0.0496	
15 minute summer	6	1.003	8	44.3	0.381	0.214	2.8784	
30 minute summer	7	4.000	8	4.8	0.921	0.224	0.0745	
15 minute summer	8	1.004	10	41.5	0.344	0.108	7.3093	
15 minute summer	9	5.000	10	13.7	1.789	1.045	0.0493	
30 minute summer	10	1.005	11	44.3	0.436	0.222	2.7881	40.7

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.240	0.150	32.6	0.0000	0.0000	OK
15 minute summer	2	10	85.744	0.144	32.5	0.1632	0.0000	OK
15 minute summer	3	10	85.925	0.425	26.1	0.4803	0.0000	SURCHARGED
15 minute summer	4	12	85.646	0.246	56.6	0.0000	0.0000	OK
15 minute summer	5	10	86.255	0.355	16.9	0.4015	0.0000	FLOOD RISK
15 minute summer	6	12	85.583	0.233	63.7	0.0000	0.0000	OK
15 minute summer	7	13	85.485	0.085	6.8	0.0964	0.0000	OK
15 minute summer	8	13	85.488	0.178	62.1	0.0000	0.0000	OK
15 minute summer	9	9	85.670	0.200	18.0	0.2262	0.5167	FLOOD
30 minute summer	10	21	85.233	0.253	62.7	0.0000	0.0000	OK
30 minute summer	11	21	85.044	0.104	58.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	32.5	1.175	0.767	1.1482	
15 minute summer	2	1.001	4	31.4	0.697	0.479	2.6971	
15 minute summer	3	2.000	4	25.2	1.433	1.601	0.2226	
15 minute summer	4	1.002	6	48.2	0.282	0.286	8.1820	
15 minute summer	5	3.000	6	15.8	2.016	1.332	0.0492	
15 minute summer	6	1.003	8	58.1	0.413	0.280	3.4484	
15 minute summer	7	4.000	8	7.0	1.140	0.332	0.0885	
15 minute summer	8	1.004	10	55.4	0.375	0.144	8.7769	
15 minute summer	9	5.000	10	14.1	1.800	1.078	0.0489	
30 minute summer	10	1.005	11	58.2	0.482	0.292	3.3170	50.9

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Results for 100 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.244	0.154	34.0	0.0000	0.0000	OK
15 minute summer	2	10	85.748	0.148	33.8	0.1673	0.0000	OK
15 minute summer	3	10	85.959	0.459	27.3	0.5189	0.0000	SURCHARGED
15 minute summer	4	12	85.652	0.252	59.2	0.0000	0.0000	OK
15 minute summer	5	10	86.291	0.391	17.6	0.4420	0.0000	FLOOD RISK
15 minute summer	6	12	85.589	0.239	66.8	0.0000	0.0000	OK
30 minute summer	7	21	85.490	0.090	6.3	0.1022	0.0000	OK
15 minute summer	8	13	85.494	0.184	65.3	0.0000	0.0000	OK
15 minute summer	9	9	85.670	0.200	18.8	0.2262	0.6394	FLOOD
30 minute summer	10	21	85.240	0.260	68.4	0.0000	0.0000	OK
30 minute summer	11	21	85.047	0.107	61.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	33.8	1.184	0.800	1.1879	
15 minute summer	2	1.001	4	32.8	0.706	0.500	2.7671	
15 minute summer	3	2.000	4	26.4	1.499	1.674	0.2226	
15 minute summer	4	1.002	6	50.7	0.287	0.301	8.4417	
15 minute summer	5	3.000	6	16.3	2.087	1.379	0.0491	
15 minute summer	6	1.003	8	61.0	0.419	0.294	3.5686	
30 minute summer	7	4.000	8	6.3	0.998	0.295	0.0909	
15 minute summer	8	1.004	10	58.4	0.382	0.152	9.0693	
15 minute summer	9	5.000	10	14.1	1.800	1.078	0.0493	
30 minute summer	10	1.005	11	61.8	0.492	0.310	3.4476	53.4

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.276	0.186	42.4	0.0000	0.0000	OK
15 minute summer	2	10	85.769	0.169	41.9	0.1906	0.0000	OK
15 minute summer	3	10	86.173	0.673	34.1	0.7606	0.0000	SURCHARGED
15 minute summer	4	11	85.686	0.286	73.5	0.0000	0.0000	OK
15 minute summer	5	10	86.530	0.630	22.0	0.7125	0.1374	FLOOD
15 minute summer	6	12	85.620	0.270	84.8	0.0000	0.0000	OK
15 minute summer	7	13	85.523	0.123	8.9	0.1393	0.0000	OK
15 minute summer	8	13	85.523	0.213	82.4	0.0000	0.0000	OK
15 minute summer	9	8	85.670	0.200	23.5	0.2262	1.7650	FLOOD
30 minute summer	10	21	85.272	0.292	85.9	0.0000	0.0000	OK
30 minute summer	11	21	85.066	0.126	80.1	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	1	1.000	2	41.9	1.237	0.990	1.4062	
15 minute summer	2	1.001	4	40.7	0.752	0.621	3.1172	
15 minute summer	3	2.000	4	32.8	1.865	2.082	0.2226	
15 minute summer	4	1.002	6	65.2	0.312	0.388	9.9317	
15 minute summer	5	3.000	6	19.7	2.514	1.661	0.0496	
15 minute summer	6	1.003	8	78.4	0.450	0.378	4.2603	
15 minute summer	7	4.000	8	9.1	1.208	0.429	0.1048	
15 minute summer	8	1.004	10	76.0	0.422	0.198	10.8130	
15 minute summer	9	5.000	10	14.1	1.800	1.078	0.0491	
30 minute summer	10	1.005	11	80.1	0.540	0.402	4.0764	65.8

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.308	0.218	47.5	0.0000	0.0000	OK
15 minute summer	2	11	85.780	0.180	45.8	0.2038	0.0000	OK
15 minute summer	3	10	86.316	0.816	38.2	0.9225	0.0000	SURCHARGED
15 minute summer	4	11	85.703	0.303	81.4	0.0000	0.0000	OK
15 minute summer	5	10	86.530	0.630	24.7	0.7125	0.3452	FLOOD
15 minute summer	6	12	85.634	0.284	93.5	0.0000	0.0000	OK
15 minute summer	7	13	85.538	0.138	10.0	0.1560	0.0000	OK
15 minute summer	8	13	85.537	0.227	92.1	0.0000	0.0000	OK
15 minute summer	9	8	85.670	0.200	26.3	0.2262	2.3900	FLOOD
30 minute summer	10	21	85.289	0.309	96.3	0.0000	0.0000	OK
30 minute summer	11	21	85.076	0.136	90.4	0.0000	0.0000	OK

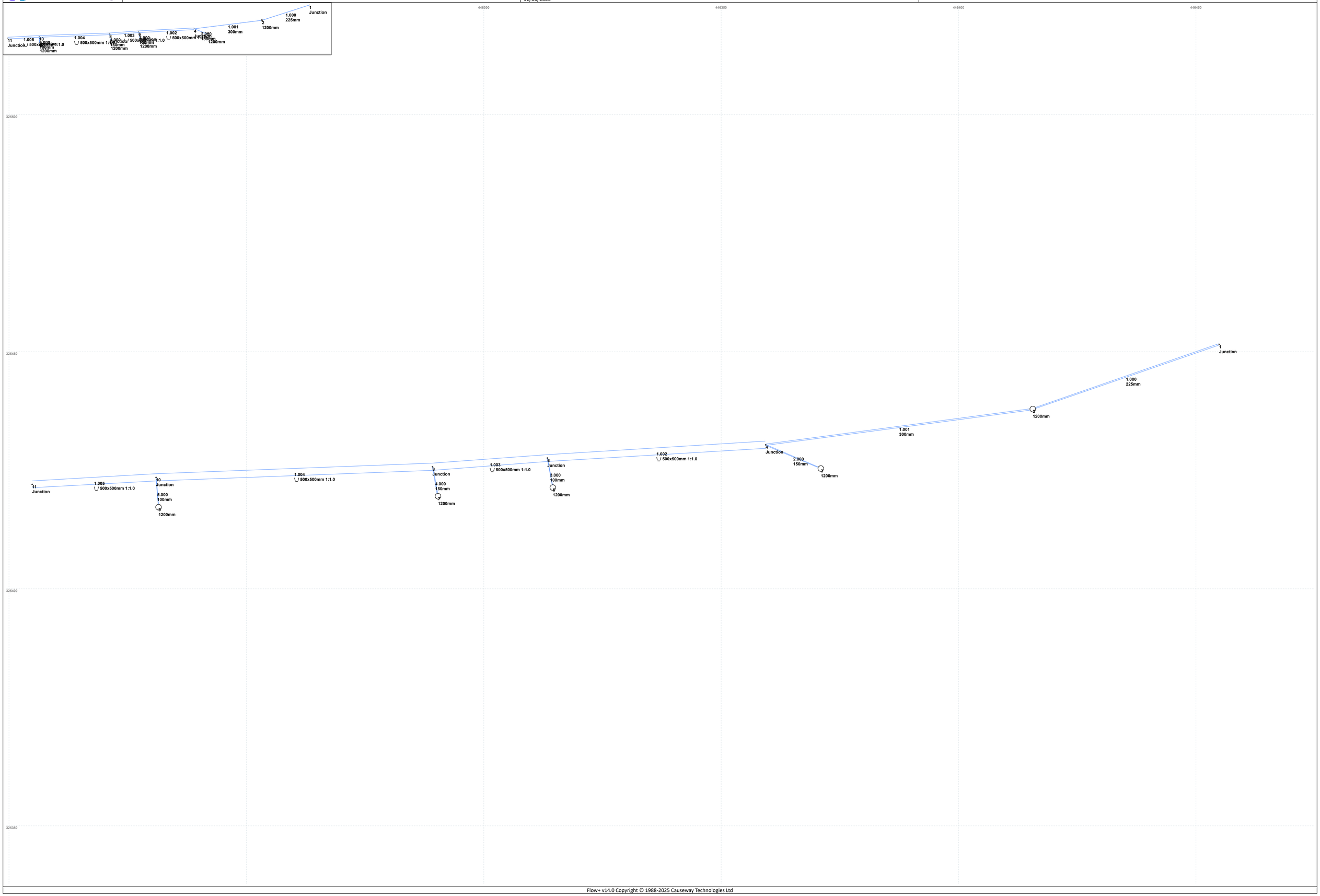
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	45.8	1.260	1.083	1.5224	
15 minute summer	2	1.001	4	45.3	0.774	0.691	3.2524	
15 minute summer	3	2.000	4	36.6	2.082	2.325	0.2226	
15 minute summer	4	1.002	6	73.8	0.327	0.439	10.7227	
15 minute summer	5	3.000	6	19.7	2.514	1.661	0.0491	
15 minute summer	6	1.003	8	87.3	0.463	0.421	4.6115	
15 minute summer	7	4.000	8	10.0	1.232	0.472	0.1095	
15 minute summer	8	1.004	10	85.4	0.439	0.222	11.7329	
15 minute summer	9	5.000	10	14.1	1.800	1.078	0.0488	
30 minute summer	10	1.005	11	90.4	0.563	0.453	4.4070	73.2

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Water Quality

Area (ha)	Intended Land Use	Entering via Node or Link	Name	SuDS Component	Pollution hazard indices TSS	Pollution hazard indices Metals	Pollution hazard indices Hydrocarbons	Pollution mitigation indices TSS	Pollution mitigation indices Metals	Pollution mitigation indices Hydrocarbons	Cumulative pollution hazard indices TSS	Cumulative pollution hazard indices Metals	Cumulative pollution hazard indices Hydrocarbons
		Link	1.002	Swale				0.5	0.6	0.6			
		Link	1.003	Swale				0.25	0.3	0.3			
		Link	1.004	Swale				0.25	0.3	0.3			
		Link	1.005	Swale				0.25	0.3	0.3			
		Node	11								Sufficient	Sufficient	Sufficient

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Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	0.100
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	✓
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Circular Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

Ditch Link Type

Shape	Trapezoidal	Side Slope (1:X)	1.0	Preferred Cover (m)	0.100	Velocity	Manning
Barrels	1	Auto Increment (mm)	100	Follow Ground	x	ks (mm) / n	0.040

Available Diameters (mm)

100

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
1	0.065	5.00	88.510	446655.134	325429.637	0.600
2			88.570	446645.453	325427.783	0.726
3	0.018	5.00	88.110	446570.275	325434.197	0.600
4			88.240	446570.945	325422.643	0.843
5	0.033	5.00	87.860	446533.121	325437.405	0.600
6			87.960	446530.002	325421.031	0.890
7	0.054	5.00	87.340	446488.690	325447.802	0.340
8			87.890	446492.229	325419.267	1.000
9	0.054	5.00	87.120	446471.305	325440.660	0.370

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
10			87.370	446469.467	325401.374	0.800
11			87.470	446463.117	325398.594	1.020
12			87.510	446448.650	325398.268	1.061
13	0.006	5.00	87.330	446439.493	325425.015	0.730
14			87.100	446437.978	325402.453	0.653
15	0.014	5.00	87.420	446429.290	325414.161	0.600
16			87.100	446423.796	325407.638	0.655
17			87.100	446417.392	325409.505	0.657
18	0.020	5.00	86.970	446407.358	325418.513	0.600
19			87.100	446397.422	325412.471	0.980
20	0.014	5.00	86.720	446375.837	325417.529	0.500
21			86.510	446375.200	325411.317	0.790
22	0.011	5.00	86.540	446344.686	325415.451	0.640
23			86.300	446339.562	325409.452	0.600
24			86.160	446309.037	325409.935	0.700
25			86.010	446299.778	325409.712	0.600

Simulation Settings

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

Storm Durations

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

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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
2	0	0	0
30	0	0	0
30	25	0	0
100	0	0	0
100	25	0	0
100	40	0	0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	76.777	21.725
1 year 15 minute winter	53.878	21.725
1 year 30 minute summer	48.990	13.863
1 year 30 minute winter	34.379	13.863
1 year 60 minute summer	32.661	8.631
1 year 60 minute winter	21.699	8.631
1 year 120 minute summer	24.515	6.479
1 year 120 minute winter	16.287	6.479
1 year 180 minute summer	20.290	5.221
1 year 180 minute winter	13.189	5.221
1 year 240 minute summer	16.663	4.404
1 year 240 minute winter	11.071	4.404
1 year 360 minute summer	13.157	3.386
1 year 360 minute winter	8.552	3.386
1 year 480 minute summer	10.463	2.765
1 year 480 minute winter	6.951	2.765
1 year 600 minute summer	8.578	2.346
1 year 600 minute winter	5.861	2.346
1 year 720 minute summer	7.626	2.044
1 year 720 minute winter	5.125	2.044
1 year 960 minute summer	6.203	1.634
1 year 960 minute winter	4.109	1.634
1 year 1440 minute summer	4.409	1.182
1 year 1440 minute winter	2.963	1.182
2 year 15 minute summer	113.088	32.000
2 year 15 minute winter	79.360	32.000
2 year 30 minute summer	72.094	20.400
2 year 30 minute winter	50.592	20.400
2 year 60 minute summer	47.678	12.600
2 year 60 minute winter	31.676	12.600
2 year 120 minute summer	33.365	8.817
2 year 120 minute winter	22.167	8.817
2 year 180 minute summer	26.913	6.926
2 year 180 minute winter	17.494	6.926
2 year 240 minute summer	21.772	5.754
2 year 240 minute winter	14.465	5.754
2 year 360 minute summer	16.865	4.340
2 year 360 minute winter	10.963	4.340
2 year 480 minute summer	13.276	3.508
2 year 480 minute winter	8.820	3.508
2 year 600 minute summer	10.816	2.959
2 year 600 minute winter	7.390	2.959
2 year 720 minute summer	9.575	2.566
2 year 720 minute winter	6.435	2.566
2 year 960 minute summer	7.751	2.041
2 year 960 minute winter	5.135	2.041
2 year 1440 minute summer	5.470	1.466
2 year 1440 minute winter	3.676	1.466
30 year 15 minute summer	279.897	79.201
30 year 15 minute winter	196.419	79.201

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 30 minute summer	182.667	51.688	30 year +25% CC 240 minute summer	57.349	15.156
30 year 30 minute winter	128.187	51.688	30 year +25% CC 240 minute winter	38.101	15.156
30 year 60 minute summer	121.798	32.188	30 year +25% CC 360 minute summer	43.182	11.112
30 year 60 minute winter	80.920	32.188	30 year +25% CC 360 minute winter	28.069	11.112
30 year 120 minute summer	75.753	20.019	30 year +25% CC 480 minute summer	33.398	8.826
30 year 120 minute winter	50.329	20.019	30 year +25% CC 480 minute winter	22.189	8.826
30 year 180 minute summer	58.243	14.988	30 year +25% CC 600 minute summer	26.867	7.349
30 year 180 minute winter	37.859	14.988	30 year +25% CC 600 minute winter	18.357	7.349
30 year 240 minute summer	45.879	12.124	30 year +25% CC 720 minute summer	23.550	6.312
30 year 240 minute winter	30.481	12.124	30 year +25% CC 720 minute winter	15.827	6.312
30 year 360 minute summer	34.546	8.890	30 year +25% CC 960 minute summer	18.780	4.945
30 year 360 minute winter	22.456	8.890	30 year +25% CC 960 minute winter	12.440	4.945
30 year 480 minute summer	26.718	7.061	30 year +25% CC 1440 minute summer	13.004	3.485
30 year 480 minute winter	17.751	7.061	30 year +25% CC 1440 minute winter	8.739	3.485
30 year 600 minute summer	21.494	5.879	100 year 15 minute summer	364.661	103.186
30 year 600 minute winter	14.686	5.879	100 year 15 minute winter	255.902	103.186
30 year 720 minute summer	18.840	5.049	100 year 30 minute summer	239.884	67.879
30 year 720 minute winter	12.662	5.049	100 year 30 minute winter	168.340	67.879
30 year 960 minute summer	15.024	3.956	100 year 60 minute summer	160.969	42.539
30 year 960 minute winter	9.952	3.956	100 year 60 minute winter	106.944	42.539
30 year 1440 minute summer	10.403	2.788	100 year 120 minute summer	100.180	26.475
30 year 1440 minute winter	6.992	2.788	100 year 120 minute winter	66.557	26.475
30 year +25% CC 15 minute summer	349.871	99.002	100 year 180 minute summer	77.199	19.866
30 year +25% CC 15 minute winter	245.524	99.002	100 year 180 minute winter	50.182	19.866
30 year +25% CC 30 minute summer	228.334	64.611	100 year 240 minute summer	60.869	16.086
30 year +25% CC 30 minute winter	160.234	64.611	100 year 240 minute winter	40.440	16.086
30 year +25% CC 60 minute summer	152.248	40.235	100 year 360 minute summer	45.775	11.779
30 year +25% CC 60 minute winter	101.150	40.235	100 year 360 minute winter	29.755	11.779
30 year +25% CC 120 minute summer	94.691	25.024	100 year 480 minute summer	35.370	9.347
30 year +25% CC 120 minute winter	62.911	25.024	100 year 480 minute winter	23.499	9.347
30 year +25% CC 180 minute summer	72.803	18.735	100 year 600 minute summer	28.397	7.767
30 year +25% CC 180 minute winter	47.324	18.735	100 year 600 minute winter	19.403	7.767

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year 720 minute summer	24.828	6.654
100 year 720 minute winter	16.686	6.654
100 year 960 minute summer	19.675	5.181
100 year 960 minute winter	13.033	5.181
100 year 1440 minute summer	13.466	3.609
100 year 1440 minute winter	9.050	3.609
100 year +25% CC 15 minute summer	455.826	128.983
100 year +25% CC 15 minute winter	319.878	128.983
100 year +25% CC 30 minute summer	299.855	84.849
100 year +25% CC 30 minute winter	210.424	84.849
100 year +25% CC 60 minute summer	201.211	53.174
100 year +25% CC 60 minute winter	133.680	53.174
100 year +25% CC 120 minute summer	125.225	33.093
100 year +25% CC 120 minute winter	83.197	33.093
100 year +25% CC 180 minute summer	96.499	24.833
100 year +25% CC 180 minute winter	62.727	24.833
100 year +25% CC 240 minute summer	76.086	20.107
100 year +25% CC 240 minute winter	50.550	20.107
100 year +25% CC 360 minute summer	57.219	14.724
100 year +25% CC 360 minute winter	37.194	14.724
100 year +25% CC 480 minute summer	44.213	11.684
100 year +25% CC 480 minute winter	29.374	11.684
100 year +25% CC 600 minute summer	35.497	9.709
100 year +25% CC 600 minute winter	24.253	9.709
100 year +25% CC 720 minute summer	31.035	8.318
100 year +25% CC 720 minute winter	20.858	8.318
100 year +25% CC 960 minute summer	24.593	6.476
100 year +25% CC 960 minute winter	16.291	6.476
100 year +25% CC 1440 minute summer	16.832	4.511
100 year +25% CC 1440 minute winter	11.312	4.511
100 year +40% CC 15 minute summer	510.525	144.461
100 year +40% CC 15 minute winter	358.263	144.461
100 year +40% CC 30 minute summer	335.837	95.030
100 year +40% CC 30 minute winter	235.675	95.030
100 year +40% CC 60 minute summer	225.357	59.555
100 year +40% CC 60 minute winter	149.722	59.555
100 year +40% CC 120 minute summer	140.252	37.065
100 year +40% CC 120 minute winter	93.180	37.065
100 year +40% CC 180 minute summer	108.079	27.812
100 year +40% CC 180 minute winter	70.254	27.812
100 year +40% CC 240 minute summer	85.216	22.520
100 year +40% CC 240 minute winter	56.616	22.520
100 year +40% CC 360 minute summer	64.085	16.491
100 year +40% CC 360 minute winter	41.657	16.491
100 year +40% CC 480 minute summer	49.518	13.086
100 year +40% CC 480 minute winter	32.899	13.086
100 year +40% CC 600 minute summer	39.756	10.874
100 year +40% CC 600 minute winter	27.164	10.874
100 year +40% CC 720 minute summer	34.760	9.316
100 year +40% CC 720 minute winter	23.361	9.316
100 year +40% CC 960 minute summer	27.544	7.253
100 year +40% CC 960 minute winter	18.246	7.253
100 year +40% CC 1440 minute summer	18.852	5.053
100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	87.994	0.084	8.2	0.0000	0.0000	OK
15 minute summer	2	11	87.912	0.068	8.1	0.0000	0.0000	OK
15 minute summer	3	10	87.546	0.036	2.3	0.0000	0.0000	OK
15 minute summer	4	11	87.467	0.070	10.3	0.0000	0.0000	OK
15 minute summer	5	10	87.307	0.047	4.1	0.0000	0.0000	OK
15 minute summer	6	12	87.154	0.084	13.8	0.0000	0.0000	OK
15 minute summer	7	10	87.085	0.085	6.7	0.0000	0.0000	OK
15 minute summer	8	13	86.964	0.074	18.3	0.0000	0.0000	OK
15 minute summer	9	10	86.819	0.069	6.8	0.0000	0.0000	OK
30 minute summer	10	22	86.664	0.094	20.7	0.0000	0.0000	OK
30 minute summer	11	22	86.660	0.210	18.5	0.0000	0.0000	OK
30 minute summer	12	25	86.635	0.186	18.0	0.0000	0.0000	OK
30 minute summer	13	26	86.635	0.035	0.7	0.0000	0.0000	OK
30 minute summer	14	25	86.633	0.186	16.5	0.0000	0.0000	OK
15 minute summer	15	10	86.846	0.026	1.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	8.1	0.910	0.561	0.0882	
15 minute summer	2	1.001	4	8.1	0.783	0.201	0.7719	
15 minute summer	3	2.000	4	2.3	0.514	0.130	0.0654	
15 minute summer	4	1.002	6	9.9	0.869	0.213	0.4915	
15 minute summer	5	3.000	6	4.1	0.863	0.214	0.1186	
15 minute summer	6	1.003	8	12.6	0.279	0.036	1.7165	
15 minute summer	7	4.000	8	6.6	0.911	0.608	0.2510	
15 minute summer	8	1.004	10	17.1	0.362	0.032	1.4206	
15 minute summer	9	5.000	10	6.8	0.824	0.194	0.4312	
30 minute summer	10	1.005	11	18.5	0.201	0.028	0.7092	
30 minute summer	11	1.006	12	18.0	0.310	2.343	0.9559	
30 minute summer	12	1.007	14	16.1	0.175	0.238	1.4577	
30 minute summer	13	6.000	14	0.7	0.401	0.047	0.2340	
30 minute summer	14	1.008	16	13.8	0.143	0.235	1.9201	
15 minute summer	15	7.000	16	1.8	0.865	0.065	0.0175	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	16	25	86.629	0.184	14.5	0.0000	0.0000	OK
30 minute summer	17	25	86.628	0.185	12.8	0.0000	0.0000	OK
15 minute summer	18	10	86.405	0.035	2.5	0.0000	0.0000	OK
30 minute summer	19	25	86.174	0.054	12.9	0.0000	0.0000	OK
15 minute summer	20	10	86.239	0.019	1.7	0.0000	0.0000	OK
120 minute summer	21	72	85.853	0.133	13.3	0.0000	0.0000	OK
15 minute summer	22	10	85.924	0.024	1.4	0.0000	0.0000	OK
120 minute summer	23	74	85.771	0.071	13.5	0.0000	0.0000	OK
120 minute summer	24	76	85.661	0.201	13.5	0.0000	0.0000	OK
120 minute summer	25	76	85.505	0.095	13.3	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)
30 minute summer	16	1.009	17	12.8	0.121	0.145	0.8427	
30 minute summer	17	1.010	19	12.5	0.489	0.796	0.5053	
15 minute summer	18	8.000	19	2.5	0.789	0.118	0.0364	
30 minute summer	19	1.011	21	12.9	0.246	0.019	1.2578	
15 minute summer	20	9.000	21	1.7	1.315	0.034	0.0486	
120 minute summer	21	1.012	23	13.1	0.214	0.109	2.2265	
15 minute summer	22	10.000	23	1.4	1.162	0.049	0.0274	
120 minute summer	23	1.013	24	13.5	0.159	0.030	2.7707	
120 minute summer	24	1.014	25	13.3	0.480	1.238	0.2467	37.2

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Results for 2 year Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	88.018	0.108	12.0	0.0000	0.0000	OK
15 minute summer	2	11	87.928	0.084	11.9	0.0000	0.0000	OK
15 minute summer	3	10	87.554	0.044	3.4	0.0000	0.0000	OK
15 minute summer	4	11	87.483	0.086	15.1	0.0000	0.0000	OK
15 minute summer	5	10	87.318	0.058	6.1	0.0000	0.0000	OK
15 minute summer	6	12	87.177	0.107	20.6	0.0000	0.0000	OK
15 minute summer	7	11	87.109	0.109	9.9	0.0000	0.0000	OK
15 minute summer	8	13	86.986	0.096	28.0	0.0000	0.0000	OK
15 minute summer	9	10	86.833	0.083	10.1	0.0000	0.0000	OK
30 minute summer	10	22	86.712	0.142	31.3	0.0000	0.0000	OK
30 minute summer	11	22	86.710	0.260	27.8	0.0000	0.0000	OK
30 minute summer	12	24	86.690	0.241	26.7	0.0000	0.0000	OK
30 minute summer	13	25	86.691	0.091	1.2	0.0000	0.0000	OK
30 minute summer	14	24	86.687	0.240	24.2	0.0000	0.0000	OK
15 minute summer	15	10	86.852	0.032	2.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	11.9	1.006	0.822	0.1163	
15 minute summer	2	1.001	4	11.9	0.869	0.296	1.0250	
15 minute summer	3	2.000	4	3.4	0.543	0.192	0.0853	
15 minute summer	4	1.002	6	14.7	0.938	0.317	0.6636	
15 minute summer	5	3.000	6	6.0	0.909	0.319	0.1572	
15 minute summer	6	1.003	8	19.5	0.321	0.055	2.2917	
15 minute summer	7	4.000	8	9.8	0.953	0.895	0.3485	
15 minute summer	8	1.004	10	26.3	0.385	0.049	2.1346	
15 minute summer	9	5.000	10	10.0	0.868	0.287	0.6782	
30 minute summer	10	1.005	11	27.8	0.220	0.041	0.9998	
30 minute summer	11	1.006	12	26.7	0.343	3.467	1.2986	
30 minute summer	12	1.007	14	24.2	0.180	0.358	2.0331	
30 minute summer	13	6.000	14	1.0	0.420	0.068	0.3254	
30 minute summer	14	1.008	16	20.2	0.147	0.344	2.6872	
15 minute summer	15	7.000	16	2.6	0.964	0.094	0.0261	

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Results for 2 year Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	16	24	86.684	0.239	21.2	0.0000	0.0000	OK
30 minute summer	17	24	86.683	0.240	18.4	0.0000	0.0000	SURCHARGED
15 minute summer	18	10	86.413	0.043	3.6	0.0000	0.0000	OK
30 minute summer	19	24	86.188	0.068	18.9	0.0000	0.0000	OK
15 minute summer	20	10	86.243	0.023	2.6	0.0000	0.0000	OK
30 minute summer	21	26	85.878	0.158	19.3	0.0000	0.0000	OK
15 minute summer	22	9	85.928	0.028	2.0	0.0000	0.0000	OK
30 minute summer	23	28	85.787	0.087	19.3	0.0000	0.0000	OK
60 minute summer	24	45	85.705	0.245	18.8	0.0000	0.0000	SURCHARGED
60 minute summer	25	45	85.522	0.112	18.3	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)
30 minute summer	16	1.009	17	18.4	0.129	0.208	1.1825	
30 minute summer	17	1.010	19	18.1	0.544	1.154	0.5989	
15 minute summer	18	8.000	19	3.6	0.876	0.171	0.0474	
30 minute summer	19	1.011	21	18.8	0.277	0.027	1.5900	
15 minute summer	20	9.000	21	2.6	1.386	0.051	0.0560	
30 minute summer	21	1.012	23	18.9	0.249	0.157	2.7724	
15 minute summer	22	10.000	23	2.0	1.209	0.071	0.0390	
30 minute summer	23	1.013	24	19.0	0.198	0.042	3.5523	
60 minute summer	24	1.014	25	18.3	0.542	1.707	0.2754	36.4

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	88.328	0.418	29.8	0.0000	0.0000	FLOOD RISK
15 minute summer	2	11	87.987	0.143	29.0	0.0000	0.0000	OK
15 minute summer	3	10	87.583	0.073	8.4	0.0000	0.0000	OK
15 minute summer	4	11	87.549	0.152	37.3	0.0000	0.0000	OK
15 minute summer	5	10	87.360	0.100	15.1	0.0000	0.0000	OK
15 minute summer	6	12	87.252	0.182	51.0	0.0000	0.0000	OK
15 minute summer	7	9	87.340	0.340	24.6	0.0000	1.1366	FLOOD
15 minute summer	8	12	87.052	0.162	66.9	0.0000	0.0000	OK
30 minute summer	9	24	86.992	0.242	22.3	0.0000	0.0000	FLOOD RISK
30 minute summer	10	24	86.990	0.420	77.6	0.0000	0.0000	OK
30 minute summer	11	24	86.990	0.540	63.8	0.0000	0.0000	SURCHARGED
30 minute summer	12	26	86.976	0.527	58.9	0.0000	0.0000	SURCHARGED
30 minute summer	13	26	86.975	0.375	2.6	0.0000	0.0000	SURCHARGED
30 minute summer	14	26	86.976	0.529	51.9	0.0000	0.0000	FLOOD RISK
30 minute summer	15	26	86.977	0.157	5.8	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	29.0	1.646	2.000	0.1722	
15 minute summer	2	1.001	4	29.3	1.062	0.730	2.0583	
15 minute summer	3	2.000	4	8.3	0.667	0.475	0.1494	
15 minute summer	4	1.002	6	36.5	1.167	0.788	1.2788	
15 minute summer	5	3.000	6	15.0	1.057	0.790	0.2510	
15 minute summer	6	1.003	8	50.0	0.433	0.142	4.3755	
15 minute summer	7	4.000	8	18.6	1.102	1.710	0.5062	
15 minute summer	8	1.004	10	64.8	0.426	0.122	5.7071	
30 minute summer	9	5.000	10	22.3	0.748	0.637	1.5644	
30 minute summer	10	1.005	11	63.8	0.253	0.095	3.2891	
30 minute summer	11	1.006	12	58.9	0.435	7.641	2.2928	
30 minute summer	12	1.007	14	50.5	0.200	0.747	6.2019	
30 minute summer	13	6.000	14	1.7	0.541	0.116	0.3980	
30 minute summer	14	1.008	16	37.7	0.152	0.642	8.2684	
30 minute summer	15	7.000	16	5.8	1.159	0.212	0.1502	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	16	26	86.976	0.531	42.0	0.0000	0.0000	FLOOD RISK
30 minute summer	17	26	86.976	0.533	29.5	0.0000	0.0000	FLOOD RISK
15 minute summer	18	10	86.441	0.071	9.0	0.0000	0.0000	OK
30 minute summer	19	20	86.208	0.088	29.2	0.0000	0.0000	OK
15 minute summer	20	10	86.256	0.036	6.3	0.0000	0.0000	OK
30 minute summer	21	20	85.924	0.204	34.1	0.0000	0.0000	OK
15 minute summer	22	10	85.943	0.043	5.0	0.0000	0.0000	OK
60 minute summer	23	51	85.890	0.190	34.2	0.0000	0.0000	OK
60 minute summer	24	51	85.885	0.425	31.8	0.0000	0.0000	FLOOD RISK
60 minute summer	25	51	85.547	0.137	27.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	16	1.009	17	29.5	0.135	0.334	3.6616	
30 minute summer	17	1.010	19	26.1	0.724	1.663	0.6517	
15 minute summer	18	8.000	19	8.9	1.118	0.427	0.0928	
30 minute summer	19	1.011	21	29.3	0.323	0.043	2.1796	
15 minute summer	20	9.000	21	6.3	1.663	0.124	0.0647	
30 minute summer	21	1.012	23	32.7	0.302	0.271	4.5384	
15 minute summer	22	10.000	23	5.0	1.247	0.175	0.0640	
60 minute summer	23	1.013	24	31.8	0.211	0.070	8.0199	
60 minute summer	24	1.014	25	27.1	0.748	2.527	0.3018	93.1

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	88.510	0.600	37.3	0.0000	0.1842	FLOOD
15 minute summer	2	10	88.007	0.163	34.8	0.0000	0.0000	OK
15 minute summer	3	11	87.603	0.093	10.5	0.0000	0.0000	OK
15 minute summer	4	11	87.574	0.177	44.9	0.0000	0.0000	OK
15 minute summer	5	11	87.468	0.208	18.8	0.0000	0.0000	SURCHARGED
15 minute summer	6	12	87.276	0.206	62.0	0.0000	0.0000	OK
15 minute summer	7	9	87.340	0.340	30.7	0.0000	2.6220	FLOOD
60 minute summer	8	42	87.082	0.192	60.3	0.0000	0.0000	OK
60 minute summer	9	42	87.084	0.334	20.7	0.0000	0.0000	FLOOD RISK
60 minute summer	10	42	87.081	0.511	78.1	0.0000	0.0000	FLOOD RISK
60 minute summer	11	42	87.081	0.631	60.6	0.0000	0.0000	SURCHARGED
60 minute summer	12	43	87.068	0.619	56.1	0.0000	0.0000	SURCHARGED
60 minute summer	13	43	87.068	0.468	2.4	0.0000	0.0000	FLOOD RISK
60 minute summer	14	43	87.067	0.620	51.5	0.0000	0.0000	FLOOD RISK
60 minute summer	15	43	87.068	0.248	5.4	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	34.8	1.976	2.401	0.1735	
15 minute summer	2	1.001	4	35.0	1.099	0.873	2.3996	
15 minute summer	3	2.000	4	10.2	0.708	0.579	0.1686	
15 minute summer	4	1.002	6	44.2	1.232	0.953	1.4624	
15 minute summer	5	3.000	6	17.9	1.109	0.945	0.2934	
15 minute summer	6	1.003	8	61.4	0.465	0.174	5.0001	
15 minute summer	7	4.000	8	19.0	1.092	1.746	0.5062	
60 minute summer	8	1.004	10	59.9	0.343	0.112	9.5714	
60 minute summer	9	5.000	10	19.4	0.702	0.554	1.5644	
60 minute summer	10	1.005	11	60.6	0.209	0.090	4.2665	
60 minute summer	11	1.006	12	56.1	0.354	7.285	2.2928	
60 minute summer	12	1.007	14	50.2	0.153	0.743	7.9224	
60 minute summer	13	6.000	14	1.7	0.480	0.120	0.3980	
60 minute summer	14	1.008	16	38.2	0.130	0.651	10.5557	
60 minute summer	15	7.000	16	5.4	0.933	0.198	0.1502	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	16	43	87.067	0.622	41.6	0.0000	0.0000	FLOOD RISK
60 minute summer	17	43	87.067	0.624	30.7	0.0000	0.0000	FLOOD RISK
15 minute summer	18	10	86.451	0.081	11.3	0.0000	0.0000	OK
30 minute summer	19	19	86.214	0.094	32.8	0.0000	0.0000	OK
15 minute summer	20	10	86.260	0.040	7.9	0.0000	0.0000	OK
60 minute summer	21	53	85.956	0.236	36.1	0.0000	0.0000	OK
15 minute summer	22	10	85.948	0.048	6.2	0.0000	0.0000	OK
60 minute summer	23	54	85.937	0.237	38.8	0.0000	0.0000	OK
60 minute summer	24	54	85.934	0.474	32.5	0.0000	0.0000	FLOOD RISK
60 minute summer	25	54	85.553	0.143	29.1	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	16	1.009	17	30.7	0.115	0.347	4.6716	
60 minute summer	17	1.010	19	28.1	0.771	1.791	0.6635	
15 minute summer	18	8.000	19	11.2	1.181	0.537	0.1102	
30 minute summer	19	1.011	21	32.6	0.327	0.048	2.3686	
15 minute summer	20	9.000	21	7.9	1.739	0.156	0.0665	
60 minute summer	21	1.012	23	35.3	0.302	0.292	6.2148	
15 minute summer	22	10.000	23	6.2	1.243	0.217	0.0740	
60 minute summer	23	1.013	24	32.5	0.209	0.072	9.7152	
60 minute summer	24	1.014	25	29.1	0.794	2.712	0.3070	116.0

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	88.510	0.600	38.8	0.0000	0.3724	FLOOD
15 minute summer	2	10	88.008	0.164	34.8	0.0000	0.0000	OK
15 minute summer	3	11	87.611	0.101	11.0	0.0000	0.0000	OK
15 minute summer	4	11	87.577	0.180	45.5	0.0000	0.0000	OK
15 minute summer	5	11	87.491	0.231	19.6	0.0000	0.0000	SURCHARGED
15 minute summer	6	12	87.278	0.208	63.6	0.0000	0.0000	OK
15 minute summer	7	9	87.340	0.340	32.0	0.0000	3.3659	FLOOD
60 minute summer	8	42	87.106	0.216	62.6	0.0000	0.0000	OK
60 minute summer	9	41	87.109	0.359	21.8	0.0000	0.0000	FLOOD RISK
60 minute summer	10	42	87.105	0.535	80.6	0.0000	0.0000	FLOOD RISK
60 minute summer	11	42	87.105	0.655	62.8	0.0000	0.0000	SURCHARGED
60 minute summer	12	44	87.091	0.642	58.3	0.0000	0.0000	SURCHARGED
60 minute summer	13	43	87.091	0.491	2.5	0.0000	0.0000	FLOOD RISK
60 minute summer	14	44	87.091	0.644	53.1	0.0000	0.0000	FLOOD RISK
60 minute summer	15	44	87.091	0.271	5.7	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	34.8	1.979	2.404	0.1735	
15 minute summer	2	1.001	4	35.0	1.098	0.874	2.4143	
15 minute summer	3	2.000	4	10.5	0.719	0.596	0.1748	
15 minute summer	4	1.002	6	44.9	1.234	0.967	1.4818	
15 minute summer	5	3.000	6	18.8	1.121	0.989	0.2934	
15 minute summer	6	1.003	8	63.0	0.469	0.179	5.0902	
15 minute summer	7	4.000	8	19.1	1.090	1.749	0.5062	
60 minute summer	8	1.004	10	62.2	0.342	0.117	10.4335	
60 minute summer	9	5.000	10	19.7	0.710	0.563	1.5644	
60 minute summer	10	1.005	11	62.8	0.207	0.093	4.5429	
60 minute summer	11	1.006	12	58.3	0.368	7.574	2.2928	
60 minute summer	12	1.007	14	51.7	0.155	0.765	8.3949	
60 minute summer	13	6.000	14	1.8	0.532	0.122	0.3980	
60 minute summer	14	1.008	16	38.6	0.132	0.658	11.1841	
60 minute summer	15	7.000	16	5.7	0.930	0.208	0.1502	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	16	44	87.091	0.646	42.6	0.0000	0.0000	FLOOD RISK
60 minute summer	17	44	87.091	0.648	31.1	0.0000	0.0000	FLOOD RISK
15 minute summer	18	10	86.453	0.083	11.8	0.0000	0.0000	OK
30 minute summer	19	19	86.215	0.095	33.6	0.0000	0.0000	OK
15 minute summer	20	10	86.261	0.041	8.2	0.0000	0.0000	OK
60 minute summer	21	54	85.966	0.246	37.3	0.0000	0.0000	OK
60 minute summer	22	55	85.949	0.049	4.4	0.0000	0.0000	OK
60 minute summer	23	55	85.949	0.249	40.1	0.0000	0.0000	OK
60 minute summer	24	55	85.946	0.486	33.8	0.0000	0.0000	FLOOD RISK
60 minute summer	25	55	85.554	0.144	29.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	16	1.009	17	31.1	0.115	0.352	4.9491	
60 minute summer	17	1.010	19	28.6	0.782	1.822	0.6662	
15 minute summer	18	8.000	19	11.7	1.193	0.560	0.1139	
30 minute summer	19	1.011	21	33.5	0.331	0.049	2.4233	
15 minute summer	20	9.000	21	8.2	1.720	0.162	0.0671	
60 minute summer	21	1.012	23	36.1	0.301	0.298	6.6022	
60 minute summer	22	10.000	23	4.4	0.943	0.155	0.0890	
60 minute summer	23	1.013	24	33.8	0.209	0.075	10.1802	
60 minute summer	24	1.014	25	29.6	0.806	2.758	0.3083	122.3

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	9	88.510	0.600	48.5	0.0000	2.3514	FLOOD
15 minute summer	2	9	88.008	0.164	35.0	0.0000	0.0000	OK
15 minute summer	3	11	87.672	0.162	13.7	0.0000	0.0000	SURCHARGED
15 minute summer	4	11	87.591	0.194	48.1	0.0000	0.0000	OK
15 minute summer	5	11	87.633	0.373	24.5	0.0000	0.0000	FLOOD RISK
15 minute summer	6	11	87.293	0.223	71.0	0.0000	0.0000	OK
15 minute summer	7	8	87.340	0.340	40.0	0.0000	5.7825	FLOOD
60 minute summer	8	38	87.148	0.258	74.7	0.0000	0.0000	OK
60 minute summer	9	33	87.120	0.370	27.3	0.0000	9.0682	FLOOD
60 minute summer	10	38	87.142	0.572	92.9	0.0000	0.0000	FLOOD RISK
60 minute summer	11	38	87.142	0.692	69.2	0.0000	0.0000	SURCHARGED
60 minute winter	12	38	87.101	0.652	55.4	0.0000	0.0000	SURCHARGED
30 minute winter	13	23	87.104	0.504	3.4	0.0000	0.0000	FLOOD RISK
60 minute winter	14	38	87.100	0.653	51.0	0.0000	5.4318	FLOOD
60 minute winter	15	38	87.106	0.286	5.1	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	35.0	1.986	2.413	0.1735	
15 minute summer	2	1.001	4	35.3	1.102	0.880	2.4898	
15 minute summer	3	2.000	4	13.1	0.755	0.749	0.2037	
15 minute summer	4	1.002	6	47.4	1.243	1.021	1.5598	
15 minute summer	5	3.000	6	23.7	1.344	1.247	0.2934	
15 minute summer	6	1.003	8	70.4	0.490	0.200	5.4908	
15 minute summer	7	4.000	8	18.7	1.100	1.719	0.5062	
60 minute summer	8	1.004	10	67.5	0.332	0.127	11.9081	
60 minute summer	9	5.000	10	25.8	0.745	0.736	1.5644	
60 minute summer	10	1.005	11	69.2	0.200	0.103	4.9860	
60 minute summer	11	1.006	12	63.0	0.397	8.174	2.2928	
60 minute winter	12	1.007	14	49.4	0.179	0.730	8.5923	
30 minute winter	13	6.000	14	2.7	0.604	0.186	0.3980	
60 minute winter	14	1.008	16	37.5	0.151	0.639	11.4330	
60 minute winter	15	7.000	16	4.7	0.898	0.173	0.1502	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	16	23	87.100	0.655	48.7	0.0000	0.6132	FLOOD
60 minute winter	17	38	87.100	0.657	31.3	0.0000	0.1150	FLOOD
15 minute summer	18	10	86.466	0.096	14.7	0.0000	0.0000	OK
30 minute summer	19	19	86.222	0.102	37.7	0.0000	0.0000	OK
15 minute summer	20	10	86.266	0.046	10.3	0.0000	0.0000	OK
120 minute winter	21	92	86.003	0.283	34.6	0.0000	0.0000	OK
120 minute winter	22	92	85.992	0.092	2.5	0.0000	0.0000	OK
120 minute winter	23	92	85.992	0.292	34.8	0.0000	0.0000	OK
120 minute winter	24	92	85.990	0.530	31.8	0.0000	0.0000	FLOOD RISK
120 minute winter	25	92	85.558	0.148	31.3	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)
30 minute winter	16	1.009	17	32.6	0.162	0.369	5.0602	
60 minute winter	17	1.010	19	28.7	0.787	1.834	0.6673	
15 minute summer	18	8.000	19	14.6	1.252	0.698	0.1353	
30 minute summer	19	1.011	21	37.7	0.336	0.055	2.7468	
15 minute summer	20	9.000	21	10.3	1.782	0.203	0.0692	
120 minute winter	21	1.012	23	32.7	0.277	0.271	8.0731	
120 minute winter	22	10.000	23	2.5	0.875	0.088	0.1140	
120 minute winter	23	1.013	24	31.8	0.185	0.070	11.8754	
120 minute winter	24	1.014	25	31.3	0.844	2.916	0.3125	188.0

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	9	88.510	0.600	54.4	0.0000	4.1097	FLOOD
15 minute summer	2	9	88.008	0.164	35.2	0.0000	0.0000	OK
15 minute summer	3	11	87.706	0.196	15.4	0.0000	0.0000	SURCHARGED
15 minute summer	4	12	87.616	0.219	50.0	0.0000	0.0000	OK
15 minute summer	5	11	87.729	0.469	27.5	0.0000	0.0000	FLOOD RISK
15 minute summer	6	11	87.300	0.230	74.2	0.0000	0.0000	OK
30 minute summer	7	15	87.340	0.340	40.4	0.0000	7.3994	FLOOD
60 minute summer	8	37	87.160	0.270	78.6	0.0000	0.0000	OK
60 minute winter	9	33	87.120	0.370	28.4	0.0000	14.5347	FLOOD
60 minute summer	10	37	87.154	0.584	93.6	0.0000	0.0000	FLOOD RISK
60 minute summer	11	37	87.154	0.704	69.3	0.0000	0.0000	SURCHARGED
30 minute summer	12	22	87.102	0.653	70.8	0.0000	0.0000	SURCHARGED
30 minute winter	13	22	87.107	0.507	3.8	0.0000	0.0000	FLOOD RISK
60 minute winter	14	37	87.100	0.653	52.4	0.0000	9.0294	FLOOD
60 minute summer	15	36	87.110	0.290	7.9	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	35.2	2.002	2.432	0.1735	
15 minute summer	2	1.001	4	35.1	1.091	0.875	2.6031	
15 minute summer	3	2.000	4	14.9	0.849	0.852	0.2037	
15 minute summer	4	1.002	6	48.3	1.252	1.041	1.6229	
15 minute summer	5	3.000	6	26.6	1.510	1.401	0.2934	
15 minute summer	6	1.003	8	74.2	0.498	0.211	5.7084	
30 minute summer	7	4.000	8	18.6	1.057	1.706	0.5062	
60 minute summer	8	1.004	10	67.9	0.329	0.127	12.3856	
60 minute winter	9	5.000	10	21.5	0.765	0.614	1.5644	
60 minute summer	10	1.005	11	69.3	0.194	0.103	5.1318	
60 minute summer	11	1.006	12	62.7	0.396	8.145	2.2928	
30 minute summer	12	1.007	14	61.3	0.214	0.907	8.5970	
30 minute winter	13	6.000	14	2.8	0.609	0.193	0.3980	
60 minute winter	14	1.008	16	38.4	0.159	0.654	11.4330	
60 minute summer	15	7.000	16	7.0	0.846	0.258	0.1502	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.76%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	16	36	87.100	0.655	47.1	0.0000	0.9931	FLOOD
180 minute summer	17	100	87.100	0.657	30.2	0.0000	0.3587	FLOOD
15 minute summer	18	10	86.475	0.105	16.5	0.0000	0.0000	OK
30 minute summer	19	19	86.226	0.106	40.0	0.0000	0.0000	OK
15 minute summer	20	10	86.269	0.049	11.5	0.0000	0.0000	OK
120 minute winter	21	90	86.022	0.302	36.5	0.0000	0.0000	OK
120 minute winter	22	90	86.013	0.113	2.8	0.0000	0.0000	OK
120 minute winter	23	90	86.013	0.313	36.5	0.0000	0.0000	OK
120 minute winter	24	90	86.012	0.552	32.7	0.0000	0.0000	FLOOD RISK
120 minute winter	25	90	85.560	0.150	32.1	0.0000	0.0000	OK

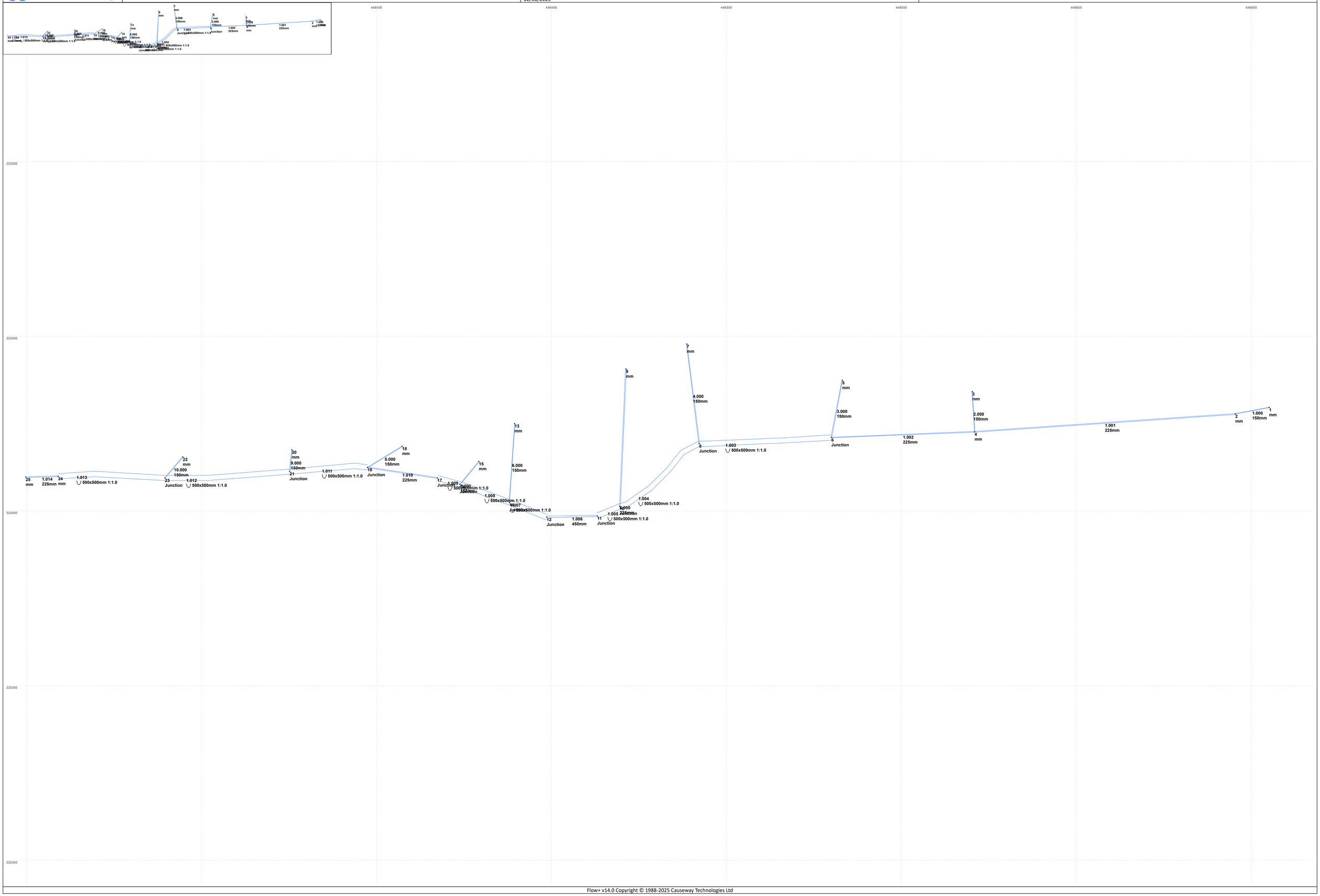
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	16	1.009	17	32.8	0.128	0.371	5.0602	
180 minute summer	17	1.010	19	28.7	0.787	1.834	0.6673	
15 minute summer	18	8.000	19	16.3	1.279	0.783	0.1484	
30 minute summer	19	1.011	21	40.0	0.341	0.058	2.9344	
15 minute summer	20	9.000	21	11.5	1.832	0.227	0.0704	
120 minute winter	21	1.012	23	34.0	0.278	0.282	8.8761	
120 minute winter	22	10.000	23	2.8	0.874	0.099	0.1258	
120 minute winter	23	1.013	24	32.7	0.185	0.072	12.7673	
120 minute winter	24	1.014	25	32.1	0.863	2.991	0.3144	198.8

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Water Quality

	Area (ha)	Intended Land Use	Entering via Node or Link	Name	SuDS Component	Pollution hazard indices TSS	Pollution hazard indices Metals	Pollution hazard indices Hydrocarbons	Pollution mitigation indices TSS	Pollution mitigation indices Metals	Pollution mitigation indices Hydrocarbons	Cumulative pollution hazard indices TSS	Cumulative pollution hazard indices Metals	Cumulative pollution hazard indices Hydrocarbons
✓	0.065	Roads	Node	1		0.7	0.6	0.7				0.7	0.6	0.7
✓	0.018	Roads	Node	3		0.7	0.6	0.7				0.7	0.6	0.7
✓	0.033	Roads	Node	5		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.003	Swale				0.5	0.6	0.6	0.2	0	0.1
✓	0.054	Roads	Node	7		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.004	Swale				0.25	0.3	0.3	0.45	0.3	0.4
✓	0.054	Roads	Node	9		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.005	Swale				0.25	0.3	0.3	0.45	0.3	0.4
			Link	1.007	Swale				0.25	0.3	0.3	0.2	0	0.1
✓	0.006	Roads	Node	13		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.008	Swale				0.25	0.3	0.3	0.45	0.3	0.4
✓	0.014	Roads	Node	15		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.009	Swale				0.25	0.3	0.3	0.45	0.3	0.4
✓	0.020	Roads	Node	18		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.011	Swale				0.25	0.3	0.3	0.45	0.3	0.4
✓	0.014	Roads	Node	20		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.012	Swale				0.25	0.3	0.3	0.45	0.3	0.4
✓	0.011	Roads	Node	22		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.013	Swale				0.25	0.3	0.3	0.45	0.3	0.4
			Node	25								0.45	0.3	0.4
												Insufficient	Insufficient	Insufficient

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Appendix 3: DCO Works No.9 Existing Drainage

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	✓
CV	1.000	Connection Type	Level Soffits		
Time of Entry (mins)	4.00	Minimum Backdrop Height (m)	0.200		

Swale Link Type

Shape	Trapezoidal	Side Slope (1:X)	3.0	Preferred Cover (m)	0.010	Velocity	Manning
Barrels	1	Auto Increment (mm)	150	Follow Ground	x	ks (mm) / n	0.040

Available Diameters (mm)

1000

Circular Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
1	0.033	15.00	42.000	447356.827	327522.200	0.472
2	0.028	15.00	41.800	447381.645	327556.584	0.585
3	0.056	4.00	42.500	447398.616	327560.741	1.500
4			41.000	447383.692	327564.056	0.500
5	0.014	15.00	41.500	447384.694	327567.713	1.537
6	0.036	15.00	40.000	447382.364	327592.162	0.521
7	0.042	15.00	39.500	447375.261	327623.186	0.686
8	0.102	15.00	38.700	447332.770	327669.784	0.498
9	0.083	4.00	39.382	447298.455	327718.725	1.401

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
10			39.382	447296.843	327720.981	1.405
11			37.450	447292.388	327739.568	0.541
12	0.096	4.00	42.000	447392.531	327615.920	0.958
13			39.500	447384.896	327635.087	1.406
14	0.107	4.00	39.500	447371.493	327649.504	1.580
15			38.500	447333.854	327689.491	1.000
16			38.000	447318.191	327712.062	0.713
17			37.450	447292.389	327742.791	0.750
18	0.031	4.00	38.000	447290.265	327784.407	1.500
19	0.059	4.00	37.450	447279.070	327772.416	1.200
20			37.450	447280.459	327780.534	1.452
21			36.800	447266.442	327817.746	1.297
22			36.717	447228.820	327839.934	1.399

Simulation Settings

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

Storm Durations

60	120	180	240	360	480	600	720	960	1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
5	0	0	0	100	25	0	0
30	0	0	0	100	40	0	0
30	25	0	0				

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Node 20 Online Orifice Control

Flap Valve	x	Invert Level (m)	35.998	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.092		

Node 19 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	36.250
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	178

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	33.0	0.0	1.200	374.7	0.0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 60 minute summer	32.661	8.631	1 year 1440 minute summer	4.409	1.182
1 year 60 minute winter	21.699	8.631	1 year 1440 minute winter	2.963	1.182
1 year 120 minute summer	24.515	6.479	5 year 60 minute summer	73.148	19.331
1 year 120 minute winter	16.287	6.479	5 year 60 minute winter	48.597	19.331
1 year 180 minute summer	20.290	5.221	5 year 120 minute summer	47.763	12.622
1 year 180 minute winter	13.189	5.221	5 year 120 minute winter	31.733	12.622
1 year 240 minute summer	16.663	4.404	5 year 180 minute summer	37.482	9.645
1 year 240 minute winter	11.071	4.404	5 year 180 minute winter	24.364	9.645
1 year 360 minute summer	13.157	3.386	5 year 240 minute summer	29.870	7.894
1 year 360 minute winter	8.552	3.386	5 year 240 minute winter	19.845	7.894
1 year 480 minute summer	10.463	2.765	5 year 360 minute summer	22.783	5.863
1 year 480 minute winter	6.951	2.765	5 year 360 minute winter	14.809	5.863
1 year 600 minute summer	8.578	2.346	5 year 480 minute summer	17.767	4.695
1 year 600 minute winter	5.861	2.346	5 year 480 minute winter	11.804	4.695
1 year 720 minute summer	7.626	2.044	5 year 600 minute summer	14.381	3.933
1 year 720 minute winter	5.125	2.044	5 year 600 minute winter	9.826	3.933
1 year 960 minute summer	6.203	1.634	5 year 720 minute summer	12.667	3.395
1 year 960 minute winter	4.109	1.634	5 year 720 minute winter	8.513	3.395

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
5 year 960 minute summer	10.177	2.680	30 year +25% CC 360 minute summer	43.182	11.112
5 year 960 minute winter	6.741	2.680	30 year +25% CC 360 minute winter	28.069	11.112
5 year 1440 minute summer	7.135	1.912	30 year +25% CC 480 minute summer	33.398	8.826
5 year 1440 minute winter	4.795	1.912	30 year +25% CC 480 minute winter	22.189	8.826
30 year 60 minute summer	121.798	32.188	30 year +25% CC 600 minute summer	26.867	7.349
30 year 60 minute winter	80.920	32.188	30 year +25% CC 600 minute winter	18.357	7.349
30 year 120 minute summer	75.753	20.019	30 year +25% CC 720 minute summer	23.550	6.312
30 year 120 minute winter	50.329	20.019	30 year +25% CC 720 minute winter	15.827	6.312
30 year 180 minute summer	58.243	14.988	30 year +25% CC 960 minute summer	18.780	4.945
30 year 180 minute winter	37.859	14.988	30 year +25% CC 960 minute winter	12.440	4.945
30 year 240 minute summer	45.879	12.124	30 year +25% CC 1440 minute summer	13.004	3.485
30 year 240 minute winter	30.481	12.124	30 year +25% CC 1440 minute winter	8.739	3.485
30 year 360 minute summer	34.546	8.890	100 year 60 minute summer	160.969	42.539
30 year 360 minute winter	22.456	8.890	100 year 60 minute winter	106.944	42.539
30 year 480 minute summer	26.718	7.061	100 year 120 minute summer	100.180	26.475
30 year 480 minute winter	17.751	7.061	100 year 120 minute winter	66.557	26.475
30 year 600 minute summer	21.494	5.879	100 year 180 minute summer	77.199	19.866
30 year 600 minute winter	14.686	5.879	100 year 180 minute winter	50.182	19.866
30 year 720 minute summer	18.840	5.049	100 year 240 minute summer	60.869	16.086
30 year 720 minute winter	12.662	5.049	100 year 240 minute winter	40.440	16.086
30 year 960 minute summer	15.024	3.956	100 year 360 minute summer	45.775	11.779
30 year 960 minute winter	9.952	3.956	100 year 360 minute winter	29.755	11.779
30 year 1440 minute summer	10.403	2.788	100 year 480 minute summer	35.370	9.347
30 year 1440 minute winter	6.992	2.788	100 year 480 minute winter	23.499	9.347
30 year +25% CC 60 minute summer	152.248	40.235	100 year 600 minute summer	28.397	7.767
30 year +25% CC 60 minute winter	101.150	40.235	100 year 600 minute winter	19.403	7.767
30 year +25% CC 120 minute summer	94.691	25.024	100 year 720 minute summer	24.828	6.654
30 year +25% CC 120 minute winter	62.911	25.024	100 year 720 minute winter	16.686	6.654
30 year +25% CC 180 minute summer	72.803	18.735	100 year 960 minute summer	19.675	5.181
30 year +25% CC 180 minute winter	47.324	18.735	100 year 960 minute winter	13.033	5.181
30 year +25% CC 240 minute summer	57.349	15.156	100 year 1440 minute summer	13.466	3.609
30 year +25% CC 240 minute winter	38.101	15.156	100 year 1440 minute winter	9.050	3.609

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +25% CC 60 minute summer	201.211	53.174	100 year +40% CC 60 minute summer	225.357	59.555
100 year +25% CC 60 minute winter	133.680	53.174	100 year +40% CC 60 minute winter	149.722	59.555
100 year +25% CC 120 minute summer	125.225	33.093	100 year +40% CC 120 minute summer	140.252	37.065
100 year +25% CC 120 minute winter	83.197	33.093	100 year +40% CC 120 minute winter	93.180	37.065
100 year +25% CC 180 minute summer	96.499	24.833	100 year +40% CC 180 minute summer	108.079	27.812
100 year +25% CC 180 minute winter	62.727	24.833	100 year +40% CC 180 minute winter	70.254	27.812
100 year +25% CC 240 minute summer	76.086	20.107	100 year +40% CC 240 minute summer	85.216	22.520
100 year +25% CC 240 minute winter	50.550	20.107	100 year +40% CC 240 minute winter	56.616	22.520
100 year +25% CC 360 minute summer	57.219	14.724	100 year +40% CC 360 minute summer	64.085	16.491
100 year +25% CC 360 minute winter	37.194	14.724	100 year +40% CC 360 minute winter	41.657	16.491
100 year +25% CC 480 minute summer	44.213	11.684	100 year +40% CC 480 minute summer	49.518	13.086
100 year +25% CC 480 minute winter	29.374	11.684	100 year +40% CC 480 minute winter	32.899	13.086
100 year +25% CC 600 minute summer	35.497	9.709	100 year +40% CC 600 minute summer	39.756	10.874
100 year +25% CC 600 minute winter	24.253	9.709	100 year +40% CC 600 minute winter	27.164	10.874
100 year +25% CC 720 minute summer	31.035	8.318	100 year +40% CC 720 minute summer	34.760	9.316
100 year +25% CC 720 minute winter	20.858	8.318	100 year +40% CC 720 minute winter	23.361	9.316
100 year +25% CC 960 minute summer	24.593	6.476	100 year +40% CC 960 minute summer	27.544	7.253
100 year +25% CC 960 minute winter	16.291	6.476	100 year +40% CC 960 minute winter	18.246	7.253
100 year +25% CC 1440 minute summer	16.832	4.511	100 year +40% CC 1440 minute summer	18.852	5.053
100 year +25% CC 1440 minute winter	11.312	4.511	100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	40	41.556	0.028	1.9	0.0000	0.0000	OK
60 minute summer	2	39	41.230	0.015	3.5	0.0000	0.0000	OK
60 minute summer	3	32	41.038	0.038	4.8	0.0000	0.0000	OK
60 minute summer	4	33	40.520	0.020	7.3	0.0000	0.0000	OK
60 minute summer	5	34	40.000	0.037	8.0	0.0000	0.0000	OK
60 minute summer	6	35	39.520	0.041	9.9	0.0000	0.0000	OK
60 minute summer	7	38	38.871	0.057	12.1	0.0000	0.0000	OK
60 minute summer	8	41	38.290	0.088	17.6	0.0000	0.0000	OK
120 minute summer	9	74	38.182	0.201	19.3	0.0000	0.0000	OK
120 minute summer	10	74	38.106	0.129	18.3	0.0000	0.0000	OK
120 minute summer	11	74	36.973	0.064	18.3	0.0000	0.0000	OK
60 minute summer	12	32	41.071	0.029	8.2	0.0000	0.0000	OK
60 minute summer	13	32	38.150	0.056	8.2	0.0000	0.0000	OK
60 minute summer	14	32	38.005	0.085	17.2	0.0000	0.0000	OK
60 minute summer	15	33	37.588	0.088	17.1	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	1	1.000	2	1.8	0.155	0.002	0.5107	
60 minute summer	2	1.001	4	3.5	0.413	0.001	0.0706	
60 minute summer	3	2.000	4	4.8	1.625	0.051	0.0463	
60 minute summer	4	1.002	5	7.3	0.434	0.002	0.0646	
60 minute summer	5	1.003	6	8.0	0.333	0.005	0.5940	
60 minute summer	6	1.004	7	9.8	0.323	0.006	1.0027	
60 minute summer	7	1.005	8	11.6	0.243	0.011	3.2810	
60 minute summer	8	1.006	9	16.3	0.128	0.026	8.2747	
120 minute summer	9	1.007	10	18.3	0.585	3.295	0.0845	
120 minute summer	10	1.008	11	18.3	1.128	0.529	0.3123	
120 minute summer	11	1.009	19	18.2	0.514	0.101	0.0813	
60 minute summer	12	3.000	13	8.2	1.349	0.019	0.1289	
60 minute summer	13	3.001	14	8.1	0.639	0.077	0.2514	
60 minute summer	14	3.002	15	17.1	1.019	0.176	0.9211	
60 minute summer	15	3.003	16	17.0	1.071	0.174	0.4364	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	16	34	37.366	0.079	17.0	0.0000	0.0000	OK
60 minute summer	17	34	36.736	0.036	16.9	0.0000	0.0000	OK
180 minute summer	18	128	36.627	0.127	1.7	0.0000	0.0000	OK
180 minute summer	19	128	36.641	0.391	28.1	34.6252	0.0000	SURCHARGED
180 minute summer	20	128	36.627	0.629	12.6	0.0000	0.0000	SURCHARGED
180 minute summer	21	128	35.715	0.212	12.5	0.0000	0.0000	OK
180 minute summer	22	128	35.402	0.084	12.5	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	16	3.004	17	16.9	1.792	0.126	0.3926	
60 minute summer	17	3.005	19	16.9	1.960	0.032	0.0718	
180 minute summer	18	4.000	20	1.7	0.379	0.015	0.3309	
180 minute summer	19	1.010	20	12.3	0.243	0.223	0.5800	
180 minute summer	20	1.011	21	12.5	0.309	0.358	1.6068	
180 minute summer	21	1.012	22	12.5	0.362	0.613	1.5162	107.2

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Results for 5 year Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	39	41.572	0.044	4.3	0.0000	0.0000	OK
60 minute summer	2	39	41.239	0.024	7.9	0.0000	0.0000	OK
60 minute summer	3	32	41.056	0.056	10.7	0.0000	0.0000	OK
60 minute summer	4	33	40.532	0.032	16.6	0.0000	0.0000	OK
60 minute summer	5	34	40.022	0.059	18.1	0.0000	0.0000	OK
60 minute summer	6	35	39.544	0.065	22.3	0.0000	0.0000	OK
60 minute summer	7	37	38.902	0.088	27.4	0.0000	0.0000	OK
60 minute summer	8	44	38.343	0.141	39.9	0.0000	0.0000	OK
60 minute summer	9	45	38.333	0.352	44.0	0.0000	0.0000	SURCHARGED
60 minute summer	10	45	38.183	0.206	32.8	0.0000	0.0000	OK
60 minute summer	11	45	36.995	0.086	32.8	0.0000	0.0000	OK
60 minute summer	12	32	41.084	0.042	18.3	0.0000	0.0000	OK
60 minute summer	13	32	38.178	0.084	18.3	0.0000	0.0000	OK
60 minute summer	14	32	38.053	0.133	38.4	0.0000	0.0000	OK
60 minute summer	15	33	37.637	0.137	38.1	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	1	1.000	2	4.2	0.206	0.005	0.8782	
60 minute summer	2	1.001	4	7.9	0.548	0.002	0.1208	
60 minute summer	3	2.000	4	10.7	1.979	0.113	0.0842	
60 minute summer	4	1.002	5	16.5	0.569	0.004	0.1122	
60 minute summer	5	1.003	6	18.0	0.428	0.012	1.0459	
60 minute summer	6	1.004	7	22.1	0.411	0.015	1.7833	
60 minute summer	7	1.005	8	26.6	0.304	0.026	5.9638	
60 minute summer	8	1.006	9	37.9	0.142	0.059	20.2337	
60 minute summer	9	1.007	10	32.8	0.825	5.913	0.1079	
60 minute summer	10	1.008	11	32.8	1.230	0.950	0.4964	
60 minute summer	11	1.009	19	32.8	0.629	0.182	0.0870	
60 minute summer	12	3.000	13	18.3	1.703	0.043	0.2277	
60 minute summer	13	3.001	14	18.1	0.791	0.173	0.4538	
60 minute summer	14	3.002	15	38.1	1.251	0.392	1.6764	
60 minute summer	15	3.003	16	38.2	1.332	0.391	0.7890	

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Results for 5 year Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	16	33	37.407	0.120	38.2	0.0000	0.0000	OK
180 minute summer	17	132	36.949	0.249	53.7	0.0000	0.0000	OK
180 minute summer	18	136	36.916	0.416	3.2	0.0000	0.0000	SURCHARGED
180 minute summer	19	136	36.937	0.687	79.0	89.9742	0.0000	SURCHARGED
180 minute summer	20	136	36.916	0.918	15.6	0.0000	0.0000	SURCHARGED
180 minute summer	21	140	35.741	0.238	15.6	0.0000	0.0000	OK
180 minute summer	22	140	35.412	0.094	15.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	16	3.004	17	38.1	2.256	0.283	1.0785	
180 minute summer	17	3.005	19	53.0	1.571	0.100	0.1329	
180 minute summer	18	4.000	20	2.6	0.318	0.023	0.4193	
180 minute summer	19	1.010	20	15.2	0.246	0.277	0.5800	
180 minute summer	20	1.011	21	15.6	0.332	0.444	1.8373	
180 minute summer	21	1.012	22	15.6	0.388	0.761	1.7256	198.4

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	39	41.586	0.058	7.1	0.0000	0.0000	OK
60 minute summer	2	39	41.247	0.032	13.2	0.0000	0.0000	OK
60 minute summer	3	32	41.072	0.072	17.8	0.0000	0.0000	OK
60 minute summer	4	33	40.543	0.043	27.7	0.0000	0.0000	OK
60 minute summer	5	33	40.041	0.078	30.4	0.0000	0.0000	OK
60 minute summer	6	34	39.565	0.086	37.3	0.0000	0.0000	OK
60 minute summer	7	36	38.930	0.116	45.7	0.0000	0.0000	OK
60 minute summer	8	49	38.497	0.295	66.8	0.0000	0.0000	OK
60 minute summer	9	49	38.496	0.515	65.0	0.0000	0.0000	SURCHARGED
60 minute summer	10	50	38.330	0.353	37.7	0.0000	0.0000	SURCHARGED
120 minute winter	11	120	37.229	0.320	37.3	0.0000	0.0000	FLOOD RISK
60 minute summer	12	32	41.096	0.054	30.4	0.0000	0.0000	OK
60 minute summer	13	32	38.204	0.110	30.4	0.0000	0.0000	OK
60 minute summer	14	32	38.102	0.182	64.0	0.0000	0.0000	OK
60 minute summer	15	33	37.687	0.187	63.3	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	1	1.000	2	7.0	0.244	0.008	1.2369	
60 minute summer	2	1.001	4	13.1	0.651	0.004	0.1708	
60 minute summer	3	2.000	4	17.8	2.240	0.188	0.1230	
60 minute summer	4	1.002	5	27.7	0.669	0.007	0.1606	
60 minute summer	5	1.003	6	30.1	0.498	0.020	1.5033	
60 minute summer	6	1.004	7	37.0	0.474	0.024	2.5780	
60 minute summer	7	1.005	8	44.7	0.346	0.043	14.8742	
60 minute summer	8	1.006	9	40.9	0.137	0.064	43.6638	
60 minute summer	9	1.007	10	37.7	0.947	6.795	0.1103	
60 minute summer	10	1.008	11	37.8	1.229	1.097	0.7463	
120 minute winter	11	1.009	19	42.3	0.766	0.234	0.1408	
60 minute summer	12	3.000	13	30.4	1.950	0.072	0.3295	
60 minute summer	13	3.001	14	30.2	0.887	0.289	0.6703	
60 minute summer	14	3.002	15	63.3	1.402	0.652	2.4865	
60 minute summer	15	3.003	16	63.7	1.513	0.652	1.1554	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	16	33	37.446	0.159	63.7	0.0000	0.0000	OK
180 minute summer	17	152	37.223	0.523	53.3	0.0000	0.0000	FLOOD RISK
180 minute summer	18	152	37.194	0.694	5.0	0.0000	0.0000	SURCHARGED
180 minute summer	19	152	37.223	0.973	103.1	166.9526	0.0000	FLOOD RISK
180 minute summer	20	152	37.194	1.196	18.1	0.0000	0.0000	FLOOD RISK
180 minute summer	21	152	35.762	0.259	18.0	0.0000	0.0000	OK
180 minute summer	22	152	35.420	0.102	18.0	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)	Discharge Vol (m³)
60 minute summer	16	3.004	17	63.6	2.584	0.472	1.5777	
180 minute summer	17	3.005	19	64.4	1.752	0.121	0.1408	
180 minute summer	18	4.000	20	4.3	0.315	0.038	0.4193	
180 minute summer	19	1.010	20	17.7	0.251	0.321	0.5800	
180 minute summer	20	1.011	21	18.0	0.350	0.515	2.0052	
180 minute summer	21	1.012	22	18.0	0.407	0.882	1.8731	308.2

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	39	41.594	0.066	8.9	0.0000	0.0000	OK
60 minute summer	2	39	41.251	0.036	16.5	0.0000	0.0000	OK
60 minute summer	3	32	41.080	0.080	22.2	0.0000	0.0000	OK
60 minute summer	4	33	40.549	0.049	34.8	0.0000	0.0000	OK
60 minute summer	5	33	40.051	0.088	38.1	0.0000	0.0000	OK
60 minute summer	6	34	39.576	0.097	46.7	0.0000	0.0000	OK
60 minute summer	7	36	38.944	0.130	57.2	0.0000	0.0000	OK
60 minute summer	8	50	38.577	0.375	83.7	0.0000	0.0000	OK
60 minute summer	9	50	38.576	0.595	71.0	0.0000	0.0000	SURCHARGED
60 minute summer	10	57	38.378	0.401	39.5	0.0000	0.0000	SURCHARGED
180 minute winter	11	164	37.402	0.493	37.1	0.0000	0.0000	FLOOD RISK
60 minute summer	12	32	41.102	0.060	38.0	0.0000	0.0000	OK
60 minute summer	13	32	38.219	0.125	37.9	0.0000	0.0000	OK
60 minute summer	14	32	38.134	0.214	79.9	0.0000	0.0000	OK
60 minute summer	15	33	37.719	0.219	79.1	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	1	1.000	2	8.8	0.263	0.010	1.4448	
60 minute summer	2	1.001	4	16.4	0.703	0.005	0.1995	
60 minute summer	3	2.000	4	22.2	2.366	0.235	0.1451	
60 minute summer	4	1.002	5	34.8	0.717	0.009	0.1882	
60 minute summer	5	1.003	6	37.8	0.532	0.026	1.7666	
60 minute summer	6	1.004	7	46.4	0.504	0.031	3.0328	
60 minute summer	7	1.005	8	56.1	0.348	0.054	21.4375	
60 minute summer	8	1.006	9	46.1	0.135	0.072	58.8729	
60 minute summer	9	1.007	10	39.5	0.994	7.135	0.1103	
60 minute summer	10	1.008	11	39.5	1.227	1.144	0.7601	
180 minute winter	11	1.009	19	36.6	0.634	0.203	0.1408	
60 minute summer	12	3.000	13	37.9	2.057	0.090	0.3899	
60 minute summer	13	3.001	14	37.7	0.919	0.361	0.8029	
60 minute summer	14	3.002	15	79.1	1.462	0.815	2.9776	
60 minute summer	15	3.003	16	79.5	1.622	0.814	1.3434	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	16	33	37.463	0.176	79.5	0.0000	0.0000	OK
180 minute winter	17	172	37.395	0.695	26.5	0.0000	0.0000	FLOOD RISK
180 minute winter	18	172	37.361	0.861	4.1	0.0000	0.0000	SURCHARGED
180 minute winter	19	172	37.395	1.145	92.1	224.2784	0.0000	FLOOD RISK
180 minute winter	20	172	37.361	1.363	19.4	0.0000	0.0000	FLOOD RISK
180 minute winter	21	172	35.773	0.270	19.4	0.0000	0.0000	OK
180 minute winter	22	172	35.424	0.106	19.4	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	16	3.004	17	79.8	2.576	0.593	1.9382	
180 minute winter	17	3.005	19	54.3	1.748	0.102	0.1408	
180 minute winter	18	4.000	20	4.1	0.410	0.036	0.4193	
180 minute winter	19	1.010	20	19.2	0.273	0.349	0.5800	
180 minute winter	20	1.011	21	19.4	0.359	0.553	2.0880	
180 minute winter	21	1.012	22	19.4	0.417	0.948	1.9450	386.7

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	39	41.596	0.068	9.4	0.0000	0.0000	OK
60 minute summer	2	39	41.253	0.038	17.5	0.0000	0.0000	OK
60 minute summer	3	32	41.083	0.083	23.5	0.0000	0.0000	OK
60 minute summer	4	33	40.551	0.051	36.9	0.0000	0.0000	OK
60 minute summer	5	33	40.054	0.091	40.3	0.0000	0.0000	OK
60 minute summer	6	34	39.579	0.100	49.4	0.0000	0.0000	OK
60 minute summer	7	36	38.948	0.134	60.5	0.0000	0.0000	OK
60 minute summer	8	51	38.599	0.397	88.5	0.0000	0.0000	OK
60 minute summer	9	51	38.599	0.618	68.4	0.0000	0.0000	SURCHARGED
60 minute summer	10	54	38.407	0.430	39.8	0.0000	0.0000	SURCHARGED
180 minute winter	11	172	37.450	0.541	37.2	0.0000	0.0000	FLOOD RISK
60 minute summer	12	32	41.104	0.062	40.2	0.0000	0.0000	OK
60 minute summer	13	32	38.223	0.129	40.1	0.0000	0.0000	OK
60 minute summer	14	32	38.145	0.225	84.5	0.0000	0.0000	OK
60 minute summer	15	33	37.728	0.228	83.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	1	1.000	2	9.3	0.268	0.010	1.5001	
60 minute summer	2	1.001	4	17.4	0.716	0.005	0.2074	
60 minute summer	3	2.000	4	23.5	2.398	0.248	0.1514	
60 minute summer	4	1.002	5	36.8	0.729	0.009	0.1960	
60 minute summer	5	1.003	6	40.0	0.540	0.027	1.8397	
60 minute summer	6	1.004	7	49.1	0.512	0.032	3.1615	
60 minute summer	7	1.005	8	59.4	0.349	0.057	23.3021	
60 minute summer	8	1.006	9	48.1	0.135	0.075	63.5120	
60 minute summer	9	1.007	10	39.8	1.000	7.178	0.1103	
60 minute summer	10	1.008	11	39.6	1.229	1.149	0.7601	
180 minute winter	11	1.009	19	39.1	0.670	0.217	0.1408	
60 minute summer	12	3.000	13	40.1	2.080	0.095	0.4075	
60 minute summer	13	3.001	14	39.9	0.924	0.382	0.8424	
60 minute summer	14	3.002	15	83.7	1.476	0.863	3.1213	
60 minute summer	15	3.003	16	84.1	1.647	0.861	1.3971	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	16	33	37.467	0.180	84.1	0.0000	0.0000	OK
180 minute winter	17	176	37.439	0.739	41.4	0.0000	0.0000	FLOOD RISK
180 minute winter	18	176	37.404	0.904	4.3	0.0000	0.0000	SURCHARGED
180 minute winter	19	176	37.439	1.189	112.3	240.5647	0.0000	FLOOD RISK
180 minute winter	20	176	37.404	1.406	19.7	0.0000	0.0000	FLOOD RISK
180 minute winter	21	180	35.776	0.273	19.7	0.0000	0.0000	OK
180 minute winter	22	180	35.425	0.107	19.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	16	3.004	17	84.4	2.552	0.627	1.8966	
180 minute winter	17	3.005	19	72.8	1.758	0.137	0.1408	
180 minute winter	18	4.000	20	4.3	0.374	0.038	0.4193	
180 minute winter	19	1.010	20	19.6	0.279	0.357	0.5800	
180 minute winter	20	1.011	21	19.7	0.361	0.562	2.1068	
180 minute winter	21	1.012	22	19.7	0.419	0.964	1.9605	409.9

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	39	41.604	0.076	11.7	0.0000	0.0000	OK
60 minute summer	2	39	41.258	0.043	21.8	0.0000	0.0000	OK
60 minute summer	3	32	41.093	0.093	29.4	0.0000	0.0000	OK
60 minute summer	4	33	40.558	0.058	46.2	0.0000	0.0000	OK
60 minute summer	5	33	40.065	0.102	50.6	0.0000	0.0000	OK
60 minute summer	6	34	39.591	0.112	61.9	0.0000	0.0000	OK
60 minute summer	7	36	38.964	0.150	75.7	0.0000	0.0000	OK
60 minute summer	8	51	38.700	0.498	110.7	0.0000	1.1617	FLOOD
60 minute summer	9	51	38.701	0.720	78.7	0.0000	0.0000	SURCHARGED
120 minute summer	10	90	38.514	0.537	38.0	0.0000	0.0000	SURCHARGED
120 minute summer	11	108	37.450	0.541	37.1	0.0000	0.0000	FLOOD RISK
60 minute summer	12	32	41.111	0.069	50.3	0.0000	0.0000	OK
60 minute summer	13	33	38.261	0.167	50.2	0.0000	0.0000	OK
60 minute summer	14	33	38.238	0.318	104.9	0.0000	0.0000	SURCHARGED
60 minute summer	15	33	37.773	0.273	101.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	1	1.000	2	11.6	0.288	0.013	1.7461	
60 minute summer	2	1.001	4	21.7	0.768	0.007	0.2420	
60 minute summer	3	2.000	4	29.3	2.532	0.311	0.1790	
60 minute summer	4	1.002	5	46.2	0.781	0.012	0.2302	
60 minute summer	5	1.003	6	50.2	0.576	0.034	2.1643	
60 minute summer	6	1.004	7	61.7	0.544	0.041	3.7267	
60 minute summer	7	1.005	8	74.4	0.341	0.072	33.6856	
60 minute summer	8	1.006	9	56.8	0.133	0.089	86.8633	
60 minute summer	9	1.007	10	39.6	0.995	7.140	0.1103	
120 minute summer	10	1.008	11	37.1	1.228	1.076	0.7601	
120 minute summer	11	1.009	19	36.5	0.630	0.202	0.1408	
60 minute summer	12	3.000	13	50.2	2.158	0.119	0.5408	
60 minute summer	13	3.001	14	49.1	0.930	0.470	1.0907	
60 minute summer	14	3.002	15	101.6	1.500	1.047	3.7824	
60 minute summer	15	3.003	16	101.6	1.727	1.040	1.6088	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	16	33	37.487	0.200	101.6	0.0000	0.0000	OK
120 minute summer	17	116	37.450	0.750	77.5	0.0000	0.0000	FLOOD RISK
360 minute winter	18	232	37.420	0.920	3.2	0.0000	0.0000	SURCHARGED
240 minute winter	19	164	37.450	1.200	94.5	244.6200	79.0134	FLOOD
240 minute winter	20	164	37.420	1.422	19.9	0.0000	0.0000	FLOOD RISK
240 minute winter	21	168	35.777	0.274	19.8	0.0000	0.0000	OK
240 minute winter	22	168	35.425	0.107	19.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	16	3.004	17	101.9	2.575	0.757	2.3672	
120 minute summer	17	3.005	19	104.8	2.472	0.197	0.1408	
360 minute winter	18	4.000	20	3.0	0.258	0.027	0.4193	
240 minute winter	19	1.010	20	19.6	0.279	0.357	0.5800	
240 minute winter	20	1.011	21	19.8	0.362	0.566	2.1136	
240 minute winter	21	1.012	22	19.8	0.420	0.969	1.9661	473.9

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	39	41.609	0.081	13.1	0.0000	0.0000	OK
60 minute summer	2	39	41.260	0.045	24.4	0.0000	0.0000	OK
60 minute summer	3	32	41.099	0.099	32.9	0.0000	0.0000	OK
60 minute summer	4	33	40.561	0.061	51.8	0.0000	0.0000	OK
60 minute summer	5	33	40.072	0.109	56.8	0.0000	0.0000	OK
60 minute summer	6	34	39.598	0.119	69.4	0.0000	0.0000	OK
60 minute summer	7	36	38.972	0.158	84.9	0.0000	0.0000	OK
60 minute summer	8	43	38.700	0.498	124.1	0.0000	24.1250	FLOOD
60 minute winter	9	45	38.704	0.723	78.5	0.0000	0.0000	SURCHARGED
180 minute summer	10	124	38.538	0.561	35.5	0.0000	0.0000	SURCHARGED
60 minute summer	11	103	37.450	0.541	39.1	0.0000	0.0000	FLOOD RISK
60 minute summer	12	32	41.115	0.073	56.3	0.0000	0.0000	OK
60 minute summer	13	33	38.538	0.444	56.2	0.0000	0.0000	SURCHARGED
60 minute summer	14	33	38.479	0.559	111.1	0.0000	0.0000	SURCHARGED
60 minute summer	15	34	37.861	0.361	109.4	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	1	1.000	2	13.0	0.298	0.014	1.8889	
60 minute summer	2	1.001	4	24.3	0.797	0.008	0.2620	
60 minute summer	3	2.000	4	32.8	2.602	0.348	0.1947	
60 minute summer	4	1.002	5	51.8	0.807	0.013	0.2498	
60 minute summer	5	1.003	6	56.4	0.595	0.038	2.3501	
60 minute summer	6	1.004	7	69.2	0.561	0.045	4.0517	
60 minute summer	7	1.005	8	83.5	0.336	0.081	35.4583	
60 minute summer	8	1.006	9	58.7	0.133	0.092	87.3463	
60 minute winter	9	1.007	10	39.8	1.002	7.188	0.1103	
180 minute summer	10	1.008	11	35.1	1.225	1.016	0.7601	
60 minute summer	11	1.009	19	37.0	0.639	0.205	0.1408	
60 minute summer	12	3.000	13	56.2	2.167	0.133	0.8608	
60 minute summer	13	3.001	14	53.1	0.928	0.508	1.3862	
60 minute summer	14	3.002	15	109.4	1.553	1.127	3.8671	
60 minute summer	15	3.003	16	110.0	1.729	1.125	1.6926	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.59%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	16	34	37.497	0.210	110.0	0.0000	0.0000	OK
60 minute summer	17	120	37.450	0.750	111.4	0.0000	0.0000	FLOOD RISK
240 minute winter	18	152	37.424	0.924	4.9	0.0000	0.0000	SURCHARGED
240 minute winter	19	152	37.450	1.200	118.3	244.6200	129.0008	FLOOD
240 minute winter	20	152	37.424	1.426	19.9	0.0000	0.0000	FLOOD RISK
240 minute winter	21	156	35.777	0.274	19.9	0.0000	0.0000	OK
240 minute winter	22	156	35.425	0.107	19.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	16	3.004	17	111.4	2.560	0.828	2.4720	
60 minute summer	17	3.005	19	110.2	2.769	0.208	0.1408	
240 minute winter	18	4.000	20	4.7	0.410	0.041	0.4193	
240 minute winter	19	1.010	20	19.8	0.281	0.360	0.5800	
240 minute winter	20	1.011	21	19.9	0.362	0.566	2.1152	
240 minute winter	21	1.012	22	19.9	0.420	0.971	1.9674	490.6

Water Quality

Area (ha)	Intended Land Use	Entering via Node or Link	Name	SuDS Component	Pollution hazard indices TSS	Metals	Hydrocarbons	Pollution mitigation indices TSS	Metals	Hydrocarbons	Cumulative pollution hazard indices TSS	Metals	Hydrocarbons
		Link	1.000	Swale				0.5	0.6	0.6			
		Link	1.001	Swale				0.25	0.3	0.3			
		Link	1.002	Swale				0.25	0.3	0.3			
		Link	1.003	Swale				0.25	0.3	0.3			
		Link	1.004	Swale				0.25	0.3	0.3			
		Link	1.005	Swale				0.25	0.3	0.3			
		Link	1.006	Swale				0.25	0.3	0.3			
		Node	22								Sufficient	Sufficient	Sufficient

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Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	x
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	4.00	Minimum Backdrop Height (m)	0.200		

Circular Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

Swale Link Type

Shape	Trapezoidal	Side Slope (1:X)	3.0	Preferred Cover (m)	0.010	Velocity	Manning
Barrels	1	Auto Increment (mm)	150	Follow Ground	x	ks (mm) / n	0.040

Available Diameters (mm)

1000

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.322	15.00	45.810	1350	447377.760	327196.191	1.700
2	0.090	4.00	44.290	1350	447337.818	327299.946	1.690
3	0.098	4.00	43.570	1350	447329.721	327413.360	1.710
4	0.040	4.00	43.100	1500	447342.194	327451.463	1.800
5	0.031	4.00	43.300	1500	447371.213	327499.682	2.304
6		4.00	43.180		447413.484	327190.049	0.600
7			41.780		447364.627	327301.308	1.000
8	0.059	4.00	41.900	1350	447362.394	327309.537	1.650
9			42.000	1350	447360.637	327315.547	1.766

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
10	0.065	4.00	42.600	1800	447359.482	327401.292	3.027
11	0.093	4.00	42.450	1800	447395.293	327482.503	2.970
12	0.027	4.00	42.800	1200	447410.157	327508.089	1.425
13	0.051	4.00	42.400	1200	447414.773	327501.245	1.425
14			42.500	1800	447412.874	327495.395	3.043
15			42.000	1800	447438.777	327493.582	2.570
16	0.027	4.00	43.080	1350	447453.110	327496.054	2.280
17			42.000	1800	447445.440	327489.272	2.579
18	0.072	4.00	43.310	1200	447484.602	327453.024	1.410
19			41.430	1800	447476.483	327450.760	2.100
20	1.070	4.00	40.700	1500	447487.633	327337.174	1.800
21	0.085	4.00	42.750	1200	447490.906	327398.081	1.350
22			40.600	1900	447483.149	327396.547	1.900
23			39.200	1900	447522.856	327394.862	2.250
24			39.200	1900	447540.061	327394.711	2.300

Simulation Settings

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

Storm Durations

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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
5	0	0	0	100	25	0	0
30	0	0	0	100	40	0	0
30	25	0	0				

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	76.777	21.725	5 year 180 minute summer	37.482	9.645
1 year 15 minute winter	53.878	21.725	5 year 180 minute winter	24.364	9.645
1 year 30 minute summer	48.990	13.863	5 year 240 minute summer	29.870	7.894
1 year 30 minute winter	34.379	13.863	5 year 240 minute winter	19.845	7.894
1 year 60 minute summer	32.661	8.631	5 year 360 minute summer	22.783	5.863
1 year 60 minute winter	21.699	8.631	5 year 360 minute winter	14.809	5.863
1 year 120 minute summer	24.515	6.479	5 year 480 minute summer	17.767	4.695
1 year 120 minute winter	16.287	6.479	5 year 480 minute winter	11.804	4.695
1 year 180 minute summer	20.290	5.221	5 year 600 minute summer	14.381	3.933
1 year 180 minute winter	13.189	5.221	5 year 600 minute winter	9.826	3.933
1 year 240 minute summer	16.663	4.404	5 year 720 minute summer	12.667	3.395
1 year 240 minute winter	11.071	4.404	5 year 720 minute winter	8.513	3.395
1 year 360 minute summer	13.157	3.386	5 year 960 minute summer	10.177	2.680
1 year 360 minute winter	8.552	3.386	5 year 960 minute winter	6.741	2.680
1 year 480 minute summer	10.463	2.765	5 year 1440 minute summer	7.135	1.912
1 year 480 minute winter	6.951	2.765	5 year 1440 minute winter	4.795	1.912
1 year 600 minute summer	8.578	2.346	30 year 15 minute summer	279.897	79.201
1 year 600 minute winter	5.861	2.346	30 year 15 minute winter	196.419	79.201
1 year 720 minute summer	7.626	2.044	30 year 30 minute summer	182.667	51.688
1 year 720 minute winter	5.125	2.044	30 year 30 minute winter	128.187	51.688
1 year 960 minute summer	6.203	1.634	30 year 60 minute summer	121.798	32.188
1 year 960 minute winter	4.109	1.634	30 year 60 minute winter	80.920	32.188
1 year 1440 minute summer	4.409	1.182	30 year 120 minute summer	75.753	20.019
1 year 1440 minute winter	2.963	1.182	30 year 120 minute winter	50.329	20.019
5 year 15 minute summer	172.472	48.804	30 year 180 minute summer	58.243	14.988
5 year 15 minute winter	121.033	48.804	30 year 180 minute winter	37.859	14.988
5 year 30 minute summer	110.753	31.339	30 year 240 minute summer	45.879	12.124
5 year 30 minute winter	77.722	31.339	30 year 240 minute winter	30.481	12.124
5 year 60 minute summer	73.148	19.331	30 year 360 minute summer	34.546	8.890
5 year 60 minute winter	48.597	19.331	30 year 360 minute winter	22.456	8.890
5 year 120 minute summer	47.763	12.622	30 year 480 minute summer	26.718	7.061
5 year 120 minute winter	31.733	12.622	30 year 480 minute winter	17.751	7.061

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 600 minute summer	21.494	5.879	100 year 15 minute summer	364.661	103.186
30 year 600 minute winter	14.686	5.879	100 year 15 minute winter	255.902	103.186
30 year 720 minute summer	18.840	5.049	100 year 30 minute summer	239.884	67.879
30 year 720 minute winter	12.662	5.049	100 year 30 minute winter	168.340	67.879
30 year 960 minute summer	15.024	3.956	100 year 60 minute summer	160.969	42.539
30 year 960 minute winter	9.952	3.956	100 year 60 minute winter	106.944	42.539
30 year 1440 minute summer	10.403	2.788	100 year 120 minute summer	100.180	26.475
30 year 1440 minute winter	6.992	2.788	100 year 120 minute winter	66.557	26.475
30 year +25% CC 15 minute summer	349.871	99.002	100 year 180 minute summer	77.199	19.866
30 year +25% CC 15 minute winter	245.524	99.002	100 year 180 minute winter	50.182	19.866
30 year +25% CC 30 minute summer	228.334	64.611	100 year 240 minute summer	60.869	16.086
30 year +25% CC 30 minute winter	160.234	64.611	100 year 240 minute winter	40.440	16.086
30 year +25% CC 60 minute summer	152.248	40.235	100 year 360 minute summer	45.775	11.779
30 year +25% CC 60 minute winter	101.150	40.235	100 year 360 minute winter	29.755	11.779
30 year +25% CC 120 minute summer	94.691	25.024	100 year 480 minute summer	35.370	9.347
30 year +25% CC 120 minute winter	62.911	25.024	100 year 480 minute winter	23.499	9.347
30 year +25% CC 180 minute summer	72.803	18.735	100 year 600 minute summer	28.397	7.767
30 year +25% CC 180 minute winter	47.324	18.735	100 year 600 minute winter	19.403	7.767
30 year +25% CC 240 minute summer	57.349	15.156	100 year 720 minute summer	24.828	6.654
30 year +25% CC 240 minute winter	38.101	15.156	100 year 720 minute winter	16.686	6.654
30 year +25% CC 360 minute summer	43.182	11.112	100 year 960 minute summer	19.675	5.181
30 year +25% CC 360 minute winter	28.069	11.112	100 year 960 minute winter	13.033	5.181
30 year +25% CC 480 minute summer	33.398	8.826	100 year 1440 minute summer	13.466	3.609
30 year +25% CC 480 minute winter	22.189	8.826	100 year 1440 minute winter	9.050	3.609
30 year +25% CC 600 minute summer	26.867	7.349	100 year +25% CC 15 minute summer	455.826	128.983
30 year +25% CC 600 minute winter	18.357	7.349	100 year +25% CC 15 minute winter	319.878	128.983
30 year +25% CC 720 minute summer	23.550	6.312	100 year +25% CC 30 minute summer	299.855	84.849
30 year +25% CC 720 minute winter	15.827	6.312	100 year +25% CC 30 minute winter	210.424	84.849
30 year +25% CC 960 minute summer	18.780	4.945	100 year +25% CC 60 minute summer	201.211	53.174
30 year +25% CC 960 minute winter	12.440	4.945	100 year +25% CC 60 minute winter	133.680	53.174
30 year +25% CC 1440 minute summer	13.004	3.485	100 year +25% CC 120 minute summer	125.225	33.093
30 year +25% CC 1440 minute winter	8.739	3.485	100 year +25% CC 120 minute winter	83.197	33.093

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +25% CC 180 minute summer	96.499	24.833	100 year +40% CC 60 minute summer	225.357	59.555
100 year +25% CC 180 minute winter	62.727	24.833	100 year +40% CC 60 minute winter	149.722	59.555
100 year +25% CC 240 minute summer	76.086	20.107	100 year +40% CC 120 minute summer	140.252	37.065
100 year +25% CC 240 minute winter	50.550	20.107	100 year +40% CC 120 minute winter	93.180	37.065
100 year +25% CC 360 minute summer	57.219	14.724	100 year +40% CC 180 minute summer	108.079	27.812
100 year +25% CC 360 minute winter	37.194	14.724	100 year +40% CC 180 minute winter	70.254	27.812
100 year +25% CC 480 minute summer	44.213	11.684	100 year +40% CC 240 minute summer	85.216	22.520
100 year +25% CC 480 minute winter	29.374	11.684	100 year +40% CC 240 minute winter	56.616	22.520
100 year +25% CC 600 minute summer	35.497	9.709	100 year +40% CC 360 minute summer	64.085	16.491
100 year +25% CC 600 minute winter	24.253	9.709	100 year +40% CC 360 minute winter	41.657	16.491
100 year +25% CC 720 minute summer	31.035	8.318	100 year +40% CC 480 minute summer	49.518	13.086
100 year +25% CC 720 minute winter	20.858	8.318	100 year +40% CC 480 minute winter	32.899	13.086
100 year +25% CC 960 minute summer	24.593	6.476	100 year +40% CC 600 minute summer	39.756	10.874
100 year +25% CC 960 minute winter	16.291	6.476	100 year +40% CC 600 minute winter	27.164	10.874
100 year +25% CC 1440 minute summer	16.832	4.511	100 year +40% CC 720 minute summer	34.760	9.316
100 year +25% CC 1440 minute winter	11.312	4.511	100 year +40% CC 720 minute winter	23.361	9.316
100 year +40% CC 15 minute summer	510.525	144.461	100 year +40% CC 960 minute summer	27.544	7.253
100 year +40% CC 15 minute winter	358.263	144.461	100 year +40% CC 960 minute winter	18.246	7.253
100 year +40% CC 30 minute summer	335.837	95.030	100 year +40% CC 1440 minute summer	18.852	5.053
100 year +40% CC 30 minute winter	235.675	95.030	100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.183	0.073	19.8	0.1044	0.0000	OK
30 minute summer	2	19	42.701	0.101	27.4	0.1441	0.0000	OK
30 minute summer	3	20	41.974	0.114	35.5	0.1637	0.0000	OK
15 minute summer	4	11	41.356	0.056	5.5	0.0995	0.0000	OK
30 minute summer	5	20	41.091	0.095	38.6	0.1680	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	11	41.785	0.105	51.4	0.0000	0.0000	OK
15 minute summer	7	12	40.934	0.154	46.0	0.0000	0.0000	OK
15 minute summer	8	12	40.424	0.174	44.9	0.2489	0.0000	OK
15 minute summer	9	13	40.394	0.160	44.7	0.2289	0.0000	OK
30 minute summer	10	21	39.736	0.163	42.2	0.4143	0.0000	OK
30 minute summer	11	22	39.708	0.228	81.8	0.5811	0.0000	OK
15 minute summer	12	10	41.409	0.034	3.7	0.0383	0.0000	OK
15 minute summer	13	10	41.044	0.069	7.1	0.0775	0.0000	OK
30 minute summer	14	22	39.680	0.223	83.0	0.5682	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	19.8	1.094	0.085	2.1337	
30 minute summer	2	1.001	3	26.1	1.012	0.162	2.9603	
30 minute summer	3	1.002	5	32.9	1.170	0.201	2.6895	
15 minute summer	4	2.000	5	4.5	0.426	0.016	0.5950	
30 minute summer	5	1.003	11	38.8	1.398	0.052	0.8220	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	2.6166	
15 minute summer	6	3.000	7	46.0	0.479	0.036	6.9049	
15 minute summer	7	3.001	8	40.7	0.916	0.262	0.3798	
15 minute summer	8	3.002	9	44.7	1.015	0.275	0.3325	
15 minute summer	9	3.003	10	41.4	0.902	0.260	3.9534	
30 minute summer	10	3.004	11	40.8	0.403	0.064	9.0603	
30 minute summer	11	1.004	14	80.0	0.643	0.125	2.7105	
15 minute summer	12	4.000	14	3.7	1.009	0.047	0.0476	
15 minute summer	13	5.000	14	7.1	0.733	0.177	0.0596	
30 minute summer	14	1.005	15	83.0	0.712	0.130	3.0321	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	15	22	39.639	0.209	83.0	0.5311	0.0000	OK
15 minute summer	16	10	40.827	0.027	3.8	0.0386	0.0000	OK
30 minute summer	17	22	39.605	0.184	83.8	0.4673	0.0000	OK
15 minute summer	18	10	41.932	0.032	10.1	0.0358	0.0000	OK
30 minute summer	19	23	39.459	0.129	86.0	0.3286	0.0000	OK
15 minute summer	20	10	39.202	0.302	148.9	0.0000	0.0000	OK
15 minute summer	21	10	41.432	0.032	11.8	0.0366	0.0000	OK
15 minute summer	22	11	38.823	0.123	186.6	0.3475	0.0000	OK
15 minute summer	23	11	37.214	0.264	187.1	0.7480	0.0000	OK
15 minute summer	24	11	37.138	0.238	187.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	15	1.006	17	82.8	0.814	0.124	0.8087	
15 minute summer	16	6.000	17	3.8	1.109	0.010	0.0351	
30 minute summer	17	1.007	19	83.7	1.141	0.098	3.6647	
15 minute summer	18	7.000	19	10.1	3.074	0.039	0.0279	
30 minute summer	19	1.008	22	85.9	1.580	0.044	2.9732	
15 minute summer	20	8.000	22	148.6	1.191	0.525	7.4923	
15 minute summer	21	9.000	22	11.8	3.504	0.041	0.0267	
15 minute summer	22	1.009	23	187.1	1.774	0.034	4.3608	
15 minute summer	23	1.010	24	187.7	1.222	0.133	2.6431	135.5

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Results for 5 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.220	0.110	44.8	0.1573	0.0000	OK
15 minute summer	2	11	42.757	0.157	63.1	0.2251	0.0000	OK
15 minute summer	3	12	42.045	0.185	85.8	0.2651	0.0000	OK
15 minute summer	4	11	41.384	0.084	12.4	0.1476	0.0000	OK
15 minute summer	5	12	41.147	0.151	93.4	0.2665	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	41.840	0.160	115.6	0.0000	0.0000	OK
15 minute summer	7	12	41.020	0.240	104.8	0.0000	0.0000	OK
15 minute summer	8	12	40.545	0.295	107.2	0.4226	0.0000	OK
15 minute summer	9	12	40.501	0.267	106.0	0.3827	0.0000	OK
15 minute summer	10	13	39.876	0.303	109.5	0.7708	0.0000	OK
30 minute summer	11	21	39.852	0.372	202.8	0.9462	0.0000	OK
15 minute summer	12	10	41.426	0.051	8.3	0.0577	0.0000	OK
15 minute summer	13	10	41.083	0.108	15.9	0.1218	0.0000	OK
30 minute summer	14	21	39.815	0.358	207.3	0.9122	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	44.8	1.381	0.192	3.8652	
15 minute summer	2	1.001	3	60.5	1.249	0.375	5.5116	
15 minute summer	3	1.002	5	78.7	1.476	0.482	5.1071	
15 minute summer	4	2.000	5	11.0	0.554	0.039	1.1215	
15 minute summer	5	1.003	11	94.7	1.787	0.127	1.5684	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	4.7608	
15 minute summer	6	3.000	7	104.8	0.546	0.082	13.5396	
15 minute summer	7	3.001	8	95.0	1.184	0.611	0.6847	
15 minute summer	8	3.002	9	106.0	1.175	0.653	0.6537	
15 minute summer	9	3.003	10	100.8	1.159	0.633	7.4981	
15 minute summer	10	3.004	11	106.3	0.493	0.166	19.1649	
30 minute summer	11	1.004	14	198.2	0.822	0.309	5.2584	
15 minute summer	12	4.000	14	8.3	1.268	0.105	0.0850	
15 minute summer	13	5.000	14	15.9	0.903	0.396	0.1083	
30 minute summer	14	1.005	15	207.6	0.931	0.326	5.7929	

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Results for 5 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	15	21	39.760	0.330	207.6	0.8408	0.0000	OK
15 minute summer	16	10	40.840	0.040	8.4	0.0567	0.0000	OK
30 minute summer	17	21	39.709	0.288	210.4	0.7330	0.0000	OK
15 minute summer	18	10	41.948	0.048	22.6	0.0542	0.0000	OK
30 minute summer	19	22	39.538	0.208	217.8	0.5283	0.0000	OK
15 minute summer	20	10	39.397	0.497	334.8	0.0000	0.0000	OK
15 minute summer	21	10	41.449	0.049	26.6	0.0557	0.0000	OK
15 minute summer	22	11	38.889	0.189	459.6	0.5365	0.0000	OK
15 minute summer	23	11	37.380	0.430	460.2	1.2183	0.0000	OK
15 minute summer	24	11	37.279	0.379	461.3	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)
30 minute summer	15	1.006	17	207.3	1.076	0.311	1.5297	
15 minute summer	16	6.000	17	8.4	1.399	0.022	0.0615	
30 minute summer	17	1.007	19	209.8	1.485	0.247	7.0473	
15 minute summer	18	7.000	19	22.6	3.844	0.088	0.0499	
30 minute summer	19	1.008	22	217.4	2.049	0.111	5.8024	
15 minute summer	20	8.000	22	335.9	1.523	1.187	13.0261	
15 minute summer	21	9.000	22	26.6	4.382	0.092	0.0481	
15 minute summer	22	1.009	23	460.2	2.235	0.083	8.4303	
15 minute summer	23	1.010	24	461.3	1.557	0.327	5.1010	304.0

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.253	0.143	73.9	0.2045	0.0000	OK
30 minute summer	2	19	42.813	0.213	103.4	0.3051	0.0000	OK
30 minute summer	3	19	42.121	0.261	138.7	0.3736	0.0000	OK
15 minute summer	4	11	41.406	0.106	20.1	0.1870	0.0000	OK
15 minute summer	5	11	41.196	0.200	157.9	0.3531	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	41.884	0.204	187.6	0.0000	0.0000	OK
15 minute summer	7	12	41.097	0.317	174.0	0.0000	0.0000	OK
15 minute summer	8	12	40.677	0.427	177.6	0.6115	0.0000	OK
15 minute summer	9	12	40.623	0.389	176.1	0.5573	0.0000	OK
15 minute summer	10	13	40.007	0.434	182.5	1.1046	0.0000	OK
30 minute summer	11	20	39.981	0.501	343.8	1.2763	0.0000	OK
15 minute summer	12	10	41.441	0.066	13.5	0.0747	0.0000	OK
15 minute summer	13	10	41.122	0.147	25.9	0.1661	0.0000	OK
30 minute summer	14	21	39.936	0.479	357.0	1.2200	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	73.9	1.572	0.317	5.6474	
30 minute summer	2	1.001	3	101.8	1.393	0.632	8.3341	
30 minute summer	3	1.002	5	131.1	1.653	0.804	7.6353	
15 minute summer	4	2.000	5	18.4	0.642	0.065	1.6179	
15 minute summer	5	1.003	11	157.8	2.043	0.212	2.2864	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	6.9063	
15 minute summer	6	3.000	7	174.0	0.599	0.136	20.7962	
15 minute summer	7	3.001	8	155.3	1.399	0.999	0.9472	
15 minute summer	8	3.002	9	176.1	1.260	1.085	0.9449	
15 minute summer	9	3.003	10	166.1	1.313	1.042	10.8221	
15 minute summer	10	3.004	11	178.0	0.539	0.278	29.5163	
30 minute summer	11	1.004	14	336.8	0.955	0.525	7.6966	
15 minute summer	12	4.000	14	13.5	1.446	0.170	0.1212	
15 minute summer	13	5.000	14	25.9	1.011	0.644	0.1574	
30 minute summer	14	1.005	15	354.7	1.091	0.557	8.4391	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	15	21	39.869	0.439	354.7	1.1163	0.0000	OK
15 minute summer	16	10	40.851	0.051	13.7	0.0724	0.0000	OK
30 minute summer	17	21	39.801	0.380	361.3	0.9675	0.0000	OK
15 minute summer	18	10	41.962	0.062	36.7	0.0704	0.0000	OK
30 minute summer	19	21	39.610	0.280	376.3	0.7126	0.0000	OK
15 minute summer	20	9	39.691	0.791	543.4	0.0000	0.0000	SURCHARGED
15 minute summer	21	10	41.464	0.064	43.1	0.0725	0.0000	OK
15 minute summer	22	11	38.943	0.243	758.2	0.6876	0.0000	OK
15 minute summer	23	11	37.526	0.576	759.0	1.6334	0.0000	OK
15 minute summer	24	11	37.400	0.500	768.4	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)
30 minute summer	15	1.006	17	356.2	1.270	0.535	2.2266	
15 minute summer	16	6.000	17	13.7	1.610	0.036	0.0872	
30 minute summer	17	1.007	19	363.1	1.724	0.427	10.4569	
15 minute summer	18	7.000	19	36.7	4.366	0.144	0.0714	
30 minute summer	19	1.008	22	376.9	2.365	0.192	8.7142	
15 minute summer	20	8.000	22	544.1	1.966	1.923	15.6086	
15 minute summer	21	9.000	22	43.1	4.965	0.149	0.0688	
15 minute summer	22	1.009	23	759.0	2.534	0.137	12.1873	
15 minute summer	23	1.010	24	768.4	1.791	0.545	7.3824	492.9

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.271	0.161	92.3	0.2310	0.0000	OK
30 minute summer	2	19	42.846	0.246	129.3	0.3518	0.0000	OK
30 minute summer	3	19	42.179	0.319	175.0	0.4563	0.0000	OK
15 minute summer	4	10	41.419	0.119	25.1	0.2096	0.0000	OK
15 minute summer	5	11	41.223	0.227	197.9	0.4019	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	41.908	0.228	234.3	0.0000	0.0000	OK
15 minute summer	7	12	41.144	0.364	219.5	0.0000	0.0000	OK
15 minute summer	8	12	40.831	0.581	222.3	0.8316	0.0000	SURCHARGED
15 minute summer	9	12	40.759	0.525	219.2	0.7512	0.0000	SURCHARGED
15 minute summer	10	13	40.084	0.511	231.9	1.2998	0.0000	OK
15 minute summer	11	13	40.058	0.578	441.0	1.4702	0.0000	OK
15 minute summer	12	10	41.450	0.075	16.9	0.0845	0.0000	OK
15 minute summer	13	10	41.149	0.174	32.3	0.1964	0.0000	OK
15 minute summer	14	13	40.007	0.550	448.9	1.3988	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	92.3	1.657	0.395	6.6746	
30 minute summer	2	1.001	3	127.2	1.463	0.789	10.0331	
30 minute summer	3	1.002	5	162.9	1.697	0.999	9.2615	
15 minute summer	4	2.000	5	23.2	0.690	0.082	1.9020	
15 minute summer	5	1.003	11	196.0	2.158	0.263	2.7056	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	8.1981	
15 minute summer	6	3.000	7	219.5	0.623	0.172	25.6082	
15 minute summer	7	3.001	8	194.0	1.523	1.248	1.0838	
15 minute summer	8	3.002	9	219.2	1.384	1.351	0.9938	
15 minute summer	9	3.003	10	211.4	1.396	1.326	12.0402	
15 minute summer	10	3.004	11	228.0	0.569	0.356	35.5683	
15 minute summer	11	1.004	14	432.4	1.035	0.674	9.1080	
15 minute summer	12	4.000	14	16.9	1.533	0.213	0.1431	
15 minute summer	13	5.000	14	32.3	1.055	0.803	0.1880	
15 minute summer	14	1.005	15	451.8	1.177	0.709	9.9631	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	15	13	39.930	0.500	451.8	1.2727	0.0000	OK
15 minute summer	16	10	40.857	0.057	17.1	0.0810	0.0000	OK
15 minute summer	17	13	39.853	0.432	458.4	1.0988	0.0000	OK
15 minute summer	18	10	41.970	0.070	45.8	0.0797	0.0000	OK
30 minute summer	19	21	39.649	0.319	474.7	0.8122	0.0000	OK
15 minute summer	20	10	39.936	1.036	678.8	0.0000	0.0000	SURCHARGED
15 minute summer	21	10	41.473	0.073	53.9	0.0823	0.0000	OK
15 minute summer	22	10	38.976	0.276	968.0	0.7822	0.0000	OK
15 minute summer	23	11	37.613	0.663	969.0	1.8799	0.0000	OK
15 minute summer	24	11	37.466	0.566	975.0	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)	Discharge Vol (m³)
15 minute summer	15	1.006	17	452.7	1.367	0.680	2.6276	
15 minute summer	16	6.000	17	17.1	1.711	0.045	0.1024	
15 minute summer	17	1.007	19	459.4	1.839	0.541	12.3939	
15 minute summer	18	7.000	19	45.8	4.615	0.179	0.0843	
30 minute summer	19	1.008	22	477.7	2.515	0.243	10.3875	
15 minute summer	20	8.000	22	678.4	2.412	2.398	16.2176	
15 minute summer	21	9.000	22	53.9	5.248	0.187	0.0814	
15 minute summer	22	1.009	23	969.0	2.691	0.176	14.4122	
15 minute summer	23	1.010	24	975.0	1.932	0.691	8.6754	615.1

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.276	0.166	97.0	0.2375	0.0000	OK
30 minute summer	2	19	42.854	0.254	135.9	0.3640	0.0000	OK
30 minute summer	3	19	42.198	0.338	184.3	0.4842	0.0000	OK
15 minute summer	4	10	41.421	0.121	26.2	0.2143	0.0000	OK
15 minute summer	5	11	41.229	0.233	205.5	0.4110	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	41.912	0.232	244.3	0.0000	0.0000	OK
15 minute summer	7	12	41.153	0.373	229.1	0.0000	0.0000	OK
15 minute summer	8	12	40.875	0.625	231.3	0.8946	0.0000	SURCHARGED
15 minute summer	9	12	40.797	0.563	228.0	0.8054	0.0000	SURCHARGED
30 minute summer	10	20	40.101	0.528	228.3	1.3428	0.0000	OK
30 minute summer	11	20	40.075	0.595	455.3	1.5133	0.0000	OK
15 minute summer	12	10	41.451	0.076	17.6	0.0864	0.0000	OK
15 minute summer	13	10	41.154	0.179	33.7	0.2024	0.0000	OK
30 minute summer	14	20	40.023	0.566	476.1	1.4397	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	97.0	1.676	0.416	6.9308	
30 minute summer	2	1.001	3	133.4	1.477	0.828	10.4784	
30 minute summer	3	1.002	5	169.6	1.699	1.040	9.5657	
15 minute summer	4	2.000	5	24.3	0.698	0.086	1.9640	
15 minute summer	5	1.003	11	203.4	2.176	0.273	2.7864	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	8.4621	
15 minute summer	6	3.000	7	229.1	0.627	0.179	26.6369	
15 minute summer	7	3.001	8	201.8	1.547	1.298	1.1093	
15 minute summer	8	3.002	9	228.0	1.439	1.405	0.9938	
15 minute summer	9	3.003	10	220.9	1.450	1.386	12.1655	
30 minute summer	10	3.004	11	225.8	0.543	0.353	36.8773	
30 minute summer	11	1.004	14	449.4	1.040	0.700	9.4185	
15 minute summer	12	4.000	14	17.6	1.549	0.222	0.1475	
15 minute summer	13	5.000	14	33.7	1.070	0.838	0.1931	
30 minute summer	14	1.005	15	473.2	1.193	0.743	10.2958	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	15	20	39.943	0.513	473.2	1.3060	0.0000	OK
15 minute summer	16	10	40.858	0.058	17.8	0.0828	0.0000	OK
30 minute summer	17	20	39.864	0.443	479.9	1.1277	0.0000	OK
15 minute summer	18	10	41.972	0.072	47.8	0.0816	0.0000	OK
30 minute summer	19	21	39.659	0.329	500.6	0.8375	0.0000	OK
15 minute summer	20	10	40.002	1.102	707.8	0.0000	0.0000	SURCHARGED
15 minute summer	21	10	41.475	0.075	56.2	0.0843	0.0000	OK
15 minute summer	22	10	38.984	0.284	1012.9	0.8064	0.0000	OK
15 minute summer	23	11	37.630	0.680	1011.6	1.9267	0.0000	OK
15 minute summer	24	11	37.479	0.579	1016.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	15	1.006	17	472.9	1.385	0.710	2.7143	
15 minute summer	16	6.000	17	17.8	1.730	0.046	0.1054	
30 minute summer	17	1.007	19	483.3	1.863	0.569	12.8676	
15 minute summer	18	7.000	19	47.8	4.665	0.187	0.0870	
30 minute summer	19	1.008	22	504.1	2.549	0.257	10.8145	
15 minute summer	20	8.000	22	707.2	2.513	2.500	16.2917	
15 minute summer	21	9.000	22	56.2	5.301	0.195	0.0840	
15 minute summer	22	1.009	23	1011.6	2.717	0.183	14.8634	
15 minute summer	23	1.010	24	1016.6	1.960	0.720	8.9146	640.6

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.299	0.189	121.2	0.2700	0.0000	OK
30 minute summer	2	21	43.074	0.474	170.1	0.6785	0.0000	SURCHARGED
30 minute summer	3	19	42.436	0.576	219.4	0.8244	0.0000	SURCHARGED
15 minute summer	4	10	41.436	0.136	32.7	0.2406	0.0000	OK
15 minute summer	5	11	41.253	0.257	243.7	0.4540	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	41.939	0.259	305.4	0.0000	0.0000	OK
15 minute summer	7	12	41.219	0.439	288.7	0.0000	0.0000	OK
15 minute summer	8	12	41.120	0.870	284.8	1.2445	0.0000	SURCHARGED
15 minute summer	9	12	41.005	0.771	280.5	1.1031	0.0000	SURCHARGED
15 minute summer	10	12	40.189	0.616	296.1	1.5669	0.0000	OK
15 minute summer	11	12	40.158	0.678	565.8	1.7253	0.0000	OK
15 minute summer	12	10	41.462	0.087	22.0	0.0980	0.0000	OK
15 minute summer	13	10	41.191	0.216	42.1	0.2443	0.0000	OK
30 minute summer	14	20	40.100	0.643	586.1	1.6374	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	121.2	1.751	0.519	9.2147	
30 minute summer	2	1.001	3	160.1	1.500	0.994	12.5428	
30 minute summer	3	1.002	5	195.3	1.781	1.198	10.0971	
15 minute summer	4	2.000	5	30.6	0.745	0.108	2.3242	
15 minute summer	5	1.003	11	241.2	2.266	0.324	3.1680	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	10.0420	
15 minute summer	6	3.000	7	288.7	0.649	0.226	33.2893	
15 minute summer	7	3.001	8	244.6	1.678	1.574	1.2519	
15 minute summer	8	3.002	9	280.5	1.770	1.728	0.9938	
15 minute summer	9	3.003	10	269.5	1.729	1.691	12.6873	
15 minute summer	10	3.004	11	293.9	0.611	0.459	43.2681	
15 minute summer	11	1.004	14	555.6	1.115	0.865	10.8645	
15 minute summer	12	4.000	14	22.0	1.640	0.278	0.1742	
15 minute summer	13	5.000	14	42.1	1.156	1.047	0.2207	
30 minute summer	14	1.005	15	587.1	1.277	0.921	11.9302	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	15	20	40.012	0.582	587.1	1.4818	0.0000	OK
15 minute summer	16	10	40.865	0.065	22.3	0.0931	0.0000	OK
30 minute summer	17	20	39.923	0.502	598.7	1.2767	0.0000	OK
15 minute summer	18	10	41.982	0.082	59.7	0.0928	0.0000	OK
30 minute summer	19	20	39.704	0.374	628.9	0.9527	0.0000	OK
15 minute summer	20	9	40.473	1.573	884.7	0.0000	0.0000	FLOOD RISK
15 minute summer	21	10	41.485	0.085	70.3	0.0960	0.0000	OK
15 minute summer	22	10	39.036	0.336	1303.1	0.9534	0.0000	OK
15 minute summer	23	10	37.739	0.789	1296.0	2.2362	0.0000	OK
15 minute summer	24	11	37.555	0.655	1286.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	15	1.006	17	587.3	1.473	0.882	3.1622	
15 minute summer	16	6.000	17	22.3	1.837	0.058	0.1243	
30 minute summer	17	1.007	19	599.3	1.963	0.705	15.1603	
15 minute summer	18	7.000	19	59.7	4.922	0.233	0.1030	
30 minute summer	19	1.008	22	623.5	2.694	0.318	12.7399	
15 minute summer	20	8.000	22	884.7	3.141	3.128	16.5899	
15 minute summer	21	9.000	22	70.3	5.590	0.244	0.0997	
15 minute summer	22	1.009	23	1296.0	2.858	0.235	17.7558	
15 minute summer	23	1.010	24	1286.6	2.127	0.912	10.3698	800.0

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.312	0.202	135.8	0.2891	0.0000	OK
30 minute summer	2	21	43.479	0.879	190.8	1.2585	0.0000	SURCHARGED
30 minute summer	3	20	42.613	0.753	240.0	1.0773	0.0000	SURCHARGED
15 minute summer	4	10	41.444	0.144	36.6	0.2553	0.0000	OK
15 minute summer	5	11	41.267	0.271	264.5	0.4786	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	41.953	0.273	342.2	0.0000	0.0000	OK
15 minute summer	7	12	41.278	0.498	324.6	0.0000	0.0000	SURCHARGED
15 minute summer	8	12	41.190	0.940	289.6	1.3455	0.0000	SURCHARGED
15 minute summer	9	12	41.063	0.829	281.3	1.1865	0.0000	SURCHARGED
15 minute summer	10	12	40.230	0.657	324.5	1.6729	0.0000	OK
15 minute summer	11	12	40.201	0.721	616.8	1.8358	0.0000	OK
15 minute summer	12	10	41.467	0.092	24.6	0.1045	0.0000	OK
15 minute summer	13	10	41.219	0.244	47.2	0.2759	0.0000	SURCHARGED
15 minute summer	14	12	40.142	0.685	646.9	1.7422	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	135.8	1.652	0.582	9.4952	
30 minute summer	2	1.001	3	171.5	1.555	1.065	12.5428	
30 minute summer	3	1.002	5	211.9	1.924	1.299	10.2226	
15 minute summer	4	2.000	5	34.3	0.773	0.121	2.5288	
15 minute summer	5	1.003	11	265.5	2.313	0.356	3.3966	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	10.9538	
15 minute summer	6	3.000	7	324.6	0.659	0.254	39.1304	
15 minute summer	7	3.001	8	252.8	1.641	1.626	1.3424	
15 minute summer	8	3.002	9	281.3	1.776	1.733	0.9938	
15 minute summer	9	3.003	10	280.7	1.793	1.761	12.7875	
15 minute summer	10	3.004	11	313.4	0.621	0.490	46.2131	
15 minute summer	11	1.004	14	607.2	1.143	0.946	11.5790	
15 minute summer	12	4.000	14	24.6	1.686	0.310	0.1895	
15 minute summer	13	5.000	14	47.2	1.214	1.174	0.2277	
15 minute summer	14	1.005	15	647.4	1.317	1.016	12.7490	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.74%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	15	12	40.048	0.618	647.4	1.5736	0.0000	OK
15 minute summer	16	10	40.869	0.069	25.0	0.0988	0.0000	OK
15 minute summer	17	12	39.953	0.532	660.2	1.3549	0.0000	OK
15 minute summer	18	10	41.988	0.088	66.9	0.0993	0.0000	OK
30 minute summer	19	20	39.729	0.399	697.6	1.0153	0.0000	OK
15 minute summer	20	9	40.700	1.800	991.2	0.0000	0.0000	FLOOD RISK
15 minute summer	21	10	41.491	0.091	78.7	0.1028	0.0000	OK
15 minute summer	22	10	39.072	0.372	1487.5	1.0553	0.0000	OK
15 minute summer	23	11	37.807	0.857	1477.2	2.4301	0.0000	OK
15 minute summer	24	11	37.598	0.698	1461.5	0.0000	0.0000	OK

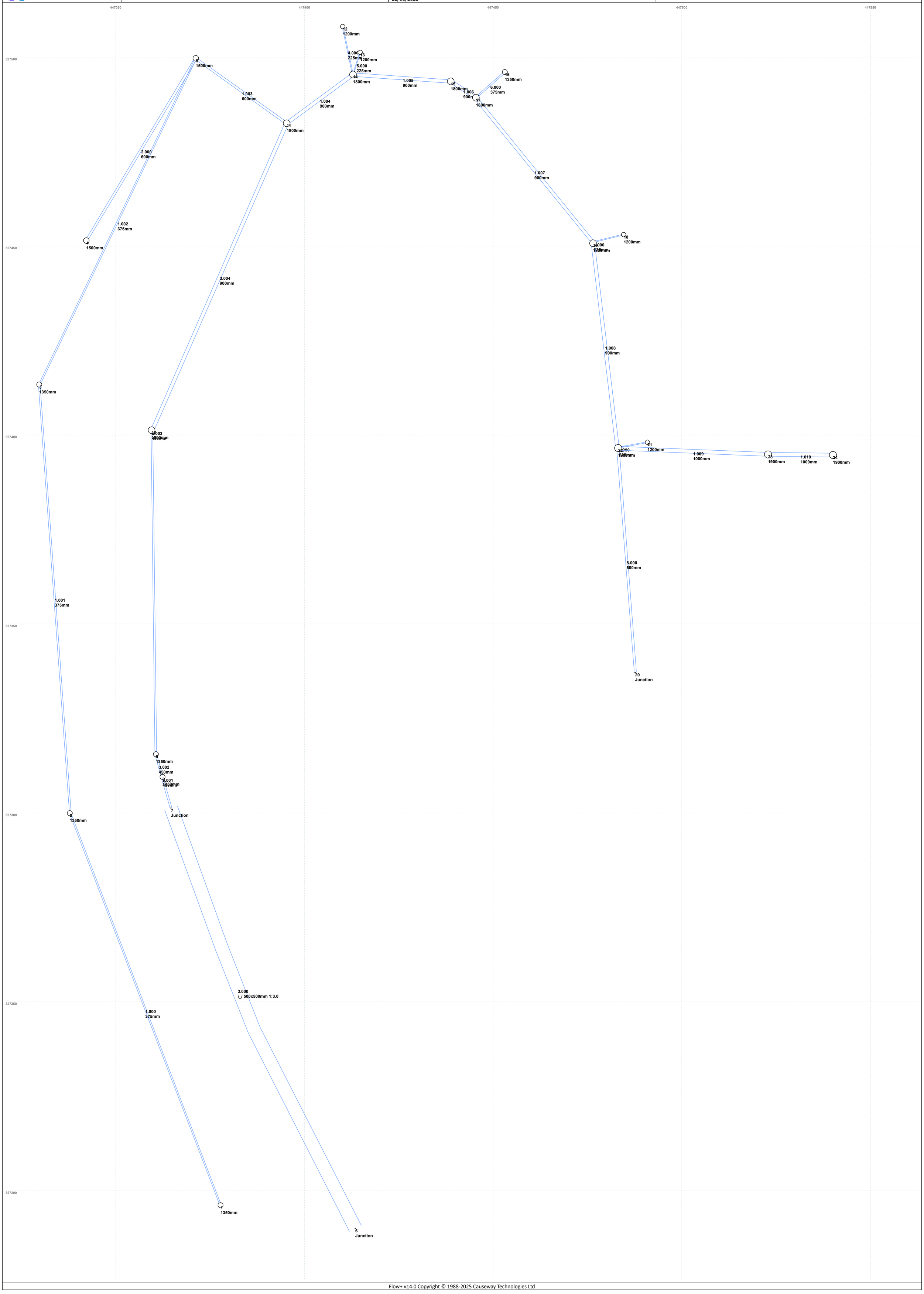
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	15	1.006	17	646.8	1.515	0.971	3.3917	
15 minute summer	16	6.000	17	25.0	1.896	0.065	0.1352	
15 minute summer	17	1.007	19	659.8	2.011	0.776	16.3031	
15 minute summer	18	7.000	19	66.9	5.056	0.262	0.1124	
30 minute summer	19	1.008	22	697.1	2.761	0.355	13.8385	
15 minute summer	20	8.000	22	990.9	3.518	3.503	16.6042	
15 minute summer	21	9.000	22	78.7	5.738	0.273	0.1087	
15 minute summer	22	1.009	23	1477.2	2.933	0.268	19.4385	
15 minute summer	23	1.010	24	1461.5	2.237	1.036	11.1681	893.8

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Water Quality

Area (ha)	Intended Land Use	Entering via Node or Link	Name	SuDS Component	Pollution hazard indices TSS	Metals	Hydrocarbons	Pollution mitigation indices TSS	Metals	Hydrocarbons	Cumulative pollution hazard indices TSS	Metals	Hydrocarbons
		Link	3.000	Swale				0.5	0.6	0.6			
		Node	24										
											Sufficient	Sufficient	Sufficient

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Appendix 4: DCO Works No.10 Existing Drainage

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	0.100
Return Period (years)	5	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	✓
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Circular Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

Kerb_Drain Link Type

Shape	Rectangular	Height (mm)	300	Follow Ground	x	ks (mm) / n	0.001
Barrels	1	Auto Increment (mm)	75	Velocity	Manning		

Available Diameters (mm)

125

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1		5.00	40.000	1200	447326.917	327737.608	0.700
2			39.450	1200	447314.336	327758.243	0.700
3			38.940	1200	447302.166	327785.246	0.700
4			38.210	1350	447293.080	327814.056	0.975
5			37.520	1350	447284.852	327850.038	0.975
6			37.300	1350	447282.059	327860.428	0.975
7	0.025	5.00	37.130	1350	447280.871	327871.382	0.975
8			36.880	1350	447280.168	327883.249	0.975
9	0.070	5.00	35.890	1350	447277.659	327952.380	0.975

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
10	0.044	5.00	34.950	1350	447289.683	328012.306	0.975
11	0.045	5.00	34.090	1350	447308.426	328071.043	0.975
12			33.500	1350	447329.424	328064.079	0.975
13	0.121	5.00	33.386	1350	447365.090	328203.343	1.304
14	0.059	5.00	31.730		447302.183	328514.728	0.400
15			31.500	1200	447312.040	328441.262	0.744
16	0.048	5.00	31.500		447313.542	328439.536	0.400
17			31.760	1200	447320.319	328376.349	1.274
18	0.042	5.00	31.760		447321.863	328375.243	0.400
19			31.950	1200	447327.062	328320.390	1.520
20	0.019	5.00	33.640	1200	447307.367	328099.927	0.750
21	0.011	5.00	33.390	1200	447311.781	328113.776	0.750
22	0.010	5.00	33.145	1200	447315.925	328127.943	0.754
23	0.010	5.00	32.950	1200	447319.901	328142.117	0.807
24	0.011	5.00	32.710	1200	447323.368	328156.833	0.822
25	0.022	5.00	32.370	1200	447328.911	328187.020	0.787
26	0.024	5.00	32.090	1200	447332.409	328223.860	0.874
27	0.011	5.00	32.060	1200	447332.945	328242.008	1.024
28	0.031	5.00	31.950		447328.532	328318.496	0.400
29	0.024	5.00	32.060		447334.748	328241.878	0.400
30			32.100	1200	447331.597	328276.048	1.765
31	0.126	5.00	32.300	2100	447365.207	328280.285	3.050
32			34.000	2100	447472.439	328288.085	4.858

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Normal	Additional Storage (m³/ha)	20.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

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

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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
5	0	0	0
30	0	0	0
30	25	0	0
100	0	0	0
100	25	0	0
100	40	0	0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	76.777	21.725
1 year 15 minute winter	53.878	21.725
1 year 30 minute summer	48.990	13.863
1 year 30 minute winter	34.379	13.863
1 year 60 minute summer	32.661	8.631
1 year 60 minute winter	21.699	8.631
1 year 120 minute summer	24.515	6.479
1 year 120 minute winter	16.287	6.479
1 year 180 minute summer	20.290	5.221
1 year 180 minute winter	13.189	5.221
1 year 240 minute summer	16.663	4.404
1 year 240 minute winter	11.071	4.404
1 year 360 minute summer	13.157	3.386
1 year 360 minute winter	8.552	3.386
1 year 480 minute summer	10.463	2.765
1 year 480 minute winter	6.951	2.765
1 year 600 minute summer	8.578	2.346
1 year 600 minute winter	5.861	2.346
1 year 720 minute summer	7.626	2.044
1 year 720 minute winter	5.125	2.044
1 year 960 minute summer	6.203	1.634
1 year 960 minute winter	4.109	1.634
1 year 1440 minute summer	4.409	1.182
1 year 1440 minute winter	2.963	1.182
5 year 15 minute summer	172.472	48.804
5 year 15 minute winter	121.033	48.804
5 year 30 minute summer	110.753	31.339
5 year 30 minute winter	77.722	31.339
5 year 60 minute summer	73.148	19.331
5 year 60 minute winter	48.597	19.331
5 year 120 minute summer	47.763	12.622
5 year 120 minute winter	31.733	12.622
5 year 180 minute summer	37.482	9.645
5 year 180 minute winter	24.364	9.645
5 year 240 minute summer	29.870	7.894
5 year 240 minute winter	19.845	7.894
5 year 360 minute summer	22.783	5.863
5 year 360 minute winter	14.809	5.863
5 year 480 minute summer	17.767	4.695
5 year 480 minute winter	11.804	4.695
5 year 600 minute summer	14.381	3.933
5 year 600 minute winter	9.826	3.933
5 year 720 minute summer	12.667	3.395
5 year 720 minute winter	8.513	3.395
5 year 960 minute summer	10.177	2.680
5 year 960 minute winter	6.741	2.680
5 year 1440 minute summer	7.135	1.912
5 year 1440 minute winter	4.795	1.912
30 year 15 minute summer	279.897	79.201
30 year 15 minute winter	196.419	79.201

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 30 minute summer	182.667	51.688	30 year +25% CC 240 minute summer	57.349	15.156
30 year 30 minute winter	128.187	51.688	30 year +25% CC 240 minute winter	38.101	15.156
30 year 60 minute summer	121.798	32.188	30 year +25% CC 360 minute summer	43.182	11.112
30 year 60 minute winter	80.920	32.188	30 year +25% CC 360 minute winter	28.069	11.112
30 year 120 minute summer	75.753	20.019	30 year +25% CC 480 minute summer	33.398	8.826
30 year 120 minute winter	50.329	20.019	30 year +25% CC 480 minute winter	22.189	8.826
30 year 180 minute summer	58.243	14.988	30 year +25% CC 600 minute summer	26.867	7.349
30 year 180 minute winter	37.859	14.988	30 year +25% CC 600 minute winter	18.357	7.349
30 year 240 minute summer	45.879	12.124	30 year +25% CC 720 minute summer	23.550	6.312
30 year 240 minute winter	30.481	12.124	30 year +25% CC 720 minute winter	15.827	6.312
30 year 360 minute summer	34.546	8.890	30 year +25% CC 960 minute summer	18.780	4.945
30 year 360 minute winter	22.456	8.890	30 year +25% CC 960 minute winter	12.440	4.945
30 year 480 minute summer	26.718	7.061	30 year +25% CC 1440 minute summer	13.004	3.485
30 year 480 minute winter	17.751	7.061	30 year +25% CC 1440 minute winter	8.739	3.485
30 year 600 minute summer	21.494	5.879	100 year 15 minute summer	364.661	103.186
30 year 600 minute winter	14.686	5.879	100 year 15 minute winter	255.902	103.186
30 year 720 minute summer	18.840	5.049	100 year 30 minute summer	239.884	67.879
30 year 720 minute winter	12.662	5.049	100 year 30 minute winter	168.340	67.879
30 year 960 minute summer	15.024	3.956	100 year 60 minute summer	160.969	42.539
30 year 960 minute winter	9.952	3.956	100 year 60 minute winter	106.944	42.539
30 year 1440 minute summer	10.403	2.788	100 year 120 minute summer	100.180	26.475
30 year 1440 minute winter	6.992	2.788	100 year 120 minute winter	66.557	26.475
30 year +25% CC 15 minute summer	349.871	99.002	100 year 180 minute summer	77.199	19.866
30 year +25% CC 15 minute winter	245.524	99.002	100 year 180 minute winter	50.182	19.866
30 year +25% CC 30 minute summer	228.334	64.611	100 year 240 minute summer	60.869	16.086
30 year +25% CC 30 minute winter	160.234	64.611	100 year 240 minute winter	40.440	16.086
30 year +25% CC 60 minute summer	152.248	40.235	100 year 360 minute summer	45.775	11.779
30 year +25% CC 60 minute winter	101.150	40.235	100 year 360 minute winter	29.755	11.779
30 year +25% CC 120 minute summer	94.691	25.024	100 year 480 minute summer	35.370	9.347
30 year +25% CC 120 minute winter	62.911	25.024	100 year 480 minute winter	23.499	9.347
30 year +25% CC 180 minute summer	72.803	18.735	100 year 600 minute summer	28.397	7.767
30 year +25% CC 180 minute winter	47.324	18.735	100 year 600 minute winter	19.403	7.767

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year 720 minute summer	24.828	6.654
100 year 720 minute winter	16.686	6.654
100 year 960 minute summer	19.675	5.181
100 year 960 minute winter	13.033	5.181
100 year 1440 minute summer	13.466	3.609
100 year 1440 minute winter	9.050	3.609
100 year +25% CC 15 minute summer	455.826	128.983
100 year +25% CC 15 minute winter	319.878	128.983
100 year +25% CC 30 minute summer	299.855	84.849
100 year +25% CC 30 minute winter	210.424	84.849
100 year +25% CC 60 minute summer	201.211	53.174
100 year +25% CC 60 minute winter	133.680	53.174
100 year +25% CC 120 minute summer	125.225	33.093
100 year +25% CC 120 minute winter	83.197	33.093
100 year +25% CC 180 minute summer	96.499	24.833
100 year +25% CC 180 minute winter	62.727	24.833
100 year +25% CC 240 minute summer	76.086	20.107
100 year +25% CC 240 minute winter	50.550	20.107
100 year +25% CC 360 minute summer	57.219	14.724
100 year +25% CC 360 minute winter	37.194	14.724
100 year +25% CC 480 minute summer	44.213	11.684
100 year +25% CC 480 minute winter	29.374	11.684
100 year +25% CC 600 minute summer	35.497	9.709
100 year +25% CC 600 minute winter	24.253	9.709
100 year +25% CC 720 minute summer	31.035	8.318
100 year +25% CC 720 minute winter	20.858	8.318
100 year +25% CC 960 minute summer	24.593	6.476
100 year +25% CC 960 minute winter	16.291	6.476
100 year +25% CC 1440 minute summer	16.832	4.511
100 year +25% CC 1440 minute winter	11.312	4.511
100 year +40% CC 15 minute summer	510.525	144.461
100 year +40% CC 15 minute winter	358.263	144.461
100 year +40% CC 30 minute summer	335.837	95.030
100 year +40% CC 30 minute winter	235.675	95.030
100 year +40% CC 60 minute summer	225.357	59.555
100 year +40% CC 60 minute winter	149.722	59.555
100 year +40% CC 120 minute summer	140.252	37.065
100 year +40% CC 120 minute winter	93.180	37.065
100 year +40% CC 180 minute summer	108.079	27.812
100 year +40% CC 180 minute winter	70.254	27.812
100 year +40% CC 240 minute summer	85.216	22.520
100 year +40% CC 240 minute winter	56.616	22.520
100 year +40% CC 360 minute summer	64.085	16.491
100 year +40% CC 360 minute winter	41.657	16.491
100 year +40% CC 480 minute summer	49.518	13.086
100 year +40% CC 480 minute winter	32.899	13.086
100 year +40% CC 600 minute summer	39.756	10.874
100 year +40% CC 600 minute winter	27.164	10.874
100 year +40% CC 720 minute summer	34.760	9.316
100 year +40% CC 720 minute winter	23.361	9.316
100 year +40% CC 960 minute summer	27.544	7.253
100 year +40% CC 960 minute winter	18.246	7.253
100 year +40% CC 1440 minute summer	18.852	5.053
100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.300	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.750	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	38.240	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	37.235	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.545	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.325	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	36.183	0.028	3.2	0.0544	0.0000	OK
15 minute summer	8	11	35.935	0.030	3.2	0.0424	0.0000	OK
15 minute summer	9	11	34.969	0.054	11.6	0.1552	0.0000	OK
15 minute summer	10	11	34.042	0.067	16.5	0.1553	0.0000	OK
15 minute summer	11	11	33.179	0.064	21.3	0.1500	0.0000	OK
15 minute summer	12	13	32.632	0.107	20.9	0.1536	0.0000	OK
15 minute summer	13	13	32.176	0.094	30.1	0.3099	0.0000	OK
15 minute summer	14	10	31.356	0.026	7.4	0.0761	0.0000	OK
15 minute summer	15	12	30.819	0.063	7.8	0.0708	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.0203	
15 minute summer	7	1.006	8	3.2	0.854	0.011	0.0449	
15 minute summer	8	1.007	9	3.1	0.460	0.013	0.4752	
15 minute summer	9	1.008	10	11.3	0.990	0.046	0.7006	
15 minute summer	10	1.009	11	15.9	1.255	0.067	0.7876	
15 minute summer	11	1.010	12	20.9	1.329	0.064	0.4184	
15 minute summer	12	1.011	13	19.4	0.815	0.175	3.4197	
15 minute summer	13	1.012	31	27.1	1.271	0.137	1.6418	
15 minute summer	14	2.000	15	7.8	3.039	0.027	0.2062	
15 minute summer	15	2.001	17	8.0	2.127	0.206	0.4246	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	16	10	31.139	0.039	6.0	0.0938	0.0000	OK
15 minute summer	17	12	30.801	0.315	14.1	0.3559	0.0000	SURCHARGED
15 minute summer	18	10	31.395	0.035	5.2	0.0732	0.0000	OK
15 minute summer	19	12	30.709	0.279	17.7	0.3158	0.0000	SURCHARGED
15 minute summer	20	10	32.922	0.032	2.4	0.0529	0.0000	OK
15 minute summer	21	11	32.680	0.040	3.7	0.0571	0.0000	OK
15 minute summer	22	11	32.438	0.047	4.9	0.0668	0.0000	OK
15 minute summer	23	11	32.196	0.053	6.1	0.0726	0.0000	OK
15 minute summer	24	11	31.956	0.068	7.4	0.0950	0.0000	OK
15 minute summer	25	11	31.663	0.080	10.1	0.1348	0.0000	OK
15 minute summer	26	11	31.314	0.097	12.8	0.1647	0.0000	OK
15 minute summer	27	12	31.138	0.102	13.6	0.1373	0.0000	OK
15 minute summer	28	10	31.578	0.028	3.9	0.0436	0.0000	OK
15 minute summer	29	9	31.684	0.024	3.0	0.0283	0.0000	OK
15 minute summer	30	12	30.536	0.201	37.7	0.2275	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	16	3.000	17	6.8	2.165	0.041	0.2470	
15 minute summer	17	2.002	19	13.0	1.668	0.616	0.4410	
15 minute summer	18	4.000	19	5.8	2.005	0.036	0.1950	
15 minute summer	19	2.003	30	17.8	2.351	0.834	0.3488	
15 minute summer	20	5.000	21	2.4	0.723	0.102	0.0478	
15 minute summer	21	5.001	22	3.7	0.853	0.158	0.0634	
15 minute summer	22	5.002	23	4.9	0.951	0.212	0.0758	
15 minute summer	23	5.003	24	6.1	0.927	0.266	0.1005	
15 minute summer	24	5.004	25	7.5	0.866	0.424	0.2662	
15 minute summer	25	5.005	26	9.9	0.910	0.559	0.4012	
15 minute summer	26	5.006	27	12.5	1.020	0.706	0.2253	
15 minute summer	27	5.007	30	13.5	1.088	0.765	0.4237	
15 minute summer	28	6.000	30	4.2	1.715	0.026	0.1219	
15 minute summer	29	7.000	30	3.2	1.505	0.020	0.0824	
15 minute summer	30	2.004	31	37.5	2.713	0.378	0.4200	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	13	29.445	0.195	75.1	0.8367	0.0000	OK
15 minute summer	32	13	29.282	0.140	73.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	31	1.013	32	73.2	0.773	0.055	10.3371	41.0

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Results for 5 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.300	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.750	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	38.240	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	37.235	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.545	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.325	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	36.196	0.041	7.1	0.0801	0.0000	OK
15 minute summer	8	11	35.949	0.044	7.1	0.0623	0.0000	OK
15 minute summer	9	11	34.996	0.081	26.5	0.2327	0.0000	OK
15 minute summer	10	11	34.078	0.103	37.7	0.2390	0.0000	OK
15 minute summer	11	11	33.212	0.097	49.6	0.2293	0.0000	OK
15 minute summer	12	12	32.699	0.174	49.3	0.2491	0.0000	OK
15 minute summer	13	12	32.237	0.155	73.8	0.5107	0.0000	OK
15 minute summer	14	9	31.383	0.053	16.7	0.1582	0.0000	OK
15 minute summer	15	12	31.375	0.619	18.6	0.6998	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.0358	
15 minute summer	7	1.006	8	7.1	1.059	0.024	0.0798	
15 minute summer	8	1.007	9	6.9	0.581	0.029	0.8481	
15 minute summer	9	1.008	10	26.0	1.246	0.105	1.2788	
15 minute summer	10	1.009	11	37.5	1.596	0.159	1.4507	
15 minute summer	11	1.010	12	49.3	1.552	0.151	0.7959	
15 minute summer	12	1.011	13	46.8	1.017	0.424	6.6879	
15 minute summer	13	1.012	31	69.2	1.648	0.349	3.2316	
15 minute summer	14	2.000	15	18.6	2.826	0.064	1.3991	
15 minute summer	15	2.001	17	13.6	2.089	0.348	0.5120	

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Results for 5 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	16	13	31.320	0.220	13.5	0.5300	0.0000	OK
15 minute summer	17	14	31.321	0.835	22.9	0.9438	0.0000	SURCHARGED
15 minute summer	18	10	31.427	0.067	11.7	0.1397	0.0000	OK
15 minute summer	19	12	31.174	0.744	26.2	0.8414	0.0000	SURCHARGED
15 minute summer	20	10	32.939	0.049	5.4	0.0799	0.0000	OK
15 minute summer	21	10	32.703	0.063	8.3	0.0895	0.0000	OK
15 minute summer	22	11	32.467	0.076	11.1	0.1065	0.0000	OK
15 minute summer	23	12	32.232	0.089	13.8	0.1226	0.0000	OK
15 minute summer	24	13	32.180	0.292	17.0	0.4066	0.0000	SURCHARGED
15 minute summer	25	13	32.002	0.419	21.9	0.7053	0.0000	SURCHARGED
15 minute summer	26	13	31.650	0.434	22.5	0.7332	0.0000	SURCHARGED
15 minute summer	27	13	31.367	0.331	22.8	0.4469	0.0000	SURCHARGED
15 minute summer	28	9	31.604	0.054	8.8	0.0848	0.0000	OK
15 minute summer	29	9	31.706	0.046	6.8	0.0549	0.0000	OK
15 minute summer	30	12	30.805	0.470	62.1	0.5314	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	16	3.000	17	13.7	1.624	0.083	1.7892	
15 minute summer	17	2.002	19	21.5	2.748	1.016	0.4410	
15 minute summer	18	4.000	19	12.9	2.464	0.078	0.3631	
15 minute summer	19	2.003	30	26.2	3.350	1.228	0.3488	
15 minute summer	20	5.000	21	5.3	0.892	0.229	0.0872	
15 minute summer	21	5.001	22	8.2	1.034	0.356	0.1176	
15 minute summer	22	5.002	23	11.1	1.159	0.479	0.1424	
15 minute summer	23	5.003	24	14.1	1.097	0.610	0.2154	
15 minute summer	24	5.004	25	15.9	0.969	0.896	0.5403	
15 minute summer	25	5.005	26	16.2	0.990	0.915	0.6515	
15 minute summer	26	5.006	27	20.2	1.149	1.144	0.3196	
15 minute summer	27	5.007	30	21.9	1.248	1.241	0.5820	
15 minute summer	28	6.000	30	9.5	2.136	0.057	0.2245	
15 minute summer	29	7.000	30	7.3	1.900	0.044	0.1492	
15 minute summer	30	2.004	31	62.4	3.957	0.629	0.4766	

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Results for 5 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	12	29.527	0.277	158.4	1.1877	0.0000	OK
15 minute summer	32	13	29.351	0.209	156.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	31	1.013	32	156.7	0.969	0.118	17.4981	92.2

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.300	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.750	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	38.240	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	37.235	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.545	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.325	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	36.207	0.052	11.6	0.1021	0.0000	OK
15 minute summer	8	11	35.960	0.055	11.5	0.0785	0.0000	OK
15 minute summer	9	11	35.019	0.104	43.2	0.2977	0.0000	OK
15 minute summer	10	11	34.108	0.133	61.5	0.3106	0.0000	OK
15 minute summer	11	11	33.241	0.126	81.4	0.2976	0.0000	OK
15 minute summer	12	12	32.764	0.239	81.6	0.3415	0.0000	OK
15 minute summer	13	12	32.297	0.215	125.2	0.7072	0.0000	OK
30 minute summer	14	21	31.542	0.212	24.3	0.6296	0.0000	OK
30 minute summer	15	18	31.500	0.744	26.1	0.8415	2.5415	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.0512	
15 minute summer	7	1.006	8	11.5	1.204	0.040	0.1137	
15 minute summer	8	1.007	9	11.3	0.669	0.047	1.1990	
15 minute summer	9	1.008	10	42.4	1.424	0.171	1.8276	
15 minute summer	10	1.009	11	61.7	1.824	0.261	2.0856	
15 minute summer	11	1.010	12	81.6	1.696	0.249	1.1598	
15 minute summer	12	1.011	13	78.5	1.132	0.711	10.0049	
15 minute summer	13	1.012	31	118.0	1.875	0.595	4.8732	
30 minute summer	14	2.000	15	26.1	2.840	0.090	2.8362	
30 minute summer	15	2.001	17	13.2	2.449	0.339	0.5120	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	16	20	31.500	0.400	26.6	0.9620	1.3238	FLOOD
15 minute winter	17	12	31.585	1.099	26.2	1.2433	0.0000	FLOOD RISK
15 minute summer	18	9	31.457	0.097	19.0	0.2013	0.0000	OK
30 minute summer	19	20	31.399	0.969	30.8	1.0954	0.0000	SURCHARGED
15 minute summer	20	10	32.954	0.064	8.7	0.1045	0.0000	OK
15 minute summer	21	13	32.862	0.222	13.5	0.3144	0.0000	SURCHARGED
15 minute summer	22	13	32.825	0.434	18.4	0.6113	0.0000	SURCHARGED
15 minute summer	23	13	32.758	0.615	20.2	0.8480	0.0000	FLOOD RISK
15 minute summer	24	13	32.654	0.766	21.4	1.0675	0.0000	FLOOD RISK
15 minute summer	25	11	32.370	0.787	23.2	1.3245	1.3396	FLOOD
15 minute summer	26	12	32.090	0.874	27.4	1.4762	0.1041	FLOOD
15 minute summer	27	12	31.772	0.736	26.8	0.9948	0.0000	FLOOD RISK
15 minute summer	28	9	31.629	0.079	14.3	0.1239	0.0000	OK
15 minute summer	29	9	31.726	0.066	11.0	0.0791	0.0000	OK
15 minute summer	30	11	30.994	0.659	76.7	0.7457	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	16	3.000	17	22.0	1.675	0.133	3.4498	
15 minute winter	17	2.002	19	23.5	3.008	1.112	0.4410	
15 minute summer	18	4.000	19	20.4	2.239	0.124	0.5677	
30 minute summer	19	2.003	30	28.8	3.678	1.349	0.3488	
15 minute summer	20	5.000	21	8.6	0.988	0.369	0.1719	
15 minute summer	21	5.001	22	13.6	1.112	0.587	0.2599	
15 minute summer	22	5.002	23	15.8	1.179	0.684	0.2592	
15 minute summer	23	5.003	24	16.8	1.096	0.725	0.2662	
15 minute summer	24	5.004	25	15.9	0.978	0.897	0.5403	
15 minute summer	25	5.005	26	18.1	1.026	1.021	0.6515	
15 minute summer	26	5.006	27	22.5	1.275	1.270	0.3196	
15 minute summer	27	5.007	30	25.9	1.474	1.467	0.5997	
15 minute summer	28	6.000	30	15.3	2.448	0.092	0.3173	
15 minute summer	29	7.000	30	11.6	2.138	0.071	0.2125	
15 minute summer	30	2.004	31	76.3	4.646	0.769	0.5071	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	12	29.590	0.340	239.2	1.4584	0.0000	OK
15 minute summer	32	12	29.401	0.259	239.4	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)
15 minute summer	31	1.013	32	239.4	1.104	0.180	23.7106	144.7

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.300	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.750	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	38.240	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	37.235	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.545	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.325	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	36.213	0.058	14.4	0.1141	0.0000	OK
15 minute summer	8	11	35.966	0.061	14.3	0.0873	0.0000	OK
15 minute summer	9	11	35.031	0.116	54.1	0.3340	0.0000	OK
15 minute summer	10	11	34.126	0.151	77.1	0.3508	0.0000	OK
15 minute summer	11	11	33.260	0.145	101.9	0.3427	0.0000	OK
15 minute summer	12	12	32.808	0.283	102.3	0.4044	0.0000	OK
15 minute summer	13	12	32.334	0.252	157.9	0.8302	0.0000	OK
30 minute winter	14	19	31.558	0.228	24.5	0.6765	0.0000	OK
30 minute summer	15	17	31.500	0.744	32.0	0.8415	6.0242	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.0601	
15 minute summer	7	1.006	8	14.3	1.278	0.049	0.1334	
15 minute summer	8	1.007	9	14.1	0.711	0.059	1.4052	
15 minute summer	9	1.008	10	53.1	1.514	0.214	2.1499	
15 minute summer	10	1.009	11	77.4	1.915	0.327	2.4906	
15 minute summer	11	1.010	12	102.3	1.762	0.312	1.3918	
15 minute summer	12	1.011	13	98.3	1.176	0.890	12.0659	
15 minute summer	13	1.012	31	149.4	1.970	0.753	5.8702	
30 minute winter	14	2.000	15	37.3	2.901	0.129	2.9095	
30 minute summer	15	2.001	17	12.6	2.151	0.325	0.5120	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	16	18	31.500	0.400	34.4	0.9620	3.5305	FLOOD
30 minute summer	17	21	31.560	1.074	29.2	1.2152	0.0000	FLOOD RISK
15 minute summer	18	11	31.486	0.126	23.8	0.2626	0.0000	OK
15 minute summer	19	11	31.473	1.043	33.6	1.1798	0.0000	SURCHARGED
15 minute summer	20	13	33.097	0.207	10.9	0.3385	0.0000	SURCHARGED
15 minute summer	21	13	33.073	0.433	17.1	0.6138	0.0000	SURCHARGED
15 minute summer	22	13	33.009	0.618	20.9	0.8697	0.0000	FLOOD RISK
15 minute summer	23	12	32.893	0.750	21.2	1.0333	0.0000	FLOOD RISK
15 minute summer	24	11	32.710	0.822	22.2	1.1459	0.6747	FLOOD
30 minute summer	25	18	32.370	0.787	27.5	1.3245	3.2914	FLOOD
30 minute summer	26	18	32.090	0.874	28.6	1.4762	0.9562	FLOOD
15 minute summer	27	11	31.843	0.807	28.4	1.0905	0.0000	FLOOD RISK
15 minute summer	28	9	31.644	0.094	17.9	0.1465	0.0000	OK
15 minute summer	29	9	31.737	0.077	13.8	0.0930	0.0000	OK
15 minute summer	30	11	31.098	0.763	83.1	0.8629	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	16	3.000	17	18.7	1.644	0.113	3.6721	
30 minute summer	17	2.002	19	22.0	2.814	1.040	0.4410	
15 minute summer	18	4.000	19	24.4	2.487	0.148	1.0138	
15 minute summer	19	2.003	30	28.9	3.696	1.355	0.3488	
15 minute summer	20	5.000	21	11.0	1.013	0.471	0.2560	
15 minute summer	21	5.001	22	15.2	1.095	0.656	0.2599	
15 minute summer	22	5.002	23	15.8	1.177	0.685	0.2592	
15 minute summer	23	5.003	24	17.6	1.126	0.759	0.2662	
15 minute summer	24	5.004	25	17.4	0.986	0.981	0.5403	
30 minute summer	25	5.005	26	18.6	1.056	1.052	0.6515	
30 minute summer	26	5.006	27	22.5	1.281	1.275	0.3196	
15 minute summer	27	5.007	30	25.8	1.466	1.459	0.5997	
15 minute summer	28	6.000	30	19.0	2.606	0.115	0.3722	
15 minute summer	29	7.000	30	14.3	2.271	0.087	0.2501	
15 minute summer	30	2.004	31	83.8	5.001	0.845	0.5240	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	12	29.623	0.373	287.7	1.5997	0.0000	OK
15 minute summer	32	12	29.428	0.286	291.1	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	31	1.013	32	291.1	1.170	0.219	27.0830	172.0

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.300	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.750	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	38.240	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	37.235	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.545	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.325	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	36.215	0.060	15.0	0.1165	0.0000	OK
15 minute summer	8	11	35.967	0.062	14.9	0.0891	0.0000	OK
15 minute summer	9	11	35.034	0.119	56.4	0.3412	0.0000	OK
15 minute summer	10	11	34.129	0.154	80.4	0.3591	0.0000	OK
15 minute summer	11	11	33.264	0.149	106.3	0.3523	0.0000	OK
15 minute summer	12	12	32.818	0.293	106.7	0.4190	0.0000	OK
15 minute summer	13	12	32.342	0.260	164.7	0.8568	0.0000	OK
60 minute summer	14	34	31.554	0.224	23.8	0.6651	0.0000	OK
30 minute summer	15	17	31.500	0.744	32.3	0.8415	6.9216	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.0620	
15 minute summer	7	1.006	8	14.9	1.293	0.051	0.1375	
15 minute summer	8	1.007	9	14.7	0.720	0.061	1.4477	
15 minute summer	9	1.008	10	55.3	1.529	0.223	2.2172	
15 minute summer	10	1.009	11	80.8	1.932	0.341	2.5773	
15 minute summer	11	1.010	12	106.7	1.776	0.326	1.4429	
15 minute summer	12	1.011	13	102.3	1.182	0.926	12.4997	
15 minute summer	13	1.012	31	155.9	1.985	0.786	6.0762	
60 minute summer	14	2.000	15	38.0	2.919	0.131	2.8915	
30 minute summer	15	2.001	17	12.8	2.093	0.328	0.5120	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	16	18	31.500	0.400	36.4	0.9620	4.2363	FLOOD
15 minute winter	17	11	31.566	1.080	28.1	1.2213	0.0000	FLOOD RISK
15 minute summer	18	11	31.498	0.138	24.8	0.2878	0.0000	OK
15 minute summer	19	12	31.494	1.064	32.9	1.2036	0.0000	SURCHARGED
15 minute summer	20	13	33.139	0.249	11.3	0.4078	0.0000	SURCHARGED
15 minute summer	21	13	33.113	0.473	17.7	0.6701	0.0000	FLOOD RISK
15 minute summer	22	13	33.042	0.651	21.9	0.9157	0.0000	FLOOD RISK
15 minute summer	23	12	32.914	0.771	19.6	1.0621	0.0000	FLOOD RISK
15 minute summer	24	11	32.710	0.822	23.3	1.1459	0.9861	FLOOD
30 minute summer	25	18	32.370	0.787	28.1	1.3245	4.0271	FLOOD
15 minute summer	26	10	32.090	0.874	30.1	1.4762	1.5251	FLOOD
15 minute summer	27	11	31.857	0.821	28.6	1.1098	0.0000	FLOOD RISK
15 minute summer	28	9	31.647	0.097	18.6	0.1514	0.0000	OK
15 minute summer	29	9	31.740	0.080	14.4	0.0961	0.0000	OK
15 minute summer	30	11	31.115	0.780	85.0	0.8818	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	16	3.000	17	18.8	2.014	0.114	3.5828	
15 minute winter	17	2.002	19	23.1	2.953	1.092	0.4410	
15 minute summer	18	4.000	19	24.4	2.436	0.148	1.1096	
15 minute summer	19	2.003	30	28.8	3.677	1.348	0.3488	
15 minute summer	20	5.000	21	11.3	1.020	0.483	0.2560	
15 minute summer	21	5.001	22	16.0	1.104	0.694	0.2599	
15 minute summer	22	5.002	23	14.9	1.183	0.646	0.2592	
15 minute summer	23	5.003	24	18.5	1.119	0.799	0.2662	
15 minute summer	24	5.004	25	17.4	0.986	0.981	0.5403	
30 minute summer	25	5.005	26	18.7	1.061	1.057	0.6515	
15 minute summer	26	5.006	27	22.4	1.274	1.269	0.3196	
15 minute summer	27	5.007	30	26.0	1.474	1.468	0.5997	
15 minute summer	28	6.000	30	19.8	2.644	0.119	0.3849	
15 minute summer	29	7.000	30	14.9	2.278	0.091	0.2581	
15 minute summer	30	2.004	31	85.1	5.062	0.858	0.5269	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	12	29.629	0.379	297.8	1.6272	0.0000	OK
15 minute summer	32	12	29.433	0.291	301.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	31	1.013	32	301.9	1.182	0.227	27.7625	177.7

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.300	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.750	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	38.240	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	37.235	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.545	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.325	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	36.222	0.067	18.8	0.1310	0.0000	OK
15 minute summer	8	11	35.974	0.069	18.7	0.0993	0.0000	OK
15 minute summer	9	11	35.048	0.133	70.5	0.3837	0.0000	OK
15 minute summer	10	11	34.150	0.175	100.9	0.4072	0.0000	OK
15 minute summer	11	11	33.290	0.175	133.3	0.4136	0.0000	OK
15 minute summer	12	12	32.914	0.389	133.2	0.5568	0.0000	SURCHARGED
15 minute summer	13	12	32.397	0.315	204.9	1.0377	0.0000	OK
60 minute summer	14	38	31.563	0.233	29.8	0.6918	0.0000	OK
30 minute winter	15	16	31.500	0.744	35.9	0.8415	12.2212	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.0736	
15 minute summer	7	1.006	8	18.7	1.369	0.064	0.1621	
15 minute summer	8	1.007	9	18.3	0.764	0.077	1.6981	
15 minute summer	9	1.008	10	69.2	1.623	0.278	2.6111	
15 minute summer	10	1.009	11	101.3	2.037	0.428	3.1107	
15 minute summer	11	1.010	12	133.2	1.837	0.407	1.7457	
15 minute summer	12	1.011	13	126.2	1.197	1.142	15.0338	
15 minute summer	13	1.012	31	193.1	2.047	0.973	7.3275	
60 minute summer	14	2.000	15	42.6	2.944	0.147	2.9334	
30 minute winter	15	2.001	17	13.1	1.935	0.337	0.5120	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	16	10	31.500	0.400	41.0	0.9620	9.5959	FLOOD
30 minute winter	17	19	31.578	1.092	31.7	1.2350	0.0000	FLOOD RISK
15 minute summer	18	11	31.583	0.223	31.0	0.4632	0.0000	OK
15 minute winter	19	11	31.579	1.149	35.5	1.2993	0.0000	SURCHARGED
15 minute summer	20	12	33.380	0.490	14.1	0.8026	0.0000	FLOOD RISK
15 minute summer	21	12	33.312	0.672	21.2	0.9532	0.0000	FLOOD RISK
15 minute summer	22	12	33.145	0.754	22.9	1.0609	0.4582	FLOOD
15 minute summer	23	11	32.950	0.807	25.0	1.1120	0.6466	FLOOD
30 minute summer	24	17	32.710	0.822	26.7	1.1459	2.6921	FLOOD
30 minute winter	25	16	32.370	0.787	29.2	1.3245	6.3081	FLOOD
30 minute summer	26	17	32.090	0.874	30.9	1.4762	3.0143	FLOOD
15 minute summer	27	11	31.919	0.883	30.2	1.1934	0.0000	FLOOD RISK
15 minute summer	28	9	31.663	0.113	23.3	0.1773	0.0000	OK
15 minute summer	29	9	31.753	0.093	17.9	0.1123	0.0000	OK
15 minute summer	30	10	31.214	0.879	92.5	0.9946	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	16	3.000	17	19.9	1.687	0.120	3.6047	
30 minute winter	17	2.002	19	21.8	2.782	1.028	0.4410	
15 minute summer	18	4.000	19	29.9	2.714	0.182	1.6896	
15 minute winter	19	2.003	30	28.3	3.617	1.326	0.3488	
15 minute summer	20	5.000	21	13.6	1.022	0.585	0.2560	
15 minute summer	21	5.001	22	16.8	1.142	0.728	0.2599	
15 minute summer	22	5.002	23	18.7	1.143	0.809	0.2592	
15 minute summer	23	5.003	24	20.0	1.139	0.867	0.2662	
30 minute summer	24	5.004	25	17.4	0.986	0.981	0.5403	
30 minute winter	25	5.005	26	18.7	1.065	1.060	0.6515	
30 minute summer	26	5.006	27	22.6	1.285	1.280	0.3196	
15 minute summer	27	5.007	30	26.5	1.505	1.498	0.5997	
15 minute summer	28	6.000	30	24.4	2.781	0.148	0.4528	
15 minute summer	29	7.000	30	18.4	2.407	0.112	0.3027	
15 minute summer	30	2.004	31	92.0	5.382	0.928	0.5433	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	12	29.665	0.415	359.7	1.7785	0.0000	OK
15 minute summer	32	12	29.464	0.322	363.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	31	1.013	32	363.8	1.244	0.273	31.6030	211.5

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.300	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.750	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	38.240	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	37.235	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.545	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.325	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	36.226	0.071	21.1	0.1391	0.0000	OK
15 minute summer	8	11	35.978	0.073	21.0	0.1050	0.0000	OK
15 minute summer	9	11	35.057	0.142	79.1	0.4078	0.0000	OK
15 minute summer	10	11	34.162	0.187	113.3	0.4352	0.0000	OK
15 minute summer	11	12	33.311	0.196	149.1	0.4613	0.0000	OK
15 minute summer	12	12	33.141	0.616	150.3	0.8822	0.0000	SURCHARGED
15 minute summer	13	12	32.457	0.375	225.9	1.2358	0.0000	SURCHARGED
60 minute winter	14	40	31.572	0.242	24.1	0.7189	0.0000	OK
60 minute winter	15	31	31.500	0.744	38.7	0.8415	14.8068	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.0803	
15 minute summer	7	1.006	8	21.0	1.412	0.072	0.1764	
15 minute summer	8	1.007	9	20.6	0.789	0.086	1.8434	
15 minute summer	9	1.008	10	77.6	1.671	0.312	2.8411	
15 minute summer	10	1.009	11	113.3	2.069	0.479	3.3757	
15 minute summer	11	1.010	12	150.3	1.865	0.459	1.8635	
15 minute summer	12	1.011	13	135.4	1.228	1.226	15.8498	
15 minute summer	13	1.012	31	205.7	2.064	1.037	8.1756	
60 minute winter	14	2.000	15	38.7	3.013	0.134	2.9756	
60 minute winter	15	2.001	17	14.1	2.579	0.361	0.5120	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	16	17	31.500	0.400	44.9	0.9620	13.8295	FLOOD
30 minute winter	17	16	31.585	1.099	24.8	1.2431	0.0000	FLOOD RISK
15 minute summer	18	11	31.652	0.292	34.7	0.6071	0.0000	OK
15 minute summer	19	10	31.629	1.199	39.0	1.3565	0.0000	SURCHARGED
15 minute summer	20	12	33.474	0.584	15.8	0.9565	0.0000	FLOOD RISK
15 minute summer	21	12	33.379	0.739	21.4	1.0486	0.0000	FLOOD RISK
15 minute summer	22	11	33.145	0.754	26.8	1.0609	1.2243	FLOOD
30 minute summer	23	18	32.950	0.807	25.7	1.1120	1.0153	FLOOD
30 minute winter	24	17	32.710	0.822	26.6	1.1459	3.4108	FLOOD
60 minute winter	25	30	32.370	0.787	26.2	1.3245	7.4364	FLOOD
30 minute summer	26	16	32.090	0.874	32.7	1.4762	4.5126	FLOOD
15 minute summer	27	10	31.945	0.909	30.1	1.2274	0.0000	FLOOD RISK
15 minute summer	28	9	31.673	0.123	26.1	0.1926	0.0000	OK
15 minute summer	29	9	31.761	0.101	20.1	0.1218	0.0000	OK
15 minute summer	30	10	31.283	0.948	96.5	1.0722	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	16	3.000	17	17.9	2.267	0.108	3.7422	
30 minute winter	17	2.002	19	21.4	2.732	1.010	0.4410	
15 minute summer	18	4.000	19	36.1	3.340	0.220	2.0091	
15 minute summer	19	2.003	30	27.3	3.495	1.282	0.3488	
15 minute summer	20	5.000	21	12.9	1.040	0.550	0.2560	
15 minute summer	21	5.001	22	20.0	1.139	0.866	0.2599	
15 minute summer	22	5.002	23	18.3	1.159	0.791	0.2592	
30 minute summer	23	5.003	24	20.0	1.139	0.867	0.2662	
30 minute winter	24	5.004	25	17.4	0.986	0.981	0.5403	
60 minute winter	25	5.005	26	18.4	1.043	1.038	0.6515	
30 minute summer	26	5.006	27	22.6	1.284	1.279	0.3196	
15 minute summer	27	5.007	30	26.8	1.524	1.518	0.5997	
15 minute summer	28	6.000	30	27.2	2.857	0.165	0.4929	
15 minute summer	29	7.000	30	20.5	2.451	0.125	0.3285	
15 minute summer	30	2.004	31	97.0	5.513	0.979	0.5964	

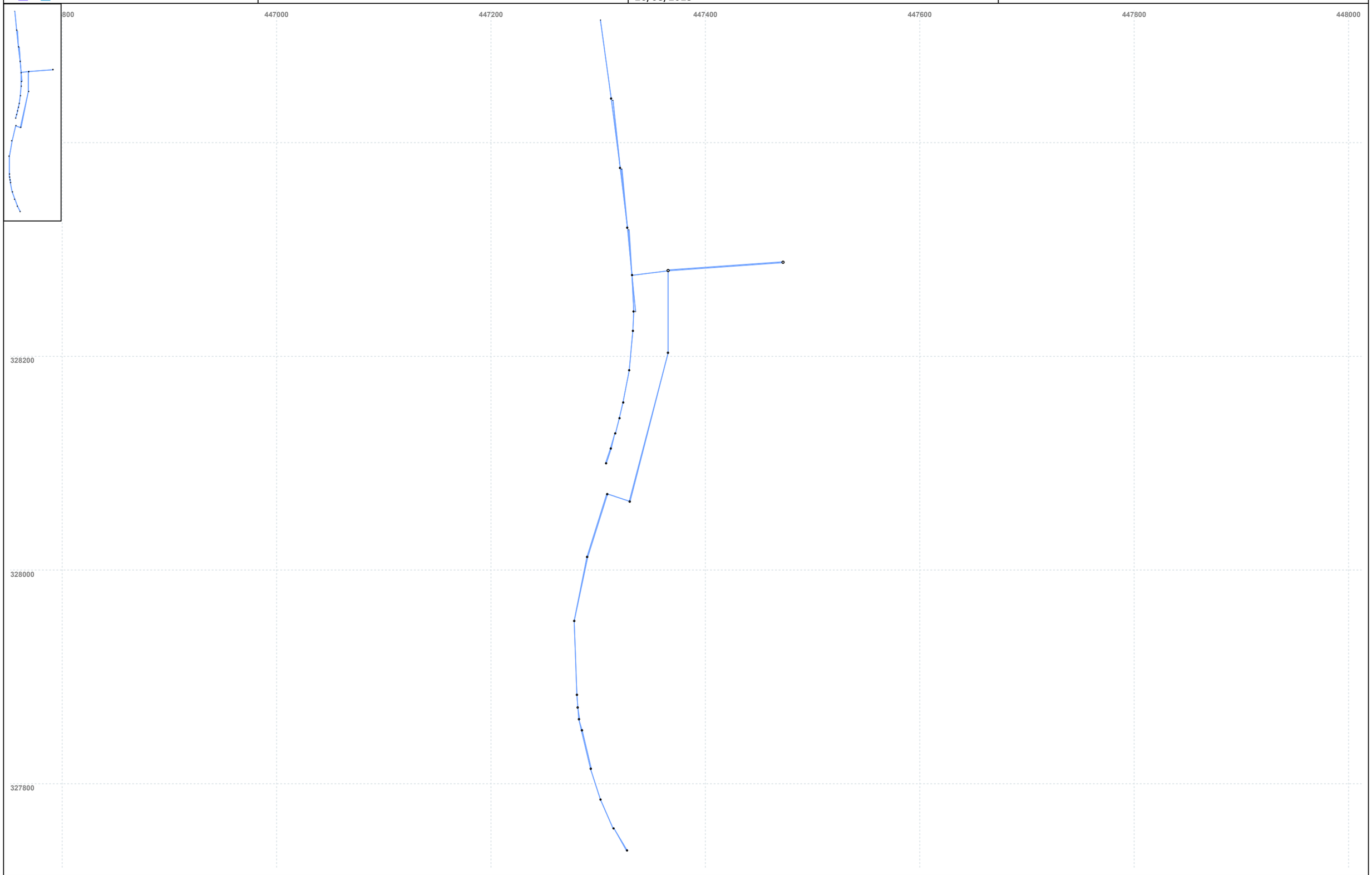
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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.42%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	11	29.684	0.434	395.3	1.8592	0.0000	OK
15 minute summer	32	12	29.478	0.336	397.0	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)	Discharge Vol (m³)
15 minute summer	31	1.013	32	397.0	1.281	0.298	33.4065	232.0

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Appendix 5: DCO Works No.11 Existing Drainage

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)	18.100	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	x

1 STANDARD Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

MD Double Pipe Link Type

Shape	Circular	Barrels	2	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100

MD 300 1:2 Ditch Link Type

Shape	Trapezoidal	Height (mm)	300	Auto Increment (mm)	75
Barrels	1	Side Slope (1:X)	1.2	Follow Ground	x

Available Diameters (mm)

100

MD 150 1:3 Swale Link Type

Shape	Trapezoidal	Height (mm)	150	Auto Increment (mm)	75
Barrels	1	Side Slope (1:X)	3.0	Follow Ground	x

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Available Diameters (mm)
100

1 -1 [] Link Type

Shape	Closed User Defined	Width (mm)	2000	Follow Ground	x
Barrels	1	Auto Increment (mm)	100		

Available Diameters (mm)
1000

Depth / Total	Width / Total	Depth / Total	Width / Total
0.000	0.999	1.000	1.000

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S230	0.277	5.00	32.442	1200	447571.858	328730.642	1.742
S231	0.109	5.00	30.569	1200	447566.725	328698.240	0.943
232a	0.116	5.00	33.557	1050	447546.649	328534.841	1.400
S232	0.062	5.00	33.343	1050	447563.045	328588.035	1.454
HW03			30.541	1200	447531.226	328592.594	0.921
S234	0.163	5.00	36.240	1200	447502.346	328160.913	1.540
234B	0.014	5.00	35.061	1200	447508.457	328124.882	2.511
S235a	0.200	5.00	33.315	1200	447539.781	328119.433	1.515
S235	0.027	5.00	34.510	1200	447511.670	328093.527	1.425
S236	0.165	5.00	33.440	1200	447527.836	328119.908	1.915
S237	0.021	5.00	32.920	1200	447528.249	328149.820	1.545
S238	0.036	5.00	32.043	1200	447525.043	328211.019	1.200
S239	0.183	5.00	31.837	1500	447515.415	328264.278	1.222
S240	0.039	5.00	32.254	1500	447526.600	328266.300	1.686
S241	0.164	5.00	33.230	1200	447534.918	328315.604	1.425
S242			33.116	1500	447524.093	328315.040	2.744
S243	0.035	5.00	33.706	1500	447522.417	328354.722	3.499
S244	0.029	5.00	33.706	1500	447520.292	328411.745	3.647

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S245	0.021	5.00	34.364	1500	447523.888	328459.211	4.424
S246	0.074	5.00	38.260	1200	447502.504	328377.421	1.425
S247	0.026	5.00	36.954	1200	447511.431	328427.775	1.425
S248	0.050	5.00	35.672	1200	447518.511	328459.733	1.425
S249	0.018	5.00	34.082	1500	447529.878	328498.927	4.239
S251			30.516	1500	447509.642	328540.404	0.796
S252	0.113	5.00	31.700		447423.400	328501.496	1.900
Wetland 1			30.500	1500	447479.075	328565.352	0.900
Wetland 2	0.056	5.00	30.500	1200	447471.000	328436.850	0.950
Wetland 3	0.203	5.00	30.500	1200	447457.317	328397.929	1.050
S254			31.100	1500	447461.866	328348.375	1.715
Start of Ditch	0.075	5.00	32.360	1200	447368.446	328646.120	1.560
HW06	0.259	5.00	32.130	1200	447419.358	328518.750	2.108
S257			32.565	1500	447413.799	328483.036	2.634
HW06a			31.718	1200	447432.758	328443.321	1.902
HW11a	0.333	5.00	30.871	1200	447452.369	328373.080	1.231
S260	0.010	5.00	34.095	1200	447469.432	328255.990	1.350
S259b			34.060	1200	447453.989	328321.447	3.000
S259a			31.575	1200	447461.634	328342.190	1.050
S259			33.020	1800	447453.330	328341.919	3.685
SBA275A	0.100	5.00	34.000	1500	447469.079	328245.708	3.020
Culvert Start			34.274	3000	447477.214	328282.590	5.024
Culvert End			30.500		447557.225	328293.027	1.280

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	0.840	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Normal	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	0.750	Skip Steady State	✓	Starting Level (m)			

Storm Durations

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

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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
30	0	0	0	100	25	0	0
30	25	0	0	100	40	0	0

Node S254 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	29.385	Product Number	CTL-SHE-0164-1280-0900-1280
Design Depth (m)	0.900	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	12.8	Min Node Diameter (mm)	1500

Node Wetland 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.600
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	0

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	2418.0	0.0	0.200	4986.0	0.0	0.400	5970.0	0.0	0.600	6952.0	0.0	0.800	7932.0	0.0
0.100	3847.0	0.0	0.300	5476.0	0.0	0.500	6461.0	0.0	0.700	7442.0	0.0	0.900	8600.0	0.0

Node Wetland 2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.550
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	0

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.150	299.0	0.0	0.350	383.0	0.0	0.550	469.0	0.0	0.750	641.0	0.0	0.950	841.0	0.0
0.050	29.6	0.0	0.250	341.0	0.0	0.450	426.0	0.0	0.650	540.0	0.0	0.850	741.0	0.0			

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Node Wetland 3 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.450
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	0

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	10.0	0.0	0.150	116.0	0.0	0.350	197.0	0.0	0.550	284.0	0.0	0.750	377.0	0.0	0.950	444.0	0.0
0.050	76.7	0.0	0.250	156.0	0.0	0.450	240.0	0.0	0.650	330.0	0.0	0.850	428.0	0.0	1.050	472.0	0.0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	76.777	21.725	1 year 1440 minute summer	4.409	1.182
1 year 15 minute winter	53.878	21.725	1 year 1440 minute winter	2.963	1.182
1 year 30 minute summer	48.990	13.863	30 year 15 minute summer	279.897	79.201
1 year 30 minute winter	34.379	13.863	30 year 15 minute winter	196.419	79.201
1 year 60 minute summer	32.661	8.631	30 year 30 minute summer	182.667	51.688
1 year 60 minute winter	21.699	8.631	30 year 30 minute winter	128.187	51.688
1 year 120 minute summer	24.515	6.479	30 year 60 minute summer	121.798	32.188
1 year 120 minute winter	16.287	6.479	30 year 60 minute winter	80.920	32.188
1 year 180 minute summer	20.290	5.221	30 year 120 minute summer	75.753	20.019
1 year 180 minute winter	13.189	5.221	30 year 120 minute winter	50.329	20.019
1 year 240 minute summer	16.663	4.404	30 year 180 minute summer	58.243	14.988
1 year 240 minute winter	11.071	4.404	30 year 180 minute winter	37.859	14.988
1 year 360 minute summer	13.157	3.386	30 year 240 minute summer	45.879	12.124
1 year 360 minute winter	8.552	3.386	30 year 240 minute winter	30.481	12.124
1 year 480 minute summer	10.463	2.765	30 year 360 minute summer	34.546	8.890
1 year 480 minute winter	6.951	2.765	30 year 360 minute winter	22.456	8.890
1 year 600 minute summer	8.578	2.346	30 year 480 minute summer	26.718	7.061
1 year 600 minute winter	5.861	2.346	30 year 480 minute winter	17.751	7.061
1 year 720 minute summer	7.626	2.044	30 year 600 minute summer	21.494	5.879
1 year 720 minute winter	5.125	2.044	30 year 600 minute winter	14.686	5.879
1 year 960 minute summer	6.203	1.634	30 year 720 minute summer	18.840	5.049
1 year 960 minute winter	4.109	1.634	30 year 720 minute winter	12.662	5.049

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 960 minute summer	15.024	3.956
30 year 960 minute winter	9.952	3.956
30 year 1440 minute summer	10.403	2.788
30 year 1440 minute winter	6.992	2.788
30 year +25% CC 15 minute summer	349.871	99.002
30 year +25% CC 15 minute winter	245.524	99.002
30 year +25% CC 30 minute summer	228.334	64.611
30 year +25% CC 30 minute winter	160.234	64.611
30 year +25% CC 60 minute summer	152.248	40.235
30 year +25% CC 60 minute winter	101.150	40.235
30 year +25% CC 120 minute summer	94.691	25.024
30 year +25% CC 120 minute winter	62.911	25.024
30 year +25% CC 180 minute summer	72.803	18.735
30 year +25% CC 180 minute winter	47.324	18.735
30 year +25% CC 240 minute summer	57.349	15.156
30 year +25% CC 240 minute winter	38.101	15.156
30 year +25% CC 360 minute summer	43.182	11.112
30 year +25% CC 360 minute winter	28.069	11.112
30 year +25% CC 480 minute summer	33.398	8.826
30 year +25% CC 480 minute winter	22.189	8.826
30 year +25% CC 600 minute summer	26.867	7.349
30 year +25% CC 600 minute winter	18.357	7.349
30 year +25% CC 720 minute summer	23.550	6.312
30 year +25% CC 720 minute winter	15.827	6.312
30 year +25% CC 960 minute summer	18.780	4.945
30 year +25% CC 960 minute winter	12.440	4.945
30 year +25% CC 1440 minute summer	13.004	3.485
30 year +25% CC 1440 minute winter	8.739	3.485
100 year 15 minute summer	364.661	103.186
100 year 15 minute winter	255.902	103.186
100 year 30 minute summer	239.884	67.879
100 year 30 minute winter	168.340	67.879
100 year 60 minute summer	160.969	42.539
100 year 60 minute winter	106.944	42.539
100 year 120 minute summer	100.180	26.475
100 year 120 minute winter	66.557	26.475
100 year 180 minute summer	77.199	19.866
100 year 180 minute winter	50.182	19.866
100 year 240 minute summer	60.869	16.086
100 year 240 minute winter	40.440	16.086
100 year 360 minute summer	45.775	11.779
100 year 360 minute winter	29.755	11.779
100 year 480 minute summer	35.370	9.347
100 year 480 minute winter	23.499	9.347
100 year 600 minute summer	28.397	7.767
100 year 600 minute winter	19.403	7.767
100 year 720 minute summer	24.828	6.654
100 year 720 minute winter	16.686	6.654
100 year 960 minute summer	19.675	5.181
100 year 960 minute winter	13.033	5.181
100 year 1440 minute summer	13.466	3.609
100 year 1440 minute winter	9.050	3.609
100 year +25% CC 15 minute summer	455.826	128.983
100 year +25% CC 15 minute winter	319.878	128.983
100 year +25% CC 30 minute summer	299.855	84.849
100 year +25% CC 30 minute winter	210.424	84.849
100 year +25% CC 60 minute summer	201.211	53.174
100 year +25% CC 60 minute winter	133.680	53.174
100 year +25% CC 120 minute summer	125.225	33.093
100 year +25% CC 120 minute winter	83.197	33.093
100 year +25% CC 180 minute summer	96.499	24.833
100 year +25% CC 180 minute winter	62.727	24.833
100 year +25% CC 240 minute summer	76.086	20.107
100 year +25% CC 240 minute winter	50.550	20.107

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +25% CC 360 minute summer	57.219	14.724	100 year +40% CC 120 minute summer	140.252	37.065
100 year +25% CC 360 minute winter	37.194	14.724	100 year +40% CC 120 minute winter	93.180	37.065
100 year +25% CC 480 minute summer	44.213	11.684	100 year +40% CC 180 minute summer	108.079	27.812
100 year +25% CC 480 minute winter	29.374	11.684	100 year +40% CC 180 minute winter	70.254	27.812
100 year +25% CC 600 minute summer	35.497	9.709	100 year +40% CC 240 minute summer	85.216	22.520
100 year +25% CC 600 minute winter	24.253	9.709	100 year +40% CC 240 minute winter	56.616	22.520
100 year +25% CC 720 minute summer	31.035	8.318	100 year +40% CC 360 minute summer	64.085	16.491
100 year +25% CC 720 minute winter	20.858	8.318	100 year +40% CC 360 minute winter	41.657	16.491
100 year +25% CC 960 minute summer	24.593	6.476	100 year +40% CC 480 minute summer	49.518	13.086
100 year +25% CC 960 minute winter	16.291	6.476	100 year +40% CC 480 minute winter	32.899	13.086
100 year +25% CC 1440 minute summer	16.832	4.511	100 year +40% CC 600 minute summer	39.756	10.874
100 year +25% CC 1440 minute winter	11.312	4.511	100 year +40% CC 600 minute winter	27.164	10.874
100 year +40% CC 15 minute summer	510.525	144.461	100 year +40% CC 720 minute summer	34.760	9.316
100 year +40% CC 15 minute winter	358.263	144.461	100 year +40% CC 720 minute winter	23.361	9.316
100 year +40% CC 30 minute summer	335.837	95.030	100 year +40% CC 960 minute summer	27.544	7.253
100 year +40% CC 30 minute winter	235.675	95.030	100 year +40% CC 960 minute winter	18.246	7.253
100 year +40% CC 60 minute summer	225.357	59.555	100 year +40% CC 1440 minute summer	18.852	5.053
100 year +40% CC 60 minute winter	149.722	59.555	100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	30.774	0.074	27.4	0.0836	0.0000	OK
15 minute winter	S231	10	29.797	0.171	38.0	0.1932	0.0000	OK
15 minute winter	232a	10	32.238	0.081	11.5	0.0697	0.0000	OK
15 minute winter	S232	11	31.948	0.059	17.2	0.0507	0.0000	OK
15 minute winter	HW03	13	29.800	0.180	17.1	0.2034	0.0000	OK
15 minute winter	S234	10	34.758	0.058	16.1	0.0652	0.0000	OK
15 minute winter	234B	10	32.609	0.059	17.3	0.0666	0.0000	OK
15 minute winter	S235a	10	31.888	0.088	19.8	0.0997	0.0000	OK
15 minute winter	S235	10	33.109	0.024	2.7	0.0268	0.0000	OK
15 minute winter	S236	10	31.716	0.191	55.8	0.2161	0.0000	OK
15 minute winter	S237	11	31.535	0.160	56.8	0.1805	0.0000	OK
15 minute winter	S238	12	31.056	0.213	60.9	0.2408	0.0000	OK
15 minute winter	S239	12	30.789	0.174	72.3	0.3078	0.0000	OK
15 minute winter	S240	12	30.742	0.174	75.6	0.3082	0.0000	OK
15 minute winter	S241	10	31.846	0.041	16.2	0.0459	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	27.2	1.008	0.135	0.9002	
15 minute winter	S231	1.001	Wetland 1	37.2	0.976	0.519	0.1905	
15 minute winter	232a	2.000	S232	11.1	0.908	0.145	0.6894	
15 minute winter	S232	2.001	HW03	17.1	1.007	0.057	0.8153	
15 minute winter	HW03	2.002	Wetland 1	13.8	0.503	0.677	1.6253	
15 minute winter	S234	3.000	234B	15.9	2.008	0.139	0.2888	
15 minute winter	234B	3.001	S236	17.2	1.507	0.151	0.2891	
15 minute winter	S235a	4.000	S236	19.7	1.231	0.292	0.2095	
15 minute winter	S235	5.000	S236	2.6	0.760	0.023	0.3535	
15 minute winter	S236	3.002	S237	54.8	1.286	0.699	1.2746	
15 minute winter	S237	3.003	S238	57.6	1.307	0.556	2.7572	
15 minute winter	S238	3.004	S239	58.2	1.164	0.812	2.7017	
15 minute winter	S239	3.005	S240	72.6	0.855	0.510	0.9651	
15 minute winter	S240	3.006	S242	76.1	1.071	0.521	3.4688	
15 minute winter	S241	6.000	S242	16.2	1.712	0.040	0.2085	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	12	30.517	0.145	89.0	0.2558	0.0000	OK
15 minute winter	S243	13	30.371	0.164	91.8	0.2901	0.0000	OK
15 minute winter	S244	13	30.230	0.171	92.9	0.3015	0.0000	OK
15 minute winter	S245	14	30.114	0.174	92.0	0.3069	0.0000	OK
15 minute winter	S246	10	36.880	0.045	7.3	0.0504	0.0000	OK
15 minute winter	S247	10	35.576	0.047	9.8	0.0533	0.0000	OK
15 minute winter	S248	11	34.292	0.045	14.4	0.0510	0.0000	OK
15 minute winter	S249	14	30.013	0.170	99.9	0.2996	0.0000	OK
15 minute winter	S251	16	29.943	0.223	99.4	0.3938	0.0000	OK
15 minute winter	S252	10	29.879	0.079	11.2	0.0000	0.0000	OK
600 minute winter	Wetland 1	450	29.685	0.085	26.5	258.6538	0.0000	OK
600 minute winter	Wetland 2	450	29.636	0.086	8.6	3.6974	0.0000	OK
360 minute winter	Wetland 3	248	29.614	0.164	9.3	13.7037	0.0000	OK
360 minute winter	S254	248	29.613	0.228	9.5	0.4022	0.0000	OK
15 minute winter	Start of Ditch	12	30.841	0.041	7.4	0.0467	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	89.1	0.931	0.215	3.8064	
15 minute winter	S243	3.008	S244	91.3	0.850	0.279	6.1256	
15 minute winter	S244	3.009	S245	91.2	0.845	0.278	5.1865	
15 minute winter	S245	3.010	S249	91.1	0.836	0.283	4.3889	
15 minute winter	S246	7.000	S247	7.2	1.243	0.086	0.2957	
15 minute winter	S247	7.001	S248	9.6	1.646	0.093	0.1907	
15 minute winter	S248	7.002	S249	14.4	2.578	0.086	0.2282	
15 minute winter	S249	3.011	S251	99.4	0.804	0.300	6.0255	
15 minute winter	S251	3.012	Wetland 1	94.5	0.765	0.669	5.4798	
15 minute winter	S252	8.000	Wetland 1	11.0	0.899	0.256	0.1776	
600 minute winter	Wetland 1	1.002	Wetland 2	8.3	0.599	0.282	0.2114	
600 minute winter	Wetland 2	1.003	Wetland 3	8.5	0.456	0.320	0.8275	
360 minute winter	Wetland 3	1.004	S254	9.5	0.318	0.176	0.2126	
360 minute winter	S254	1.005	S259	9.5	0.450	0.126	0.2953	
15 minute winter	Start of Ditch	9.000	HW06	5.1	0.175	0.029	4.2326	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	12	30.098	0.076	29.3	0.0858	0.0000	OK
15 minute winter	S257	12	30.003	0.072	26.7	0.1279	0.0000	OK
30 minute winter	HW06a	25	29.959	0.143	21.9	0.1619	0.0000	OK
15 minute winter	HW11a	11	29.696	0.056	36.6	0.0636	0.0000	OK
15 minute winter	S260	10	32.764	0.019	1.0	0.0214	0.0000	OK
15 minute winter	S259b	12	31.080	0.020	0.9	0.0225	0.0000	OK
15 minute winter	S259a	12	30.538	0.013	0.9	0.0152	0.0000	OK
15 minute winter	S259	12	29.523	0.188	38.0	0.4787	0.0000	OK
15 minute winter	SBA275A	10	31.024	0.044	9.9	0.0770	0.0000	OK
30 minute winter	Culvert Start	22	29.319	0.069	39.8	0.4893	0.0000	OK
30 minute winter	Culvert End	23	29.288	0.068	37.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HW06	9.001	S257	26.7	0.669	0.082	1.4447	
15 minute winter	S257	9.002	HW06a	26.8	0.642	0.081	2.5407	
30 minute winter	HW06a	9.003	HW11a	15.0	0.218	0.484	5.5270	
15 minute winter	HW11a	9.004	S259	36.4	0.485	0.156	2.7605	
15 minute winter	S260	10.000	S259b	0.9	0.740	0.033	0.0890	
15 minute winter	S259b	10.001	S259a	0.9	0.856	0.033	0.0237	
15 minute winter	S259a	10.002	S259	0.9	1.191	0.016	0.0063	
15 minute winter	S259	1.006	Culvert Start	35.5	1.196	0.259	2.0096	
15 minute winter	SBA275A	11.000	Culvert Start	9.6	1.374	0.028	0.2653	
30 minute winter	Culvert Start	1.007	Culvert End	37.8	0.276	0.025	11.0503	85.8

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	30.847	0.147	99.8	0.1666	0.0000	OK
15 minute winter	S231	10	30.069	0.443	138.6	0.5006	0.0000	SURCHARGED
15 minute winter	232a	10	32.321	0.164	41.8	0.1416	0.0000	OK
15 minute winter	S232	10	31.992	0.103	63.3	0.0890	0.0000	OK
15 minute winter	HW03	11	30.020	0.400	62.6	0.4522	0.0000	SURCHARGED
15 minute winter	S234	10	34.813	0.113	58.7	0.1283	0.0000	OK
15 minute winter	234B	11	33.680	1.130	63.4	1.2783	0.0000	SURCHARGED
15 minute winter	S235a	10	33.315	1.515	79.5	1.7135	11.7876	FLOOD
15 minute summer	S235	11	33.337	0.252	16.3	0.2850	0.0000	SURCHARGED
15 minute summer	S236	11	33.324	1.799	153.1	2.0343	0.0000	FLOOD RISK
15 minute summer	S237	11	32.920	1.545	124.9	1.7474	0.0080	FLOOD
15 minute winter	S238	10	32.043	1.200	135.8	1.3572	1.2243	FLOOD
15 minute winter	S239	11	31.235	0.620	192.9	1.0947	0.0000	SURCHARGED
15 minute winter	S240	11	31.104	0.536	203.9	0.9466	0.0000	SURCHARGED
15 minute winter	S241	10	31.882	0.077	59.1	0.0867	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	99.3	1.652	0.492	1.7193	
15 minute winter	S231	1.001	Wetland 1	137.4	1.951	1.916	0.3455	
15 minute winter	232a	2.000	S232	41.0	1.362	0.533	1.6859	
15 minute winter	S232	2.001	HW03	62.6	1.304	0.210	1.4290	
15 minute winter	HW03	2.002	Wetland 1	59.7	0.920	2.934	3.4571	
15 minute winter	S234	3.000	234B	58.4	2.636	0.512	1.0932	
15 minute winter	234B	3.001	S236	62.8	1.580	0.552	0.7957	
15 minute winter	S235a	4.000	S236	52.5	1.320	0.779	0.4754	
15 minute summer	S235	5.000	S236	18.8	0.707	0.164	1.2305	
15 minute summer	S236	3.002	S237	117.7	1.672	1.501	2.1066	
15 minute summer	S237	3.003	S238	124.0	1.762	1.199	4.3155	
15 minute winter	S238	3.004	S239	132.3	1.880	1.847	3.8112	
15 minute winter	S239	3.005	S240	189.8	1.348	1.334	1.6009	
15 minute winter	S240	3.006	S242	202.3	1.437	1.384	6.7754	
15 minute winter	S241	6.000	S242	59.0	2.224	0.145	0.4445	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	11	30.652	0.280	259.8	0.4946	0.0000	OK
15 minute winter	S243	11	30.533	0.326	271.8	0.5762	0.0000	OK
15 minute winter	S244	12	30.401	0.342	276.5	0.6048	0.0000	OK
15 minute winter	S245	13	30.308	0.368	274.6	0.6510	0.0000	OK
15 minute winter	S246	10	36.922	0.087	26.7	0.0986	0.0000	OK
15 minute winter	S247	10	35.623	0.094	35.8	0.1062	0.0000	OK
15 minute winter	S248	10	34.336	0.089	53.2	0.1004	0.0000	OK
15 minute winter	S249	13	30.235	0.392	313.2	0.6931	0.0000	OK
15 minute winter	S251	14	30.137	0.417	297.7	0.7365	0.0000	OK
15 minute winter	S252	10	29.981	0.181	40.7	0.0000	0.0000	OK
480 minute winter	Wetland 1	464	29.792	0.192	80.4	714.4492	0.0000	OK
480 minute winter	Wetland 2	464	29.784	0.234	13.7	44.1817	0.0000	SURCHARGED
360 minute winter	Wetland 3	344	29.764	0.314	15.6	36.6175	0.0000	SURCHARGED
360 minute winter	S254	344	29.758	0.373	12.8	0.6587	0.0000	SURCHARGED
15 minute winter	Start of Ditch	12	30.897	0.097	27.0	0.1095	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	259.9	1.165	0.626	9.0016	
15 minute winter	S243	3.008	S244	266.7	1.082	0.815	14.3591	
15 minute winter	S244	3.009	S245	268.7	1.057	0.819	12.6457	
15 minute winter	S245	3.010	S249	262.3	0.969	0.814	11.4123	
15 minute winter	S246	7.000	S247	26.4	1.767	0.317	0.7637	
15 minute winter	S247	7.001	S248	35.2	2.348	0.341	0.4944	
15 minute winter	S248	7.002	S249	53.4	3.683	0.319	0.8616	
15 minute winter	S249	3.011	S251	297.7	1.051	0.897	13.8310	
15 minute winter	S251	3.012	Wetland 1	294.5	1.136	2.084	11.1488	
15 minute winter	S252	8.000	Wetland 1	40.1	1.215	0.931	0.4784	
480 minute winter	Wetland 1	1.002	Wetland 2	11.6	0.535	0.393	0.5763	
480 minute winter	Wetland 2	1.003	Wetland 3	12.4	0.311	0.463	1.4782	
360 minute winter	Wetland 3	1.004	S254	12.8	0.431	0.236	0.2386	
360 minute winter	S254	1.005	S259	12.8	0.539	0.169	0.4820	
15 minute winter	Start of Ditch	9.000	HW06	21.8	0.274	0.126	11.3999	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	11	30.194	0.172	111.5	0.1942	0.0000	OK
15 minute winter	S257	15	30.097	0.166	105.1	0.2941	0.0000	OK
15 minute winter	HW06a	14	30.097	0.281	105.6	0.3176	0.0000	SURCHARGED
15 minute winter	HW11a	12	29.761	0.121	158.5	0.1366	0.0000	OK
15 minute winter	S260	10	32.781	0.036	3.6	0.0404	0.0000	OK
15 minute winter	S259b	11	31.099	0.039	3.5	0.0437	0.0000	OK
15 minute winter	S259a	11	30.551	0.026	3.5	0.0290	0.0000	OK
15 minute winter	S259	13	29.707	0.372	159.1	0.9464	0.0000	OK
15 minute winter	SBA275A	10	31.063	0.083	36.0	0.1466	0.0000	OK
15 minute winter	Culvert Start	13	29.433	0.183	182.6	1.2911	0.0000	OK
15 minute winter	Culvert End	13	29.397	0.177	174.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HW06	9.001	S257	105.1	0.966	0.323	3.9345	
15 minute winter	S257	9.002	HW06a	105.6	0.836	0.318	7.1866	
15 minute winter	HW06a	9.003	HW11a	72.7	0.360	2.350	16.3375	
15 minute winter	HW11a	9.004	S259	155.7	0.694	0.668	9.3113	
15 minute winter	S260	10.000	S259b	3.5	1.057	0.124	0.2275	
15 minute winter	S259b	10.001	S259a	3.5	1.254	0.125	0.0617	
15 minute winter	S259a	10.002	S259	3.5	1.725	0.060	0.0233	
15 minute winter	S259	1.006	Culvert Start	154.9	1.627	1.129	6.0372	
15 minute winter	SBA275A	11.000	Culvert Start	35.4	2.005	0.103	0.6677	
15 minute winter	Culvert Start	1.007	Culvert End	174.6	0.486	0.115	28.9739	274.1

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	30.887	0.187	124.7	0.2110	0.0000	OK
15 minute winter	S231	10	30.171	0.545	172.7	0.6164	0.0000	SURCHARGED
15 minute winter	232a	10	32.345	0.188	52.2	0.1626	0.0000	OK
15 minute winter	S232	10	32.003	0.114	79.2	0.0991	0.0000	OK
15 minute winter	HW03	11	30.132	0.512	78.5	0.5794	0.0000	SURCHARGED
15 minute winter	S234	10	34.853	0.153	73.3	0.1734	0.0000	OK
15 minute winter	234B	11	33.943	1.393	78.2	1.5751	0.0000	SURCHARGED
15 minute winter	S235a	9	33.315	1.515	124.0	1.7135	27.2909	FLOOD
30 minute summer	S235	17	33.448	0.363	20.7	0.4101	0.0000	SURCHARGED
15 minute summer	S236	10	33.400	1.875	162.5	2.1205	0.0000	FLOOD RISK
15 minute winter	S237	9	32.920	1.545	133.3	1.7474	1.2703	FLOOD
15 minute winter	S238	9	32.043	1.200	140.3	1.3572	4.4005	FLOOD
15 minute winter	S239	10	31.346	0.731	200.9	1.2912	0.0000	SURCHARGED
15 minute winter	S240	10	31.200	0.632	216.4	1.1161	0.0000	SURCHARGED
15 minute winter	S241	10	31.891	0.086	73.8	0.0971	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	123.7	1.917	0.613	1.9101	
15 minute winter	S231	1.001	Wetland 1	171.2	2.431	2.388	0.3485	
15 minute winter	232a	2.000	S232	51.3	1.452	0.668	1.9781	
15 minute winter	S232	2.001	HW03	78.5	1.437	0.264	1.4820	
15 minute winter	HW03	2.002	Wetland 1	74.8	1.115	3.677	3.6494	
15 minute winter	S234	3.000	234B	71.9	2.765	0.631	1.2532	
15 minute winter	234B	3.001	S236	76.9	1.933	0.675	0.7957	
15 minute winter	S235a	4.000	S236	51.3	1.291	0.762	0.4754	
30 minute summer	S235	5.000	S236	12.6	0.770	0.110	1.2305	
15 minute summer	S236	3.002	S237	126.0	1.789	1.607	2.1066	
15 minute winter	S237	3.003	S238	124.1	1.763	1.199	4.3155	
15 minute winter	S238	3.004	S239	132.2	1.877	1.845	3.8112	
15 minute winter	S239	3.005	S240	198.9	1.412	1.398	1.6009	
15 minute winter	S240	3.006	S242	215.7	1.531	1.475	6.8734	
15 minute winter	S241	6.000	S242	73.8	2.312	0.182	0.4717	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	11	30.675	0.303	289.5	0.5361	0.0000	OK
15 minute winter	S243	11	30.566	0.359	303.1	0.6351	0.0000	OK
15 minute winter	S244	13	30.479	0.420	308.8	0.7422	0.0000	OK
15 minute winter	S245	13	30.388	0.447	303.4	0.7907	0.0000	OK
15 minute winter	S246	10	36.934	0.099	33.3	0.1117	0.0000	OK
15 minute winter	S247	10	35.636	0.107	44.6	0.1208	0.0000	OK
15 minute winter	S248	10	34.348	0.101	66.5	0.1142	0.0000	OK
15 minute winter	S249	13	30.298	0.455	351.7	0.8047	0.0000	SURCHARGED
15 minute winter	S251	13	30.169	0.449	327.0	0.7940	0.0000	OK
15 minute winter	S252	10	30.046	0.246	50.8	0.0000	0.0000	SURCHARGED
480 minute winter	Wetland 1	472	29.836	0.235	100.1	935.3892	0.0000	SURCHARGED
480 minute winter	Wetland 2	472	29.826	0.276	14.1	58.5574	0.0000	SURCHARGED
480 minute winter	Wetland 3	464	29.806	0.356	16.3	44.5634	0.0000	SURCHARGED
480 minute winter	S254	464	29.799	0.414	12.8	0.7318	0.0000	SURCHARGED
15 minute winter	Start of Ditch	12	30.911	0.111	33.8	0.1258	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	287.3	1.183	0.692	9.9077	
15 minute winter	S243	3.008	S244	296.5	1.113	0.906	16.2383	
15 minute winter	S244	3.009	S245	294.5	1.080	0.898	14.8094	
15 minute winter	S245	3.010	S249	279.0	0.971	0.866	12.7091	
15 minute winter	S246	7.000	S247	32.9	1.866	0.395	0.9030	
15 minute winter	S247	7.001	S248	44.0	2.502	0.426	0.5860	
15 minute winter	S248	7.002	S249	65.7	3.898	0.392	1.1125	
15 minute winter	S249	3.011	S251	327.0	1.086	0.985	14.6181	
15 minute winter	S251	3.012	Wetland 1	326.4	1.180	2.310	11.6595	
15 minute winter	S252	8.000	Wetland 1	50.3	1.282	1.167	0.5434	
480 minute winter	Wetland 1	1.002	Wetland 2	11.7	0.536	0.396	0.6045	
480 minute winter	Wetland 2	1.003	Wetland 3	12.4	0.312	0.465	1.4782	
480 minute winter	Wetland 3	1.004	S254	12.8	0.413	0.236	0.2386	
480 minute winter	S254	1.005	S259	12.8	0.540	0.169	0.4889	
15 minute winter	Start of Ditch	9.000	HW06	27.8	0.292	0.160	13.6294	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	11	30.219	0.197	140.2	0.2224	0.0000	OK
15 minute winter	S257	15	30.127	0.196	132.9	0.3462	0.0000	OK
15 minute winter	HW06a	14	30.128	0.312	130.9	0.3527	0.0000	SURCHARGED
15 minute winter	HW11a	12	29.777	0.137	204.2	0.1551	0.0000	OK
15 minute winter	S260	10	32.785	0.040	4.5	0.0452	0.0000	OK
15 minute winter	S259b	11	31.103	0.043	4.4	0.0492	0.0000	OK
15 minute winter	S259a	11	30.553	0.028	4.3	0.0315	0.0000	OK
15 minute winter	S259	13	29.775	0.440	205.2	1.1197	0.0000	OK
15 minute winter	SBA275A	10	31.073	0.093	45.0	0.1647	0.0000	OK
15 minute winter	Culvert Start	13	29.463	0.213	228.3	1.5024	0.0000	OK
15 minute winter	Culvert End	13	29.426	0.206	220.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HW06	9.001	S257	132.9	1.014	0.408	4.7392	
15 minute winter	S257	9.002	HW06a	130.9	0.871	0.395	8.5884	
15 minute winter	HW06a	9.003	HW11a	94.0	0.390	3.041	19.4950	
15 minute winter	HW11a	9.004	S259	201.1	0.706	0.863	12.4003	
15 minute winter	S260	10.000	S259b	4.4	1.120	0.155	0.2669	
15 minute winter	S259b	10.001	S259a	4.3	1.351	0.156	0.0716	
15 minute winter	S259a	10.002	S259	4.3	1.706	0.075	0.0646	
15 minute winter	S259	1.006	Culvert Start	195.3	1.681	1.424	7.1852	
15 minute winter	SBA275A	11.000	Culvert Start	44.3	2.132	0.129	0.7858	
15 minute winter	Culvert Start	1.007	Culvert End	220.8	0.529	0.145	33.7036	333.1

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	30.896	0.196	130.1	0.2221	0.0000	OK
15 minute winter	S231	10	30.195	0.569	180.0	0.6438	0.0000	SURCHARGED
15 minute winter	232a	10	32.350	0.193	54.5	0.1670	0.0000	OK
15 minute winter	S232	10	32.006	0.117	82.6	0.1011	0.0000	OK
15 minute winter	HW03	11	30.158	0.538	81.8	0.6084	0.0000	SURCHARGED
15 minute winter	S234	10	34.865	0.165	76.5	0.1865	0.0000	OK
15 minute winter	234B	11	34.009	1.459	81.5	1.6499	0.0000	SURCHARGED
15 minute winter	S235a	9	33.315	1.515	130.0	1.7135	30.2121	FLOOD
30 minute summer	S235	17	33.567	0.482	10.9	0.5457	0.0000	SURCHARGED
15 minute winter	S236	11	33.406	1.881	165.1	2.1276	0.0000	FLOOD RISK
15 minute winter	S237	9	32.920	1.545	136.0	1.7474	1.8150	FLOOD
15 minute winter	S238	9	32.043	1.200	141.0	1.3572	5.1749	FLOOD
15 minute winter	S239	10	31.367	0.752	201.4	1.3291	0.0000	SURCHARGED
15 minute winter	S240	10	31.219	0.651	218.9	1.1495	0.0000	SURCHARGED
15 minute winter	S241	10	31.893	0.088	77.0	0.0992	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	128.9	1.967	0.639	1.9564	
15 minute winter	S231	1.001	Wetland 1	178.4	2.534	2.488	0.3485	
15 minute winter	232a	2.000	S232	53.5	1.468	0.696	2.0375	
15 minute winter	S232	2.001	HW03	81.8	1.489	0.275	1.4928	
15 minute winter	HW03	2.002	Wetland 1	77.9	1.155	3.831	3.6844	
15 minute winter	S234	3.000	234B	74.9	2.793	0.657	1.2965	
15 minute winter	234B	3.001	S236	80.2	2.016	0.704	0.7957	
15 minute winter	S235a	4.000	S236	53.8	1.352	0.798	0.4754	
30 minute summer	S235	5.000	S236	13.6	0.762	0.119	1.2305	
15 minute winter	S236	3.002	S237	126.7	1.800	1.616	2.1066	
15 minute winter	S237	3.003	S238	124.1	1.763	1.199	4.3155	
15 minute winter	S238	3.004	S239	132.1	1.876	1.844	3.8112	
15 minute winter	S239	3.005	S240	200.6	1.424	1.410	1.6009	
15 minute winter	S240	3.006	S242	218.0	1.548	1.491	6.8735	
15 minute winter	S241	6.000	S242	76.9	2.324	0.189	0.4745	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	11	30.681	0.309	294.9	0.5455	0.0000	OK
15 minute winter	S243	13	30.585	0.378	308.4	0.6673	0.0000	OK
15 minute winter	S244	13	30.497	0.438	314.5	0.7741	0.0000	OK
15 minute winter	S245	12	30.436	0.496	309.0	0.8760	0.0000	SURCHARGED
15 minute winter	S246	10	36.936	0.101	34.7	0.1143	0.0000	OK
15 minute winter	S247	10	35.639	0.110	46.5	0.1239	0.0000	OK
15 minute winter	S248	10	34.350	0.103	69.4	0.1169	0.0000	OK
15 minute winter	S249	12	30.323	0.480	359.7	0.8475	0.0000	SURCHARGED
15 minute winter	S251	13	30.176	0.456	332.7	0.8054	0.0000	SURCHARGED
15 minute winter	S252	10	30.062	0.262	53.1	0.0000	0.0000	SURCHARGED
480 minute winter	Wetland 1	472	29.848	0.248	106.3	1000.4670	0.0000	SURCHARGED
480 minute winter	Wetland 2	472	29.839	0.289	14.1	63.0074	0.0000	SURCHARGED
480 minute winter	Wetland 3	456	29.818	0.368	16.5	47.1102	0.0000	SURCHARGED
480 minute winter	S254	456	29.812	0.427	12.8	0.7540	0.0000	SURCHARGED
15 minute winter	Start of Ditch	12	30.914	0.114	35.2	0.1289	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	292.0	1.190	0.703	10.1000	
15 minute winter	S243	3.008	S244	301.7	1.116	0.922	17.0818	
15 minute winter	S244	3.009	S245	299.7	1.085	0.914	14.9945	
15 minute winter	S245	3.010	S249	283.8	0.961	0.881	12.7278	
15 minute winter	S246	7.000	S247	34.3	1.884	0.412	0.9318	
15 minute winter	S247	7.001	S248	45.9	2.528	0.444	0.6046	
15 minute winter	S248	7.002	S249	69.6	3.819	0.415	1.1216	
15 minute winter	S249	3.011	S251	332.7	1.096	1.003	14.6243	
15 minute winter	S251	3.012	Wetland 1	331.7	1.186	2.347	11.7107	
15 minute winter	S252	8.000	Wetland 1	52.5	1.331	1.219	0.5477	
480 minute winter	Wetland 1	1.002	Wetland 2	11.6	0.536	0.392	0.6045	
480 minute winter	Wetland 2	1.003	Wetland 3	12.4	0.311	0.463	1.4782	
480 minute winter	Wetland 3	1.004	S254	12.8	0.432	0.237	0.2386	
480 minute winter	S254	1.005	S259	12.8	0.540	0.169	0.5009	
15 minute winter	Start of Ditch	9.000	HW06	29.1	0.295	0.167	14.0825	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	11	30.224	0.202	146.3	0.2280	0.0000	OK
15 minute winter	S257	14	30.132	0.201	138.8	0.3559	0.0000	OK
15 minute winter	HW06a	14	30.134	0.318	136.1	0.3595	0.0000	SURCHARGED
15 minute winter	HW11a	12	29.780	0.140	214.1	0.1588	0.0000	OK
15 minute winter	S260	10	32.786	0.041	4.7	0.0462	0.0000	OK
15 minute winter	S259b	11	31.105	0.045	4.6	0.0504	0.0000	OK
15 minute winter	S259a	11	30.553	0.028	4.5	0.0322	0.0000	OK
15 minute winter	S259	13	29.796	0.461	215.1	1.1732	0.0000	OK
15 minute winter	SBA275A	10	31.075	0.095	46.9	0.1683	0.0000	OK
15 minute winter	Culvert Start	13	29.466	0.216	236.3	1.5281	0.0000	OK
15 minute winter	Culvert End	13	29.429	0.209	227.0	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)	Discharge Vol (m³)
15 minute winter	HW06	9.001	S257	138.8	1.023	0.426	4.9091	
15 minute winter	S257	9.002	HW06a	136.1	0.877	0.410	8.8813	
15 minute winter	HW06a	9.003	HW11a	98.7	0.396	3.192	20.1536	
15 minute winter	HW11a	9.004	S259	210.8	0.709	0.905	13.4304	
15 minute winter	S260	10.000	S259b	4.6	1.132	0.162	0.2759	
15 minute winter	S259b	10.001	S259a	4.5	1.368	0.163	0.0740	
15 minute winter	S259a	10.002	S259	4.5	1.734	0.078	0.0754	
15 minute winter	S259	1.006	Culvert Start	197.7	1.688	1.441	7.3893	
15 minute winter	SBA275A	11.000	Culvert Start	46.2	2.157	0.135	0.8098	
15 minute winter	Culvert Start	1.007	Culvert End	227.0	0.534	0.150	34.2956	343.4

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	31.184	0.484	162.6	0.5478	0.0000	SURCHARGED
15 minute winter	S231	10	30.353	0.727	221.3	0.8226	0.0000	FLOOD RISK
15 minute winter	232a	10	32.382	0.225	68.1	0.1946	0.0000	OK
15 minute winter	S232	10	32.019	0.130	103.2	0.1129	0.0000	OK
15 minute winter	HW03	11	30.334	0.714	102.3	0.8075	0.0000	FLOOD RISK
15 minute winter	S234	11	35.640	0.940	95.7	1.0631	0.0000	SURCHARGED
15 minute winter	234B	11	34.345	1.795	98.3	2.0301	0.0000	SURCHARGED
15 minute winter	S235a	8	33.315	1.515	162.1	1.7135	48.9266	FLOOD
15 minute summer	S235	9	33.652	0.567	15.1	0.6418	0.0000	SURCHARGED
15 minute winter	S236	9	33.440	1.915	206.1	2.1659	4.7544	FLOOD
15 minute winter	S237	9	32.920	1.545	143.0	1.7474	4.9963	FLOOD
15 minute winter	S238	8	32.043	1.200	145.2	1.3572	12.3612	FLOOD
15 minute winter	S239	12	31.579	0.964	211.0	1.7041	0.0000	FLOOD RISK
15 minute winter	S240	12	31.460	0.892	232.8	1.5765	0.0000	SURCHARGED
15 minute winter	S241	10	31.903	0.098	96.2	0.1113	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	157.3	2.235	0.780	2.3102	
15 minute winter	S231	1.001	Wetland 1	219.2	3.114	3.058	0.3485	
15 minute winter	232a	2.000	S232	66.8	1.551	0.870	2.3926	
15 minute winter	S232	2.001	HW03	102.3	1.804	0.344	1.5563	
15 minute winter	HW03	2.002	Wetland 1	97.0	1.401	4.766	3.8615	
15 minute winter	S234	3.000	234B	90.6	2.727	0.795	1.4535	
15 minute winter	234B	3.001	S236	98.2	2.470	0.863	0.7957	
15 minute winter	S235a	4.000	S236	47.8	1.240	0.709	0.4754	
15 minute summer	S235	5.000	S236	19.2	0.622	0.168	1.2305	
15 minute winter	S236	3.002	S237	130.7	1.857	1.667	2.1066	
15 minute winter	S237	3.003	S238	124.1	1.763	1.199	4.3155	
15 minute winter	S238	3.004	S239	131.1	1.862	1.830	3.8112	
15 minute winter	S239	3.005	S240	209.9	1.490	1.475	1.6009	
15 minute winter	S240	3.006	S242	231.7	1.645	1.584	6.8735	
15 minute winter	S241	6.000	S242	96.1	2.415	0.236	0.4906	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	12	30.985	0.613	327.7	1.0824	0.0000	SURCHARGED
15 minute winter	S243	12	30.890	0.683	343.3	1.2061	0.0000	SURCHARGED
15 minute winter	S244	12	30.749	0.690	343.6	1.2197	0.0000	SURCHARGED
15 minute winter	S245	12	30.607	0.667	328.1	1.1792	0.0000	SURCHARGED
15 minute winter	S246	10	36.950	0.115	43.4	0.1304	0.0000	OK
15 minute winter	S247	10	35.656	0.127	58.3	0.1432	0.0000	OK
15 minute winter	S248	10	34.361	0.114	86.6	0.1285	0.0000	OK
15 minute winter	S249	12	30.467	0.624	406.5	1.1025	0.0000	SURCHARGED
15 minute winter	S251	12	30.254	0.534	406.6	0.9440	0.0000	FLOOD RISK
15 minute winter	S252	10	30.176	0.376	66.3	0.0000	0.0000	SURCHARGED
600 minute winter	Wetland 1	585	29.903	0.303	109.6	1294.7460	0.0000	SURCHARGED
600 minute winter	Wetland 2	585	29.894	0.344	14.3	83.4190	0.0000	SURCHARGED
480 minute winter	Wetland 3	464	29.874	0.424	17.5	59.3575	0.0000	SURCHARGED
480 minute winter	S254	464	29.868	0.483	12.8	0.8534	0.0000	SURCHARGED
15 minute winter	Start of Ditch	12	30.930	0.130	44.0	0.1474	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	322.8	1.203	0.777	12.5861	
15 minute winter	S243	3.008	S244	326.6	1.137	0.998	18.0825	
15 minute winter	S244	3.009	S245	315.8	1.092	0.963	15.0845	
15 minute winter	S245	3.010	S249	324.2	1.023	1.006	12.7278	
15 minute winter	S246	7.000	S247	43.0	1.977	0.516	1.1115	
15 minute winter	S247	7.001	S248	57.3	2.665	0.554	0.7053	
15 minute winter	S248	7.002	S249	86.0	4.041	0.513	1.2168	
15 minute winter	S249	3.011	S251	406.6	1.283	1.225	14.6243	
15 minute winter	S251	3.012	Wetland 1	396.1	1.320	2.803	12.2195	
15 minute winter	S252	8.000	Wetland 1	65.6	1.650	1.522	0.5643	
600 minute winter	Wetland 1	1.002	Wetland 2	11.8	0.554	0.397	0.6045	
600 minute winter	Wetland 2	1.003	Wetland 3	12.3	0.308	0.459	1.4782	
480 minute winter	Wetland 3	1.004	S254	12.8	0.322	0.237	0.2386	
480 minute winter	S254	1.005	S259	12.8	0.539	0.169	0.5502	
15 minute winter	Start of Ditch	9.000	HW06	36.8	0.313	0.212	16.8345	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	11	30.252	0.230	183.8	0.2604	0.0000	OK
15 minute winter	S257	12	30.162	0.231	174.9	0.4076	0.0000	OK
15 minute winter	HW06a	13	30.151	0.335	168.7	0.3790	0.0000	SURCHARGED
15 minute winter	HW11a	16	29.951	0.311	289.3	0.3516	0.0000	SURCHARGED
15 minute winter	S260	10	32.791	0.046	5.9	0.0519	0.0000	OK
15 minute winter	S259b	11	31.110	0.050	5.7	0.0568	0.0000	OK
15 minute winter	S259a	11	30.557	0.032	5.7	0.0360	0.0000	OK
15 minute winter	S259	14	29.988	0.653	546.9	1.6617	0.0000	SURCHARGED
15 minute winter	SBA275A	10	31.087	0.107	58.7	0.1895	0.0000	OK
15 minute winter	Culvert Start	13	29.480	0.230	259.9	1.6292	0.0000	OK
15 minute winter	Culvert End	13	29.443	0.223	250.5	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)
15 minute winter	HW06	9.001	S257	174.9	1.067	0.537	5.9672	
15 minute winter	S257	9.002	HW06a	168.7	0.915	0.509	9.9111	
15 minute winter	HW06a	9.003	HW11a	161.5	0.404	5.222	30.0213	
15 minute winter	HW11a	9.004	S259	544.2	0.794	2.336	25.5380	
15 minute winter	S260	10.000	S259b	5.7	1.202	0.203	0.3249	
15 minute winter	S259b	10.001	S259a	5.7	1.456	0.205	0.0872	
15 minute winter	S259a	10.002	S259	5.7	1.682	0.099	0.0845	
15 minute winter	S259	1.006	Culvert Start	233.6	1.727	1.703	7.6790	
15 minute winter	SBA275A	11.000	Culvert Start	57.9	2.294	0.169	0.9532	
15 minute winter	Culvert Start	1.007	Culvert End	250.5	0.553	0.165	36.5516	387.2

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	31.537	0.837	182.0	0.9471	0.0000	SURCHARGED
15 minute winter	S231	10	30.483	0.857	249.9	0.9688	0.0000	FLOOD RISK
15 minute winter	232a	10	32.403	0.246	76.2	0.2127	0.0000	OK
15 minute winter	S232	10	32.027	0.138	115.4	0.1196	0.0000	OK
15 minute winter	HW03	11	30.459	0.839	114.5	0.9488	0.0000	FLOOD RISK
15 minute winter	S234	11	36.173	1.473	107.0	1.6664	0.0000	FLOOD RISK
15 minute winter	234B	11	34.562	2.012	109.8	2.2761	0.0000	SURCHARGED
30 minute winter	S235a	14	33.315	1.515	146.8	1.7135	64.1843	FLOOD
15 minute winter	S235	8	33.537	0.452	25.5	0.5108	0.0000	SURCHARGED
15 minute winter	S236	9	33.440	1.915	228.4	2.1659	9.5760	FLOOD
15 minute winter	S237	8	32.920	1.545	144.5	1.7474	5.7515	FLOOD
15 minute winter	S238	8	32.043	1.200	147.8	1.3572	18.0379	FLOOD
15 minute winter	S239	11	31.777	1.162	216.5	2.0535	0.0000	FLOOD RISK
15 minute winter	S240	11	31.651	1.083	240.8	1.9140	0.0000	SURCHARGED
15 minute winter	S241	11	31.915	0.110	107.7	0.1244	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	178.3	2.532	0.884	2.3102	
15 minute winter	S231	1.001	Wetland 1	248.5	3.530	3.466	0.3485	
15 minute winter	232a	2.000	S232	74.7	1.586	0.972	2.5996	
15 minute winter	S232	2.001	HW03	114.5	1.984	0.385	1.5929	
15 minute winter	HW03	2.002	Wetland 1	108.5	1.553	5.335	3.9429	
15 minute winter	S234	3.000	234B	101.1	2.802	0.886	1.4535	
15 minute winter	234B	3.001	S236	109.4	2.751	0.961	0.7957	
30 minute winter	S235a	4.000	S236	47.5	1.219	0.704	0.4754	
15 minute winter	S235	5.000	S236	16.6	0.595	0.145	1.2305	
15 minute winter	S236	3.002	S237	130.7	1.857	1.667	2.1066	
15 minute winter	S237	3.003	S238	124.1	1.763	1.199	4.3155	
15 minute winter	S238	3.004	S239	131.0	1.861	1.829	3.8112	
15 minute winter	S239	3.005	S240	215.2	1.528	1.512	1.6009	
15 minute winter	S240	3.006	S242	239.4	1.700	1.638	6.8735	
15 minute winter	S241	6.000	S242	107.7	2.479	0.265	0.5085	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	11	31.152	0.780	347.1	1.3780	0.0000	SURCHARGED
15 minute winter	S243	11	31.046	0.839	362.6	1.4829	0.0000	SURCHARGED
15 minute winter	S244	12	30.866	0.807	359.9	1.4258	0.0000	SURCHARGED
15 minute winter	S245	11	30.726	0.786	342.7	1.3890	0.0000	SURCHARGED
15 minute winter	S246	10	36.959	0.124	48.6	0.1397	0.0000	OK
15 minute winter	S247	10	35.666	0.137	65.2	0.1546	0.0000	OK
15 minute winter	S248	10	34.369	0.122	97.2	0.1377	0.0000	OK
15 minute winter	S249	11	30.572	0.729	447.6	1.2874	0.0000	SURCHARGED
15 minute winter	S251	12	30.309	0.589	443.4	1.0410	0.0000	FLOOD RISK
15 minute winter	S252	10	30.253	0.453	74.3	0.0000	0.0000	SURCHARGED
600 minute winter	Wetland 1	600	29.936	0.336	122.7	1477.7300	0.0000	SURCHARGED
600 minute winter	Wetland 2	600	29.927	0.377	14.2	96.1794	0.0000	SURCHARGED
600 minute winter	Wetland 3	585	29.907	0.457	17.2	67.1177	0.0000	SURCHARGED
600 minute winter	S254	585	29.901	0.516	12.8	0.9114	0.0000	SURCHARGED
15 minute winter	Start of Ditch	12	30.939	0.139	49.3	0.1576	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	339.6	1.211	0.818	12.5861	
15 minute winter	S243	3.008	S244	340.8	1.146	1.041	18.0825	
15 minute winter	S244	3.009	S245	331.9	1.109	1.012	15.0845	
15 minute winter	S245	3.010	S249	346.6	1.094	1.076	12.7278	
15 minute winter	S246	7.000	S247	48.1	2.024	0.577	1.2158	
15 minute winter	S247	7.001	S248	64.3	2.732	0.622	0.7717	
15 minute winter	S248	7.002	S249	96.5	4.119	0.576	1.2588	
15 minute winter	S249	3.011	S251	443.4	1.399	1.336	14.6243	
15 minute winter	S251	3.012	Wetland 1	450.4	1.474	3.187	12.5969	
15 minute winter	S252	8.000	Wetland 1	73.6	1.851	1.709	0.5691	
600 minute winter	Wetland 1	1.002	Wetland 2	11.8	0.554	0.398	0.6045	
600 minute winter	Wetland 2	1.003	Wetland 3	12.2	0.306	0.455	1.4782	
600 minute winter	Wetland 3	1.004	S254	12.8	0.380	0.237	0.2386	
600 minute winter	S254	1.005	S259	12.8	0.538	0.169	0.5342	
15 minute winter	Start of Ditch	9.000	HW06	41.5	0.322	0.239	18.4466	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	11	30.268	0.246	206.3	0.2785	0.0000	OK
15 minute winter	S257	12	30.179	0.248	196.6	0.4379	0.0000	OK
15 minute winter	HW06a	13	30.158	0.342	191.2	0.3874	0.0000	SURCHARGED
15 minute winter	HW11a	15	30.033	0.393	569.8	0.4444	0.0000	SURCHARGED
15 minute winter	S260	10	32.794	0.049	6.6	0.0551	0.0000	OK
15 minute winter	S259b	11	31.113	0.053	6.4	0.0604	0.0000	OK
15 minute winter	S259a	11	30.559	0.034	6.4	0.0382	0.0000	OK
30 minute winter	S259	23	30.108	0.773	885.1	1.9684	0.0000	SURCHARGED
15 minute winter	SBA275A	10	31.094	0.114	65.7	0.2014	0.0000	OK
30 minute winter	Culvert Start	22	29.492	0.242	283.3	1.7105	0.0000	OK
30 minute winter	Culvert End	22	29.453	0.233	268.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HW06	9.001	S257	196.6	1.087	0.604	6.5713	
15 minute winter	S257	9.002	HW06a	191.2	0.934	0.577	10.4483	
15 minute winter	HW06a	9.003	HW11a	170.4	0.399	5.512	39.9069	
15 minute winter	HW11a	9.004	S259	769.7	0.845	3.304	30.5249	
15 minute winter	S260	10.000	S259b	6.4	1.238	0.228	0.3536	
15 minute winter	S259b	10.001	S259a	6.4	1.504	0.230	0.0949	
15 minute winter	S259a	10.002	S259	6.4	1.745	0.111	0.0854	
30 minute winter	S259	1.006	Culvert Start	257.2	1.862	1.876	7.8437	
15 minute winter	SBA275A	11.000	Culvert Start	64.8	2.364	0.189	1.0356	
30 minute winter	Culvert Start	1.007	Culvert End	268.8	0.566	0.177	38.3203	497.3

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Water Quality

Area (ha)	Intended Land Use	Entering via Node or Link	Name	SuDS Component	Pollution hazard indices TSS	Metals	Hydrocarbons	Pollution mitigation indices TSS	Metals	Hydrocarbons	Cumulative pollution hazard indices TSS	Metals	Hydrocarbons
		Node	Wetland 1	Wetland				0.8	0.8	0.8			
		Node	Wetland 2	Wetland				0.4	0.4	0.4			
		Node	Wetland 3	Wetland				0.4	0.4	0.4			
		Node	Culvert End										
											Sufficient	Sufficient	Sufficient

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Appendix 6: DCO Works No.13 Existing Drainage

Design Settings

Rainfall Methodology	FEH-99	E (1km)	0.303	Connection Type	Level Soffits
Return Period (years)	2	F (1km)	2.358	Minimum Backdrop Height (m)	0.200
Additional Flow (%)	0	CV	0.750	Preferred Cover Depth (m)	0.600
C (1km)	-0.026	Time of Entry (mins)	2.00	Include Intermediate Ground	✓
D1 (1km)	0.351	Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
D2 (1km)	0.352	Maximum Rainfall (mm/hr)	50.0		
D3 (1km)	0.243	Minimum Velocity (m/s)	1.00		

1 STANDARD Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

1 -1 \/ Link Type

Shape	Closed User Defined	Width (mm)	9700	Follow Ground	x
Barrels	1	Auto Increment (mm)	100		

Available Diameters (mm)

1450

Depth / Total	Width / Total	Depth / Total	Width / Total
0.000	0.103	1.000	1.000

1 -2 _/ Link Type

Shape	Closed User Defined	Width (mm)	6500	Follow Ground	x
Barrels	1	Auto Increment (mm)	100		

Available Diameters (mm)

1000

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Depth / Total	Width / Total	Depth / Total	Width / Total
0.000	0.077	1.000	1.000

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
EX MH1	0.128	2.00	78.770	1050	447173.559	326141.687	1.760
SW2	0.084	2.00	78.590	1050	447198.241	326218.218	2.396
SW3	0.168	2.00	77.855	1050	447216.848	326284.420	2.138
SW4	0.023	2.00	77.671	1050	447229.286	326344.734	2.222
SW5	0.034	2.00	77.520	1050	447233.260	326396.842	1.425
SW6			77.439	1050	447235.537	326383.836	2.162
EX MH2	0.011	2.00	78.500	1050	447184.443	326137.453	1.760
SW8	0.020	2.00	78.420	1050	447206.870	326196.647	2.052
SW9	0.016	2.00	78.350	1050	447234.366	326280.261	2.500
SW10	0.028	2.00	78.280	1050	447247.718	326332.307	2.746
SW11	0.015	2.00	77.749	1050	447255.232	326382.980	2.666
EX MH3	0.082	2.00	80.270	1050	447213.044	326144.879	1.390
EX MH4	0.059	2.00	79.850	1050	447239.335	326219.092	1.300
SW14			79.620	1050	447251.338	326249.644	1.725
SW15	0.085	2.00	79.820	1050	447239.436	326254.549	2.078
SW16	0.052	2.00	78.000	1050	447272.384	326338.301	1.780
SW17			77.550	1050	447284.472	326382.803	1.560
SW18	0.013	2.00	77.471	1200	447261.809	326396.926	2.445
SW19	0.123	2.00	76.351	1200	447273.039	326416.945	1.451
SW20	0.279	2.00	76.817	1050	447316.412	326428.567	1.795
SW21			76.800	1050	447291.042	326432.696	1.890
N01	0.030	2.00	76.175	1	447276.685	326436.735	1.451
SW22	0.052	2.00	76.627	1050	447295.094	326450.094	1.425
N02			76.135	1	447280.198	326455.690	1.450
SW23	0.008	2.00	77.583	1200	447240.965	326430.384	1.350
SW24			77.455	1200	447242.829	326443.895	1.350
SW25	0.017	2.00	77.113	1200	447247.285	326486.298	1.613
SW26	0.002	2.00	77.331	1200	447249.247	326469.949	2.071
SW27	0.104	2.00	76.308	1200	447283.335	326472.760	1.778

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
SW28	0.025	2.00	76.561	1200	447288.889	326489.900	2.091
N03			75.000	100	447310.157	326544.704	1.000
SW29	0.046	2.00	76.592	1050	447274.823	326503.347	1.350
SW30	0.070	2.00	75.723	1050	447292.043	326535.947	1.425
SW31			75.013	1050	447306.963	326561.175	1.425
N04	0.009	2.00	74.150	100	447316.240	326558.464	1.000
SW32			73.934	1200	447322.629	326572.044	1.500
SW33	0.070	2.00	74.960	1050	447328.035	326519.909	1.425
SW34	0.057	2.00	73.586	1050	447342.774	326567.688	1.425
SW35			71.651	1050	447360.779	326614.333	1.425
SW36			69.714	1050	447377.337	326652.393	1.772
SW37	0.060	2.00	69.453	1500	447368.464	326661.926	1.653
SW38	0.046	2.00	66.050	1200	447388.141	326707.891	1.500
SW39	0.046	2.00	62.900	1200	447402.243	326745.323	1.500
SW40	0.056	2.00	59.957	1200	447414.848	326783.285	1.500
SW41	0.035	2.00	74.915	1050	447297.115	326568.616	1.350
SW42	0.042	2.00	73.420	1050	447317.034	326597.980	1.350
SW43	0.042	2.00	71.591	1050	447336.905	326630.655	1.350
SW44	0.041	2.00	69.402	1050	447354.934	326664.196	1.425
SW45	0.041	2.00	66.898	1050	447370.841	326697.972	1.425
SW46	0.038	2.00	64.056	1050	447384.906	326732.253	1.425
SW47	0.073	2.00	61.016	1050	447397.429	326768.046	1.500
SW48			57.420	1050	447413.220	326822.292	1.500
SW49			57.389	1350	447426.181	326824.453	2.178
SW50	0.017	2.00	76.576	1050	447307.121	326402.894	1.350
SW51	0.018	2.00	77.281	1050	447308.255	326416.753	2.162
SW52	0.031	2.00	76.721	1050	447315.216	326437.851	1.475
SW53	0.025	2.00	76.614	1050	447323.186	326427.440	1.714
SW54	0.050	2.00	76.007	1050	447333.905	326427.232	2.082
SW55	0.132	2.00	74.332	1050	447341.196	326444.447	1.425
N06	0.018	2.00	72.501	100	447335.068	326460.679	1.001
SW56	0.027	2.00	75.806	1200	447308.061	326507.335	1.350

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
SW57	0.047	2.00	76.241	1200	447302.678	326485.119	2.102
SW58	0.024	2.00	75.456	1200	447326.279	326513.291	1.350
SW59	0.015	2.00	76.241	1200	447317.955	326481.062	2.632
N07	0.012	2.00	72.243	100	447337.210	326480.818	1.001
N08			72.000	100	447340.426	326500.245	1.000
N09	0.018	2.00	71.851	100	447345.505	326524.794	1.001
N10	0.010	2.00	70.851	100	447351.559	326538.495	1.001
N11	0.010	2.00	69.851	100	447357.083	326550.349	1.001
N12	0.010	2.00	68.851	100	447362.267	326560.935	1.001
N13	0.008	2.00	67.851	100	447368.249	326573.333	1.001
N14	0.005	2.00	67.201	100	447372.460	326582.117	1.001
N15	0.013	2.00	66.851	100	447374.266	326588.008	1.001
N16	0.010	2.00	65.851	100	447380.718	326606.070	1.001
N17	0.011	2.00	65.255	100	447386.211	326619.119	1.001
N18			64.200	100	447393.191	326638.304	1.000
KD9 OD	0.041	2.00	76.463	600	447246.743	326507.689	0.900
SW60	0.026	2.00	68.887	600	447255.323	326543.609	0.825
SW61	0.032	2.00	64.882	600	447283.688	326596.467	0.825
SW62	0.033	2.00	61.239	600	447313.819	326648.346	1.125
SW63	0.030	2.00	58.230	600	447342.968	326700.821	0.825
SW64	0.009	2.00	57.278	600	447382.108	326765.763	0.815
SW65	0.005	2.00	55.154	600	447396.333	326806.060	0.825
EX MH			54.420	1500	447442.131	326888.778	2.180
EX HW			62.364		447413.919	326721.050	2.484
HW13			54.000		447408.644	326836.466	0.399

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	250	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Normal	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

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Storm Durations

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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
30	0	0	0	100	25	0	0
30	25	0	0	100	40	0	0

Node SW27 Online Orifice Control

Flap Valve	x	Invert Level (m)	74.530	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.225		

Node N03 Online Orifice Control

Flap Valve	x	Invert Level (m)	74.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.100		

Node N04 Online Orifice Control

Flap Valve	x	Invert Level (m)	73.200	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.150		

Node N10 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	69.850	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	45.000		

Node N12 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	67.850	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	45.000		

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Node N14 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	66.200	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	45.000		

Node N17 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	64.254	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	45.000		

Node N03 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	74.100
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	531.0	0.0	0.200	604.0	0.0	0.400	679.0	0.0	0.600	759.0	0.0	0.800	837.0	0.0	0.910	0.0	0.0
0.100	568.0	0.0	0.300	641.0	0.0	0.500	721.0	0.0	0.700	798.0	0.0	0.900	877.0	0.0			

Node N04 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	73.200
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	24

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	22.0	0.0	0.200	52.6	0.0	0.400	85.8	0.0	0.600	122.2	0.0	0.800	162.0	0.0
0.100	37.1	0.0	0.300	68.9	0.0	0.500	103.6	0.0	0.700	141.7	0.0	0.900	180.3	0.0

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	76.777	21.725	30 year 180 minute summer	58.243	14.988
1 year 15 minute winter	53.878	21.725	30 year 180 minute winter	37.859	14.988
1 year 30 minute summer	48.990	13.863	30 year 240 minute summer	45.879	12.124
1 year 30 minute winter	34.379	13.863	30 year 240 minute winter	30.481	12.124
1 year 60 minute summer	32.661	8.631	30 year 360 minute summer	34.546	8.890
1 year 60 minute winter	21.699	8.631	30 year 360 minute winter	22.456	8.890
1 year 120 minute summer	24.515	6.479	30 year 480 minute summer	26.718	7.061
1 year 120 minute winter	16.287	6.479	30 year 480 minute winter	17.751	7.061
1 year 180 minute summer	20.290	5.221	30 year 600 minute summer	21.494	5.879
1 year 180 minute winter	13.189	5.221	30 year 600 minute winter	14.686	5.879
1 year 240 minute summer	16.663	4.404	30 year 720 minute summer	18.840	5.049
1 year 240 minute winter	11.071	4.404	30 year 720 minute winter	12.662	5.049
1 year 360 minute summer	13.157	3.386	30 year 960 minute summer	15.024	3.956
1 year 360 minute winter	8.552	3.386	30 year 960 minute winter	9.952	3.956
1 year 480 minute summer	10.463	2.765	30 year 1440 minute summer	10.403	2.788
1 year 480 minute winter	6.951	2.765	30 year 1440 minute winter	6.992	2.788
1 year 600 minute summer	8.578	2.346	30 year +25% CC 15 minute summer	349.871	99.002
1 year 600 minute winter	5.861	2.346	30 year +25% CC 15 minute winter	245.524	99.002
1 year 720 minute summer	7.626	2.044	30 year +25% CC 30 minute summer	228.334	64.611
1 year 720 minute winter	5.125	2.044	30 year +25% CC 30 minute winter	160.234	64.611
1 year 960 minute summer	6.203	1.634	30 year +25% CC 60 minute summer	152.248	40.235
1 year 960 minute winter	4.109	1.634	30 year +25% CC 60 minute winter	101.150	40.235
1 year 1440 minute summer	4.409	1.182	30 year +25% CC 120 minute summer	94.691	25.024
1 year 1440 minute winter	2.963	1.182	30 year +25% CC 120 minute winter	62.911	25.024
30 year 15 minute summer	279.897	79.201	30 year +25% CC 180 minute summer	72.803	18.735
30 year 15 minute winter	196.419	79.201	30 year +25% CC 180 minute winter	47.324	18.735
30 year 30 minute summer	182.667	51.688	30 year +25% CC 240 minute summer	57.349	15.156
30 year 30 minute winter	128.187	51.688	30 year +25% CC 240 minute winter	38.101	15.156
30 year 60 minute summer	121.798	32.188	30 year +25% CC 360 minute summer	43.182	11.112
30 year 60 minute winter	80.920	32.188	30 year +25% CC 360 minute winter	28.069	11.112
30 year 120 minute summer	75.753	20.019	30 year +25% CC 480 minute summer	33.398	8.826
30 year 120 minute winter	50.329	20.019	30 year +25% CC 480 minute winter	22.189	8.826

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year +25% CC 600 minute summer	26.867	7.349
30 year +25% CC 600 minute winter	18.357	7.349
30 year +25% CC 720 minute summer	23.550	6.312
30 year +25% CC 720 minute winter	15.827	6.312
30 year +25% CC 960 minute summer	18.780	4.945
30 year +25% CC 960 minute winter	12.440	4.945
30 year +25% CC 1440 minute summer	13.004	3.485
30 year +25% CC 1440 minute winter	8.739	3.485
100 year 15 minute summer	364.661	103.186
100 year 15 minute winter	255.902	103.186
100 year 30 minute summer	239.884	67.879
100 year 30 minute winter	168.340	67.879
100 year 60 minute summer	160.969	42.539
100 year 60 minute winter	106.944	42.539
100 year 120 minute summer	100.180	26.475
100 year 120 minute winter	66.557	26.475
100 year 180 minute summer	77.199	19.866
100 year 180 minute winter	50.182	19.866
100 year 240 minute summer	60.869	16.086
100 year 240 minute winter	40.440	16.086
100 year 360 minute summer	45.775	11.779
100 year 360 minute winter	29.755	11.779
100 year 480 minute summer	35.370	9.347
100 year 480 minute winter	23.499	9.347
100 year 600 minute summer	28.397	7.767
100 year 600 minute winter	19.403	7.767
100 year 720 minute summer	24.828	6.654
100 year 720 minute winter	16.686	6.654
100 year 960 minute summer	19.675	5.181
100 year 960 minute winter	13.033	5.181
100 year 1440 minute summer	13.466	3.609
100 year 1440 minute winter	9.050	3.609

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +25% CC 15 minute summer	455.826	128.983
100 year +25% CC 15 minute winter	319.878	128.983
100 year +25% CC 30 minute summer	299.855	84.849
100 year +25% CC 30 minute winter	210.424	84.849
100 year +25% CC 60 minute summer	201.211	53.174
100 year +25% CC 60 minute winter	133.680	53.174
100 year +25% CC 120 minute summer	125.225	33.093
100 year +25% CC 120 minute winter	83.197	33.093
100 year +25% CC 180 minute summer	96.499	24.833
100 year +25% CC 180 minute winter	62.727	24.833
100 year +25% CC 240 minute summer	76.086	20.107
100 year +25% CC 240 minute winter	50.550	20.107
100 year +25% CC 360 minute summer	57.219	14.724
100 year +25% CC 360 minute winter	37.194	14.724
100 year +25% CC 480 minute summer	44.213	11.684
100 year +25% CC 480 minute winter	29.374	11.684
100 year +25% CC 600 minute summer	35.497	9.709
100 year +25% CC 600 minute winter	24.253	9.709
100 year +25% CC 720 minute summer	31.035	8.318
100 year +25% CC 720 minute winter	20.858	8.318
100 year +25% CC 960 minute summer	24.593	6.476
100 year +25% CC 960 minute winter	16.291	6.476
100 year +25% CC 1440 minute summer	16.832	4.511
100 year +25% CC 1440 minute winter	11.312	4.511
100 year +40% CC 15 minute summer	510.525	144.461
100 year +40% CC 15 minute winter	358.263	144.461
100 year +40% CC 30 minute summer	335.837	95.030
100 year +40% CC 30 minute winter	235.675	95.030
100 year +40% CC 60 minute summer	225.357	59.555
100 year +40% CC 60 minute winter	149.722	59.555
100 year +40% CC 120 minute summer	140.252	37.065
100 year +40% CC 120 minute winter	93.180	37.065

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 180 minute summer	108.079	27.812	100 year +40% CC 600 minute summer	39.756	10.874
100 year +40% CC 180 minute winter	70.254	27.812	100 year +40% CC 600 minute winter	27.164	10.874
100 year +40% CC 240 minute summer	85.216	22.520	100 year +40% CC 720 minute summer	34.760	9.316
100 year +40% CC 240 minute winter	56.616	22.520	100 year +40% CC 720 minute winter	23.361	9.316
100 year +40% CC 360 minute summer	64.085	16.491	100 year +40% CC 960 minute summer	27.544	7.253
100 year +40% CC 360 minute winter	41.657	16.491	100 year +40% CC 960 minute winter	18.246	7.253
100 year +40% CC 480 minute summer	49.518	13.086	100 year +40% CC 1440 minute summer	18.852	5.053
100 year +40% CC 480 minute winter	32.899	13.086	100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	EX MH1	10	77.156	0.146	22.3	0.1266	0.0000	OK
15 minute summer	SW2	10	76.339	0.145	32.5	0.1255	0.0000	OK
15 minute summer	SW3	9	75.918	0.201	56.6	0.1740	0.0000	OK
15 minute summer	SW4	10	75.658	0.209	57.6	0.1810	0.0000	OK
15 minute summer	SW5	9	76.135	0.040	6.0	0.0350	0.0000	OK
15 minute summer	SW6	10	75.474	0.197	60.5	0.1703	0.0000	OK
15 minute summer	EX MH2	9	76.771	0.031	1.9	0.0270	0.0000	OK
15 minute summer	SW8	10	76.416	0.048	5.1	0.0414	0.0000	OK
15 minute summer	SW9	10	75.904	0.054	6.3	0.0471	0.0000	OK
15 minute summer	SW10	10	75.601	0.067	8.9	0.0583	0.0000	OK
15 minute summer	SW11	11	75.341	0.258	67.8	0.2235	0.0000	OK
15 minute summer	EX MH3	9	78.984	0.104	14.4	0.0901	0.0000	OK
15 minute summer	EX MH4	9	78.635	0.085	24.0	0.0735	0.0000	OK
15 minute summer	SW14	10	78.022	0.127	22.4	0.1099	0.0000	OK
15 minute summer	SW15	10	77.838	0.096	34.5	0.0832	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	EX MH1	1.000	SW2	17.9	1.109	1.050	1.3242	
15 minute summer	SW2	1.001	SW3	29.3	1.096	0.739	1.8379	
15 minute summer	SW3	1.002	SW4	53.6	1.102	0.734	3.0268	
15 minute summer	SW4	1.003	SW6	56.7	1.118	0.777	2.0067	
15 minute summer	SW5	2.000	SW6	6.0	1.604	0.149	0.0494	
15 minute summer	SW6	1.004	SW11	58.3	1.260	0.677	0.9124	
15 minute summer	EX MH2	3.000	SW8	1.7	0.370	0.042	0.2924	
15 minute summer	SW8	3.001	SW9	4.0	0.591	0.101	0.5953	
15 minute summer	SW9	3.002	SW10	5.2	0.604	0.130	0.4659	
15 minute summer	SW10	3.003	SW11	7.9	0.706	0.198	0.7281	
15 minute summer	SW11	1.005	SW18	65.3	0.794	0.539	1.3245	
15 minute summer	EX MH3	4.000	EX MH4	13.8	0.872	0.412	1.2451	
15 minute summer	EX MH4	4.001	SW14	22.4	1.269	0.305	0.5901	
15 minute summer	SW14	4.002	SW15	22.2	1.007	0.551	0.2842	
15 minute summer	SW15	4.003	SW16	32.8	1.216	0.226	2.5597	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	10	76.378	0.158	40.8	0.1364	0.0000	OK
15 minute summer	SW17	10	76.075	0.085	38.6	0.0737	0.0000	OK
15 minute summer	SW18	11	75.314	0.288	102.5	0.3260	0.0000	OK
30 minute summer	SW19	23	75.070	0.170	97.5	0.1917	0.0000	OK
15 minute summer	SW20	9	75.215	0.193	48.8	0.1671	0.0000	OK
15 minute summer	SW21	9	75.107	0.197	48.7	0.1704	0.0000	OK
30 minute summer	N01	23	75.069	0.345	128.6	0.0000	0.0000	OK
15 minute summer	SW22	9	75.291	0.089	9.1	0.0769	0.0000	OK
30 minute summer	N02	23	75.068	0.383	99.5	0.0000	0.0000	OK
15 minute summer	SW23	9	76.264	0.031	1.4	0.0349	0.0000	OK
15 minute summer	SW24	9	76.126	0.021	1.4	0.0237	0.0000	OK
15 minute summer	SW25	9	75.543	0.043	3.0	0.0481	0.0000	OK
15 minute summer	SW26	10	75.306	0.046	4.6	0.0526	0.0000	OK
30 minute summer	SW27	23	75.068	0.538	72.4	0.6081	0.0000	SURCHARGED
30 minute summer	SW28	23	74.517	0.047	61.9	0.0527	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	SW16	4.004	SW17	38.6	1.445	0.493	1.2423	
15 minute summer	SW17	4.005	SW18	37.7	0.873	0.178	1.1417	
15 minute summer	SW18	1.006	SW19	103.8	1.259	0.906	1.8861	
30 minute summer	SW19	1.007	N01	96.1	0.332	0.008	9.6377	
15 minute summer	SW20	5.000	SW21	48.7	1.025	0.666	1.2451	
15 minute summer	SW21	5.001	N01	48.7	1.075	0.694	0.6748	
30 minute summer	N01	1.008	N02	94.1	0.283	0.017	14.7022	
15 minute summer	SW22	6.000	N02	9.1	0.682	0.309	0.2125	
30 minute summer	N02	1.009	SW27	61.8	0.215	0.011	15.3173	
15 minute summer	SW23	7.000	SW24	1.4	0.695	0.082	0.0279	
15 minute summer	SW24	7.001	SW26	1.2	0.839	0.041	0.0397	
15 minute summer	SW25	8.000	SW26	3.0	0.739	0.167	0.0663	
15 minute summer	SW26	7.002	SW27	4.2	0.718	0.093	0.2008	
30 minute summer	SW27	1.010	SW28	61.4	1.947	0.535	0.6096	
30 minute summer	SW28	1.011	N03	61.9	0.360	0.018	23.1668	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	N03	256	74.315	0.315	45.8	123.1942	0.0000	OK
15 minute summer	SW29	9	75.299	0.057	8.1	0.0490	0.0000	OK
15 minute summer	SW30	9	74.374	0.076	20.3	0.0660	0.0000	OK
15 minute summer	SW31	9	73.696	0.108	20.3	0.0938	0.0000	OK
120 minute summer	N04	68	73.358	0.208	15.4	5.3751	0.0000	SURCHARGED
120 minute summer	SW32	68	72.482	0.048	13.5	0.0545	0.0000	OK
15 minute summer	SW33	9	73.592	0.057	12.3	0.0494	0.0000	OK
15 minute summer	SW34	9	72.235	0.074	22.3	0.0638	0.0000	OK
15 minute summer	SW35	9	70.290	0.064	22.2	0.0553	0.0000	OK
15 minute summer	SW36	10	68.071	0.129	21.7	0.1116	0.0000	OK
15 minute summer	SW37	10	67.870	0.070	33.5	0.1234	0.0000	OK
15 minute summer	SW38	10	64.621	0.071	38.2	0.0800	0.0000	OK
15 minute summer	SW39	10	61.477	0.077	43.2	0.0868	0.0000	OK
15 minute summer	SW40	10	58.541	0.084	49.7	0.0952	0.0000	OK
15 minute summer	SW41	9	73.606	0.041	6.1	0.0359	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	N03	1.012	N04	10.8	0.672	0.023	0.3506	
15 minute summer	SW29	9.000	SW30	8.0	1.336	0.293	0.2216	
15 minute summer	SW30	9.001	SW31	20.3	1.358	0.250	0.4505	
15 minute summer	SW31	9.002	N04	19.9	1.119	0.401	0.1718	
120 minute summer	N04	1.013	SW32	13.5	2.181	0.346	0.0934	
120 minute summer	SW32	1.014	SW37	13.5	1.776	0.057	0.8705	
15 minute summer	SW33	10.000	SW34	12.3	1.285	0.142	0.4797	
15 minute summer	SW34	10.001	SW35	22.2	2.169	0.217	0.5136	
15 minute summer	SW35	10.002	SW36	21.7	1.406	0.177	0.6636	
15 minute summer	SW36	10.003	SW37	21.0	0.933	0.565	0.2929	
15 minute summer	SW37	1.015	SW38	33.4	2.664	0.117	0.6270	
15 minute summer	SW38	1.016	SW39	38.4	2.863	0.123	0.5370	
15 minute summer	SW39	1.017	SW40	43.7	2.881	0.144	0.6071	
15 minute summer	SW40	1.018	SW49	50.6	3.182	0.166	0.6788	
15 minute summer	SW41	11.000	SW42	6.1	1.156	0.166	0.1887	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	9	72.131	0.061	13.5	0.0526	0.0000	OK
15 minute summer	SW43	9	70.316	0.075	20.8	0.0649	0.0000	OK
15 minute summer	SW44	9	68.046	0.069	27.6	0.0597	0.0000	OK
15 minute summer	SW45	9	65.548	0.075	34.7	0.0647	0.0000	OK
15 minute summer	SW46	9	62.713	0.082	41.0	0.0709	0.0000	OK
15 minute summer	SW47	9	59.603	0.087	52.6	0.0750	0.0000	OK
15 minute summer	SW48	9	56.020	0.100	51.8	0.0865	0.0000	OK
15 minute summer	SW49	10	55.337	0.126	98.8	0.1799	0.0000	OK
15 minute summer	SW50	9	75.271	0.045	3.0	0.0385	0.0000	OK
15 minute summer	SW51	9	75.179	0.060	6.2	0.0517	0.0000	OK
15 minute summer	SW52	9	75.290	0.044	5.4	0.0380	0.0000	OK
15 minute summer	SW53	9	74.961	0.061	16.0	0.0526	0.0000	OK
15 minute summer	SW54	9	73.993	0.068	24.7	0.0592	0.0000	OK
15 minute summer	SW55	9	73.013	0.106	47.7	0.0917	0.0000	OK
15 minute summer	N06	9	71.604	0.104	50.9	0.0008	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	SW42	11.001	SW43	13.5	1.739	0.344	0.2959	
15 minute summer	SW43	11.002	SW44	20.5	2.365	0.477	0.3293	
15 minute summer	SW44	11.003	SW45	27.5	2.522	0.203	0.4070	
15 minute summer	SW45	11.004	SW46	34.3	2.795	0.237	0.4549	
15 minute summer	SW46	11.005	SW47	39.8	3.121	0.269	0.4838	
15 minute summer	SW47	11.006	SW48	51.8	2.779	0.184	1.0548	
15 minute summer	SW48	11.007	SW49	49.6	2.588	0.202	0.2528	
15 minute summer	SW49	1.019	EX MH	100.9	3.167	0.237	2.1121	119.2
15 minute summer	SW50	12.000	SW51	3.0	0.552	0.193	0.0758	
15 minute summer	SW51	12.001	SW53	6.2	0.935	0.318	0.1212	
15 minute summer	SW52	13.000	SW53	5.4	1.021	0.186	0.0718	
15 minute summer	SW53	12.002	SW54	15.9	2.484	0.307	0.0688	
15 minute summer	SW54	12.003	SW55	24.7	1.740	0.202	0.2668	
15 minute summer	SW55	12.004	N06	47.7	2.725	0.399	0.3038	
15 minute summer	N06	12.005	N07	50.4	0.531	0.010	1.9303	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	74.509	0.053	4.7	0.0597	0.0000	OK
15 minute summer	SW57	9	74.197	0.058	12.8	0.0655	0.0000	OK
15 minute summer	SW58	9	74.153	0.047	4.2	0.0526	0.0000	OK
15 minute summer	SW59	9	73.663	0.054	19.5	0.0616	0.0000	OK
15 minute summer	N07	9	71.364	0.122	71.9	0.0010	0.0000	OK
15 minute summer	N08	11	71.316	0.316	67.5	0.0025	0.0000	SURCHARGED
15 minute summer	N09	11	70.916	0.066	49.3	0.0005	0.0000	OK
15 minute summer	N10	12	70.221	0.371	49.9	0.0030	0.0000	OK
15 minute summer	N11	12	68.911	0.061	48.7	0.0005	0.0000	OK
15 minute summer	N12	13	68.221	0.371	49.1	0.0030	0.0000	OK
15 minute summer	N13	13	66.915	0.065	48.2	0.0005	0.0000	OK
15 minute summer	N14	14	66.569	0.369	48.2	0.0030	0.0000	OK
15 minute summer	N15	14	65.919	0.069	47.9	0.0006	0.0000	OK
15 minute summer	N16	14	64.923	0.073	48.1	0.0006	0.0000	OK
15 minute summer	N17	15	64.619	0.365	48.0	0.0029	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	SW56	14.000	SW57	4.6	0.855	0.254	0.1242	
15 minute summer	SW57	14.001	SW59	12.8	1.660	0.134	0.1222	
15 minute summer	SW58	15.000	SW59	4.1	0.883	0.203	0.1529	
15 minute summer	SW59	14.002	N07	19.4	2.685	0.121	0.1390	
15 minute summer	N07	12.006	N08	67.5	0.395	0.014	5.2663	
15 minute summer	N08	12.007	N09	48.3	1.688	1.204	0.6202	
15 minute summer	N09	12.008	N10	49.4	0.258	0.004	4.8286	
15 minute summer	N10	12.009	N11	48.3	1.117	0.004	0.5658	
15 minute summer	N11	12.010	N12	48.7	0.221	0.004	3.7668	
15 minute summer	N12	12.011	N13	48.0	1.069	0.004	0.6186	
15 minute summer	N13	12.012	N14	48.1	0.217	0.004	3.1148	
15 minute summer	N14	12.013	N15	47.6	0.968	0.005	0.3031	
15 minute summer	N15	12.014	N16	47.9	0.932	0.005	0.9848	
15 minute summer	N16	12.015	N17	47.7	0.225	0.005	4.4924	
15 minute summer	N17	12.016	N18	46.1	0.702	0.005	1.3881	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	N18	16	63.307	0.107	46.1	0.0009	0.0000	OK
15 minute summer	KD9 OD	9	75.593	0.030	7.2	0.0085	0.0000	OK
15 minute summer	SW60	9	68.107	0.045	11.8	0.0127	0.0000	OK
15 minute summer	SW61	9	64.111	0.054	17.3	0.0153	0.0000	OK
15 minute summer	SW62	9	60.181	0.067	22.8	0.0191	0.0000	OK
15 minute summer	SW63	10	57.516	0.111	27.0	0.0314	0.0000	OK
15 minute summer	SW64	10	56.535	0.072	26.1	0.0203	0.0000	OK
15 minute summer	SW65	10	54.421	0.092	26.5	0.0261	0.0000	OK
15 minute summer	EX MH	10	52.363	0.123	100.9	0.0000	0.0000	OK
15 minute summer	EX HW	16	59.985	0.105	46.1	0.0000	0.0000	OK
15 minute summer	HW13	10	53.689	0.088	25.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	N18	12.017	EX HW	46.1	2.514	0.447	1.5631	27.5
15 minute summer	KD9 OD	16.000	SW60	7.2	2.152	0.089	0.1279	
15 minute summer	SW60	16.001	SW61	11.8	1.829	0.087	0.3867	
15 minute summer	SW61	16.002	SW62	17.0	1.976	0.127	0.5179	
15 minute summer	SW62	16.003	SW63	21.7	1.541	0.196	0.8618	
15 minute summer	SW63	16.004	SW64	25.2	1.667	0.434	1.1517	
15 minute summer	SW64	16.005	SW65	25.9	1.987	0.222	0.5594	
15 minute summer	SW65	16.006	HW13	25.6	1.723	0.330	0.4878	9.5

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Results for 30 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	EX MH1	8	78.770	1.760	81.8	1.5242	11.0905	FLOOD
15 minute summer	SW2	9	78.590	2.396	72.5	2.0749	0.6465	FLOOD
15 minute summer	SW3	9	77.855	2.138	158.3	1.8515	2.3324	FLOOD
15 minute summer	SW4	10	77.102	1.653	135.2	1.4311	0.0000	SURCHARGED
15 minute summer	SW5	10	76.613	0.518	21.7	0.4488	0.0000	SURCHARGED
15 minute summer	SW6	10	76.505	1.228	149.9	1.0639	0.0000	SURCHARGED
15 minute summer	EX MH2	9	76.802	0.062	7.0	0.0536	0.0000	OK
15 minute summer	SW8	9	76.468	0.100	19.5	0.0866	0.0000	OK
30 minute summer	SW9	19	76.289	0.438	25.1	0.3797	0.0000	SURCHARGED
30 minute summer	SW10	19	76.233	0.699	33.8	0.6052	0.0000	SURCHARGED
30 minute summer	SW11	19	76.132	1.049	154.6	0.9088	0.0000	SURCHARGED
15 minute summer	EX MH3	9	79.717	0.837	52.4	0.7245	0.0000	SURCHARGED
15 minute summer	EX MH4	9	79.128	0.578	79.2	0.5004	0.0000	SURCHARGED
15 minute summer	SW14	10	78.368	0.473	72.6	0.4095	0.0000	SURCHARGED
15 minute summer	SW15	10	77.953	0.211	124.4	0.1831	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	EX MH1	1.000	SW2	22.7	1.287	1.330	1.4157	
15 minute summer	SW2	1.001	SW3	51.0	1.281	1.286	2.7350	
15 minute summer	SW3	1.002	SW4	120.5	1.711	1.651	4.3366	
15 minute summer	SW4	1.003	SW6	132.5	1.881	1.816	2.7885	
15 minute summer	SW5	2.000	SW6	18.6	1.809	0.463	0.2325	
15 minute summer	SW6	1.004	SW11	146.6	2.082	1.702	1.3882	
15 minute summer	EX MH2	3.000	SW8	6.7	0.519	0.168	0.8190	
15 minute summer	SW8	3.001	SW9	16.1	0.867	0.406	2.4875	
30 minute summer	SW9	3.002	SW10	19.2	0.719	0.483	2.1369	
30 minute summer	SW10	3.003	SW11	23.5	0.743	0.592	2.0374	
30 minute summer	SW11	1.005	SW18	152.4	1.382	1.259	1.7007	
15 minute summer	EX MH3	4.000	EX MH4	42.0	1.056	1.255	3.1313	
15 minute summer	EX MH4	4.001	SW14	72.6	1.825	0.986	1.3055	
15 minute summer	SW14	4.002	SW15	73.1	1.838	1.812	0.5050	
15 minute summer	SW15	4.003	SW16	115.9	1.737	0.801	5.5570	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	10	76.992	0.772	149.1	0.6685	0.0000	SURCHARGED
15 minute summer	SW17	11	76.370	0.380	127.3	0.3291	0.0000	SURCHARGED
30 minute summer	SW18	19	76.021	0.995	256.2	1.1249	0.0000	SURCHARGED
60 minute summer	SW19	44	75.728	0.828	244.6	0.9368	0.0000	OK
15 minute summer	SW20	9	76.619	1.597	178.3	1.3829	0.0000	FLOOD RISK
15 minute summer	SW21	9	75.789	0.879	175.8	0.7610	0.0000	SURCHARGED
60 minute summer	N01	44	75.728	1.004	286.3	0.0000	0.0000	OK
60 minute summer	SW22	44	75.729	0.527	17.6	0.4564	0.0000	SURCHARGED
60 minute summer	N02	44	75.728	1.043	192.1	0.0000	0.0000	OK
15 minute summer	SW23	9	76.293	0.060	5.1	0.0675	0.0000	OK
15 minute summer	SW24	9	76.147	0.042	5.1	0.0475	0.0000	OK
60 minute summer	SW25	44	75.730	0.230	5.8	0.2596	0.0000	SURCHARGED
60 minute summer	SW26	44	75.729	0.469	9.7	0.5302	0.0000	SURCHARGED
60 minute summer	SW27	44	75.728	1.198	119.3	1.3554	0.0000	SURCHARGED
240 minute winter	SW28	236	74.733	0.263	86.7	0.2980	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	SW16	4.004	SW17	127.3	1.808	1.628	3.2473	
15 minute summer	SW17	4.005	SW18	117.9	1.674	0.556	1.8804	
30 minute summer	SW18	1.006	SW19	250.9	2.275	2.190	2.5318	
60 minute summer	SW19	1.007	N01	194.3	0.273	0.017	69.6268	
15 minute summer	SW20	5.000	SW21	175.8	2.496	2.406	1.8101	
15 minute summer	SW21	5.001	N01	173.2	2.460	2.469	1.0502	
60 minute summer	N01	1.008	N02	177.2	0.266	0.031	80.4333	
60 minute summer	SW22	6.000	N02	15.6	0.756	0.528	0.6328	
60 minute summer	N02	1.009	SW27	95.1	0.227	0.017	77.0646	
15 minute summer	SW23	7.000	SW24	5.1	0.977	0.298	0.0720	
15 minute summer	SW24	7.001	SW26	5.0	1.254	0.165	0.2586	
60 minute summer	SW25	8.000	SW26	5.7	0.877	0.318	0.2899	
60 minute summer	SW26	7.002	SW27	8.1	0.620	0.178	1.3603	
60 minute summer	SW27	1.010	SW28	102.0	2.209	0.888	0.8591	
240 minute winter	SW28	1.011	N03	86.6	0.266	0.025	90.6041	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	N03	236	74.734	0.734	86.6	411.7503	0.0000	FLOOD RISK
15 minute summer	SW29	9	75.412	0.170	29.4	0.1476	0.0000	SURCHARGED
15 minute summer	SW30	9	74.564	0.266	70.1	0.2304	0.0000	SURCHARGED
15 minute summer	SW31	9	73.952	0.364	68.1	0.3153	0.0000	SURCHARGED
60 minute summer	N04	38	73.556	0.406	48.7	17.6519	0.0000	SURCHARGED
60 minute summer	SW32	39	72.499	0.065	24.9	0.0734	0.0000	OK
15 minute summer	SW33	9	73.649	0.114	44.7	0.0987	0.0000	OK
15 minute summer	SW34	9	72.322	0.161	81.1	0.1398	0.0000	OK
15 minute summer	SW35	9	70.358	0.132	81.2	0.1146	0.0000	OK
15 minute summer	SW36	9	68.460	0.518	80.7	0.4486	0.0000	SURCHARGED
15 minute summer	SW37	9	67.941	0.141	129.7	0.2487	0.0000	OK
15 minute summer	SW38	9	64.698	0.148	151.8	0.1669	0.0000	OK
15 minute summer	SW39	9	61.567	0.167	176.6	0.1888	0.0000	OK
15 minute summer	SW40	9	58.641	0.184	207.5	0.2083	0.0000	OK
15 minute summer	SW41	9	73.652	0.087	22.4	0.0752	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	N03	1.012	N04	17.3	0.677	0.037	0.7244	
15 minute summer	SW29	9.000	SW30	25.7	1.792	0.938	0.6491	
15 minute summer	SW30	9.001	SW31	68.1	1.713	0.839	1.1657	
15 minute summer	SW31	9.002	N04	67.7	1.702	1.365	0.3774	
60 minute summer	N04	1.013	SW32	24.9	2.529	0.638	0.1474	
60 minute summer	SW32	1.014	SW37	24.9	2.078	0.104	1.7120	
15 minute summer	SW33	10.000	SW34	44.7	1.779	0.517	1.2664	
15 minute summer	SW34	10.001	SW35	81.2	2.958	0.790	1.3692	
15 minute summer	SW35	10.002	SW36	80.7	2.254	0.658	1.3292	
15 minute summer	SW36	10.003	SW37	75.0	1.887	2.021	0.5117	
15 minute summer	SW37	1.015	SW38	123.5	3.750	0.434	1.6735	
15 minute summer	SW38	1.016	SW39	147.2	3.998	0.470	1.4953	
15 minute summer	SW39	1.017	SW40	171.8	4.088	0.567	1.7128	
15 minute summer	SW40	1.018	SW49	202.5	4.207	0.665	2.0876	
15 minute summer	SW41	11.000	SW42	21.5	1.453	0.587	0.4998	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	10	72.981	0.911	48.3	0.7890	0.0000	SURCHARGED
15 minute summer	SW43	10	71.535	1.294	62.6	1.1207	0.0000	FLOOD RISK
15 minute summer	SW44	9	68.098	0.121	75.4	0.1044	0.0000	OK
15 minute summer	SW45	9	65.612	0.139	101.2	0.1203	0.0000	OK
15 minute summer	SW46	9	62.799	0.168	124.9	0.1451	0.0000	OK
15 minute summer	SW47	9	59.682	0.166	170.2	0.1439	0.0000	OK
15 minute summer	SW48	9	56.137	0.217	169.6	0.1876	0.0000	OK
15 minute summer	SW49	9	55.495	0.284	370.8	0.4065	0.0000	OK
15 minute summer	SW50	10	75.530	0.304	10.9	0.2636	0.0000	SURCHARGED
15 minute summer	SW51	10	75.488	0.369	21.5	0.3195	0.0000	SURCHARGED
15 minute summer	SW52	10	75.399	0.153	19.8	0.1329	0.0000	SURCHARGED
15 minute summer	SW53	9	75.286	0.386	53.5	0.3347	0.0000	SURCHARGED
15 minute summer	SW54	9	74.486	0.561	79.4	0.4855	0.0000	SURCHARGED
15 minute summer	SW55	9	74.051	1.144	157.0	0.9904	0.0000	FLOOD RISK
15 minute summer	N06	12	71.741	0.241	162.0	0.0019	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	SW42	11.001	SW43	35.8	2.057	0.916	0.6732	
15 minute summer	SW43	11.002	SW44	50.6	2.873	1.179	0.6703	
15 minute summer	SW44	11.003	SW45	75.0	3.176	0.554	0.8842	
15 minute summer	SW45	11.004	SW46	100.6	3.496	0.695	1.0638	
15 minute summer	SW46	11.005	SW47	123.6	4.047	0.834	1.1572	
15 minute summer	SW47	11.006	SW48	169.6	3.575	0.602	2.6698	
15 minute summer	SW48	11.007	SW49	168.4	3.195	0.687	0.7022	
15 minute summer	SW49	1.019	EX MH	360.4	4.279	0.848	5.6682	312.5
15 minute summer	SW50	12.000	SW51	10.0	0.712	0.646	0.2448	
15 minute summer	SW51	12.001	SW53	19.6	1.278	1.007	0.3232	
15 minute summer	SW52	13.000	SW53	18.9	1.262	0.651	0.2308	
15 minute summer	SW53	12.002	SW54	47.7	3.070	0.920	0.1888	
15 minute summer	SW54	12.003	SW55	76.8	1.936	0.629	0.7435	
15 minute summer	SW55	12.004	N06	150.5	3.785	1.260	0.6897	
15 minute summer	N06	12.005	N07	159.7	0.640	0.033	12.8827	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	74.579	0.123	17.3	0.1394	0.0000	OK
15 minute summer	SW57	9	74.260	0.121	47.1	0.1369	0.0000	OK
15 minute summer	SW58	9	74.207	0.101	15.3	0.1142	0.0000	OK
15 minute summer	SW59	9	73.722	0.113	71.8	0.1279	0.0000	OK
15 minute summer	N07	12	71.735	0.493	239.1	0.0039	0.0000	OK
15 minute summer	N08	12	71.738	0.738	159.0	0.0059	0.0000	FLOOD RISK
15 minute summer	N09	10	70.933	0.083	75.8	0.0007	0.0000	OK
15 minute summer	N10	10	70.301	0.451	81.1	0.0036	0.0000	OK
15 minute summer	N11	10	68.931	0.081	81.9	0.0006	0.0000	OK
15 minute summer	N12	11	68.313	0.463	85.6	0.0037	0.0000	OK
15 minute summer	N13	11	66.939	0.089	85.5	0.0007	0.0000	OK
30 minute summer	N14	19	66.670	0.470	86.9	0.0038	0.0000	OK
30 minute summer	N15	19	65.947	0.097	89.9	0.0008	0.0000	OK
30 minute summer	N16	19	64.954	0.104	92.2	0.0008	0.0000	OK
30 minute summer	N17	19	64.739	0.485	94.9	0.0039	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	SW56	14.000	SW57	17.2	1.144	0.939	0.3424	
15 minute summer	SW57	14.001	SW59	47.1	2.260	0.493	0.3297	
15 minute summer	SW58	15.000	SW59	15.1	1.225	0.755	0.4107	
15 minute summer	SW59	14.002	N07	71.7	3.768	0.447	0.3666	
15 minute summer	N07	12.006	N08	159.0	0.496	0.033	29.3464	
15 minute summer	N08	12.007	N09	71.8	2.298	1.790	0.6655	
15 minute summer	N09	12.008	N10	75.9	0.356	0.007	6.7255	
15 minute summer	N10	12.009	N11	78.4	1.279	0.007	0.8035	
15 minute summer	N11	12.010	N12	81.8	0.251	0.006	5.5141	
15 minute summer	N12	12.011	N13	83.9	1.252	0.007	0.9236	
15 minute summer	N13	12.012	N14	85.8	0.247	0.008	4.6824	
30 minute summer	N14	12.013	N15	86.8	1.136	0.008	0.4708	
30 minute summer	N15	12.014	N16	89.9	1.108	0.009	1.5559	
30 minute summer	N16	12.015	N17	92.3	0.228	0.010	7.3156	
30 minute summer	N17	12.016	N18	93.9	0.791	0.009	2.6136	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	N18	20	63.373	0.173	93.9	0.0014	0.0000	OK
15 minute summer	KD9 OD	9	75.622	0.059	26.2	0.0166	0.0000	OK
15 minute summer	SW60	9	68.149	0.087	42.8	0.0245	0.0000	OK
15 minute summer	SW61	9	64.165	0.108	63.3	0.0305	0.0000	OK
15 minute summer	SW62	9	60.258	0.144	84.1	0.0407	0.0000	OK
15 minute summer	SW63	10	58.222	0.817	102.1	0.2311	0.0000	FLOOD RISK
15 minute summer	SW64	10	56.588	0.125	71.1	0.0355	0.0000	OK
15 minute summer	SW65	10	54.513	0.184	72.5	0.0522	0.0000	OK
15 minute summer	EX MH	9	52.500	0.260	360.4	0.0000	0.0000	OK
30 minute summer	EX HW	20	60.046	0.166	93.5	0.0000	0.0000	OK
15 minute summer	HW13	11	53.770	0.169	71.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	N18	12.017	EX HW	93.5	2.914	0.908	2.7378	131.5
15 minute summer	KD9 OD	16.000	SW60	26.2	3.156	0.324	0.3120	
15 minute summer	SW60	16.001	SW61	42.8	2.606	0.317	0.9860	
15 minute summer	SW61	16.002	SW62	63.0	2.758	0.470	1.3688	
15 minute summer	SW62	16.003	SW63	82.9	2.259	0.747	1.9987	
15 minute summer	SW63	16.004	SW64	67.7	1.922	1.168	2.3696	
15 minute summer	SW64	16.005	SW65	70.6	2.422	0.604	1.2297	
15 minute summer	SW65	16.006	HW13	71.9	2.151	0.926	1.0955	35.0

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	EX MH1	7	78.770	1.760	81.2	1.5242	16.9551	FLOOD
15 minute summer	SW2	8	78.590	2.396	77.1	2.0749	3.1259	FLOOD
15 minute summer	SW3	8	77.855	2.138	185.0	1.8515	9.2971	FLOOD
30 minute summer	SW4	18	77.222	1.773	132.5	1.5356	0.0000	SURCHARGED
15 minute summer	SW5	10	76.861	0.766	27.2	0.6636	0.0000	SURCHARGED
30 minute summer	SW6	18	76.723	1.446	143.3	1.2519	0.0000	SURCHARGED
15 minute summer	EX MH2	9	76.810	0.070	8.8	0.0606	0.0000	OK
30 minute summer	SW8	20	76.515	0.147	19.1	0.1273	0.0000	OK
15 minute summer	SW9	11	76.516	0.666	49.7	0.5764	0.0000	SURCHARGED
30 minute summer	SW10	18	76.491	0.957	30.9	0.8285	0.0000	SURCHARGED
30 minute summer	SW11	19	76.387	1.304	159.6	1.1292	0.0000	SURCHARGED
15 minute summer	EX MH3	9	80.270	1.390	65.5	1.2037	1.2384	FLOOD
15 minute summer	EX MH4	10	79.770	1.220	91.7	1.0566	0.0000	FLOOD RISK
15 minute summer	SW14	10	79.076	1.181	84.1	1.0226	0.0000	SURCHARGED
15 minute summer	SW15	10	78.722	0.980	134.5	0.8487	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	EX MH1	1.000	SW2	22.5	1.280	1.323	1.4157	
15 minute summer	SW2	1.001	SW3	51.0	1.282	1.287	2.7350	
15 minute summer	SW3	1.002	SW4	126.8	1.801	1.737	4.3366	
30 minute summer	SW4	1.003	SW6	127.7	1.814	1.752	2.7885	
15 minute summer	SW5	2.000	SW6	22.1	1.728	0.549	0.2325	
30 minute summer	SW6	1.004	SW11	138.3	1.965	1.606	1.3882	
15 minute summer	EX MH2	3.000	SW8	8.5	0.551	0.213	0.9771	
30 minute summer	SW8	3.001	SW9	17.4	0.789	0.437	2.9588	
15 minute summer	SW9	3.002	SW10	22.0	0.671	0.554	2.1369	
30 minute summer	SW10	3.003	SW11	25.1	0.753	0.632	2.0374	
30 minute summer	SW11	1.005	SW18	154.5	1.401	1.276	1.7007	
15 minute summer	EX MH3	4.000	EX MH4	44.7	1.124	1.335	3.1313	
15 minute summer	EX MH4	4.001	SW14	84.1	2.115	1.142	1.3055	
15 minute summer	SW14	4.002	SW15	76.4	1.922	1.894	0.5120	
15 minute summer	SW15	4.003	SW16	120.2	1.741	0.830	6.3377	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	10	77.623	1.403	161.7	1.2147	0.0000	SURCHARGED
15 minute summer	SW17	10	76.737	0.747	145.7	0.6470	0.0000	SURCHARGED
30 minute summer	SW18	19	76.257	1.231	280.3	1.3918	0.0000	SURCHARGED
60 minute winter	SW19	47	75.914	1.014	226.7	1.1463	0.0000	OK
15 minute summer	SW20	8	76.817	1.795	222.7	1.5545	4.0996	FLOOD
30 minute summer	SW21	17	75.955	1.045	169.7	0.9048	0.0000	SURCHARGED
60 minute winter	N01	47	75.914	1.190	266.1	0.0000	0.0000	OK
60 minute winter	SW22	47	75.914	0.712	14.6	0.6169	0.0000	SURCHARGED
60 minute winter	N02	47	75.914	1.229	180.6	0.0000	0.0000	OK
15 minute summer	SW23	9	76.301	0.068	6.4	0.0764	0.0000	OK
15 minute summer	SW24	9	76.152	0.047	6.4	0.0537	0.0000	OK
60 minute winter	SW25	47	75.916	0.416	4.8	0.4702	0.0000	SURCHARGED
60 minute winter	SW26	47	75.915	0.655	7.6	0.7405	0.0000	SURCHARGED
60 minute winter	SW27	47	75.914	1.384	117.2	1.5649	0.0000	SURCHARGED
360 minute winter	SW28	344	74.874	0.404	87.9	0.4564	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	SW16	4.004	SW17	145.7	2.074	1.863	3.2473	
15 minute summer	SW17	4.005	SW18	141.7	2.012	0.668	1.8804	
30 minute summer	SW18	1.006	SW19	278.8	2.528	2.434	2.5318	
60 minute winter	SW19	1.007	N01	182.0	0.304	0.015	95.9283	
15 minute summer	SW20	5.000	SW21	193.9	2.753	2.654	1.8101	
30 minute summer	SW21	5.001	N01	165.6	2.353	2.361	1.0502	
60 minute winter	N01	1.008	N02	167.0	0.288	0.030	107.9341	
60 minute winter	SW22	6.000	N02	13.7	0.702	0.465	0.6328	
60 minute winter	N02	1.009	SW27	102.8	0.223	0.018	102.5402	
15 minute summer	SW23	7.000	SW24	6.4	1.035	0.373	0.0851	
15 minute summer	SW24	7.001	SW26	6.3	1.338	0.209	0.2730	
60 minute winter	SW25	8.000	SW26	4.8	0.812	0.269	0.2899	
60 minute winter	SW26	7.002	SW27	6.6	0.617	0.145	1.3603	
60 minute winter	SW27	1.010	SW28	111.0	2.250	0.966	1.1050	
360 minute winter	SW28	1.011	N03	83.1	0.229	0.024	118.3429	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	N03	344	74.874	0.874	83.1	523.6715	0.0000	FLOOD RISK
15 minute summer	SW29	9	76.059	0.817	36.8	0.7074	0.0000	SURCHARGED
15 minute summer	SW30	9	74.935	0.637	84.6	0.5517	0.0000	SURCHARGED
15 minute summer	SW31	9	74.061	0.473	81.7	0.4093	0.0000	SURCHARGED
60 minute summer	N04	39	73.619	0.469	59.4	22.9222	0.0000	SURCHARGED
60 minute summer	SW32	39	72.502	0.068	27.6	0.0772	0.0000	OK
15 minute summer	SW33	9	73.666	0.131	55.9	0.1132	0.0000	OK
15 minute summer	SW34	9	72.363	0.202	101.3	0.1748	0.0000	OK
15 minute summer	SW35	9	70.389	0.163	101.2	0.1414	0.0000	OK
15 minute summer	SW36	10	68.681	0.739	97.9	0.6403	0.0000	SURCHARGED
15 minute summer	SW37	9	67.959	0.159	157.4	0.2813	0.0000	OK
15 minute summer	SW38	9	64.718	0.168	187.1	0.1906	0.0000	OK
15 minute summer	SW39	9	61.595	0.195	219.4	0.2201	0.0000	OK
15 minute summer	SW40	9	58.668	0.211	258.7	0.2388	0.0000	OK
15 minute summer	SW41	10	73.953	0.388	28.0	0.3359	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	N03	1.012	N04	18.9	0.621	0.041	0.8050	
15 minute summer	SW29	9.000	SW30	31.4	1.783	1.146	0.6491	
15 minute summer	SW30	9.001	SW31	81.7	2.054	1.006	1.1657	
15 minute summer	SW31	9.002	N04	80.8	2.031	1.629	0.3805	
60 minute summer	N04	1.013	SW32	27.6	2.577	0.706	0.1595	
60 minute summer	SW32	1.014	SW37	27.5	2.173	0.115	1.9369	
15 minute summer	SW33	10.000	SW34	55.9	1.852	0.646	1.5370	
15 minute summer	SW34	10.001	SW35	101.2	2.976	0.985	1.7111	
15 minute summer	SW35	10.002	SW36	97.9	2.572	0.799	1.4660	
15 minute summer	SW36	10.003	SW37	96.1	2.417	2.587	0.5127	
15 minute summer	SW37	1.015	SW38	151.4	3.926	0.532	1.9672	
15 minute summer	SW38	1.016	SW39	182.7	4.168	0.583	1.7814	
15 minute summer	SW39	1.017	SW40	214.0	4.277	0.706	2.0266	
15 minute summer	SW40	1.018	SW49	257.5	4.154	0.846	2.6347	
15 minute summer	SW41	11.000	SW42	26.1	1.608	0.711	0.6247	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	9	73.420	1.350	59.7	1.1691	1.1407	FLOOD
15 minute summer	SW43	9	71.591	1.350	69.8	1.1691	1.4404	FLOOD
15 minute summer	SW44	9	68.105	0.128	83.7	0.1113	0.0000	OK
15 minute summer	SW45	9	65.626	0.153	116.5	0.1321	0.0000	OK
15 minute summer	SW46	9	62.827	0.196	146.8	0.1698	0.0000	OK
15 minute summer	SW47	9	59.705	0.189	207.7	0.1640	0.0000	OK
15 minute summer	SW48	10	56.318	0.398	207.5	0.3444	0.0000	SURCHARGED
15 minute summer	SW49	10	55.864	0.653	457.4	0.9345	0.0000	SURCHARGED
15 minute summer	SW50	10	76.089	0.863	13.6	0.7472	0.0000	SURCHARGED
15 minute summer	SW51	10	76.049	0.930	21.7	0.8057	0.0000	SURCHARGED
15 minute summer	SW52	10	75.996	0.750	24.8	0.6494	0.0000	SURCHARGED
15 minute summer	SW53	10	75.834	0.934	55.7	0.8089	0.0000	SURCHARGED
15 minute summer	SW54	9	74.910	0.985	84.0	0.8526	0.0000	SURCHARGED
15 minute summer	SW55	9	74.332	1.425	185.5	1.2341	1.4012	FLOOD
30 minute summer	N06	21	71.840	0.340	158.0	0.0027	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	SW42	11.001	SW43	36.3	2.127	0.929	0.6732	
15 minute summer	SW43	11.002	SW44	51.0	2.895	1.188	0.6700	
15 minute summer	SW44	11.003	SW45	83.7	3.213	0.618	0.9720	
15 minute summer	SW45	11.004	SW46	116.4	3.527	0.804	1.2115	
15 minute summer	SW46	11.005	SW47	149.5	4.072	1.010	1.4506	
15 minute summer	SW47	11.006	SW48	207.5	3.643	0.737	3.1728	
15 minute summer	SW48	11.007	SW49	199.8	3.233	0.815	0.9253	
15 minute summer	SW49	1.019	EX MH	411.2	4.061	0.967	6.6822	364.5
15 minute summer	SW50	12.000	SW51	10.9	0.681	0.703	0.2448	
15 minute summer	SW51	12.001	SW53	22.6	1.282	1.163	0.3232	
15 minute summer	SW52	13.000	SW53	20.5	1.257	0.707	0.2308	
15 minute summer	SW53	12.002	SW54	55.2	3.137	1.065	0.1888	
15 minute summer	SW54	12.003	SW55	83.8	2.324	0.687	0.7435	
15 minute summer	SW55	12.004	N06	162.0	4.073	1.355	0.6889	
30 minute summer	N06	12.005	N07	153.2	0.599	0.031	19.1518	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	74.664	0.208	21.6	0.2347	0.0000	SURCHARGED
15 minute summer	SW57	9	74.278	0.139	57.8	0.1568	0.0000	OK
15 minute summer	SW58	9	74.228	0.122	19.2	0.1381	0.0000	OK
15 minute summer	SW59	9	73.738	0.129	88.6	0.1463	0.0000	OK
30 minute summer	N07	21	71.840	0.598	229.0	0.0048	0.0000	OK
30 minute summer	N08	21	71.841	0.841	143.5	0.0067	0.0000	FLOOD RISK
15 minute summer	N09	9	70.936	0.086	82.4	0.0007	0.0000	OK
15 minute summer	N10	10	70.318	0.468	89.3	0.0037	0.0000	OK
15 minute summer	N11	10	68.936	0.086	90.6	0.0007	0.0000	OK
15 minute summer	N12	10	68.334	0.484	95.5	0.0039	0.0000	OK
15 minute summer	N13	10	66.945	0.095	97.1	0.0008	0.0000	OK
15 minute summer	N14	11	66.693	0.493	99.0	0.0039	0.0000	OK
15 minute summer	N15	11	65.954	0.104	101.2	0.0008	0.0000	OK
15 minute summer	N16	11	64.961	0.111	104.1	0.0009	0.0000	OK
30 minute summer	N17	19	64.767	0.513	109.1	0.0041	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	SW56	14.000	SW57	20.3	1.156	1.109	0.3863	
15 minute summer	SW57	14.001	SW59	57.7	2.343	0.604	0.3894	
15 minute summer	SW58	15.000	SW59	18.9	1.262	0.942	0.4974	
15 minute summer	SW59	14.002	N07	88.2	3.942	0.550	0.4310	
30 minute summer	N07	12.006	N08	143.5	0.447	0.030	38.5621	
30 minute summer	N08	12.007	N09	76.7	2.433	1.914	0.6742	
15 minute summer	N09	12.008	N10	81.3	0.356	0.007	7.1681	
15 minute summer	N10	12.009	N11	85.9	1.306	0.007	0.8609	
15 minute summer	N11	12.010	N12	90.8	0.272	0.007	5.9605	
15 minute summer	N12	12.011	N13	93.3	1.285	0.008	1.0020	
15 minute summer	N13	12.012	N14	96.6	0.245	0.009	5.1148	
15 minute summer	N14	12.013	N15	97.9	1.173	0.009	0.5140	
15 minute summer	N15	12.014	N16	101.6	1.148	0.010	1.6990	
15 minute summer	N16	12.015	N17	104.7	0.260	0.012	7.8748	
30 minute summer	N17	12.016	N18	107.8	0.801	0.011	2.9942	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	N18	20	63.391	0.191	107.8	0.0015	0.0000	OK
15 minute summer	KD9 OD	9	75.629	0.066	32.8	0.0188	0.0000	OK
15 minute summer	SW60	9	68.160	0.098	53.6	0.0277	0.0000	OK
15 minute summer	SW61	9	64.180	0.123	79.1	0.0349	0.0000	OK
15 minute summer	SW62	9	60.299	0.185	105.3	0.0525	0.0000	OK
15 minute summer	SW63	9	58.230	0.825	122.5	0.2335	5.4268	FLOOD
15 minute summer	SW64	10	56.591	0.128	75.2	0.0363	0.0000	OK
15 minute summer	SW65	10	54.527	0.198	76.8	0.0561	0.0000	OK
15 minute summer	EX MH	10	52.530	0.290	411.2	0.0000	0.0000	OK
30 minute winter	EX HW	20	60.108	0.228	103.7	0.0000	0.0000	OK
15 minute summer	HW13	10	53.814	0.213	77.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	N18	12.017	EX HW	106.8	2.922	1.037	3.2308	164.4
15 minute summer	KD9 OD	16.000	SW60	32.8	3.371	0.406	0.3636	
15 minute summer	SW60	16.001	SW61	53.6	2.763	0.397	1.1660	
15 minute summer	SW61	16.002	SW62	78.9	2.863	0.589	1.7192	
15 minute summer	SW62	16.003	SW63	98.5	2.509	0.888	2.2447	
15 minute summer	SW63	16.004	SW64	68.3	1.985	1.178	2.3933	
15 minute summer	SW64	16.005	SW65	73.2	2.435	0.627	1.2914	
15 minute summer	SW65	16.006	HW13	77.1	2.151	0.992	1.2468	39.8

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Results for 100 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	EX MH1	14	78.770	1.760	85.2	1.5242	19.1629	FLOOD
15 minute summer	SW2	8	78.590	2.396	79.1	2.0749	3.3780	FLOOD
15 minute summer	SW3	8	77.855	2.138	190.6	1.8515	10.6235	FLOOD
30 minute summer	SW4	18	77.260	1.811	137.9	1.5684	0.0000	SURCHARGED
15 minute summer	SW5	10	76.926	0.831	28.3	0.7194	0.0000	SURCHARGED
30 minute summer	SW6	18	76.780	1.503	142.6	1.3012	0.0000	SURCHARGED
15 minute summer	EX MH2	9	76.812	0.072	9.2	0.0620	0.0000	OK
30 minute summer	SW8	20	76.556	0.188	19.9	0.1631	0.0000	OK
30 minute summer	SW9	18	76.557	0.707	39.3	0.6126	0.0000	SURCHARGED
30 minute summer	SW10	18	76.526	0.992	34.6	0.8592	0.0000	SURCHARGED
30 minute summer	SW11	18	76.435	1.352	160.3	1.1708	0.0000	SURCHARGED
15 minute summer	EX MH3	9	80.270	1.390	68.2	1.2037	1.8190	FLOOD
15 minute summer	EX MH4	10	79.840	1.290	90.5	1.1171	0.0000	FLOOD RISK
15 minute summer	SW14	10	79.176	1.281	81.5	1.1090	0.0000	SURCHARGED
15 minute summer	SW15	10	78.836	1.094	137.6	0.9474	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	EX MH1	1.000	SW2	23.7	1.347	1.392	1.4157	
15 minute summer	SW2	1.001	SW3	51.0	1.282	1.287	2.7350	
15 minute summer	SW3	1.002	SW4	123.4	1.753	1.690	4.3366	
30 minute summer	SW4	1.003	SW6	126.8	1.801	1.739	2.7885	
15 minute summer	SW5	2.000	SW6	22.9	1.729	0.570	0.2325	
30 minute summer	SW6	1.004	SW11	138.4	1.966	1.607	1.3882	
15 minute summer	EX MH2	3.000	SW8	8.8	0.557	0.223	1.1548	
30 minute summer	SW8	3.001	SW9	18.2	0.798	0.457	3.3128	
30 minute summer	SW9	3.002	SW10	21.4	0.714	0.539	2.1369	
30 minute summer	SW10	3.003	SW11	25.2	0.745	0.634	2.0374	
30 minute summer	SW11	1.005	SW18	156.7	1.421	1.294	1.7007	
15 minute summer	EX MH3	4.000	EX MH4	41.5	1.043	1.239	3.1313	
15 minute summer	EX MH4	4.001	SW14	81.5	2.050	1.107	1.3055	
15 minute summer	SW14	4.002	SW15	76.6	1.926	1.899	0.5120	
15 minute summer	SW15	4.003	SW16	122.5	1.770	0.846	6.3377	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	10	77.726	1.506	165.7	1.3042	0.0000	FLOOD RISK
15 minute summer	SW17	10	76.809	0.819	146.4	0.7091	0.0000	SURCHARGED
30 minute summer	SW18	19	76.304	1.278	288.3	1.4459	0.0000	SURCHARGED
60 minute winter	SW19	47	75.965	1.065	233.6	1.2040	0.0000	OK
15 minute summer	SW20	8	76.817	1.795	232.0	1.5545	5.3753	FLOOD
30 minute summer	SW21	17	76.026	1.116	177.0	0.9669	0.0000	SURCHARGED
60 minute winter	N01	47	75.965	1.241	275.5	0.0000	0.0000	OK
60 minute winter	SW22	48	75.965	0.763	15.4	0.6612	0.0000	SURCHARGED
60 minute winter	N02	47	75.965	1.280	185.3	0.0000	0.0000	OK
15 minute summer	SW23	9	76.302	0.069	6.7	0.0784	0.0000	OK
15 minute summer	SW24	9	76.154	0.049	6.7	0.0550	0.0000	OK
60 minute winter	SW25	48	75.966	0.466	5.1	0.5267	0.0000	SURCHARGED
60 minute winter	SW26	48	75.965	0.705	7.9	0.7975	0.0000	SURCHARGED
60 minute winter	SW27	47	75.965	1.435	119.3	1.6225	0.0000	SURCHARGED
360 minute winter	SW28	352	74.926	0.456	91.1	0.5161	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	SW16	4.004	SW17	146.4	2.079	1.872	3.2473	
15 minute summer	SW17	4.005	SW18	145.0	2.060	0.684	1.8804	
30 minute summer	SW18	1.006	SW19	287.3	2.605	2.508	2.5318	
60 minute winter	SW19	1.007	N01	186.0	0.309	0.016	103.8926	
15 minute summer	SW20	5.000	SW21	191.7	2.723	2.625	1.8101	
30 minute summer	SW21	5.001	N01	173.6	2.465	2.474	1.0502	
60 minute winter	N01	1.008	N02	170.8	0.291	0.030	116.1841	
60 minute winter	SW22	6.000	N02	14.5	0.693	0.491	0.6328	
60 minute winter	N02	1.009	SW27	105.3	0.234	0.019	110.1613	
15 minute summer	SW23	7.000	SW24	6.7	1.047	0.390	0.0880	
15 minute summer	SW24	7.001	SW26	6.6	1.355	0.219	0.2803	
60 minute winter	SW25	8.000	SW26	5.0	0.809	0.279	0.2899	
60 minute winter	SW26	7.002	SW27	6.2	0.608	0.138	1.3603	
60 minute winter	SW27	1.010	SW28	113.3	2.260	0.987	1.2094	
360 minute winter	SW28	1.011	N03	84.8	0.225	0.025	118.3429	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	N03	344	74.927	0.927	84.8	568.0438	0.0000	FLOOD RISK
15 minute summer	SW29	9	76.189	0.947	38.2	0.8201	0.0000	SURCHARGED
15 minute summer	SW30	9	75.016	0.718	87.6	0.6215	0.0000	SURCHARGED
15 minute summer	SW31	9	74.083	0.495	84.3	0.4288	0.0000	SURCHARGED
60 minute summer	N04	39	73.636	0.486	62.2	24.4731	0.0000	SURCHARGED
60 minute summer	SW32	40	72.503	0.069	28.2	0.0782	0.0000	OK
15 minute summer	SW33	9	73.669	0.134	58.2	0.1163	0.0000	OK
15 minute summer	SW34	9	72.386	0.225	105.7	0.1946	0.0000	OK
15 minute summer	SW35	9	70.394	0.168	100.8	0.1452	0.0000	OK
15 minute summer	SW36	10	68.711	0.769	99.8	0.6663	0.0000	SURCHARGED
15 minute summer	SW37	9	67.963	0.163	162.3	0.2872	0.0000	OK
15 minute summer	SW38	9	64.722	0.172	193.8	0.1950	0.0000	OK
15 minute summer	SW39	9	61.600	0.200	227.8	0.2266	0.0000	OK
15 minute summer	SW40	9	58.675	0.218	269.0	0.2463	0.0000	OK
15 minute summer	SW41	10	74.024	0.459	29.0	0.3976	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	N03	1.012	N04	19.5	0.599	0.042	0.8334	
15 minute summer	SW29	9.000	SW30	32.3	1.835	1.180	0.6491	
15 minute summer	SW30	9.001	SW31	84.3	2.121	1.039	1.1657	
15 minute summer	SW31	9.002	N04	83.3	2.095	1.681	0.3805	
60 minute summer	N04	1.013	SW32	28.2	2.587	0.723	0.1626	
60 minute summer	SW32	1.014	SW37	28.2	2.196	0.118	1.9973	
15 minute summer	SW33	10.000	SW34	58.3	1.863	0.674	1.6107	
15 minute summer	SW34	10.001	SW35	100.8	2.983	0.981	1.7868	
15 minute summer	SW35	10.002	SW36	99.8	2.601	0.814	1.4841	
15 minute summer	SW36	10.003	SW37	97.8	2.459	2.633	0.5127	
15 minute summer	SW37	1.015	SW38	155.6	3.928	0.546	2.0214	
15 minute summer	SW38	1.016	SW39	189.6	4.199	0.605	1.8378	
15 minute summer	SW39	1.017	SW40	222.5	4.245	0.734	2.0957	
15 minute summer	SW40	1.018	SW49	261.4	4.157	0.859	2.6732	
15 minute summer	SW41	11.000	SW42	26.4	1.608	0.719	0.6247	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	9	73.420	1.350	61.3	1.1691	1.4516	FLOOD
15 minute summer	SW43	9	71.591	1.350	71.3	1.1691	1.5725	FLOOD
15 minute summer	SW44	9	68.107	0.130	85.0	0.1123	0.0000	OK
15 minute summer	SW45	9	65.628	0.155	119.1	0.1342	0.0000	OK
15 minute summer	SW46	9	62.834	0.203	150.7	0.1757	0.0000	OK
15 minute summer	SW47	9	59.708	0.192	211.7	0.1662	0.0000	OK
15 minute summer	SW48	10	56.480	0.560	211.7	0.4846	0.0000	SURCHARGED
15 minute summer	SW49	10	55.994	0.783	441.9	1.1201	0.0000	SURCHARGED
15 minute summer	SW50	10	76.193	0.967	14.2	0.8374	0.0000	SURCHARGED
15 minute summer	SW51	10	76.152	1.033	20.6	0.8945	0.0000	SURCHARGED
15 minute summer	SW52	10	76.100	0.854	25.8	0.7400	0.0000	SURCHARGED
15 minute summer	SW53	10	75.932	1.032	53.7	0.8936	0.0000	SURCHARGED
15 minute summer	SW54	9	74.946	1.021	84.7	0.8842	0.0000	SURCHARGED
15 minute summer	SW55	9	74.332	1.425	192.4	1.2341	1.8246	FLOOD
30 minute summer	N06	21	71.861	0.361	163.1	0.0029	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	SW42	11.001	SW43	36.3	2.130	0.929	0.6732	
15 minute summer	SW43	11.002	SW44	51.0	2.895	1.188	0.6694	
15 minute summer	SW44	11.003	SW45	85.0	3.214	0.628	0.9864	
15 minute summer	SW45	11.004	SW46	119.2	3.532	0.823	1.2392	
15 minute summer	SW46	11.005	SW47	151.0	4.078	1.019	1.4690	
15 minute summer	SW47	11.006	SW48	211.7	3.644	0.752	3.3337	
15 minute summer	SW48	11.007	SW49	180.5	3.219	0.736	0.9253	
15 minute summer	SW49	1.019	EX MH	428.3	4.087	1.007	7.3094	372.1
15 minute summer	SW50	12.000	SW51	11.1	0.688	0.712	0.2448	
15 minute summer	SW51	12.001	SW53	22.6	1.286	1.166	0.3232	
15 minute summer	SW52	13.000	SW53	18.5	1.265	0.638	0.2308	
15 minute summer	SW53	12.002	SW54	57.0	3.237	1.099	0.1888	
15 minute summer	SW54	12.003	SW55	83.7	2.213	0.686	0.7435	
15 minute summer	SW55	12.004	N06	162.0	4.073	1.355	0.6865	
30 minute summer	N06	12.005	N07	158.0	0.606	0.032	20.8336	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	74.691	0.235	22.5	0.2657	0.0000	SURCHARGED
15 minute summer	SW57	9	74.281	0.142	60.1	0.1611	0.0000	OK
15 minute summer	SW58	9	74.233	0.127	20.0	0.1440	0.0000	OK
15 minute summer	SW59	9	73.742	0.133	92.1	0.1502	0.0000	OK
30 minute summer	N07	21	71.867	0.625	237.6	0.0050	0.0000	OK
30 minute summer	N08	21	71.868	0.868	131.5	0.0069	0.0000	FLOOD RISK
15 minute summer	N09	9	70.937	0.087	83.6	0.0007	0.0000	OK
15 minute summer	N10	10	70.321	0.471	90.9	0.0038	0.0000	OK
15 minute summer	N11	10	68.937	0.087	92.2	0.0007	0.0000	OK
15 minute summer	N12	10	68.339	0.489	97.4	0.0039	0.0000	OK
15 minute summer	N13	10	66.946	0.096	99.3	0.0008	0.0000	OK
15 minute summer	N14	11	66.697	0.497	101.4	0.0040	0.0000	OK
30 minute summer	N15	18	65.955	0.105	104.3	0.0008	0.0000	OK
30 minute summer	N16	18	64.963	0.113	108.3	0.0009	0.0000	OK
30 minute summer	N17	19	64.773	0.519	112.6	0.0042	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	SW56	14.000	SW57	21.0	1.198	1.152	0.3887	
15 minute summer	SW57	14.001	SW59	60.0	2.358	0.628	0.4022	
15 minute summer	SW58	15.000	SW59	19.6	1.260	0.981	0.5320	
15 minute summer	SW59	14.002	N07	91.8	3.974	0.572	0.4446	
30 minute summer	N07	12.006	N08	131.5	0.455	0.027	41.1622	
30 minute summer	N08	12.007	N09	78.0	2.466	1.945	0.6762	
15 minute summer	N09	12.008	N10	82.6	0.356	0.007	7.2456	
15 minute summer	N10	12.009	N11	87.3	1.311	0.007	0.8713	
15 minute summer	N11	12.010	N12	92.5	0.279	0.007	6.0539	
15 minute summer	N12	12.011	N13	95.4	1.290	0.008	1.0188	
15 minute summer	N13	12.012	N14	98.9	0.246	0.009	5.1920	
15 minute summer	N14	12.013	N15	100.0	1.180	0.010	0.5223	
30 minute summer	N15	12.014	N16	104.0	1.154	0.010	1.7335	
30 minute summer	N16	12.015	N17	107.9	0.238	0.012	8.2353	
30 minute summer	N17	12.016	N18	111.2	0.799	0.011	3.1980	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	N18	20	63.402	0.202	111.2	0.0016	0.0000	OK
15 minute summer	KD9 OD	9	75.631	0.068	34.0	0.0192	0.0000	OK
15 minute summer	SW60	9	68.162	0.100	55.8	0.0284	0.0000	OK
15 minute summer	SW61	9	64.184	0.127	82.3	0.0358	0.0000	OK
15 minute summer	SW62	10	60.331	0.217	109.6	0.0615	0.0000	OK
15 minute summer	SW63	9	58.230	0.825	126.5	0.2335	5.9124	FLOOD
15 minute summer	SW64	9	56.592	0.129	75.7	0.0366	0.0000	OK
15 minute summer	SW65	10	54.530	0.201	78.2	0.0570	0.0000	OK
15 minute summer	EX MH	10	52.619	0.379	428.3	0.0000	0.0000	OK
15 minute winter	EX HW	14	60.108	0.228	106.3	0.0000	0.0000	OK
15 minute summer	HW13	10	53.814	0.213	77.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	N18	12.017	EX HW	109.0	2.924	1.058	3.2978	172.8
15 minute summer	KD9 OD	16.000	SW60	34.1	3.413	0.422	0.3735	
15 minute summer	SW60	16.001	SW61	55.8	2.794	0.413	1.2016	
15 minute summer	SW61	16.002	SW62	82.1	2.889	0.613	1.8079	
15 minute summer	SW62	16.003	SW63	101.5	2.556	0.915	2.3721	
15 minute summer	SW63	16.004	SW64	68.3	1.985	1.178	2.4027	
15 minute summer	SW64	16.005	SW65	74.0	2.427	0.633	1.3016	
15 minute summer	SW65	16.006	HW13	77.6	2.151	0.999	1.2541	40.7

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	EX MH1	13	78.770	1.760	74.8	1.5242	27.1349	FLOOD
15 minute summer	SW2	8	78.590	2.396	95.3	2.0749	5.8373	FLOOD
15 minute summer	SW3	8	77.855	2.138	225.4	1.8515	18.4878	FLOOD
30 minute summer	SW4	17	77.381	1.932	132.6	1.6735	0.0000	FLOOD RISK
15 minute summer	SW5	9	77.301	1.206	35.3	1.0447	0.0000	FLOOD RISK
30 minute summer	SW6	18	76.950	1.673	145.6	1.4484	0.0000	SURCHARGED
30 minute summer	EX MH2	20	76.881	0.141	10.1	0.1225	0.0000	OK
30 minute summer	SW8	20	76.863	0.495	31.0	0.4286	0.0000	SURCHARGED
30 minute summer	SW9	19	76.835	0.985	45.5	0.8530	0.0000	SURCHARGED
30 minute summer	SW10	19	76.796	1.262	29.8	1.0929	0.0000	SURCHARGED
30 minute summer	SW11	19	76.644	1.561	160.0	1.3518	0.0000	SURCHARGED
15 minute summer	EX MH3	8	80.270	1.390	85.2	1.2037	6.0937	FLOOD
15 minute summer	EX MH4	9	79.850	1.300	108.3	1.1258	3.5944	FLOOD
15 minute summer	SW14	9	79.489	1.594	85.9	1.3808	0.0000	FLOOD RISK
15 minute summer	SW15	9	79.355	1.613	164.6	1.3965	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	EX MH1	1.000	SW2	23.5	1.334	1.378	1.4157	
15 minute summer	SW2	1.001	SW3	51.0	1.282	1.287	2.7350	
15 minute summer	SW3	1.002	SW4	114.9	1.632	1.574	4.3366	
30 minute summer	SW4	1.003	SW6	128.8	1.829	1.766	2.7885	
15 minute summer	SW5	2.000	SW6	29.1	1.665	0.725	0.2325	
30 minute summer	SW6	1.004	SW11	139.5	1.981	1.619	1.3882	
30 minute summer	EX MH2	3.000	SW8	8.6	0.549	0.217	2.0905	
30 minute summer	SW8	3.001	SW9	20.7	0.790	0.522	3.5006	
30 minute summer	SW9	3.002	SW10	19.7	0.699	0.495	2.1369	
30 minute summer	SW10	3.003	SW11	27.4	0.725	0.689	2.0374	
30 minute summer	SW11	1.005	SW18	157.6	1.429	1.301	1.7007	
15 minute summer	EX MH3	4.000	EX MH4	47.0	1.183	1.405	3.1313	
15 minute summer	EX MH4	4.001	SW14	85.9	2.160	1.166	1.3055	
15 minute summer	SW14	4.002	SW15	76.3	1.918	1.891	0.5120	
15 minute summer	SW15	4.003	SW16	126.2	1.793	0.872	6.3377	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	9	78.000	1.780	180.1	1.5415	1.5325	FLOOD
30 minute summer	SW17	18	77.057	1.066	148.7	0.9236	0.0000	SURCHARGED
30 minute summer	SW18	19	76.507	1.481	314.2	1.6745	0.0000	SURCHARGED
60 minute winter	SW19	45	76.133	1.233	279.8	1.3946	0.0000	OK
15 minute summer	SW20	8	76.817	1.795	289.7	1.5545	13.2068	FLOOD
30 minute summer	SW21	18	76.175	1.265	177.3	1.0958	0.0000	SURCHARGED
120 minute summer	N01	74	76.131	1.407	309.1	0.0000	0.0000	OK
180 minute summer	SW22	116	76.155	0.953	13.9	0.8255	0.0000	SURCHARGED
60 minute winter	N02	44	76.133	1.448	470.4	0.0000	0.0000	OK
15 minute summer	SW23	9	76.311	0.078	8.3	0.0888	0.0000	OK
15 minute summer	SW24	9	76.159	0.054	8.3	0.0609	0.0000	OK
60 minute summer	SW25	44	76.151	0.651	9.5	0.7367	0.0000	SURCHARGED
60 minute winter	SW26	44	76.143	0.883	9.1	0.9988	0.0000	SURCHARGED
180 minute summer	SW27	108	76.102	1.572	1158.9	1.7784	38.8120	FLOOD
360 minute summer	SW28	280	75.001	0.531	113.3	0.6009	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	SW16	4.004	SW17	157.1	2.231	2.009	3.2473	
30 minute summer	SW17	4.005	SW18	147.3	2.092	0.695	1.8804	
30 minute summer	SW18	1.006	SW19	311.6	2.826	2.721	2.5318	
60 minute winter	SW19	1.007	N01	271.1	0.327	0.023	132.0809	
15 minute summer	SW20	5.000	SW21	187.2	2.659	2.563	1.8101	
30 minute summer	SW21	5.001	N01	176.7	2.510	2.519	1.0502	
120 minute summer	N01	1.008	N02	238.6	0.260	0.042	144.5100	
180 minute summer	SW22	6.000	N02	13.2	0.617	0.448	0.6328	
60 minute winter	N02	1.009	SW27	304.9	0.225	0.054	133.3559	
15 minute summer	SW23	7.000	SW24	8.3	1.109	0.483	0.1023	
15 minute summer	SW24	7.001	SW26	8.3	1.320	0.276	0.2988	
60 minute summer	SW25	8.000	SW26	7.7	0.860	0.432	0.2899	
60 minute winter	SW26	7.002	SW27	9.6	0.590	0.212	1.3603	
180 minute summer	SW27	1.010	SW28	120.9	2.282	1.052	1.9873	
360 minute summer	SW28	1.011	N03	99.5	0.288	0.029	118.3429	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	N03	280	75.000	1.000	93.2	631.3735	155.9391	FLOOD
15 minute summer	SW29	9	76.592	1.350	47.8	1.1691	1.1362	FLOOD
15 minute summer	SW30	9	75.503	1.205	101.3	1.0432	0.0000	FLOOD RISK
15 minute summer	SW31	9	74.224	0.636	99.0	0.5506	0.0000	SURCHARGED
60 minute summer	N04	39	73.710	0.560	76.2	31.8201	0.0000	SURCHARGED
60 minute summer	SW32	40	72.506	0.072	31.0	0.0820	0.0000	OK
15 minute summer	SW33	9	73.715	0.180	72.7	0.1559	0.0000	OK
15 minute summer	SW34	10	72.845	0.684	129.0	0.5921	0.0000	SURCHARGED
15 minute summer	SW35	10	70.492	0.266	107.8	0.2306	0.0000	SURCHARGED
15 minute summer	SW36	10	68.772	0.830	101.4	0.7189	0.0000	SURCHARGED
15 minute summer	SW37	9	67.974	0.174	179.6	0.3079	0.0000	OK
15 minute summer	SW38	9	64.741	0.191	223.4	0.2158	0.0000	OK
15 minute summer	SW39	10	61.649	0.249	269.2	0.2812	0.0000	OK
15 minute summer	SW40	10	59.744	1.287	315.7	1.4560	0.0000	FLOOD RISK
15 minute summer	SW41	9	74.510	0.945	36.3	0.8181	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	N03	1.012	N04	20.3	0.624	0.044	0.8973	
15 minute summer	SW29	9.000	SW30	33.0	1.873	1.205	0.6491	
15 minute summer	SW30	9.001	SW31	99.0	2.490	1.220	1.1657	
15 minute summer	SW31	9.002	N04	98.0	2.465	1.977	0.3805	
60 minute summer	N04	1.013	SW32	31.0	2.617	0.794	0.1755	
60 minute summer	SW32	1.014	SW37	31.0	2.290	0.130	2.2630	
15 minute summer	SW33	10.000	SW34	70.0	1.836	0.809	1.8459	
15 minute summer	SW34	10.001	SW35	107.8	2.839	1.049	1.9886	
15 minute summer	SW35	10.002	SW36	101.4	2.618	0.827	1.6507	
15 minute summer	SW36	10.003	SW37	103.4	2.601	2.784	0.5127	
15 minute summer	SW37	1.015	SW38	175.7	4.057	0.617	2.2423	
15 minute summer	SW38	1.016	SW39	221.5	4.215	0.707	2.0961	
15 minute summer	SW39	1.017	SW40	257.6	4.124	0.850	2.6569	
15 minute summer	SW40	1.018	SW49	278.2	4.156	0.914	3.0069	
15 minute summer	SW41	11.000	SW42	28.7	1.632	0.783	0.6247	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	9	73.420	1.350	72.2	1.1691	3.2588	FLOOD
15 minute summer	SW43	8	71.591	1.350	79.9	1.1691	3.9759	FLOOD
15 minute summer	SW44	8	68.114	0.137	93.5	0.1189	0.0000	OK
15 minute summer	SW45	9	65.666	0.193	136.2	0.1673	0.0000	OK
15 minute summer	SW46	10	63.515	0.884	171.3	0.7655	0.0000	SURCHARGED
15 minute summer	SW47	9	59.718	0.202	225.8	0.1752	0.0000	OK
15 minute summer	SW48	10	57.155	1.235	221.5	1.0697	0.0000	FLOOD RISK
15 minute summer	SW49	10	56.564	1.353	468.6	1.9357	0.0000	SURCHARGED
15 minute summer	SW50	10	76.576	1.350	17.7	1.1691	0.5920	FLOOD
15 minute summer	SW51	10	76.538	1.418	24.3	1.2284	0.0000	SURCHARGED
15 minute summer	SW52	10	76.698	1.452	32.2	1.2570	0.0000	FLOOD RISK
15 minute summer	SW53	10	76.413	1.513	59.6	1.3100	0.0000	FLOOD RISK
15 minute summer	SW54	9	75.198	1.273	101.2	1.1021	0.0000	SURCHARGED
15 minute summer	SW55	8	74.332	1.425	235.1	1.2341	8.3972	FLOOD
30 minute summer	N06	22	71.976	0.476	176.9	0.0038	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	SW42	11.001	SW43	38.5	2.196	0.985	0.6732	
15 minute summer	SW43	11.002	SW44	51.0	2.895	1.188	0.6701	
15 minute summer	SW44	11.003	SW45	93.6	3.192	0.691	1.1483	
15 minute summer	SW45	11.004	SW46	131.9	3.516	0.910	1.4092	
15 minute summer	SW46	11.005	SW47	153.8	3.882	1.038	1.5080	
15 minute summer	SW47	11.006	SW48	221.5	3.735	0.786	3.4172	
15 minute summer	SW48	11.007	SW49	200.4	3.141	0.817	0.9253	
15 minute summer	SW49	1.019	EX MH	465.1	4.217	1.094	7.3096	431.6
15 minute summer	SW50	12.000	SW51	12.7	0.722	0.817	0.2448	
15 minute summer	SW51	12.001	SW53	25.6	1.452	1.317	0.3232	
15 minute summer	SW52	13.000	SW53	22.9	1.304	0.792	0.2308	
15 minute summer	SW53	12.002	SW54	58.2	3.308	1.123	0.1888	
15 minute summer	SW54	12.003	SW55	98.2	2.470	0.805	0.7435	
15 minute summer	SW55	12.004	N06	162.0	4.073	1.355	0.6900	
30 minute summer	N06	12.005	N07	157.2	0.587	0.032	29.4888	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	74.905	0.449	28.0	0.5073	0.0000	SURCHARGED
15 minute summer	SW57	9	74.308	0.169	74.4	0.1906	0.0000	OK
15 minute summer	SW58	9	74.366	0.260	24.9	0.2946	0.0000	SURCHARGED
15 minute summer	SW59	9	73.762	0.153	112.1	0.1730	0.0000	OK
30 minute summer	N07	22	71.978	0.736	240.1	0.0059	0.0000	OK
30 minute summer	N08	22	71.978	0.978	137.1	0.0078	0.0000	FLOOD RISK
15 minute summer	N09	9	70.941	0.091	90.7	0.0007	0.0000	OK
15 minute summer	N10	10	70.338	0.488	100.4	0.0039	0.0000	OK
15 minute summer	N11	10	68.942	0.092	101.8	0.0007	0.0000	OK
15 minute summer	N12	10	68.364	0.514	110.1	0.0041	0.0000	OK
15 minute summer	N13	10	66.953	0.103	113.4	0.0008	0.0000	OK
15 minute summer	N14	10	66.722	0.522	116.5	0.0042	0.0000	OK
15 minute summer	N15	10	65.963	0.113	120.5	0.0009	0.0000	OK
15 minute summer	N16	10	64.972	0.122	125.9	0.0010	0.0000	OK
30 minute summer	N17	19	64.804	0.550	130.5	0.0044	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	SW56	14.000	SW57	25.7	1.461	1.408	0.3964	
15 minute summer	SW57	14.001	SW59	74.3	2.449	0.778	0.4793	
15 minute summer	SW58	15.000	SW59	22.2	1.264	1.111	0.5695	
15 minute summer	SW59	14.002	N07	111.5	4.123	0.695	0.5204	
30 minute summer	N07	12.006	N08	137.1	0.496	0.028	52.7283	
30 minute summer	N08	12.007	N09	82.9	2.600	2.068	0.6853	
15 minute summer	N09	12.008	N10	90.0	0.342	0.008	7.7042	
15 minute summer	N10	12.009	N11	95.7	1.340	0.008	0.9339	
15 minute summer	N11	12.010	N12	102.5	0.280	0.008	6.6066	
15 minute summer	N12	12.011	N13	108.5	1.334	0.009	1.1202	
15 minute summer	N13	12.012	N14	113.4	0.255	0.010	5.6700	
15 minute summer	N14	12.013	N15	113.4	1.220	0.011	0.5739	
15 minute summer	N15	12.014	N16	119.8	1.195	0.012	1.9230	
15 minute summer	N16	12.015	N17	124.7	0.271	0.014	9.0838	
30 minute summer	N17	12.016	N18	128.5	0.808	0.013	9.6878	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	N18	23	63.659	0.459	128.5	0.0037	0.0000	SURCHARGED
15 minute summer	KD9 OD	9	75.640	0.077	42.6	0.0218	0.0000	OK
15 minute summer	SW60	9	68.176	0.114	69.7	0.0323	0.0000	OK
15 minute summer	SW61	9	64.204	0.147	103.0	0.0415	0.0000	OK
15 minute summer	SW62	10	61.132	1.018	137.2	0.2881	0.0000	FLOOD RISK
15 minute summer	SW63	9	58.230	0.825	133.4	0.2335	9.8571	FLOOD
15 minute summer	SW64	9	56.596	0.133	78.0	0.0377	0.0000	OK
15 minute summer	SW65	10	54.639	0.310	82.9	0.0877	0.0000	SURCHARGED
30 minute summer	EX MH	17	52.620	0.380	438.4	0.0000	0.0000	OK
60 minute winter	EX HW	34	60.108	0.228	105.0	0.0000	0.0000	OK
15 minute winter	HW13	10	53.815	0.214	78.4	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)
30 minute summer	N18	12.017	EX HW	107.5	2.886	1.044	3.3924	213.1
15 minute summer	KD9 OD	16.000	SW60	42.7	3.648	0.528	0.4338	
15 minute summer	SW60	16.001	SW61	69.8	2.949	0.517	1.4273	
15 minute summer	SW61	16.002	SW62	102.9	2.953	0.768	2.0152	
15 minute summer	SW62	16.003	SW63	108.1	2.719	0.974	2.3873	
15 minute summer	SW63	16.004	SW64	68.6	1.966	1.183	2.4366	
15 minute summer	SW64	16.005	SW65	77.8	2.413	0.666	1.3720	
15 minute summer	SW65	16.006	HW13	77.8	2.177	1.001	1.2913	46.6

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	EX MH1	12	78.770	1.760	83.8	1.5242	33.9819	FLOOD
15 minute summer	SW2	8	78.590	2.396	105.7	2.0749	7.4766	FLOOD
30 minute summer	SW3	14	77.855	2.138	207.3	1.8515	24.6237	FLOOD
30 minute summer	SW4	17	77.448	1.999	140.1	1.7312	0.0000	FLOOD RISK
15 minute summer	SW5	9	77.520	1.425	39.5	1.2341	0.4193	FLOOD
30 minute summer	SW6	18	77.048	1.771	144.3	1.5338	0.0000	SURCHARGED
30 minute summer	EX MH2	19	77.153	0.413	23.2	0.3576	0.0000	SURCHARGED
30 minute summer	SW8	19	77.123	0.755	39.0	0.6538	0.0000	SURCHARGED
30 minute summer	SW9	19	77.072	1.222	50.2	1.0582	0.0000	SURCHARGED
30 minute summer	SW10	19	76.933	1.399	40.9	1.2116	0.0000	SURCHARGED
60 minute summer	SW11	36	76.742	1.659	157.5	1.4366	0.0000	SURCHARGED
15 minute summer	EX MH3	8	80.270	1.390	95.4	1.2037	8.0670	FLOOD
15 minute summer	EX MH4	8	79.850	1.300	109.9	1.1258	6.5084	FLOOD
15 minute summer	SW14	9	79.620	1.725	88.9	1.4939	0.2349	FLOOD
15 minute summer	SW15	9	79.537	1.795	155.4	1.5548	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	EX MH1	1.000	SW2	22.7	1.290	1.334	1.4157	
15 minute summer	SW2	1.001	SW3	51.0	1.282	1.287	2.7350	
30 minute summer	SW3	1.002	SW4	126.3	1.793	1.730	4.3366	
30 minute summer	SW4	1.003	SW6	129.3	1.836	1.773	2.7885	
15 minute summer	SW5	2.000	SW6	32.5	1.846	0.808	0.2325	
30 minute summer	SW6	1.004	SW11	140.1	1.990	1.627	1.3882	
30 minute summer	EX MH2	3.000	SW8	-16.6	0.544	-0.417	2.5175	
30 minute summer	SW8	3.001	SW9	18.0	0.799	0.452	3.5006	
30 minute summer	SW9	3.002	SW10	21.7	0.720	0.547	2.1369	
30 minute summer	SW10	3.003	SW11	30.9	0.776	0.777	2.0374	
60 minute summer	SW11	1.005	SW18	154.9	1.404	1.279	1.7007	
15 minute summer	EX MH3	4.000	EX MH4	41.3	1.039	1.234	3.1313	
15 minute summer	EX MH4	4.001	SW14	88.9	2.236	1.208	1.3055	
15 minute summer	SW14	4.002	SW15	72.7	1.828	1.802	0.5120	
15 minute summer	SW15	4.003	SW16	136.7	1.941	0.944	6.3377	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	9	78.000	1.780	197.1	1.5415	3.4107	FLOOD
30 minute summer	SW17	18	77.118	1.128	152.8	0.9771	0.0000	SURCHARGED
60 minute summer	SW18	36	76.624	1.598	287.9	1.8069	0.0000	SURCHARGED
120 minute summer	SW19	74	76.141	1.241	287.0	1.4032	0.0000	OK
15 minute summer	SW20	8	76.817	1.795	324.5	1.5545	19.2073	FLOOD
60 minute summer	SW21	33	76.267	1.357	156.9	1.1749	0.0000	SURCHARGED
60 minute winter	N01	38	76.139	1.415	766.6	0.0000	0.0000	OK
240 minute summer	SW22	140	76.177	0.975	12.3	0.8442	0.0000	SURCHARGED
120 minute winter	N02	72	76.135	1.450	456.6	0.0000	89.0162	FLOOD
15 minute summer	SW23	9	76.317	0.084	9.3	0.0951	0.0000	OK
15 minute summer	SW24	9	76.162	0.057	9.3	0.0646	0.0000	OK
30 minute summer	SW25	30	76.156	0.656	15.9	0.7425	0.0000	SURCHARGED
30 minute summer	SW26	30	76.144	0.884	22.5	0.9996	0.0000	SURCHARGED
60 minute winter	SW27	46	76.263	1.733	2159.8	1.9596	71.2447	FLOOD
180 minute winter	SW28	208	75.001	0.531	124.8	0.6004	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	SW16	4.004	SW17	153.4	2.178	1.961	3.2473	
30 minute summer	SW17	4.005	SW18	144.5	2.052	0.682	1.8804	
60 minute summer	SW18	1.006	SW19	286.3	2.596	2.500	2.5318	
120 minute summer	SW19	1.007	N01	236.3	0.277	0.020	132.6883	
15 minute summer	SW20	5.000	SW21	184.5	2.620	2.526	1.8101	
60 minute summer	SW21	5.001	N01	154.8	2.198	2.206	1.0502	
60 minute winter	N01	1.008	N02	-569.9	0.310	-0.101	145.6122	
240 minute summer	SW22	6.000	N02	14.0	0.598	0.474	0.6328	
120 minute winter	N02	1.009	SW27	441.4	0.213	0.078	133.8948	
15 minute summer	SW23	7.000	SW24	9.3	1.142	0.541	0.1112	
15 minute summer	SW24	7.001	SW26	9.3	1.365	0.308	0.3188	
30 minute summer	SW25	8.000	SW26	14.0	0.981	0.789	0.2899	
30 minute summer	SW26	7.002	SW27	17.9	0.680	0.396	1.3603	
60 minute winter	SW27	1.010	SW28	120.9	2.305	1.052	1.6343	
180 minute winter	SW28	1.011	N03	121.2	0.344	0.035	118.3429	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	N03	320	75.000	1.000	93.4	631.3735	298.2112	FLOOD
15 minute summer	SW29	9	76.592	1.350	53.5	1.1691	1.7078	FLOOD
15 minute summer	SW30	9	75.723	1.425	108.8	1.2341	0.1161	FLOOD
15 minute summer	SW31	9	74.291	0.703	105.0	0.6088	0.0000	SURCHARGED
60 minute summer	N04	40	73.752	0.602	83.8	36.3301	0.0000	SURCHARGED
60 minute summer	SW32	40	72.508	0.074	32.4	0.0838	0.0000	OK
15 minute summer	SW33	9	74.203	0.668	81.4	0.5785	0.0000	SURCHARGED
15 minute summer	SW34	10	73.417	1.256	140.4	1.0880	0.0000	FLOOD RISK
15 minute summer	SW35	10	70.924	0.698	114.5	0.6046	0.0000	SURCHARGED
15 minute summer	SW36	10	68.841	0.899	108.4	0.7785	0.0000	SURCHARGED
15 minute summer	SW37	9	67.983	0.183	193.0	0.3225	0.0000	OK
15 minute summer	SW38	10	64.744	0.194	240.1	0.2198	0.0000	OK
15 minute summer	SW39	10	62.447	1.047	292.8	1.1839	0.0000	SURCHARGED
15 minute summer	SW40	10	59.957	1.500	298.1	1.6965	0.8014	FLOOD
15 minute summer	SW41	9	74.802	1.237	40.7	1.0713	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)
480 minute winter	N03	1.012	N04	20.3	0.642	0.044	0.9010	
15 minute summer	SW29	9.000	SW30	33.2	1.888	1.214	0.6491	
15 minute summer	SW30	9.001	SW31	105.0	2.641	1.294	1.1657	
15 minute summer	SW31	9.002	N04	104.4	2.626	2.106	0.3805	
60 minute summer	N04	1.013	SW32	32.4	2.622	0.831	0.1823	
60 minute summer	SW32	1.014	SW37	32.4	2.336	0.136	2.4175	
15 minute summer	SW33	10.000	SW34	74.1	1.932	0.857	1.9886	
15 minute summer	SW34	10.001	SW35	114.5	2.899	1.114	1.9886	
15 minute summer	SW35	10.002	SW36	108.4	2.725	0.884	1.6507	
15 minute summer	SW36	10.003	SW37	107.3	2.699	2.890	0.5127	
15 minute summer	SW37	1.015	SW38	186.6	4.064	0.656	2.3276	
15 minute summer	SW38	1.016	SW39	239.3	4.187	0.763	2.3742	
15 minute summer	SW39	1.017	SW40	252.9	4.127	0.835	2.8168	
15 minute summer	SW40	1.018	SW49	285.7	4.134	0.939	3.0069	
15 minute summer	SW41	11.000	SW42	32.4	1.841	0.883	0.6247	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	8	73.420	1.350	81.2	1.1691	6.4071	FLOOD
15 minute summer	SW43	8	71.591	1.350	85.2	1.1691	5.0332	FLOOD
15 minute summer	SW44	8	68.119	0.142	98.6	0.1228	0.0000	OK
15 minute summer	SW45	10	66.187	0.714	146.0	0.6187	0.0000	SURCHARGED
15 minute summer	SW46	9	63.724	1.093	181.4	0.9463	0.0000	SURCHARGED
15 minute summer	SW47	9	59.747	0.231	242.4	0.2003	0.0000	OK
15 minute summer	SW48	10	57.420	1.500	235.9	1.2990	0.8439	FLOOD
15 minute summer	SW49	10	56.765	1.554	478.9	2.2243	0.0000	SURCHARGED
15 minute summer	SW50	9	76.576	1.350	24.7	1.1691	2.2751	FLOOD
15 minute summer	SW51	9	76.690	1.571	24.8	1.3603	0.0000	SURCHARGED
15 minute summer	SW52	9	76.721	1.475	36.0	1.2774	1.0625	FLOOD
15 minute summer	SW53	9	76.587	1.687	59.4	1.4606	0.0000	FLOOD RISK
15 minute summer	SW54	9	75.359	1.434	110.3	1.2417	0.0000	SURCHARGED
15 minute summer	SW55	8	74.332	1.425	260.5	1.2341	12.2597	FLOOD
30 minute winter	N06	22	72.000	0.500	169.6	0.0040	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	SW42	11.001	SW43	36.3	2.064	0.929	0.6732	
15 minute summer	SW43	11.002	SW44	51.0	2.895	1.188	0.6703	
15 minute summer	SW44	11.003	SW45	98.3	3.190	0.726	1.2340	
15 minute summer	SW45	11.004	SW46	137.2	3.509	0.947	1.4737	
15 minute summer	SW46	11.005	SW47	157.6	4.016	1.064	1.5081	
15 minute summer	SW47	11.006	SW48	235.9	3.584	0.837	3.6359	
15 minute summer	SW48	11.007	SW49	200.7	3.210	0.818	0.9253	
15 minute summer	SW49	1.019	EX MH	478.9	4.343	1.126	7.3050	466.2
15 minute summer	SW50	12.000	SW51	12.4	0.714	0.800	0.2448	
15 minute summer	SW51	12.001	SW53	25.5	1.448	1.313	0.3232	
15 minute summer	SW52	13.000	SW53	22.3	1.266	0.769	0.2308	
15 minute summer	SW53	12.002	SW54	58.7	3.336	1.132	0.1888	
15 minute summer	SW54	12.003	SW55	107.1	2.692	0.878	0.7435	
15 minute summer	SW55	12.004	N06	162.0	4.073	1.355	0.6897	
30 minute winter	N06	12.005	N07	142.2	0.570	0.029	31.3957	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	75.046	0.590	31.4	0.6668	0.0000	SURCHARGED
15 minute summer	SW57	9	74.327	0.188	83.4	0.2129	0.0000	OK
15 minute summer	SW58	9	74.503	0.397	27.9	0.4494	0.0000	SURCHARGED
15 minute summer	SW59	9	73.776	0.167	125.0	0.1889	0.0000	OK
60 minute summer	N07	39	72.000	0.758	211.0	0.0061	0.0000	OK
30 minute winter	N08	21	72.000	1.000	196.7	0.0080	13.6447	FLOOD
15 minute summer	N09	9	70.943	0.093	94.5	0.0007	0.0000	OK
15 minute summer	N10	10	70.348	0.498	105.6	0.0040	0.0000	OK
15 minute summer	N11	10	68.944	0.094	108.2	0.0008	0.0000	OK
15 minute summer	N12	10	68.378	0.528	118.2	0.0042	0.0000	OK
15 minute summer	N13	10	66.957	0.107	121.5	0.0009	0.0000	OK
15 minute summer	N14	10	66.739	0.539	125.1	0.0043	0.0000	OK
15 minute summer	N15	10	65.968	0.118	130.6	0.0009	0.0000	OK
15 minute summer	N16	10	64.977	0.127	137.0	0.0010	0.0000	OK
15 minute summer	N17	11	64.822	0.568	143.8	0.0045	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	SW56	14.000	SW57	28.8	1.636	1.576	0.3984	
15 minute summer	SW57	14.001	SW59	83.3	2.475	0.871	0.5304	
15 minute summer	SW58	15.000	SW59	24.3	1.378	1.212	0.5749	
15 minute summer	SW59	14.002	N07	124.1	4.189	0.774	0.5698	
60 minute summer	N07	12.006	N08	134.9	0.429	0.028	54.8142	
30 minute winter	N08	12.007	N09	84.1	2.623	2.097	0.6887	
15 minute summer	N09	12.008	N10	93.9	0.330	0.008	7.9626	
15 minute summer	N10	12.009	N11	100.5	1.356	0.008	0.9693	
15 minute summer	N11	12.010	N12	108.3	0.276	0.009	6.9150	
15 minute summer	N12	12.011	N13	116.0	1.358	0.010	1.1764	
15 minute summer	N13	12.012	N14	121.7	0.260	0.011	5.9895	
15 minute summer	N14	12.013	N15	121.7	1.239	0.012	0.6092	
15 minute summer	N15	12.014	N16	130.1	1.220	0.013	2.0452	
15 minute summer	N16	12.015	N17	136.2	0.274	0.015	9.6476	
15 minute summer	N17	12.016	N18	139.4	0.893	0.014	10.2835	

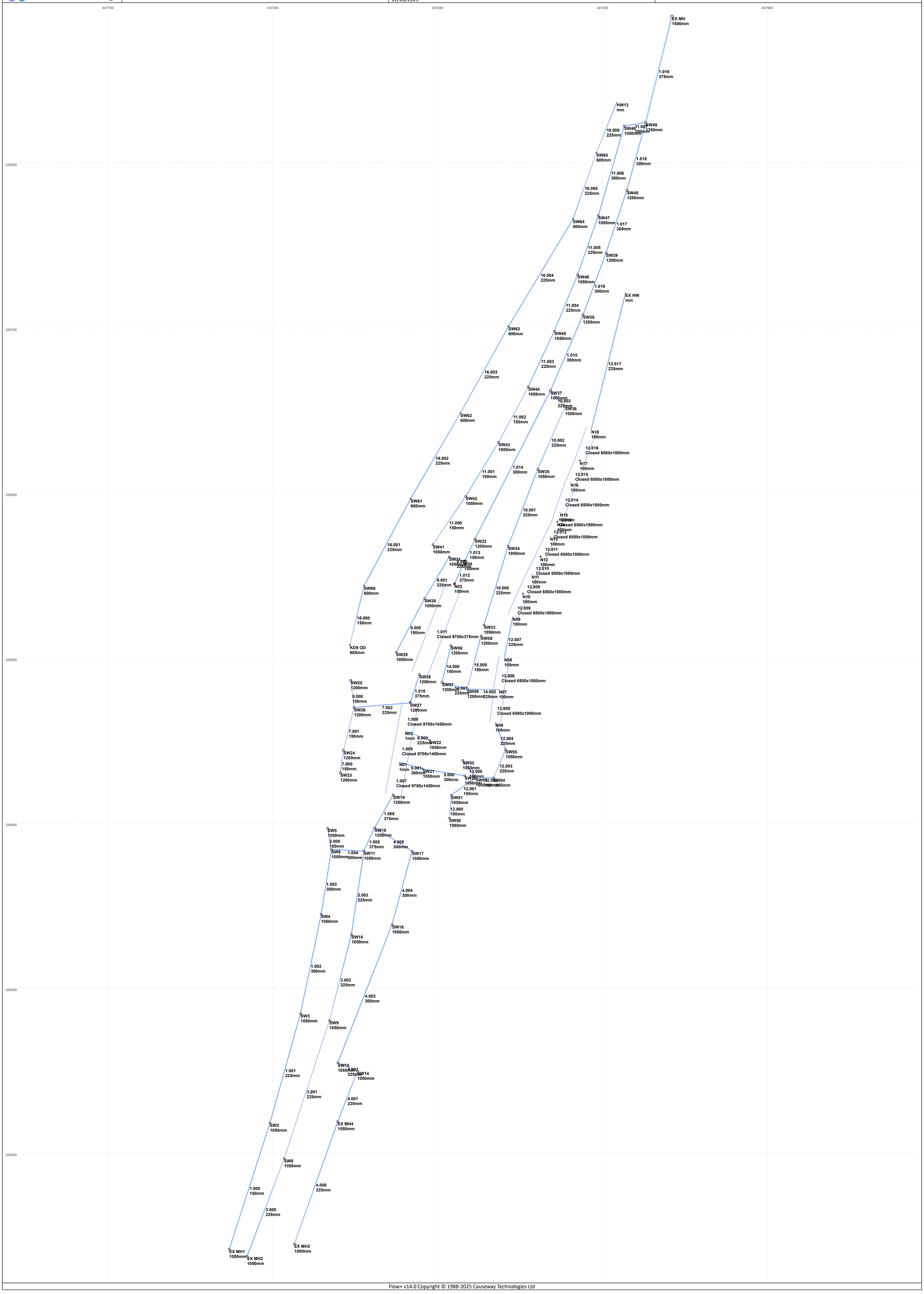
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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 96.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	N18	24	63.762	0.562	138.1	0.0045	0.0000	SURCHARGED
15 minute summer	KD9 OD	9	75.646	0.083	47.7	0.0234	0.0000	OK
15 minute summer	SW60	9	68.184	0.122	78.0	0.0345	0.0000	OK
15 minute summer	SW61	9	64.224	0.167	115.3	0.0472	0.0000	OK
15 minute summer	SW62	9	61.239	1.125	149.1	0.3184	2.4008	FLOOD
15 minute summer	SW63	9	58.230	0.825	144.4	0.2335	16.3698	FLOOD
15 minute summer	SW64	9	56.598	0.135	79.2	0.0382	0.0000	OK
15 minute summer	SW65	10	54.693	0.364	84.9	0.1029	0.0000	SURCHARGED
15 minute winter	EX MH	9	52.620	0.380	459.9	0.0000	0.0000	OK
30 minute winter	EX HW	27	60.108	0.228	109.3	0.0000	0.0000	OK
15 minute summer	HW13	10	53.815	0.214	79.4	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)
30 minute summer	N18	12.017	EX HW	108.8	2.982	1.056	3.3925	228.0
15 minute summer	KD9 OD	16.000	SW60	47.8	3.764	0.591	0.4669	
15 minute summer	SW60	16.001	SW61	78.1	3.019	0.578	1.6056	
15 minute summer	SW61	16.002	SW62	110.8	2.893	0.826	2.1397	
15 minute summer	SW62	16.003	SW63	109.9	2.765	0.991	2.3873	
15 minute summer	SW63	16.004	SW64	68.7	1.933	1.185	2.4489	
15 minute summer	SW64	16.005	SW65	79.1	2.428	0.677	1.3802	
15 minute summer	SW65	16.006	HW13	79.4	2.138	1.023	1.3043	49.3

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Appendix 7: DCO Works No.6 Proposed Drainage

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	0.100
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	x
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	4.00	Minimum Backdrop Height (m)	0.200		

Circular Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

Ditch Link Type

Shape	Trapezoidal	Height (mm)	500	Auto Increment (mm)	100	Velocity	Manning
Barrels	1	Side Slope (1:X)	1.0	Follow Ground	x	ks (mm) / n	0.040

Available Diameters (mm)

500

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.051	4.00	86.690		446454.898	325451.551	0.600
2			87.180	1200	446415.634	325437.913	1.580
3	0.047	4.00	86.630	1200	446370.997	325425.368	1.130
4			86.200		446359.379	325430.366	0.800
5	0.037	4.00	86.530	1200	446314.548	325421.354	0.630
6			86.200		446313.396	325427.584	0.850
7	0.017	4.00	86.060	1200	446290.360	325419.527	0.660
8			86.060		446289.208	325425.757	0.750
9	0.036	4.00	85.670	1200	446231.497	325417.219	0.200

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
10			85.550		446230.975	325423.499	0.570
11			85.250		446204.887	325422.029	0.310

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Normal	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
30	0	0	0	100	25	0	0
30	25	0	0	100	40	0	0

Node 10 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	84.980	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	25.000		

Node 10 Online Weir Control

Flap Valve	x	Invert Level (m)	85.450	Discharge Coefficient	0.590
Replaces Downstream Link	x	Width (m)	1.000		

Node 8 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	85.310	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	25.000		

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Node 8 Online Weir Control

Flap Valve	x	Invert Level (m)	85.900	Discharge Coefficient	0.590
Replaces Downstream Link	x	Width (m)	1.000		

Node 6 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	85.350	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	25.000		

Node 6 Online Weir Control

Flap Valve	x	Invert Level (m)	86.100	Discharge Coefficient	0.590
Replaces Downstream Link	x	Width (m)	1.000		

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	76.777	21.725	1 year 600 minute winter	5.861	2.346
1 year 15 minute winter	53.878	21.725	1 year 720 minute summer	7.626	2.044
1 year 30 minute summer	48.990	13.863	1 year 720 minute winter	5.125	2.044
1 year 30 minute winter	34.379	13.863	1 year 960 minute summer	6.203	1.634
1 year 60 minute summer	32.661	8.631	1 year 960 minute winter	4.109	1.634
1 year 60 minute winter	21.699	8.631	1 year 1440 minute summer	4.409	1.182
1 year 120 minute summer	24.515	6.479	1 year 1440 minute winter	2.963	1.182
1 year 120 minute winter	16.287	6.479	30 year 15 minute summer	279.897	79.201
1 year 180 minute summer	20.290	5.221	30 year 15 minute winter	196.419	79.201
1 year 180 minute winter	13.189	5.221	30 year 30 minute summer	182.667	51.688
1 year 240 minute summer	16.663	4.404	30 year 30 minute winter	128.187	51.688
1 year 240 minute winter	11.071	4.404	30 year 60 minute summer	121.798	32.188
1 year 360 minute summer	13.157	3.386	30 year 60 minute winter	80.920	32.188
1 year 360 minute winter	8.552	3.386	30 year 120 minute summer	75.753	20.019
1 year 480 minute summer	10.463	2.765	30 year 120 minute winter	50.329	20.019
1 year 480 minute winter	6.951	2.765	30 year 180 minute summer	58.243	14.988
1 year 600 minute summer	8.578	2.346	30 year 180 minute winter	37.859	14.988

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 240 minute summer	45.879	12.124
30 year 240 minute winter	30.481	12.124
30 year 360 minute summer	34.546	8.890
30 year 360 minute winter	22.456	8.890
30 year 480 minute summer	26.718	7.061
30 year 480 minute winter	17.751	7.061
30 year 600 minute summer	21.494	5.879
30 year 600 minute winter	14.686	5.879
30 year 720 minute summer	18.840	5.049
30 year 720 minute winter	12.662	5.049
30 year 960 minute summer	15.024	3.956
30 year 960 minute winter	9.952	3.956
30 year 1440 minute summer	10.403	2.788
30 year 1440 minute winter	6.992	2.788
30 year +25% CC 15 minute summer	349.871	99.002
30 year +25% CC 15 minute winter	245.524	99.002
30 year +25% CC 30 minute summer	228.334	64.611
30 year +25% CC 30 minute winter	160.234	64.611
30 year +25% CC 60 minute summer	152.248	40.235
30 year +25% CC 60 minute winter	101.150	40.235
30 year +25% CC 120 minute summer	94.691	25.024
30 year +25% CC 120 minute winter	62.911	25.024
30 year +25% CC 180 minute summer	72.803	18.735
30 year +25% CC 180 minute winter	47.324	18.735
30 year +25% CC 240 minute summer	57.349	15.156
30 year +25% CC 240 minute winter	38.101	15.156
30 year +25% CC 360 minute summer	43.182	11.112
30 year +25% CC 360 minute winter	28.069	11.112
30 year +25% CC 480 minute summer	33.398	8.826
30 year +25% CC 480 minute winter	22.189	8.826
30 year +25% CC 600 minute summer	26.867	7.349
30 year +25% CC 600 minute winter	18.357	7.349
30 year +25% CC 720 minute summer	23.550	6.312
30 year +25% CC 720 minute winter	15.827	6.312
30 year +25% CC 960 minute summer	18.780	4.945
30 year +25% CC 960 minute winter	12.440	4.945
30 year +25% CC 1440 minute summer	13.004	3.485
30 year +25% CC 1440 minute winter	8.739	3.485
100 year 15 minute summer	364.661	103.186
100 year 15 minute winter	255.902	103.186
100 year 30 minute summer	239.884	67.879
100 year 30 minute winter	168.340	67.879
100 year 60 minute summer	160.969	42.539
100 year 60 minute winter	106.944	42.539
100 year 120 minute summer	100.180	26.475
100 year 120 minute winter	66.557	26.475
100 year 180 minute summer	77.199	19.866
100 year 180 minute winter	50.182	19.866
100 year 240 minute summer	60.869	16.086
100 year 240 minute winter	40.440	16.086
100 year 360 minute summer	45.775	11.779
100 year 360 minute winter	29.755	11.779
100 year 480 minute summer	35.370	9.347
100 year 480 minute winter	23.499	9.347
100 year 600 minute summer	28.397	7.767
100 year 600 minute winter	19.403	7.767
100 year 720 minute summer	24.828	6.654
100 year 720 minute winter	16.686	6.654
100 year 960 minute summer	19.675	5.181
100 year 960 minute winter	13.033	5.181
100 year 1440 minute summer	13.466	3.609
100 year 1440 minute winter	9.050	3.609
100 year +25% CC 15 minute summer	455.826	128.983
100 year +25% CC 15 minute winter	319.878	128.983

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +25% CC 30 minute summer	299.855	84.849
100 year +25% CC 30 minute winter	210.424	84.849
100 year +25% CC 60 minute summer	201.211	53.174
100 year +25% CC 60 minute winter	133.680	53.174
100 year +25% CC 120 minute summer	125.225	33.093
100 year +25% CC 120 minute winter	83.197	33.093
100 year +25% CC 180 minute summer	96.499	24.833
100 year +25% CC 180 minute winter	62.727	24.833
100 year +25% CC 240 minute summer	76.086	20.107
100 year +25% CC 240 minute winter	50.550	20.107
100 year +25% CC 360 minute summer	57.219	14.724
100 year +25% CC 360 minute winter	37.194	14.724
100 year +25% CC 480 minute summer	44.213	11.684
100 year +25% CC 480 minute winter	29.374	11.684
100 year +25% CC 600 minute summer	35.497	9.709
100 year +25% CC 600 minute winter	24.253	9.709
100 year +25% CC 720 minute summer	31.035	8.318
100 year +25% CC 720 minute winter	20.858	8.318
100 year +25% CC 960 minute summer	24.593	6.476
100 year +25% CC 960 minute winter	16.291	6.476
100 year +25% CC 1440 minute summer	16.832	4.511
100 year +25% CC 1440 minute winter	11.312	4.511
100 year +40% CC 15 minute summer	510.525	144.461
100 year +40% CC 15 minute winter	358.263	144.461
100 year +40% CC 30 minute summer	335.837	95.030
100 year +40% CC 30 minute winter	235.675	95.030
100 year +40% CC 60 minute summer	225.357	59.555
100 year +40% CC 60 minute winter	149.722	59.555
100 year +40% CC 120 minute summer	140.252	37.065
100 year +40% CC 120 minute winter	93.180	37.065
100 year +40% CC 180 minute summer	108.079	27.812
100 year +40% CC 180 minute winter	70.254	27.812
100 year +40% CC 240 minute summer	85.216	22.520
100 year +40% CC 240 minute winter	56.616	22.520
100 year +40% CC 360 minute summer	64.085	16.491
100 year +40% CC 360 minute winter	41.657	16.491
100 year +40% CC 480 minute summer	49.518	13.086
100 year +40% CC 480 minute winter	32.899	13.086
100 year +40% CC 600 minute summer	39.756	10.874
100 year +40% CC 600 minute winter	27.164	10.874
100 year +40% CC 720 minute summer	34.760	9.316
100 year +40% CC 720 minute winter	23.361	9.316
100 year +40% CC 960 minute summer	27.544	7.253
100 year +40% CC 960 minute winter	18.246	7.253
100 year +40% CC 1440 minute summer	18.852	5.053
100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.152	0.062	7.1	0.0000	0.0000	OK
15 minute summer	2	11	85.665	0.065	6.9	0.0730	0.0000	OK
15 minute summer	3	10	85.569	0.069	6.6	0.0782	0.0000	OK
180 minute summer	4	104	85.545	0.145	5.4	0.0000	0.0000	OK
15 minute summer	5	10	85.940	0.040	5.1	0.0453	0.0000	OK
180 minute summer	6	108	85.545	0.195	5.1	0.0000	0.0000	OK
180 minute summer	7	112	85.491	0.091	0.9	0.1024	0.0000	OK
180 minute summer	8	112	85.491	0.181	4.4	0.0000	0.0000	OK
15 minute summer	9	10	85.508	0.038	5.1	0.0431	0.0000	OK
240 minute summer	10	148	85.170	0.190	5.0	0.0000	0.0000	OK
240 minute summer	11	152	84.960	0.020	4.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	6.9	0.789	0.163	0.3635	
15 minute summer	2	1.001	4	6.8	0.596	0.104	0.7540	
15 minute summer	3	2.000	4	6.6	1.075	0.419	0.0996	
180 minute summer	4	1.002	6	3.4	0.034	0.015	7.2199	
15 minute summer	5	3.000	6	5.1	1.381	0.147	0.0234	
180 minute summer	6	1.003	8	4.0	0.028	0.014	3.5634	
180 minute summer	7	4.000	8	0.8	0.545	0.037	0.0910	
180 minute summer	8	1.004	10	4.2	0.046	0.008	5.8618	
15 minute summer	9	5.000	10	5.1	1.481	0.133	0.0217	
240 minute summer	10	1.005	11	4.7	0.177	0.023	0.7142	31.4

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.219	0.129	26.1	0.0000	0.0000	OK
15 minute summer	2	10	85.727	0.127	26.0	0.1433	0.0000	OK
15 minute summer	3	10	85.847	0.347	24.0	0.3925	0.0000	SURCHARGED
60 minute summer	4	38	85.723	0.323	30.0	0.0000	0.0000	OK
15 minute summer	5	10	85.983	0.083	18.6	0.0943	0.0000	OK
60 minute summer	6	38	85.722	0.372	27.9	0.0000	0.0000	OK
60 minute summer	7	41	85.643	0.243	5.3	0.2743	0.0000	SURCHARGED
60 minute summer	8	41	85.642	0.332	20.2	0.0000	0.0000	OK
15 minute summer	9	10	85.548	0.078	18.5	0.0885	0.0000	OK
120 minute summer	10	76	85.325	0.345	21.8	0.0000	0.0000	OK
120 minute summer	11	78	84.993	0.053	20.4	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)
15 minute summer	1	1.000	2	26.0	1.121	0.613	0.9630	
15 minute summer	2	1.001	4	25.0	0.706	0.381	2.6275	
15 minute summer	3	2.000	4	22.8	1.297	1.449	0.2226	
60 minute summer	4	1.002	6	17.6	0.067	0.078	17.5998	
15 minute summer	5	3.000	6	18.6	1.926	0.535	0.0612	
60 minute summer	6	1.003	8	18.2	0.056	0.066	8.0637	
60 minute summer	7	4.000	8	4.8	0.854	0.225	0.1115	
60 minute summer	8	1.004	10	19.2	0.100	0.037	12.6396	
15 minute summer	9	5.000	10	18.5	2.071	0.483	0.0563	
120 minute summer	10	1.005	11	20.4	0.324	0.102	1.7212	72.8

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.240	0.150	32.6	0.0000	0.0000	OK
60 minute summer	2	37	85.775	0.175	19.9	0.1980	0.0000	OK
15 minute summer	3	10	86.029	0.529	30.0	0.5979	0.0000	SURCHARGED
60 minute summer	4	38	85.773	0.373	37.0	0.0000	0.0000	OK
15 minute summer	5	10	85.997	0.097	23.2	0.1094	0.0000	OK
60 minute summer	6	38	85.772	0.422	34.5	0.0000	0.0000	OK
60 minute summer	7	40	85.688	0.288	6.6	0.3252	0.0000	SURCHARGED
60 minute summer	8	40	85.687	0.376	27.5	0.0000	0.0000	OK
15 minute summer	9	10	85.560	0.090	23.1	0.1022	0.0000	OK
60 minute summer	10	44	85.370	0.390	30.6	0.0000	0.0000	OK
60 minute summer	11	45	85.005	0.065	27.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	32.4	1.175	0.766	1.1477	
60 minute summer	2	1.001	4	19.0	0.495	0.290	3.2095	
15 minute summer	3	2.000	4	28.6	1.622	1.812	0.2226	
60 minute summer	4	1.002	6	22.5	0.072	0.100	21.0206	
15 minute summer	5	3.000	6	23.2	2.018	0.667	0.0728	
60 minute summer	6	1.003	8	24.7	0.063	0.089	9.5967	
60 minute summer	7	4.000	8	6.1	0.866	0.288	0.1115	
60 minute summer	8	1.004	10	26.3	0.113	0.051	15.1847	
15 minute summer	9	5.000	10	23.1	2.176	0.602	0.0669	
60 minute summer	10	1.005	11	27.7	0.365	0.139	2.0806	73.1

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.244	0.154	34.0	0.0000	0.0000	OK
60 minute summer	2	37	85.789	0.189	21.1	0.2139	0.0000	OK
15 minute summer	3	10	86.068	0.568	31.2	0.6427	0.0000	SURCHARGED
60 minute summer	4	38	85.786	0.386	37.6	0.0000	0.0000	OK
15 minute summer	5	10	86.000	0.100	24.2	0.1128	0.0000	OK
60 minute summer	6	38	85.785	0.435	37.2	0.0000	0.0000	OK
60 minute summer	7	40	85.699	0.299	7.0	0.3386	0.0000	SURCHARGED
60 minute summer	8	40	85.698	0.388	29.6	0.0000	0.0000	OK
15 minute summer	9	10	85.563	0.093	24.1	0.1052	0.0000	OK
60 minute summer	10	44	85.383	0.403	33.1	0.0000	0.0000	OK
60 minute summer	11	45	85.008	0.068	30.0	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)	Discharge Vol (m³)
15 minute summer	1	1.000	2	33.8	1.184	0.799	1.1874	
60 minute summer	2	1.001	4	18.7	0.502	0.284	3.3265	
15 minute summer	3	2.000	4	29.7	1.686	1.883	0.2226	
60 minute summer	4	1.002	6	24.2	0.073	0.108	21.9774	
15 minute summer	5	3.000	6	24.2	2.035	0.696	0.0753	
60 minute summer	6	1.003	8	26.6	0.066	0.096	10.0170	
60 minute summer	7	4.000	8	6.5	0.900	0.306	0.1115	
60 minute summer	8	1.004	10	28.4	0.117	0.055	15.8723	
15 minute summer	9	5.000	10	24.1	2.195	0.629	0.0692	
60 minute summer	10	1.005	11	30.0	0.376	0.151	2.1861	77.4

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.276	0.186	42.4	0.0000	0.0000	OK
30 minute summer	2	20	85.853	0.253	36.1	0.2856	0.0000	OK
15 minute summer	3	10	86.345	0.845	39.0	0.9562	0.0000	FLOOD RISK
30 minute summer	4	21	85.846	0.446	64.1	0.0000	0.0000	OK
15 minute summer	5	10	86.020	0.120	30.3	0.1358	0.0000	OK
30 minute summer	6	21	85.846	0.496	59.2	0.0000	0.0000	OK
60 minute summer	7	39	85.752	0.352	8.8	0.3977	0.0000	SURCHARGED
60 minute summer	8	39	85.749	0.439	40.0	0.0000	0.0000	OK
15 minute summer	9	10	85.580	0.110	30.1	0.1242	0.0000	OK
60 minute summer	10	43	85.433	0.453	44.3	0.0000	0.0000	OK
60 minute summer	11	43	85.022	0.082	39.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	41.9	1.237	0.989	1.4057	
30 minute summer	2	1.001	4	32.1	0.587	0.490	3.7946	
15 minute summer	3	2.000	4	36.9	2.094	2.339	0.2226	
30 minute summer	4	1.002	6	38.6	0.094	0.172	26.5220	
15 minute summer	5	3.000	6	30.3	2.106	0.872	0.0910	
30 minute summer	6	1.003	8	36.0	0.079	0.130	11.6479	
60 minute summer	7	4.000	8	8.2	0.915	0.388	0.1115	
60 minute summer	8	1.004	10	36.3	0.127	0.071	19.2490	
15 minute summer	9	5.000	10	30.1	2.286	0.785	0.0829	
60 minute summer	10	1.005	11	39.9	0.419	0.200	2.6114	97.3

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.12%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	86.308	0.218	47.5	0.0000	0.0000	OK
30 minute summer	2	20	85.902	0.302	40.5	0.3415	0.0000	SURCHARGED
15 minute summer	3	10	86.530	1.030	43.7	1.1654	0.0000	FLOOD RISK
30 minute summer	4	21	85.882	0.482	69.7	0.0000	0.0000	OK
15 minute summer	5	10	86.045	0.145	33.9	0.1634	0.0000	OK
30 minute summer	6	21	85.882	0.532	70.5	0.0000	0.0000	SURCHARGED
60 minute summer	7	39	85.782	0.382	9.8	0.4317	0.0000	FLOOD RISK
60 minute summer	8	39	85.778	0.468	46.8	0.0000	0.0000	OK
15 minute summer	9	10	85.592	0.122	33.7	0.1376	0.0000	OK
60 minute summer	10	42	85.459	0.479	49.5	0.0000	0.0000	OK
60 minute summer	11	43	85.031	0.091	47.2	0.0000	0.0000	OK

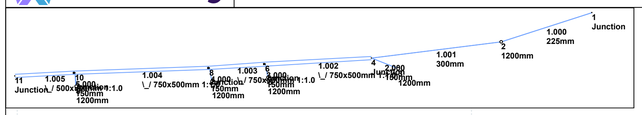
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	45.8	1.260	1.082	1.5219	
30 minute summer	2	1.001	4	37.0	0.604	0.565	3.9962	
15 minute summer	3	2.000	4	41.1	2.335	2.608	0.2226	
30 minute summer	4	1.002	6	47.5	0.098	0.211	29.4054	
15 minute summer	5	3.000	6	34.2	2.102	0.983	0.1109	
30 minute summer	6	1.003	8	42.9	0.084	0.155	12.8716	
60 minute summer	7	4.000	8	9.2	0.959	0.434	0.1115	
60 minute summer	8	1.004	10	42.5	0.126	0.083	21.3226	
15 minute summer	9	5.000	10	33.7	2.318	0.879	0.0915	
60 minute summer	10	1.005	11	47.2	0.446	0.237	2.9022	109.4

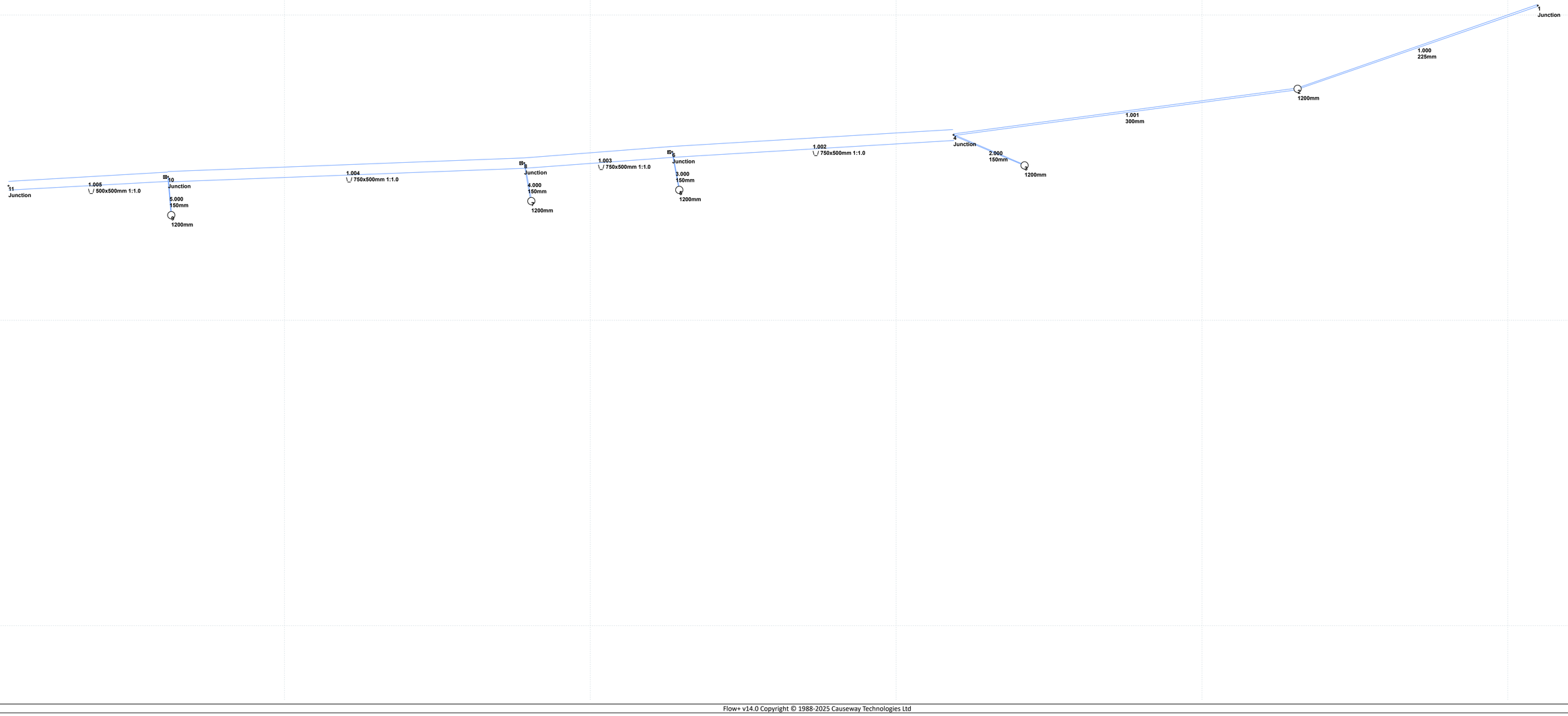
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Water Quality

Area (ha)	Intended Land Use	Entering via Node or Link	Name	SuDS Component	Pollution hazard indices TSS	Metals	Hydrocarbons	Pollution mitigation indices TSS	Metals	Hydrocarbons	Cumulative pollution hazard indices TSS	Metals	Hydrocarbons
		Link	1.002	Swale				0.5	0.6	0.6			
		Link	1.003	Swale				0.25	0.3	0.3			
		Link	1.004	Swale				0.25	0.3	0.3			
		Link	1.005	Swale				0.25	0.3	0.3			
		Node	11										
											Sufficient	Sufficient	Sufficient

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Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	0.100
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	✓
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Circular Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

Ditch Link Type

Shape	Trapezoidal	Side Slope (1:X)	1.0	Follow Ground	x
Barrels	1	Auto Increment (mm)	100	Velocity	Manning
Height (mm)	500	Preferred Cover (m)	0.100	ks (mm) / n	0.040

Available Diameters (mm)

100

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
1	0.065	5.00	88.510	446655.134	325429.637	0.600
2			88.570	446645.453	325427.783	0.726
3	0.018	5.00	88.110	446570.275	325434.197	0.600
4	0.041	5.00	88.240	446570.945	325422.643	0.843
5	0.049	5.00	87.860	446533.121	325437.405	0.600
6	0.025	5.00	87.960	446530.002	325421.031	0.890
7	0.070	5.00	87.340	446488.690	325447.802	0.340
8	0.018	5.00	87.550	446492.229	325419.267	0.860

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Easting (m)	Northing (m)	Depth (m)
9	0.054	5.00	87.120	446471.305	325440.660	0.370
10	0.019	5.00	87.370	446481.359	325412.173	0.800
11			87.470	446473.775	325404.453	1.020
12			87.510	446448.650	325398.268	1.061
13	0.006	5.00	87.330	446439.493	325425.015	0.730
14	0.019	5.00	87.200	446437.978	325402.453	0.753
15	0.014	5.00	87.420	446429.290	325414.161	0.600
16			87.200	446423.796	325407.638	0.755
17	0.005	5.00	87.200	446417.392	325409.505	0.757
18	0.020	5.00	86.970	446407.358	325418.513	0.600
19			87.100	446397.422	325412.471	0.980
20	0.014	5.00	86.720	446375.837	325417.529	0.500
21	0.001	5.00	86.510	446375.200	325411.317	0.790
22	0.011	5.00	86.540	446344.686	325415.451	0.640
23	0.002	5.00	86.300	446339.562	325409.452	0.700
24			86.160	446309.037	325409.935	0.700
25			86.010	446299.778	325409.712	0.600
J1			87.700	446498.601	325419.440	0.700

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Detailed	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

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

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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
2	0	0	0	100	25	0	0
30	0	0	0	100	40	0	0
30	25	0	0				

Node 24 Online Orifice Control

Flap Valve	x	Invert Level (m)	85.460	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.150		

Node 23 Online Weir Control

Flap Valve	x	Invert Level (m)	85.600	Discharge Coefficient	0.590
Replaces Downstream Link	x	Width (m)	0.050		

Node 23 Online Weir Control

Flap Valve	x	Invert Level (m)	86.200	Discharge Coefficient	0.590
Replaces Downstream Link	x	Width (m)	1.500		

Node 8 Online Weir Control

Flap Valve	x	Invert Level (m)	86.690	Discharge Coefficient	0.590
Replaces Downstream Link	x	Width (m)	0.060		

Node 8 Online Weir Control

Flap Valve	x	Invert Level (m)	87.300	Discharge Coefficient	0.590
Replaces Downstream Link	x	Width (m)	2.000		

Node J1 Online Weir Control

Flap Valve	x	Invert Level (m)	87.000	Discharge Coefficient	0.590
Replaces Downstream Link	x	Width (m)	0.025		

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Node J1 Online Weir Control

Flap Valve	x	Invert Level (m)	87.600	Discharge Coefficient	0.590
Replaces Downstream Link	x	Width (m)	1.000		

Node 21 Online Weir Control

Flap Valve	x	Invert Level (m)	85.720	Discharge Coefficient	0.590
Replaces Downstream Link	x	Width (m)	0.025		

Node 21 Online Weir Control

Flap Valve	x	Invert Level (m)	86.410	Discharge Coefficient	0.590
Replaces Downstream Link	x	Width (m)	1.000		

Node 10 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	86.570
Side Inf Coefficient (m/hr)	0.00000	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	85.0	0.0	0.500	85.0	0.0	0.501	0.0	0.0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	76.777	21.725	1 year 180 minute summer	20.290	5.221
1 year 15 minute winter	53.878	21.725	1 year 180 minute winter	13.189	5.221
1 year 30 minute summer	48.990	13.863	1 year 240 minute summer	16.663	4.404
1 year 30 minute winter	34.379	13.863	1 year 240 minute winter	11.071	4.404
1 year 60 minute summer	32.661	8.631	1 year 360 minute summer	13.157	3.386
1 year 60 minute winter	21.699	8.631	1 year 360 minute winter	8.552	3.386
1 year 120 minute summer	24.515	6.479	1 year 480 minute summer	10.463	2.765
1 year 120 minute winter	16.287	6.479	1 year 480 minute winter	6.951	2.765

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 600 minute summer	8.578	2.346
1 year 600 minute winter	5.861	2.346
1 year 720 minute summer	7.626	2.044
1 year 720 minute winter	5.125	2.044
1 year 960 minute summer	6.203	1.634
1 year 960 minute winter	4.109	1.634
1 year 1440 minute summer	4.409	1.182
1 year 1440 minute winter	2.963	1.182
2 year 15 minute summer	113.088	32.000
2 year 15 minute winter	79.360	32.000
2 year 30 minute summer	72.094	20.400
2 year 30 minute winter	50.592	20.400
2 year 60 minute summer	47.678	12.600
2 year 60 minute winter	31.676	12.600
2 year 120 minute summer	33.365	8.817
2 year 120 minute winter	22.167	8.817
2 year 180 minute summer	26.913	6.926
2 year 180 minute winter	17.494	6.926
2 year 240 minute summer	21.772	5.754
2 year 240 minute winter	14.465	5.754
2 year 360 minute summer	16.865	4.340
2 year 360 minute winter	10.963	4.340
2 year 480 minute summer	13.276	3.508
2 year 480 minute winter	8.820	3.508
2 year 600 minute summer	10.816	2.959
2 year 600 minute winter	7.390	2.959
2 year 720 minute summer	9.575	2.566
2 year 720 minute winter	6.435	2.566
2 year 960 minute summer	7.751	2.041
2 year 960 minute winter	5.135	2.041
2 year 1440 minute summer	5.470	1.466
2 year 1440 minute winter	3.676	1.466
30 year 15 minute summer	279.897	79.201
30 year 15 minute winter	196.419	79.201
30 year 30 minute summer	182.667	51.688
30 year 30 minute winter	128.187	51.688
30 year 60 minute summer	121.798	32.188
30 year 60 minute winter	80.920	32.188
30 year 120 minute summer	75.753	20.019
30 year 120 minute winter	50.329	20.019
30 year 180 minute summer	58.243	14.988
30 year 180 minute winter	37.859	14.988
30 year 240 minute summer	45.879	12.124
30 year 240 minute winter	30.481	12.124
30 year 360 minute summer	34.546	8.890
30 year 360 minute winter	22.456	8.890
30 year 480 minute summer	26.718	7.061
30 year 480 minute winter	17.751	7.061
30 year 600 minute summer	21.494	5.879
30 year 600 minute winter	14.686	5.879
30 year 720 minute summer	18.840	5.049
30 year 720 minute winter	12.662	5.049
30 year 960 minute summer	15.024	3.956
30 year 960 minute winter	9.952	3.956
30 year 1440 minute summer	10.403	2.788
30 year 1440 minute winter	6.992	2.788
30 year +25% CC 15 minute summer	349.871	99.002
30 year +25% CC 15 minute winter	245.524	99.002
30 year +25% CC 30 minute summer	228.334	64.611
30 year +25% CC 30 minute winter	160.234	64.611
30 year +25% CC 60 minute summer	152.248	40.235
30 year +25% CC 60 minute winter	101.150	40.235
30 year +25% CC 120 minute summer	94.691	25.024
30 year +25% CC 120 minute winter	62.911	25.024

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year +25% CC 180 minute summer	72.803	18.735
30 year +25% CC 180 minute winter	47.324	18.735
30 year +25% CC 240 minute summer	57.349	15.156
30 year +25% CC 240 minute winter	38.101	15.156
30 year +25% CC 360 minute summer	43.182	11.112
30 year +25% CC 360 minute winter	28.069	11.112
30 year +25% CC 480 minute summer	33.398	8.826
30 year +25% CC 480 minute winter	22.189	8.826
30 year +25% CC 600 minute summer	26.867	7.349
30 year +25% CC 600 minute winter	18.357	7.349
30 year +25% CC 720 minute summer	23.550	6.312
30 year +25% CC 720 minute winter	15.827	6.312
30 year +25% CC 960 minute summer	18.780	4.945
30 year +25% CC 960 minute winter	12.440	4.945
30 year +25% CC 1440 minute summer	13.004	3.485
30 year +25% CC 1440 minute winter	8.739	3.485
100 year 15 minute summer	364.661	103.186
100 year 15 minute winter	255.902	103.186
100 year 30 minute summer	239.884	67.879
100 year 30 minute winter	168.340	67.879
100 year 60 minute summer	160.969	42.539
100 year 60 minute winter	106.944	42.539
100 year 120 minute summer	100.180	26.475
100 year 120 minute winter	66.557	26.475
100 year 180 minute summer	77.199	19.866
100 year 180 minute winter	50.182	19.866
100 year 240 minute summer	60.869	16.086
100 year 240 minute winter	40.440	16.086
100 year 360 minute summer	45.775	11.779
100 year 360 minute winter	29.755	11.779
100 year 480 minute summer	35.370	9.347
100 year 480 minute winter	23.499	9.347
100 year 600 minute summer	28.397	7.767
100 year 600 minute winter	19.403	7.767
100 year 720 minute summer	24.828	6.654
100 year 720 minute winter	16.686	6.654
100 year 960 minute summer	19.675	5.181
100 year 960 minute winter	13.033	5.181
100 year 1440 minute summer	13.466	3.609
100 year 1440 minute winter	9.050	3.609
100 year +25% CC 15 minute summer	455.826	128.983
100 year +25% CC 15 minute winter	319.878	128.983
100 year +25% CC 30 minute summer	299.855	84.849
100 year +25% CC 30 minute winter	210.424	84.849
100 year +25% CC 60 minute summer	201.211	53.174
100 year +25% CC 60 minute winter	133.680	53.174
100 year +25% CC 120 minute summer	125.225	33.093
100 year +25% CC 120 minute winter	83.197	33.093
100 year +25% CC 180 minute summer	96.499	24.833
100 year +25% CC 180 minute winter	62.727	24.833
100 year +25% CC 240 minute summer	76.086	20.107
100 year +25% CC 240 minute winter	50.550	20.107
100 year +25% CC 360 minute summer	57.219	14.724
100 year +25% CC 360 minute winter	37.194	14.724
100 year +25% CC 480 minute summer	44.213	11.684
100 year +25% CC 480 minute winter	29.374	11.684
100 year +25% CC 600 minute summer	35.497	9.709
100 year +25% CC 600 minute winter	24.253	9.709
100 year +25% CC 720 minute summer	31.035	8.318
100 year +25% CC 720 minute winter	20.858	8.318
100 year +25% CC 960 minute summer	24.593	6.476
100 year +25% CC 960 minute winter	16.291	6.476
100 year +25% CC 1440 minute summer	16.832	4.511
100 year +25% CC 1440 minute winter	11.312	4.511

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 15 minute summer	510.525	144.461	100 year +40% CC 360 minute summer	64.085	16.491
100 year +40% CC 15 minute winter	358.263	144.461	100 year +40% CC 360 minute winter	41.657	16.491
100 year +40% CC 30 minute summer	335.837	95.030	100 year +40% CC 480 minute summer	49.518	13.086
100 year +40% CC 30 minute winter	235.675	95.030	100 year +40% CC 480 minute winter	32.899	13.086
100 year +40% CC 60 minute summer	225.357	59.555	100 year +40% CC 600 minute summer	39.756	10.874
100 year +40% CC 60 minute winter	149.722	59.555	100 year +40% CC 600 minute winter	27.164	10.874
100 year +40% CC 120 minute summer	140.252	37.065	100 year +40% CC 720 minute summer	34.760	9.316
100 year +40% CC 120 minute winter	93.180	37.065	100 year +40% CC 720 minute winter	23.361	9.316
100 year +40% CC 180 minute summer	108.079	27.812	100 year +40% CC 960 minute summer	27.544	7.253
100 year +40% CC 180 minute winter	70.254	27.812	100 year +40% CC 960 minute winter	18.246	7.253
100 year +40% CC 240 minute summer	85.216	22.520	100 year +40% CC 1440 minute summer	18.852	5.053
100 year +40% CC 240 minute winter	56.616	22.520	100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	87.994	0.084	8.2	0.0000	0.0000	OK
15 minute summer	2	11	87.911	0.067	8.1	0.0000	0.0000	OK
15 minute summer	3	10	87.546	0.036	2.3	0.0000	0.0000	OK
15 minute summer	4	11	87.487	0.090	15.0	0.0000	0.0000	OK
15 minute summer	5	10	87.310	0.050	6.2	0.0000	0.0000	OK
180 minute summer	6	116	87.208	0.138	10.5	0.0000	0.0000	OK
15 minute summer	7	10	87.071	0.071	8.8	0.0000	0.0000	OK
15 minute summer	8	12	86.904	0.214	11.0	0.0000	0.0000	OK
15 minute summer	9	10	86.817	0.067	6.8	0.0000	0.0000	OK
180 minute summer	10	108	86.622	0.052	11.4	4.4484	0.0000	OK
180 minute summer	11	112	86.619	0.169	9.7	0.0000	0.0000	OK
180 minute summer	12	112	86.602	0.153	9.6	0.0000	0.0000	OK
15 minute summer	13	10	86.624	0.024	0.8	0.0000	0.0000	OK
180 minute summer	14	112	86.601	0.154	10.0	0.0000	0.0000	OK
15 minute summer	15	10	86.846	0.026	1.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	8.1	0.935	0.561	0.0865	
15 minute summer	2	1.001	4	7.9	0.638	0.197	0.9274	
15 minute summer	3	2.000	4	2.3	0.351	0.130	0.0830	
15 minute summer	4	1.002	6	14.8	1.192	0.318	0.5088	
15 minute summer	5	3.000	6	6.2	1.013	0.111	0.1365	
180 minute summer	6	1.003	J1	6.7	0.053	0.010	14.3043	
15 minute summer	7	4.000	8	8.6	0.687	0.126	0.3598	
15 minute summer	8	1.004	10	11.5	0.186	0.015	1.8652	
15 minute summer	9	5.000	10	6.8	1.113	0.090	0.2862	
180 minute summer	10	1.005	11	9.7	0.157	0.014	0.4931	
180 minute summer	11	1.006	12	9.6	0.217	1.245	0.7366	
180 minute summer	12	1.007	14	8.9	0.041	0.055	2.8969	
15 minute summer	13	6.000	14	0.8	0.486	0.056	0.1415	
180 minute summer	14	1.008	16	9.3	0.038	0.066	3.8858	
15 minute summer	15	7.000	16	1.8	0.865	0.065	0.0175	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute summer	16	112	86.601	0.156	9.7	0.0000	0.0000	OK
180 minute summer	17	112	86.601	0.158	9.6	0.0000	0.0000	OK
15 minute summer	18	10	86.405	0.035	2.5	0.0000	0.0000	OK
180 minute summer	19	112	86.167	0.047	10.1	0.0000	0.0000	OK
15 minute summer	20	10	86.239	0.019	1.7	0.0000	0.0000	OK
180 minute summer	21	120	86.100	0.380	10.5	0.0000	0.0000	OK
15 minute summer	22	10	85.923	0.023	1.4	0.0000	0.0000	OK
240 minute summer	23	160	85.832	0.232	9.9	0.0000	0.0000	OK
240 minute summer	24	172	85.665	0.205	9.5	0.0000	0.0000	OK
240 minute summer	25	172	85.489	0.079	9.4	0.0000	0.0000	OK
180 minute summer	J1	116	87.208	0.208	6.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
180 minute summer	16	1.009	17	9.5	0.037	0.045	1.7318	
180 minute summer	17	1.010	19	9.6	0.452	0.613	0.4274	
15 minute summer	18	8.000	19	2.5	0.789	0.118	0.0364	
180 minute summer	19	1.011	21	10.1	0.074	0.015	4.0093	
15 minute summer	20	9.000	21	1.7	1.117	0.034	0.0551	
180 minute summer	21	1.012	23	9.7	0.108	0.048	4.9321	
15 minute summer	22	10.000	23	1.4	0.825	0.048	0.0131	
240 minute summer	23	1.013	24	9.5	0.071	0.016	4.8713	
240 minute summer	24	1.014	25	9.4	0.429	0.878	0.2017	75.9
180 minute summer	J1	1.004_1	8	4.4	0.203	0.003	0.1367	

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Results for 2 year Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	88.017	0.107	12.0	0.0000	0.0000	OK
15 minute summer	2	11	87.926	0.082	11.9	0.0000	0.0000	OK
15 minute summer	3	10	87.554	0.044	3.4	0.0000	0.0000	OK
15 minute summer	4	11	87.510	0.113	22.2	0.0000	0.0000	OK
15 minute summer	5	10	87.321	0.061	9.1	0.0000	0.0000	OK
180 minute summer	6	116	87.256	0.186	13.8	0.0000	0.0000	OK
15 minute summer	7	10	87.087	0.087	13.0	0.0000	0.0000	OK
15 minute summer	8	12	86.970	0.280	16.8	0.0000	0.0000	OK
15 minute summer	9	10	86.830	0.080	10.1	0.0000	0.0000	OK
120 minute summer	10	78	86.647	0.077	17.5	6.5346	0.0000	OK
120 minute summer	11	78	86.644	0.194	12.5	0.0000	0.0000	OK
120 minute summer	12	80	86.627	0.178	12.2	0.0000	0.0000	OK
15 minute summer	13	10	86.629	0.029	1.2	0.0000	0.0000	OK
120 minute summer	14	80	86.627	0.180	12.9	0.0000	0.0000	OK
15 minute summer	15	10	86.852	0.032	2.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	11.9	1.033	0.821	0.1142	
15 minute summer	2	1.001	4	11.7	0.709	0.291	1.2321	
15 minute summer	3	2.000	4	3.4	0.392	0.191	0.1066	
15 minute summer	4	1.002	6	21.9	1.329	0.472	0.6764	
15 minute summer	5	3.000	6	9.1	1.036	0.163	0.1961	
180 minute summer	6	1.003	J1	8.8	0.056	0.013	18.5710	
15 minute summer	7	4.000	8	12.7	0.768	0.186	0.4778	
15 minute summer	8	1.004	10	16.7	0.210	0.021	2.5125	
15 minute summer	9	5.000	10	10.1	1.197	0.134	0.4020	
120 minute summer	10	1.005	11	12.5	0.177	0.019	0.6218	
120 minute summer	11	1.006	12	12.2	0.251	1.588	0.8952	
120 minute summer	12	1.007	14	11.5	0.047	0.071	3.4311	
15 minute summer	13	6.000	14	1.2	0.515	0.080	0.1913	
120 minute summer	14	1.008	16	12.0	0.043	0.085	4.5955	
15 minute summer	15	7.000	16	2.6	0.964	0.094	0.0228	

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Results for 2 year Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	16	80	86.626	0.181	12.5	0.0000	0.0000	OK
120 minute summer	17	80	86.626	0.183	12.4	0.0000	0.0000	OK
15 minute summer	18	10	86.413	0.043	3.6	0.0000	0.0000	OK
180 minute summer	19	112	86.174	0.054	12.9	0.0000	0.0000	OK
15 minute summer	20	10	86.243	0.023	2.6	0.0000	0.0000	OK
180 minute summer	21	120	86.173	0.453	13.3	0.0000	0.0000	OK
15 minute summer	22	10	85.927	0.027	2.0	0.0000	0.0000	OK
240 minute summer	23	164	85.877	0.277	12.5	0.0000	0.0000	OK
240 minute summer	24	176	85.708	0.248	11.9	0.0000	0.0000	SURCHARGED
240 minute summer	25	176	85.499	0.089	11.8	0.0000	0.0000	OK
180 minute summer	J1	116	87.256	0.256	8.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	16	1.009	17	12.2	0.040	0.058	2.0449	
120 minute summer	17	1.010	19	12.3	0.487	0.786	0.5012	
15 minute summer	18	8.000	19	3.6	0.876	0.171	0.0474	
180 minute summer	19	1.011	21	12.9	0.075	0.019	5.1402	
15 minute summer	20	9.000	21	2.6	1.237	0.051	0.0595	
180 minute summer	21	1.012	23	12.4	0.113	0.061	7.0468	
15 minute summer	22	10.000	23	2.0	0.917	0.070	0.0368	
240 minute summer	23	1.013	24	11.9	0.074	0.020	6.5865	
240 minute summer	24	1.014	25	11.8	0.465	1.097	0.2294	99.6
180 minute summer	J1	1.004_1	8	5.9	0.232	0.004	0.1628	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	11	88.321	0.411	29.8	0.0000	0.0000	FLOOD RISK
15 minute summer	2	11	87.984	0.140	29.1	0.0000	0.0000	OK
15 minute summer	3	12	87.673	0.163	8.4	0.0000	0.0000	SURCHARGED
15 minute summer	4	12	87.654	0.257	54.0	0.0000	0.0000	SURCHARGED
120 minute summer	5	78	87.470	0.210	9.9	0.0000	0.0000	OK
120 minute summer	6	78	87.469	0.399	39.1	0.0000	0.0000	OK
15 minute summer	7	12	87.164	0.164	32.1	0.0000	0.0000	OK
30 minute summer	8	20	87.160	0.470	36.5	0.0000	0.0000	OK
15 minute summer	9	10	86.871	0.121	24.9	0.0000	0.0000	OK
120 minute summer	10	88	86.787	0.217	39.3	18.4130	0.0000	OK
120 minute summer	11	88	86.786	0.336	24.5	0.0000	0.0000	OK
120 minute summer	12	90	86.777	0.328	23.6	0.0000	0.0000	OK
120 minute summer	13	90	86.777	0.177	1.3	0.0000	0.0000	SURCHARGED
120 minute summer	14	90	86.777	0.330	25.1	0.0000	0.0000	OK
15 minute summer	15	10	86.871	0.051	6.4	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)
15 minute summer	1	1.000	2	29.1	1.651	2.005	0.1710	
15 minute summer	2	1.001	4	28.9	0.868	0.721	2.4523	
15 minute summer	3	2.000	4	7.5	0.509	0.427	0.2037	
15 minute summer	4	1.002	6	49.9	1.529	1.076	1.6290	
120 minute summer	5	3.000	6	9.2	0.832	0.165	0.6527	
120 minute summer	6	1.003	J1	24.1	0.089	0.035	40.0078	
15 minute summer	7	4.000	8	31.8	0.868	0.464	1.5186	
30 minute summer	8	1.004	10	34.2	0.205	0.044	6.1145	
15 minute summer	9	5.000	10	24.8	1.358	0.331	0.9303	
120 minute summer	10	1.005	11	24.5	0.168	0.036	1.5124	
120 minute summer	11	1.006	12	23.6	0.241	3.065	1.8156	
120 minute summer	12	1.007	14	21.6	0.047	0.133	6.8826	
120 minute summer	13	6.000	14	1.0	0.324	0.069	0.3980	
120 minute summer	14	1.008	16	21.7	0.047	0.154	9.1877	
15 minute summer	15	7.000	16	6.4	1.238	0.233	0.0438	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	16	90	86.777	0.332	23.3	0.0000	0.0000	OK
120 minute summer	17	90	86.777	0.334	22.0	0.0000	0.0000	SURCHARGED
15 minute summer	18	10	86.441	0.071	9.0	0.0000	0.0000	OK
180 minute summer	19	132	86.394	0.274	22.8	0.0000	0.0000	OK
180 minute summer	20	132	86.394	0.174	2.1	0.0000	0.0000	SURCHARGED
180 minute summer	21	132	86.394	0.674	22.9	0.0000	0.0000	FLOOD RISK
180 minute summer	22	172	86.057	0.157	1.6	0.0000	0.0000	SURCHARGED
180 minute summer	23	172	86.057	0.457	21.7	0.0000	0.0000	OK
180 minute summer	24	180	85.915	0.455	20.5	0.0000	0.0000	FLOOD RISK
180 minute summer	25	180	85.528	0.118	20.3	0.0000	0.0000	OK
120 minute summer	J1	78	87.469	0.469	24.1	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)
120 minute summer	16	1.009	17	21.7	0.045	0.102	4.0740	
120 minute summer	17	1.010	19	21.7	0.579	1.383	0.7504	
15 minute summer	18	8.000	19	8.9	1.118	0.427	0.0928	
180 minute summer	19	1.011	21	22.0	0.076	0.032	11.1900	
180 minute summer	20	9.000	21	2.1	0.830	0.041	0.1099	
180 minute summer	21	1.012	23	21.3	0.112	0.105	16.6950	
180 minute summer	22	10.000	23	1.6	0.522	0.056	0.1389	
180 minute summer	23	1.013	24	20.5	0.075	0.035	16.4619	
180 minute summer	24	1.014	25	20.3	0.586	1.890	0.2819	197.7
120 minute summer	J1	1.004_1	8	15.2	0.275	0.009	1.4463	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	88.510	0.600	37.3	0.0000	0.2073	FLOOD
15 minute summer	2	12	88.125	0.281	35.2	0.0000	0.0000	SURCHARGED
30 minute summer	3	19	87.885	0.375	9.4	0.0000	0.0000	FLOOD RISK
15 minute summer	4	12	87.856	0.459	65.4	0.0000	0.0000	SURCHARGED
120 minute summer	5	78	87.553	0.293	12.4	0.0000	0.0000	SURCHARGED
120 minute summer	6	78	87.552	0.482	47.5	0.0000	0.0000	OK
15 minute summer	7	12	87.239	0.239	40.1	0.0000	0.0000	OK
30 minute summer	8	20	87.230	0.540	43.8	0.0000	0.0000	SURCHARGED
15 minute summer	9	10	86.886	0.136	31.1	0.0000	0.0000	OK
120 minute summer	10	100	86.870	0.300	48.1	25.5279	0.0000	OK
120 minute summer	11	100	86.870	0.420	26.9	0.0000	0.0000	OK
120 minute summer	12	102	86.864	0.415	25.7	0.0000	0.0000	OK
120 minute summer	13	102	86.864	0.264	1.6	0.0000	0.0000	SURCHARGED
120 minute summer	14	102	86.864	0.417	28.1	0.0000	0.0000	OK
15 minute summer	15	10	86.878	0.058	8.1	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	1	1.000	2	35.2	1.997	2.427	0.1735	
15 minute summer	2	1.001	4	34.1	0.903	0.849	2.9703	
30 minute summer	3	2.000	4	8.1	0.496	0.464	0.2037	
15 minute summer	4	1.002	6	57.5	1.541	1.239	1.6296	
120 minute summer	5	3.000	6	11.7	0.884	0.210	0.6629	
120 minute summer	6	1.003	J1	29.4	0.095	0.043	49.2168	
15 minute summer	7	4.000	8	37.9	0.897	0.555	1.8768	
30 minute summer	8	1.004	10	42.3	0.210	0.054	8.8453	
15 minute summer	9	5.000	10	30.9	1.403	0.413	1.1545	
120 minute summer	10	1.005	11	26.9	0.164	0.040	2.1735	
120 minute summer	11	1.006	12	25.7	0.243	3.334	2.2195	
120 minute summer	12	1.007	14	23.4	0.046	0.144	9.0975	
120 minute summer	13	6.000	14	1.2	0.330	0.080	0.3980	
120 minute summer	14	1.008	16	23.3	0.047	0.166	12.1325	
15 minute summer	15	7.000	16	8.0	1.318	0.295	0.0645	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	16	102	86.864	0.419	25.9	0.0000	0.0000	OK
120 minute summer	17	102	86.864	0.421	23.0	0.0000	0.0000	SURCHARGED
15 minute summer	18	10	86.451	0.081	11.3	0.0000	0.0000	OK
180 minute summer	19	116	86.415	0.295	24.6	0.0000	0.0000	OK
180 minute summer	20	112	86.415	0.195	2.6	0.0000	0.0000	SURCHARGED
180 minute summer	21	116	86.414	0.694	24.8	0.0000	0.0000	FLOOD RISK
180 minute summer	22	184	86.091	0.191	2.0	0.0000	0.0000	SURCHARGED
180 minute summer	23	184	86.091	0.491	23.2	0.0000	0.0000	OK
180 minute summer	24	192	85.960	0.500	21.6	0.0000	0.0000	FLOOD RISK
180 minute summer	25	192	85.532	0.122	21.5	0.0000	0.0000	OK
120 minute summer	J1	78	87.552	0.552	29.4	0.0000	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	16	1.009	17	22.2	0.045	0.105	5.3743	
120 minute summer	17	1.010	19	22.1	0.576	1.410	0.7833	
15 minute summer	18	8.000	19	11.2	1.181	0.537	0.1102	
180 minute summer	19	1.011	21	22.8	0.075	0.033	11.8633	
180 minute summer	20	9.000	21	2.4	0.773	0.047	0.1099	
180 minute summer	21	1.012	23	22.5	0.110	0.110	18.7944	
180 minute summer	22	10.000	23	2.0	0.522	0.070	0.1389	
180 minute summer	23	1.013	24	21.6	0.076	0.037	18.9852	
180 minute summer	24	1.014	25	21.5	0.615	2.001	0.2856	247.8
120 minute summer	J1	1.004_1	8	18.8	0.268	0.012	2.1398	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	88.510	0.600	38.8	0.0000	0.5041	FLOOD
15 minute summer	2	12	88.155	0.311	35.0	0.0000	0.0000	SURCHARGED
30 minute summer	3	20	87.932	0.422	9.9	0.0000	0.0000	FLOOD RISK
30 minute summer	4	20	87.903	0.506	60.1	0.0000	0.0000	SURCHARGED
120 minute summer	5	78	87.577	0.317	13.1	0.0000	0.0000	FLOOD RISK
120 minute summer	6	78	87.575	0.505	49.4	0.0000	0.0000	SURCHARGED
30 minute summer	7	20	87.259	0.259	37.7	0.0000	0.0000	OK
30 minute summer	8	20	87.248	0.558	47.3	0.0000	0.0000	SURCHARGED
120 minute summer	9	104	86.897	0.147	14.5	0.0000	0.0000	OK
120 minute summer	10	104	86.897	0.327	49.4	27.7681	0.0000	OK
120 minute summer	11	104	86.897	0.447	27.5	0.0000	0.0000	OK
120 minute summer	12	104	86.890	0.441	26.3	0.0000	0.0000	OK
120 minute summer	13	104	86.890	0.290	1.7	0.0000	0.0000	SURCHARGED
120 minute summer	14	104	86.890	0.443	28.8	0.0000	0.0000	OK
120 minute summer	15	104	86.889	0.069	3.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	35.0	1.987	2.415	0.1735	
15 minute summer	2	1.001	4	33.3	0.884	0.831	2.9703	
30 minute summer	3	2.000	4	8.6	0.503	0.492	0.2037	
30 minute summer	4	1.002	6	54.7	1.374	1.179	1.6296	
120 minute summer	5	3.000	6	12.5	0.883	0.225	0.6629	
120 minute summer	6	1.003	J1	31.1	0.095	0.045	51.9750	
30 minute summer	7	4.000	8	34.4	0.804	0.503	1.9421	
30 minute summer	8	1.004	10	44.3	0.210	0.057	9.5560	
120 minute summer	9	5.000	10	14.5	0.757	0.194	2.0578	
120 minute summer	10	1.005	11	27.5	0.163	0.041	2.4016	
120 minute summer	11	1.006	12	26.3	0.244	3.418	2.2855	
120 minute summer	12	1.007	14	23.6	0.046	0.146	9.7933	
120 minute summer	13	6.000	14	1.3	0.383	0.090	0.3980	
120 minute summer	14	1.008	16	23.6	0.047	0.167	13.0572	
120 minute summer	15	7.000	16	3.8	0.952	0.139	0.1091	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	16	104	86.889	0.444	26.6	0.0000	0.0000	OK
120 minute summer	17	104	86.889	0.446	23.3	0.0000	0.0000	SURCHARGED
15 minute summer	18	10	86.453	0.083	11.8	0.0000	0.0000	OK
180 minute summer	19	112	86.417	0.297	24.8	0.0000	0.0000	OK
180 minute summer	20	112	86.417	0.197	2.8	0.0000	0.0000	SURCHARGED
180 minute summer	21	112	86.417	0.697	25.3	0.0000	0.0000	FLOOD RISK
180 minute summer	22	180	86.102	0.202	2.2	0.0000	0.0000	SURCHARGED
180 minute summer	23	184	86.102	0.502	23.8	0.0000	0.0000	FLOOD RISK
180 minute summer	24	192	85.975	0.515	22.0	0.0000	0.0000	FLOOD RISK
180 minute summer	25	192	85.533	0.123	21.8	0.0000	0.0000	OK
120 minute summer	J1	78	87.575	0.575	31.1	0.0000	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	16	1.009	17	22.3	0.046	0.105	5.7825	
120 minute summer	17	1.010	19	22.4	0.574	1.431	0.7869	
15 minute summer	18	8.000	19	11.7	1.193	0.560	0.1139	
180 minute summer	19	1.011	21	23.1	0.075	0.034	11.9446	
180 minute summer	20	9.000	21	2.6	0.809	0.051	0.1099	
180 minute summer	21	1.012	23	22.9	0.114	0.113	19.5088	
180 minute summer	22	10.000	23	2.2	0.522	0.077	0.1389	
180 minute summer	23	1.013	24	22.0	0.074	0.038	19.8015	
180 minute summer	24	1.014	25	21.8	0.624	2.035	0.2867	263.2
120 minute summer	J1	1.004_1	8	19.9	0.260	0.012	2.3548	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	9	88.510	0.600	48.5	0.0000	3.5531	FLOOD
30 minute summer	2	19	88.250	0.406	35.6	0.0000	0.0000	SURCHARGED
15 minute summer	3	11	88.110	0.600	13.7	0.0000	0.1020	FLOOD
30 minute summer	4	19	88.061	0.664	64.7	0.0000	0.0000	FLOOD RISK
60 minute summer	5	41	87.653	0.393	24.8	0.0000	0.0000	FLOOD RISK
60 minute summer	6	41	87.649	0.579	88.2	0.0000	0.0000	SURCHARGED
15 minute summer	7	11	87.340	0.340	52.3	0.0000	0.0000	FLOOD RISK
30 minute summer	8	19	87.319	0.629	64.5	0.0000	0.0000	FLOOD RISK
120 minute summer	9	106	87.029	0.279	18.1	0.0000	0.0000	OK
120 minute summer	10	106	87.029	0.458	59.2	38.9723	0.0000	OK
120 minute summer	11	106	87.028	0.578	32.4	0.0000	0.0000	SURCHARGED
120 minute summer	12	108	87.019	0.570	31.2	0.0000	0.0000	SURCHARGED
120 minute summer	13	106	87.019	0.419	2.1	0.0000	0.0000	SURCHARGED
120 minute summer	14	108	87.019	0.572	32.4	0.0000	0.0000	FLOOD RISK
120 minute summer	15	108	87.019	0.199	4.7	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	35.1	1.997	2.426	0.1735	
30 minute summer	2	1.001	4	32.5	0.871	0.810	2.9703	
15 minute summer	3	2.000	4	11.5	0.654	0.656	0.2037	
30 minute summer	4	1.002	6	61.3	1.543	1.323	1.6296	
60 minute summer	5	3.000	6	24.1	1.057	0.434	0.6629	
60 minute summer	6	1.003	J1	52.2	0.132	0.076	60.7854	
15 minute summer	7	4.000	8	50.3	0.930	0.736	2.0248	
30 minute summer	8	1.004	10	57.7	0.231	0.074	13.8223	
120 minute summer	9	5.000	10	18.1	0.809	0.242	2.7269	
120 minute summer	10	1.005	11	32.4	0.162	0.048	3.6863	
120 minute summer	11	1.006	12	31.2	0.241	4.056	2.2928	
120 minute summer	12	1.007	14	28.7	0.050	0.177	13.4949	
120 minute summer	13	6.000	14	1.8	0.367	0.126	0.3980	
120 minute summer	14	1.008	16	26.5	0.047	0.188	17.9748	
120 minute summer	15	7.000	16	4.7	0.950	0.172	0.1502	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	16	108	87.019	0.574	28.5	0.0000	0.0000	FLOOD RISK
120 minute summer	17	108	87.018	0.575	24.7	0.0000	0.0000	FLOOD RISK
15 minute summer	18	10	86.466	0.096	14.7	0.0000	0.0000	OK
120 minute summer	19	70	86.428	0.308	28.2	0.0000	0.0000	OK
120 minute summer	20	70	86.430	0.210	4.6	0.0000	0.0000	FLOOD RISK
120 minute summer	21	70	86.428	0.708	29.1	0.0000	0.0000	FLOOD RISK
180 minute summer	22	184	86.167	0.267	2.7	0.0000	0.0000	SURCHARGED
180 minute summer	23	184	86.167	0.567	26.7	0.0000	0.0000	FLOOD RISK
180 minute summer	24	192	86.056	0.596	24.1	0.0000	0.0000	FLOOD RISK
180 minute summer	25	192	85.539	0.129	23.8	0.0000	0.0000	OK
60 minute summer	J1	41	87.649	0.649	52.2	0.0000	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	16	1.009	17	24.5	0.046	0.116	7.9525	
120 minute summer	17	1.010	19	24.6	0.620	1.572	0.7991	
15 minute summer	18	8.000	19	14.6	1.252	0.698	0.1353	
120 minute summer	19	1.011	21	25.5	0.080	0.037	12.3157	
120 minute summer	20	9.000	21	4.3	1.224	0.085	0.1099	
120 minute summer	21	1.012	23	25.2	0.121	0.124	22.5137	
180 minute summer	22	10.000	23	2.5	0.566	0.088	0.1389	
180 minute summer	23	1.013	24	24.1	0.074	0.041	24.6889	
180 minute summer	24	1.014	25	23.8	0.671	2.221	0.2927	330.0
60 minute summer	J1	1.004_1	8	41.1	0.237	0.026	4.3955	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	9	88.510	0.600	54.4	0.0000	5.7908	FLOOD
30 minute summer	2	19	88.264	0.420	35.0	0.0000	0.0000	SURCHARGED
30 minute summer	3	18	88.110	0.600	13.9	0.0000	0.7621	FLOOD
30 minute summer	4	18	88.085	0.688	67.6	0.0000	0.0000	FLOOD RISK
60 minute summer	5	39	87.675	0.415	27.8	0.0000	0.0000	FLOOD RISK
60 minute summer	6	40	87.667	0.597	97.5	0.0000	0.0000	FLOOD RISK
15 minute summer	7	10	87.340	0.340	58.6	0.0000	0.0000	FLOOD RISK
60 minute summer	8	39	87.333	0.643	74.3	0.0000	0.0000	FLOOD RISK
120 minute summer	9	96	87.120	0.370	20.3	0.0000	1.1301	FLOOD
120 minute summer	10	96	87.121	0.551	78.7	42.5425	0.0000	FLOOD RISK
120 minute summer	11	96	87.121	0.671	39.6	0.0000	0.0000	SURCHARGED
120 minute summer	12	98	87.110	0.661	37.9	0.0000	0.0000	SURCHARGED
120 minute summer	13	98	87.110	0.510	2.3	0.0000	0.0000	FLOOD RISK
120 minute summer	14	98	87.110	0.663	38.7	0.0000	0.0000	FLOOD RISK
120 minute summer	15	98	87.110	0.290	5.3	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	35.3	2.008	2.440	0.1735	
30 minute summer	2	1.001	4	32.0	0.870	0.799	2.9703	
30 minute summer	3	2.000	4	10.7	0.606	0.608	0.2037	
30 minute summer	4	1.002	6	62.4	1.568	1.345	1.6296	
60 minute summer	5	3.000	6	27.1	1.070	0.488	0.6629	
60 minute summer	6	1.003	J1	57.6	0.137	0.084	62.9044	
15 minute summer	7	4.000	8	57.4	0.925	0.840	2.0248	
60 minute summer	8	1.004	10	64.3	0.184	0.082	24.5607	
120 minute summer	9	5.000	10	20.3	0.840	0.271	2.7699	
120 minute summer	10	1.005	11	39.6	0.165	0.059	4.7332	
120 minute summer	11	1.006	12	37.9	0.243	4.921	2.2928	
120 minute summer	12	1.007	14	34.1	0.053	0.210	16.3511	
120 minute summer	13	6.000	14	2.0	0.367	0.139	0.3980	
120 minute summer	14	1.008	16	29.8	0.047	0.212	21.7687	
120 minute summer	15	7.000	16	5.3	0.945	0.194	0.1502	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.57%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	16	98	87.110	0.665	32.1	0.0000	0.0000	FLOOD RISK
120 minute summer	17	98	87.110	0.667	26.7	0.0000	0.0000	FLOOD RISK
15 minute summer	18	10	86.475	0.105	16.5	0.0000	0.0000	OK
120 minute summer	19	70	86.434	0.314	28.9	0.0000	0.0000	OK
120 minute summer	20	68	86.438	0.218	5.2	0.0000	0.0000	FLOOD RISK
120 minute summer	21	70	86.434	0.714	31.5	0.0000	0.0000	FLOOD RISK
180 minute summer	22	180	86.206	0.306	3.0	0.0000	0.0000	SURCHARGED
180 minute summer	23	184	86.206	0.606	28.7	0.0000	0.0000	FLOOD RISK
240 minute summer	24	232	86.113	0.653	25.5	0.0000	0.0000	FLOOD RISK
240 minute summer	25	232	85.542	0.132	25.2	0.0000	0.0000	OK
60 minute summer	J1	40	87.667	0.667	57.6	0.0000	0.0000	FLOOD RISK

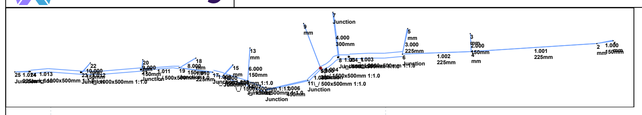
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute summer	16	1.009	17	26.3	0.046	0.124	9.6262	
120 minute summer	17	1.010	19	26.2	0.660	1.674	0.8025	
15 minute summer	18	8.000	19	16.3	1.279	0.783	0.1484	
120 minute summer	19	1.011	21	27.3	0.079	0.040	12.5167	
120 minute summer	20	9.000	21	5.0	1.179	0.099	0.1099	
120 minute summer	21	1.012	23	27.1	0.121	0.133	25.1904	
180 minute summer	22	10.000	23	2.8	0.571	0.097	0.1389	
180 minute summer	23	1.013	24	25.6	0.074	0.044	28.3794	
240 minute summer	24	1.014	25	25.2	0.703	2.346	0.2964	400.6
60 minute summer	J1	1.004_1	8	53.3	0.214	0.033	4.6930	

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Water Quality

	Area (ha)	Intended Land Use	Entering via Node or Link	Name	SuDS Component	Pollution hazard indices TSS	Pollution hazard indices Metals	Pollution hazard indices Hydrocarbons	Pollution mitigation indices TSS	Pollution mitigation indices Metals	Pollution mitigation indices Hydrocarbons	Cumulative pollution hazard indices TSS	Cumulative pollution hazard indices Metals	Cumulative pollution hazard indices Hydrocarbons
✓	0.065	Roads	Node	1		0.7	0.6	0.7				0.7	0.6	0.7
✓	0.018	Roads	Node	3		0.7	0.6	0.7				0.7	0.6	0.7
✓	0.033	Roads	Node	5		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.003	Swale				0.5	0.6	0.6	0.2	0	0.1
			Link	1.004_1	Swale				0.25	0.3	0.3	0	0	0
✓	0.054	Roads	Node	7		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.004	Swale				0.25	0.3	0.3	0.45	0.3	0.4
✓	0.054	Roads	Node	9		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.005	Swale				0.25	0.3	0.3	0.45	0.3	0.4
			Link	1.007	Swale				0.25	0.3	0.3	0.2	0	0.1
✓	0.006	Roads	Node	13		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.008	Swale				0.25	0.3	0.3	0.45	0.3	0.4
✓	0.014	Roads	Node	15		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.009	Swale				0.25	0.3	0.3	0.45	0.3	0.4
✓	0.020	Roads	Node	18		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.011	Swale				0.25	0.3	0.3	0.45	0.3	0.4
✓	0.014	Roads	Node	20		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.012	Swale				0.25	0.3	0.3	0.45	0.3	0.4
✓	0.011	Roads	Node	22		0.7	0.6	0.7				0.7	0.6	0.7
			Link	1.013	Swale				0.25	0.3	0.3	0.45	0.3	0.4
			Node	25								0.45	0.3	0.4
												Insufficient	Insufficient	Insufficient

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Appendix 8: DCO Works No.9 Proposed Drainage

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	x
CV	1.000	Connection Type	Level Soffits		
Time of Entry (mins)	4.00	Minimum Backdrop Height (m)	0.200		

Swale Link Type

Shape	Trapezoidal	Side Slope (1:X)	3.0	Follow Ground	x
Barrels	1	Auto Increment (mm)	150	Velocity	Manning
Height (mm)	600	Preferred Cover (m)	0.010	ks (mm) / n	0.040

Available Diameters (mm)

1000

Circular Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

Double Link Type

Shape	Circular	Barrels	2	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

Triple Link Type

Shape	Circular	Barrels	3	Auto Increment (mm)	150	Follow Ground	x

Available Diameters (mm)

750

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1		4.00	42.000		447356.827	327522.200	0.472
2		4.00	41.800		447380.482	327542.400	0.585
3	0.056	4.00	42.500	1200	447398.616	327560.741	1.500
4			41.000		447392.412	327560.801	0.500
5	0.009	15.00	41.500		447395.041	327567.132	1.537
6	0.026	15.00	40.000		447392.431	327592.162	0.521
7	0.035	15.00	39.500		447381.761	327631.534	0.686
8	0.071	15.00	38.700		447355.849	327661.927	1.200
9	0.026	4.00	37.981		447306.766	327722.214	2.281
10	0.035	4.00	40.300	1200	447289.627	327717.593	1.200
J1			38.000		447308.031	327719.751	0.900
12	0.096	4.00	42.000	1200	447392.531	327615.920	1.200
13		4.00	39.500	1200	447384.896	327635.087	1.406
14	0.107	4.00	39.500	1200	447371.493	327649.504	1.580
18	0.031	4.00	38.000	1200	447290.265	327784.407	1.500
20	0.119	4.00	37.450	1500	447271.181	327779.210	1.900
21			37.200	1200	447266.442	327817.746	1.697
22			36.717	1200	447228.820	327839.934	1.399
23	0.049	4.00	45.000	1200	447361.098	327541.839	1.350
24			42.000		447323.582	327556.081	0.500
25	0.041	4.00	44.000	1200	447344.177	327574.818	1.300
26	0.023	4.00	42.000		447317.866	327574.595	0.550
27	0.038	4.00	43.000	1200	447329.392	327605.621	1.350
28	0.022	4.00	42.000		447309.188	327603.891	0.600
29	0.053	4.00	42.300	1200	447312.018	327648.054	0.800
30	0.024	4.00	42.000		447296.166	327646.030	0.650
31	0.048	4.00	42.500	1200	447298.120	327688.384	1.800
32	0.017	4.00	42.000		447287.163	327688.178	1.500
33	0.009	4.00	42.000		447280.713	327720.471	6.350
34			37.450	1500	447275.821	327746.191	1.850

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
35			42.000		447273.517	327700.921	5.900

Links (Results)

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	0.301	415.9	0.0	-0.128	-0.100	0.000	0.0
1.001	3.563	4917.0	0.0	-0.015	-0.100	0.000	0.0
2.000	2.374	94.4	10.2	1.275	0.275	0.056	0.0
1.002	4.414	6090.7	10.2	-0.100	0.937	0.056	0.0
1.003	1.646	2272.1	7.5	0.937	-0.079	0.065	0.0
1.004	1.695	2339.5	10.3	-0.079	0.086	0.091	0.0
1.005	4.103	5662.5	24.1	0.086	-0.102	0.223	0.0
1.006	1.027	1725.5	41.1	0.600	0.300	0.400	0.0
9.000_1	4.220	167.8	17.4	0.975	0.425	0.096	0.0
3.001	1.477	104.4	0.0	1.106	1.280	0.000	0.0
3.002	2.284	161.4	19.3	1.280	0.900	0.107	0.0
1.007	0.490	1108.4	43.1	1.081	5.150	0.426	0.0
2.000_1	3.042	121.0	8.9	1.125	0.275	0.049	0.0
1.001_1	0.596	822.2	8.9	-0.100	-0.050	0.049	0.0
3.000	2.864	113.9	7.5	1.075	0.325	0.041	0.0
1.002_1	0.474	654.7	18.9	-0.050	0.000	0.114	0.0
4.000	1.453	57.8	6.9	1.125	0.375	0.038	0.0
1.003_1	0.395	544.9	25.8	0.000	0.050	0.174	0.0
5.000	1.266	50.3	9.6	0.575	0.425	0.053	0.0
1.004_1	1.647	2272.7	36.4	0.050	0.900	0.251	0.0
6.000	1.770	70.4	8.6	1.575	1.275	0.048	0.0
1.005_1	0.858	1184.2	44.9	0.900	1.000	0.316	0.0
1.006_1	0.901	1591.6	44.0	4.400	4.500	0.316	0.0
9.000	5.550	98.1	6.4	1.050	5.550	0.035	0.0

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Links (Results)

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.007_1	0.490	1661.2	80.2	5.150	0.650	0.787	0.0
1.008	0.434	1472.0	76.8	0.650	0.700	0.787	0.0
12.000	2.090	83.1	5.6	1.275	1.227	0.031	0.0
1.010	0.390	881.7	89.4	0.700	0.497	0.937	0.0
1.011	0.289	20.5	82.9	1.397	1.099	0.937	0.0
7.006	0.697	27.7	43.6	0.675	0.756	0.400	0.0

Simulation Settings

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

Storm Durations

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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
30	0	0	0	100	25	0	0
30	25	0	0	100	40	0	0

Node 21 Online Orifice Control

Flap Valve	x	Invert Level (m)	35.503	Design Flow (l/s)	17.5	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Depth (m)	1.500	Diameter (m)	0.083		

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Node 35 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	40.000	Product Number	CTL-SHE-0041-1000-1800-1000
Design Depth (m)	1.800	Min Outlet Diameter (m)	0.075
Design Flow (l/s)	1.0	Min Node Diameter (mm)	1200

Node 7 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	38.814	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	20.000		

Node 6 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	39.479	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	20.000		

Node 2 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	41.215	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	20.000		

Node J1 Online Orifice Control

Flap Valve	x	Invert Level (m)	37.100	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.160		

Node 35 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	40.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	0

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	370.0	0.0	1.000	920.0	0.0	2.000	1550.0	0.0

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Results for 1 year Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	41.539	0.011	0.5	0.0000	0.0000	OK
15 minute summer	2	1	41.215	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	10	41.049	0.049	7.9	0.0557	0.0000	OK
15 minute summer	4	10	40.521	0.021	7.9	0.0000	0.0000	OK
15 minute summer	5	10	40.001	0.038	8.4	0.0000	0.0000	OK
30 minute summer	6	23	39.686	0.207	8.4	0.0000	0.0000	OK
120 minute summer	7	70	39.095	0.281	11.7	0.0000	0.0000	OK
15 minute summer	8	11	37.566	0.066	21.7	0.0000	0.0000	OK
360 minute summer	9	256	35.859	0.159	13.1	0.0000	0.0000	OK
15 minute summer	10	10	39.123	0.023	4.9	0.0266	0.0000	OK
120 minute summer	J1	76	37.310	0.210	19.2	0.0000	0.0000	OK
15 minute summer	12	10	40.843	0.043	13.4	0.0485	0.0000	OK
15 minute summer	13	1	38.094	0.000	0.0	0.0000	0.0000	OK
15 minute summer	14	9	37.983	0.063	14.9	0.0707	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	24	-0.5	-0.034	-0.001	0.6933	
15 minute summer	2	1.001	4	0.0	0.000	0.000	0.0460	
15 minute summer	3	2.000	4	7.9	2.005	0.084	0.0632	
15 minute summer	4	1.002	5	7.9	0.472	0.001	0.0664	
15 minute summer	5	1.003	6	8.1	0.179	0.004	2.7413	
30 minute summer	6	1.004	7	4.7	0.035	0.002	5.6527	
120 minute summer	7	1.005	8	10.3	0.695	0.002	0.0740	
15 minute summer	8	1.006	J1	24.0	0.288	0.014	8.1517	
360 minute summer	9	1.007	33	12.7	0.147	0.011	5.7360	
15 minute summer	10	9.000	33	4.9	2.867	0.050	0.0160	
120 minute summer	J1	7.006	9	15.6	0.777	0.564	0.0557	
15 minute summer	12	9.000_1	7	13.4	1.733	0.080	0.3756	
15 minute summer	13	3.001	14	0.0	0.000	0.000	0.1045	
15 minute summer	14	3.002	8	15.0	1.517	0.093	0.2189	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	18	10	36.535	0.035	4.3	0.0399	0.0000	OK
360 minute summer	20	256	35.859	0.309	12.4	0.5458	0.0000	OK
360 minute summer	21	256	35.859	0.356	7.6	0.4024	0.0000	SURCHARGED
360 minute summer	22	256	35.378	0.060	6.5	0.0000	0.0000	OK
15 minute summer	23	9	43.687	0.037	6.9	0.0414	0.0000	OK
15 minute summer	24	12	41.547	0.047	6.9	0.0000	0.0000	OK
15 minute summer	25	10	42.734	0.034	5.8	0.0390	0.0000	OK
15 minute summer	26	12	41.534	0.084	12.7	0.0000	0.0000	OK
15 minute summer	27	10	41.696	0.046	5.3	0.0518	0.0000	OK
30 minute summer	28	21	41.508	0.108	15.2	0.0000	0.0000	OK
15 minute summer	29	9	41.561	0.061	7.4	0.0686	0.0000	OK
30 minute summer	30	20	41.405	0.055	16.8	0.0000	0.0000	OK
15 minute summer	31	10	40.747	0.047	6.7	0.0528	0.0000	OK
30 minute summer	32	21	40.608	0.108	21.4	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)
15 minute summer	18	12.000	20	4.3	1.097	0.052	0.0775	
360 minute summer	20	1.010	21	7.6	0.051	0.009	19.7465	
360 minute summer	21	1.011	22	6.5	0.292	0.317	1.0004	172.2
15 minute summer	23	2.000_1	24	6.9	1.726	0.057	0.1961	
15 minute summer	24	1.001_1	26	4.3	0.097	0.005	0.9045	
15 minute summer	25	3.000	26	5.8	1.161	0.051	0.2166	
15 minute summer	26	1.002_1	28	9.9	0.148	0.015	2.1867	
15 minute summer	27	4.000	28	5.3	0.875	0.092	0.2089	
30 minute summer	28	1.003_1	30	10.9	0.181	0.020	2.7532	
15 minute summer	29	5.000	30	7.4	1.130	0.148	0.1146	
30 minute summer	30	1.004_1	32	15.9	0.268	0.007	2.6916	
15 minute summer	31	6.000	32	6.7	1.027	0.095	0.1157	
30 minute summer	32	1.005_1	35	18.8	0.332	0.016	1.1115	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	33	256	35.859	0.209	14.6	0.0000	0.0000	OK
360 minute summer	34	256	35.859	0.259	12.0	0.4575	0.0000	OK
720 minute summer	35	675	40.140	4.040	6.6	57.1892	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	33	1.007_1	34	12.0	0.094	0.007	12.1550	
360 minute summer	34	1.008	20	7.8	0.050	0.005	20.3853	
720 minute summer	35	1.006_1	33	0.6	0.116	0.000	0.1433	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	21	41.625	0.097	6.9	0.0000	0.0000	OK
15 minute summer	2	1	41.215	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	10	41.094	0.094	28.6	0.1067	0.0000	OK
15 minute summer	4	10	40.544	0.044	28.6	0.0000	0.0000	OK
15 minute summer	5	10	40.041	0.078	30.3	0.0000	0.0000	OK
30 minute summer	6	21	39.868	0.389	31.5	0.0000	0.0000	OK
30 minute summer	7	21	39.330	0.516	62.9	0.0000	0.0000	OK
60 minute summer	8	49	37.707	0.207	83.8	0.0000	0.0000	OK
240 minute winter	9	220	36.254	0.554	29.0	0.0000	0.0000	OK
15 minute summer	10	10	39.146	0.046	18.0	0.0520	0.0000	OK
60 minute summer	J1	50	37.706	0.606	82.5	0.0000	0.0000	FLOOD RISK
15 minute summer	12	10	40.883	0.083	48.9	0.0936	0.0000	OK
15 minute summer	13	1	38.094	0.000	0.0	0.0000	0.0000	OK
15 minute summer	14	9	38.043	0.123	54.3	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)
30 minute summer	1	1.000	24	-6.9	-0.105	-0.017	3.7977	
15 minute summer	2	1.001	4	0.0	0.000	0.000	0.1080	
15 minute summer	3	2.000	4	28.6	2.764	0.303	0.1624	
15 minute summer	4	1.002	5	28.6	0.705	0.005	0.1611	
15 minute summer	5	1.003	6	29.9	0.248	0.013	8.0424	
30 minute summer	6	1.004	7	22.8	0.057	0.010	17.5720	
30 minute summer	7	1.005	8	47.0	1.137	0.008	0.2065	
60 minute summer	8	1.006	J1	82.5	0.190	0.048	59.7899	
240 minute winter	9	1.007	33	26.3	0.148	0.024	28.1178	
15 minute summer	10	9.000	33	18.0	4.111	0.184	0.0410	
60 minute summer	J1	7.006	9	33.0	0.930	1.190	0.0946	
15 minute summer	12	9.000_1	7	48.9	2.078	0.291	0.5027	
15 minute summer	13	3.001	14	0.0	0.000	0.000	0.2674	
15 minute summer	14	3.002	8	54.4	2.024	0.337	0.5645	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	18	10	36.569	0.069	15.7	0.0776	0.0000	OK
240 minute winter	20	220	36.254	0.704	23.6	1.2433	0.0000	OK
240 minute winter	21	220	36.254	0.751	13.2	0.8490	0.0000	SURCHARGED
240 minute winter	22	220	35.396	0.078	10.7	0.0000	0.0000	OK
15 minute summer	23	10	43.719	0.069	25.1	0.0784	0.0000	OK
15 minute summer	24	12	41.623	0.123	25.1	0.0000	0.0000	OK
15 minute summer	25	10	42.765	0.065	21.0	0.0737	0.0000	OK
15 minute summer	26	12	41.620	0.170	41.4	0.0000	0.0000	OK
15 minute summer	27	10	41.739	0.089	19.4	0.1009	0.0000	OK
15 minute summer	28	12	41.602	0.202	60.4	0.0000	0.0000	OK
15 minute summer	29	10	41.621	0.121	27.0	0.1364	0.0000	OK
15 minute summer	30	12	41.474	0.124	77.6	0.0000	0.0000	OK
15 minute summer	31	9	40.796	0.096	24.3	0.1091	0.0000	OK
15 minute summer	32	12	40.714	0.214	98.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	18	12.000	20	15.7	1.578	0.189	0.1968	
240 minute winter	20	1.010	21	13.2	0.079	0.015	55.4673	
240 minute winter	21	1.011	22	10.7	0.344	0.524	1.3763	354.5
15 minute summer	23	2.000_1	24	25.1	2.114	0.207	0.6232	
15 minute summer	24	1.001_1	26	12.1	0.107	0.015	2.6906	
15 minute summer	25	3.000	26	21.0	1.487	0.184	0.5319	
15 minute summer	26	1.002_1	28	31.6	0.186	0.048	6.0315	
15 minute summer	27	4.000	28	19.4	1.068	0.336	0.5059	
15 minute summer	28	1.003_1	30	47.2	0.293	0.087	7.3024	
15 minute summer	29	5.000	30	27.0	1.440	0.536	0.3314	
15 minute summer	30	1.004_1	32	72.4	0.434	0.032	7.5694	
15 minute summer	31	6.000	32	24.4	1.298	0.347	0.2821	
15 minute summer	32	1.005_1	35	91.0	0.551	0.077	3.2149	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	33	220	36.254	0.604	29.8	0.0000	0.0000	OK
240 minute winter	34	220	36.254	0.654	22.6	1.1550	0.0000	OK
1440 minute winter	35	1440	40.362	4.262	6.0	170.2819	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	33	1.007_1	34	22.6	0.109	0.014	46.9404	
240 minute winter	34	1.008	20	13.9	0.058	0.009	65.7352	
1440 minute winter	35	1.006_1	33	0.6	0.116	0.000	0.1444	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	20	41.647	0.119	9.9	0.0000	0.0000	OK
15 minute summer	2	1	41.215	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	10	41.107	0.107	35.8	0.1207	0.0000	OK
15 minute summer	4	10	40.550	0.050	35.8	0.0000	0.0000	OK
15 minute summer	5	10	40.051	0.088	37.9	0.0000	0.0000	OK
30 minute summer	6	20	39.909	0.430	39.4	0.0000	0.0000	OK
30 minute summer	7	21	39.389	0.575	80.1	0.0000	0.0000	OK
60 minute summer	8	51	37.802	0.302	106.8	0.0000	0.0000	OK
240 minute winter	9	228	36.415	0.715	32.9	0.0000	0.0000	OK
15 minute summer	10	10	39.152	0.052	22.5	0.0588	0.0000	OK
60 minute summer	J1	51	37.802	0.702	105.3	0.0000	0.0000	FLOOD RISK
15 minute summer	12	10	40.893	0.093	61.2	0.1057	0.0000	OK
15 minute summer	13	1	38.094	0.000	0.0	0.0000	0.0000	OK
15 minute summer	14	9	38.060	0.140	67.9	0.1584	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	24	-9.9	-0.117	-0.024	4.9875	
15 minute summer	2	1.001	4	0.0	0.000	0.000	0.1259	
15 minute summer	3	2.000	4	35.8	2.914	0.379	0.1918	
15 minute summer	4	1.002	5	35.8	0.754	0.006	0.1887	
15 minute summer	5	1.003	6	37.5	0.245	0.016	9.6688	
30 minute summer	6	1.004	7	29.4	0.061	0.013	21.2192	
30 minute summer	7	1.005	8	61.4	1.233	0.011	0.2490	
60 minute summer	8	1.006	J1	105.3	0.212	0.061	80.7453	
240 minute winter	9	1.007	33	29.8	0.151	0.027	38.1211	
15 minute summer	10	9.000	33	22.5	4.356	0.229	0.0484	
60 minute summer	J1	7.006	9	36.0	0.954	1.300	0.0966	
15 minute summer	12	9.000_1	7	61.2	2.088	0.365	0.5250	
15 minute summer	13	3.001	14	0.0	0.000	0.000	0.3172	
15 minute summer	14	3.002	8	68.0	2.143	0.421	0.6712	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	18	10	36.577	0.077	19.6	0.0875	0.0000	OK
240 minute winter	20	228	36.415	0.865	27.0	1.5283	0.0000	OK
240 minute winter	21	232	36.415	0.912	14.6	1.0314	0.0000	SURCHARGED
240 minute winter	22	232	35.401	0.083	12.1	0.0000	0.0000	OK
15 minute summer	23	10	43.728	0.078	31.3	0.0879	0.0000	OK
30 minute summer	24	20	41.643	0.143	27.1	0.0000	0.0000	OK
15 minute summer	25	10	42.773	0.073	26.3	0.0828	0.0000	OK
15 minute summer	26	12	41.640	0.190	50.2	0.0000	0.0000	OK
15 minute summer	27	10	41.751	0.101	24.3	0.1143	0.0000	OK
15 minute summer	28	12	41.623	0.223	74.9	0.0000	0.0000	OK
15 minute summer	29	10	41.639	0.139	33.7	0.1570	0.0000	OK
15 minute summer	30	11	41.490	0.140	99.3	0.0000	0.0000	OK
15 minute summer	31	9	40.812	0.112	30.3	0.1272	0.0000	OK
15 minute summer	32	12	40.737	0.237	127.3	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)
15 minute summer	18	12.000	20	19.6	1.673	0.236	0.2317	
240 minute winter	20	1.010	21	14.6	0.086	0.017	69.4637	
240 minute winter	21	1.011	22	12.1	0.357	0.590	1.4812	426.3
15 minute summer	23	2.000_1	24	31.3	2.166	0.259	0.7453	
30 minute summer	24	1.001_1	26	17.2	0.111	0.021	3.2455	
15 minute summer	25	3.000	26	26.3	1.581	0.231	0.6010	
15 minute summer	26	1.002_1	28	38.4	0.189	0.059	7.1110	
15 minute summer	27	4.000	28	24.3	1.107	0.421	0.5558	
15 minute summer	28	1.003_1	30	60.1	0.317	0.110	8.6061	
15 minute summer	29	5.000	30	33.6	1.501	0.668	0.3941	
15 minute summer	30	1.004_1	32	92.9	0.471	0.041	8.9422	
15 minute summer	31	6.000	32	30.7	1.372	0.436	0.3114	
15 minute summer	32	1.005_1	35	118.6	0.601	0.100	3.8268	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	33	228	36.415	0.765	33.8	0.0000	0.0000	OK
240 minute winter	34	228	36.415	0.815	24.6	1.4400	0.0000	OK
1440 minute summer	35	1470	40.447	4.347	11.4	220.4145	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	33	1.007_1	34	24.6	0.116	0.015	61.7877	
240 minute winter	34	1.008	20	16.3	0.061	0.011	84.2729	
1440 minute summer	35	1.006_1	33	0.6	0.116	0.000	1.8326	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	20	41.653	0.125	10.6	0.0000	0.0000	OK
15 minute summer	2	1	41.215	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	10	41.109	0.109	37.3	0.1236	0.0000	OK
15 minute summer	4	10	40.551	0.051	37.3	0.0000	0.0000	OK
15 minute summer	5	10	40.053	0.090	39.5	0.0000	0.0000	OK
30 minute summer	6	20	39.919	0.440	41.4	0.0000	0.0000	OK
30 minute summer	7	21	39.402	0.588	84.6	0.0000	0.0000	OK
60 minute summer	8	52	37.829	0.329	113.4	0.0000	0.0000	OK
240 minute winter	9	232	36.466	0.766	33.9	0.0000	0.0000	OK
15 minute summer	10	10	39.153	0.053	23.5	0.0603	0.0000	OK
60 minute summer	J1	52	37.828	0.728	110.0	0.0000	0.0000	FLOOD RISK
15 minute summer	12	10	40.896	0.096	63.7	0.1081	0.0000	OK
15 minute summer	13	1	38.094	0.000	0.0	0.0000	0.0000	OK
15 minute summer	14	9	38.064	0.144	70.7	0.1624	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	24	-10.6	-0.119	-0.026	5.2977	
15 minute summer	2	1.001	4	0.0	0.000	0.000	0.1295	
15 minute summer	3	2.000	4	37.3	2.943	0.395	0.1977	
15 minute summer	4	1.002	5	37.3	0.763	0.006	0.1943	
15 minute summer	5	1.003	6	39.1	0.236	0.017	10.0132	
30 minute summer	6	1.004	7	31.0	0.062	0.013	22.1220	
30 minute summer	7	1.005	8	65.1	1.255	0.012	0.2596	
60 minute summer	8	1.006	J1	110.0	0.206	0.064	87.0087	
240 minute winter	9	1.007	33	30.7	0.153	0.028	41.1847	
15 minute summer	10	9.000	33	23.5	4.405	0.240	0.0500	
60 minute summer	J1	7.006	9	36.8	0.970	1.326	0.0971	
15 minute summer	12	9.000_1	7	63.7	2.113	0.380	0.5294	
15 minute summer	13	3.001	14	0.0	0.000	0.000	0.3276	
15 minute summer	14	3.002	8	70.9	2.164	0.439	0.6933	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	18	10	36.579	0.079	20.5	0.0897	0.0000	OK
240 minute winter	20	232	36.466	0.916	27.9	1.6185	0.0000	OK
240 minute winter	21	232	36.466	0.963	15.2	1.0892	0.0000	SURCHARGED
240 minute winter	22	232	35.402	0.084	12.5	0.0000	0.0000	OK
15 minute summer	23	10	43.730	0.080	32.7	0.0900	0.0000	OK
30 minute summer	24	20	41.649	0.149	28.5	0.0000	0.0000	OK
15 minute summer	25	10	42.775	0.075	27.4	0.0846	0.0000	OK
15 minute summer	26	12	41.644	0.194	52.1	0.0000	0.0000	OK
15 minute summer	27	10	41.753	0.103	25.3	0.1169	0.0000	OK
15 minute summer	28	12	41.628	0.228	77.8	0.0000	0.0000	OK
15 minute summer	29	10	41.643	0.143	35.2	0.1616	0.0000	OK
15 minute summer	30	11	41.493	0.143	103.8	0.0000	0.0000	OK
15 minute summer	31	9	40.816	0.116	31.6	0.1309	0.0000	OK
15 minute summer	32	12	40.741	0.241	133.3	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)
15 minute summer	18	12.000	20	20.5	1.693	0.247	0.2395	
240 minute winter	20	1.010	21	15.2	0.088	0.017	73.4938	
240 minute winter	21	1.011	22	12.5	0.361	0.610	1.5111	447.8
15 minute summer	23	2.000_1	24	32.7	2.174	0.270	0.7695	
30 minute summer	24	1.001_1	26	18.4	0.112	0.022	3.3981	
15 minute summer	25	3.000	26	27.4	1.584	0.241	0.6136	
15 minute summer	26	1.002_1	28	39.9	0.190	0.061	7.3314	
15 minute summer	27	4.000	28	25.3	1.113	0.438	0.5668	
15 minute summer	28	1.003_1	30	62.9	0.321	0.115	8.8683	
15 minute summer	29	5.000	30	35.1	1.511	0.698	0.4071	
15 minute summer	30	1.004_1	32	97.4	0.478	0.043	9.2148	
15 minute summer	31	6.000	32	31.9	1.390	0.454	0.3176	
15 minute summer	32	1.005_1	35	124.3	0.610	0.105	3.9487	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	33	232	36.466	0.816	34.7	0.0000	0.0000	OK
240 minute winter	34	232	36.466	0.866	25.1	1.5301	0.0000	OK
1440 minute summer	35	1470	40.461	4.361	11.7	228.9003	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	33	1.007_1	34	25.1	0.115	0.015	66.2598	
240 minute winter	34	1.008	20	16.6	0.061	0.011	89.7405	
1440 minute summer	35	1.006_1	33	0.6	0.116	0.000	2.2556	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	20	41.679	0.151	13.6	0.0000	0.0000	OK
15 minute summer	2	1	41.215	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	10	41.124	0.124	46.6	0.1406	0.0000	OK
15 minute summer	4	10	40.558	0.058	46.6	0.0000	0.0000	OK
15 minute summer	5	10	40.064	0.101	49.3	0.0000	0.0000	OK
30 minute summer	6	20	39.965	0.486	51.7	0.0000	0.0000	OK
30 minute summer	7	21	39.467	0.653	107.5	0.0000	0.0000	FLOOD RISK
60 minute summer	8	53	37.943	0.443	144.2	0.0000	0.0000	OK
240 minute winter	9	244	36.745	1.045	38.0	0.0000	0.0000	OK
15 minute summer	10	10	39.161	0.061	29.4	0.0685	0.0000	OK
60 minute summer	J1	53	37.943	0.843	133.3	0.0000	0.0000	FLOOD RISK
15 minute summer	12	10	40.909	0.109	79.6	0.1227	0.0000	OK
15 minute summer	13	1	38.094	0.000	0.0	0.0000	0.0000	OK
15 minute summer	14	9	38.085	0.165	88.4	0.1862	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	24	-13.6	-0.126	-0.033	6.8414	
15 minute summer	2	1.001	4	0.0	0.000	0.000	0.1510	
15 minute summer	3	2.000	4	46.6	3.096	0.494	0.2335	
15 minute summer	4	1.002	5	46.6	0.814	0.008	0.2275	
15 minute summer	5	1.003	6	48.8	0.253	0.021	12.0573	
30 minute summer	6	1.004	7	39.8	0.066	0.017	26.6529	
30 minute summer	7	1.005	8	84.6	1.355	0.015	0.3122	
60 minute summer	8	1.006	J1	133.3	0.228	0.077	117.2236	
240 minute winter	9	1.007	33	34.4	0.159	0.031	55.4391	
15 minute summer	10	9.000	33	29.4	4.660	0.300	0.0591	
60 minute summer	J1	7.006	9	39.8	1.038	1.434	0.0989	
15 minute summer	12	9.000_1	7	79.7	2.362	0.475	0.5568	
15 minute summer	13	3.001	14	0.0	0.000	0.000	0.3896	
15 minute summer	14	3.002	8	88.6	2.277	0.549	0.8233	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	18	244	36.745	0.245	4.3	0.2771	0.0000	SURCHARGED
240 minute winter	20	244	36.745	1.195	31.7	2.1118	0.0000	OK
240 minute winter	21	244	36.745	1.242	16.7	1.4049	0.0000	SURCHARGED
240 minute winter	22	244	35.409	0.091	14.5	0.0000	0.0000	OK
15 minute summer	23	10	43.740	0.090	40.8	0.1013	0.0000	OK
30 minute summer	24	20	41.675	0.175	35.6	0.0000	0.0000	OK
15 minute summer	25	10	42.784	0.084	34.2	0.0951	0.0000	OK
30 minute summer	26	20	41.669	0.219	55.3	0.0000	0.0000	OK
15 minute summer	27	10	41.768	0.118	31.7	0.1334	0.0000	OK
15 minute summer	28	12	41.651	0.251	96.4	0.0000	0.0000	OK
15 minute summer	29	10	41.667	0.167	43.9	0.1894	0.0000	OK
15 minute summer	30	11	41.513	0.163	132.3	0.0000	0.0000	OK
15 minute summer	31	9	40.833	0.133	39.5	0.1510	0.0000	OK
15 minute summer	32	12	40.766	0.266	171.1	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)
240 minute winter	18	12.000	20	4.3	1.080	0.052	0.7866	
240 minute winter	20	1.010	21	16.7	0.093	0.019	87.4476	
240 minute winter	21	1.011	22	14.5	0.379	0.708	1.6535	549.7
15 minute summer	23	2.000_1	24	40.8	2.232	0.337	0.9045	
30 minute summer	24	1.001_1	26	24.5	0.118	0.030	4.1922	
15 minute summer	25	3.000	26	34.2	1.652	0.300	0.6773	
30 minute summer	26	1.002_1	28	49.5	0.179	0.076	8.6273	
15 minute summer	27	4.000	28	31.7	1.152	0.549	0.6168	
15 minute summer	28	1.003_1	30	79.9	0.346	0.147	10.4334	
15 minute summer	29	5.000	30	43.8	1.577	0.869	0.4811	
15 minute summer	30	1.004_1	32	126.0	0.518	0.055	10.8456	
15 minute summer	31	6.000	32	39.7	1.471	0.564	0.3453	
15 minute summer	32	1.005_1	35	160.4	0.663	0.135	4.6782	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	33	244	36.745	1.095	38.8	0.0000	0.0000	OK
240 minute winter	34	244	36.745	1.145	27.1	2.0235	0.0000	OK
1440 minute winter	35	1440	40.555	4.455	10.0	290.2762	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	33	1.007_1	34	27.1	0.120	0.016	85.9120	
240 minute winter	34	1.008	20	18.5	0.060	0.013	111.7414	
1440 minute winter	35	1.006_1	33	0.7	0.116	0.000	4.3450	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	20	41.692	0.164	15.1	0.0000	0.0000	OK
15 minute summer	2	1	41.215	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	10	41.133	0.133	52.2	0.1507	0.0000	OK
15 minute summer	4	10	40.562	0.062	52.2	0.0000	0.0000	OK
15 minute summer	5	10	40.070	0.107	55.3	0.0000	0.0000	OK
30 minute summer	6	20	39.991	0.512	57.9	0.0000	0.0000	OK
30 minute summer	7	20	39.500	0.686	121.5	0.0000	0.4627	FLOOD
60 minute summer	8	50	38.001	0.501	162.9	0.0000	0.0000	OK
240 minute winter	9	220	37.204	1.504	40.2	0.0000	0.0000	SURCHARGED
15 minute summer	10	10	39.165	0.065	32.9	0.0732	0.0000	OK
60 minute summer	J1	50	38.000	0.900	138.2	0.0000	2.2100	FLOOD
15 minute summer	12	10	40.916	0.116	89.1	0.1311	0.0000	OK
15 minute summer	13	10	38.099	0.005	0.1	0.0055	0.0000	OK
15 minute summer	14	10	38.097	0.177	99.1	0.2006	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	24	-15.1	-0.127	-0.036	7.7344	
15 minute summer	2	1.001	4	0.0	0.000	0.000	0.1633	
15 minute summer	3	2.000	4	52.2	3.174	0.553	0.2542	
15 minute summer	4	1.002	5	52.2	0.841	0.009	0.2468	
15 minute summer	5	1.003	6	54.8	0.271	0.024	13.2355	
30 minute summer	6	1.004	7	45.1	0.069	0.019	29.1094	
30 minute summer	7	1.005	8	95.6	1.404	0.017	0.3405	
60 minute summer	8	1.006	J1	138.2	0.237	0.080	134.1338	
240 minute winter	9	1.007	33	36.2	0.163	0.033	58.8998	
15 minute summer	10	9.000	33	32.9	4.789	0.335	0.0644	
60 minute summer	J1	7.006	9	41.2	1.070	1.486	0.0997	
15 minute summer	12	9.000_1	7	89.2	2.592	0.532	0.5727	
15 minute summer	13	3.001	14	-0.1	0.021	-0.001	0.4289	
15 minute summer	14	3.002	8	99.1	2.335	0.614	0.8975	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	18	220	37.204	0.704	4.9	0.7966	0.0000	SURCHARGED
240 minute winter	20	220	37.202	1.652	32.9	2.9197	0.0000	FLOOD RISK
360 minute summer	21	280	37.200	1.697	41.4	1.9193	24.6788	FLOOD
240 minute summer	22	252	35.418	0.100	17.3	0.0000	0.0000	OK
15 minute summer	23	10	43.745	0.095	45.7	0.1079	0.0000	OK
30 minute summer	24	20	41.689	0.189	39.9	0.0000	0.0000	OK
15 minute summer	25	10	42.789	0.089	38.3	0.1012	0.0000	OK
30 minute summer	26	20	41.683	0.233	61.6	0.0000	0.0000	OK
15 minute summer	27	10	41.776	0.126	35.5	0.1430	0.0000	OK
15 minute summer	28	12	41.664	0.264	107.3	0.0000	0.0000	OK
15 minute summer	29	10	41.684	0.184	49.2	0.2081	0.0000	OK
15 minute summer	30	11	41.524	0.174	149.5	0.0000	0.0000	OK
15 minute summer	31	9	40.844	0.144	44.2	0.1629	0.0000	OK
15 minute summer	32	12	40.779	0.279	193.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	18	12.000	20	4.9	1.096	0.059	0.7866	
240 minute winter	20	1.010	21	32.0	0.095	0.036	87.4912	
360 minute summer	21	1.011	22	17.3	0.402	0.845	1.8297	657.6
15 minute summer	23	2.000_1	24	45.7	2.268	0.378	0.9757	
30 minute summer	24	1.001_1	26	27.6	0.122	0.034	4.6705	
15 minute summer	25	3.000	26	38.3	1.699	0.336	0.7107	
30 minute summer	26	1.002_1	28	57.1	0.186	0.087	9.4445	
15 minute summer	27	4.000	28	35.5	1.171	0.615	0.6360	
15 minute summer	28	1.003_1	30	90.1	0.360	0.165	11.3628	
15 minute summer	29	5.000	30	49.0	1.613	0.974	0.5230	
15 minute summer	30	1.004_1	32	143.4	0.540	0.063	11.8092	
15 minute summer	31	6.000	32	43.7	1.515	0.621	0.3648	
15 minute summer	32	1.005_1	35	182.3	0.690	0.154	5.0986	

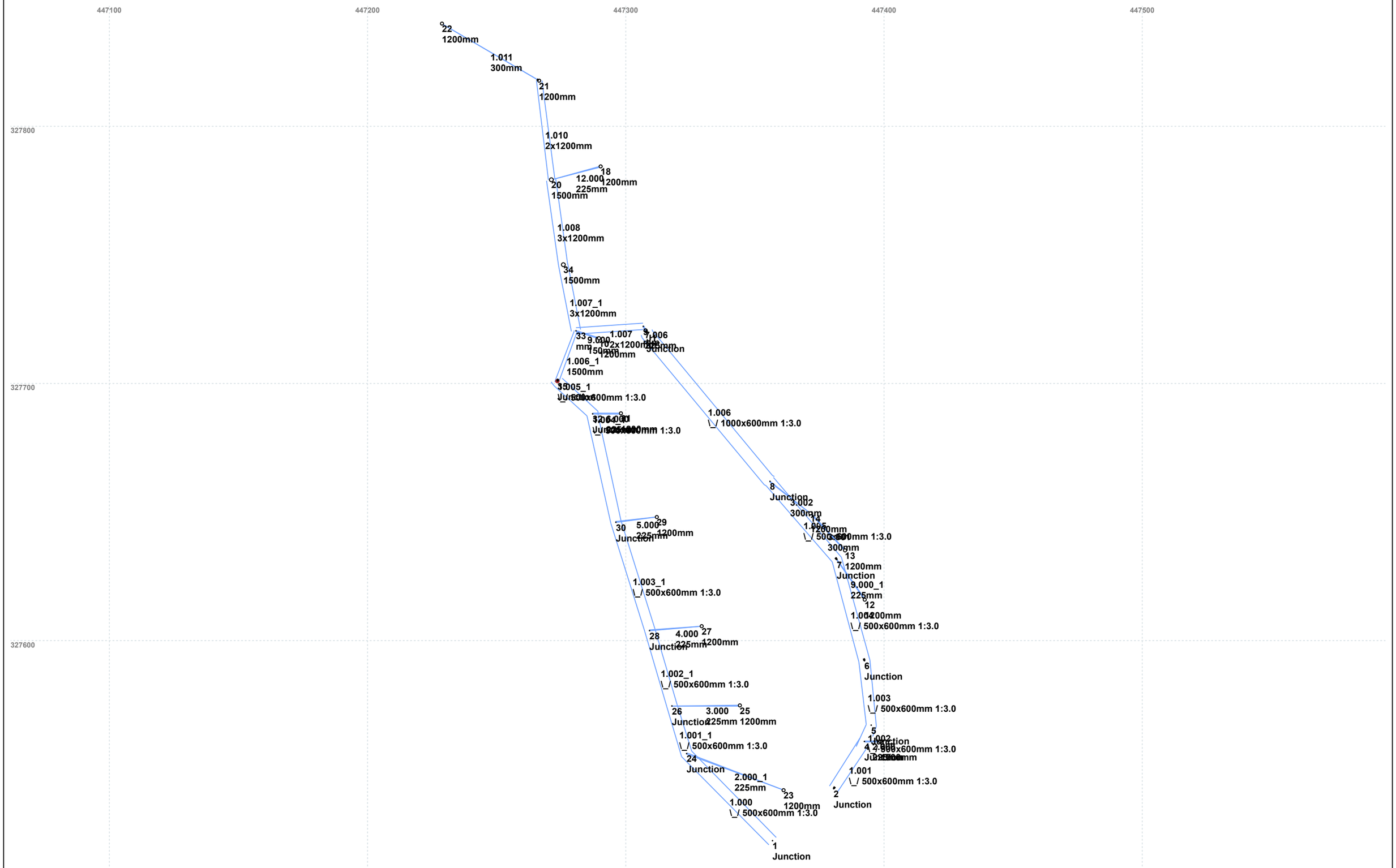
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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 94.25%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	33	220	37.204	1.554	41.2	0.0000	0.0000	SURCHARGED
240 minute winter	34	220	37.203	1.603	30.1	2.8332	0.0000	FLOOD RISK
1440 minute winter	35	1440	40.608	4.508	11.2	326.5650	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	33	1.007_1	34	30.1	0.124	0.018	88.4951	
240 minute winter	34	1.008	20	30.2	0.061	0.021	112.7036	
1440 minute winter	35	1.006_1	33	0.8	0.118	0.001	6.9528	

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Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	x
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	4.00	Minimum Backdrop Height (m)	0.200		

Circular Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

Swale Link Type

Shape	Trapezoidal	Side Slope (1:X)	3.0	Preferred Cover (m)	0.010	Velocity	Manning
Barrels	1	Auto Increment (mm)	150	Follow Ground	x	ks (mm) / n	0.040

Available Diameters (mm)

1000

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.322	15.00	45.810	1350	447377.760	327196.191	1.700
2	0.090	4.00	44.290	1350	447337.818	327299.946	1.690
3	0.098	4.00	43.570	1350	447329.721	327413.360	1.710
4	0.040	4.00	43.100	1500	447342.194	327451.463	1.800
5	0.031	4.00	43.300	1500	447371.213	327499.682	2.304
6		4.00	43.180		447413.484	327190.049	0.600
7			41.780		447364.627	327301.308	1.000
8	0.059	4.00	41.900	1350	447362.394	327309.537	1.650
9			42.000	1350	447360.637	327315.547	1.766

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
10	0.065	4.00	42.600	1800	447359.482	327401.292	3.027
11	0.167	4.00	42.450	1800	447395.293	327482.503	2.970
12	0.027	4.00	42.800	1200	447410.157	327508.089	1.425
13	0.051	4.00	42.400	1200	447414.773	327501.245	1.425
14			42.500	1800	447412.874	327495.395	3.043
15			42.000	1800	447438.777	327493.582	2.570
16	0.027	4.00	43.080	1350	447453.110	327496.054	2.280
17			42.000	1800	447445.440	327489.272	2.579
18	0.072	4.00	43.310	1200	447484.602	327453.024	1.350
19			41.430	1800	447476.483	327450.760	2.100
20	1.162	4.00	40.700	1500	447487.633	327337.174	1.800
21	0.085	4.00	42.750	1200	447490.906	327398.081	1.350
22			40.600	1900	447483.149	327396.547	1.900
23			39.200	1900	447522.856	327394.862	2.250
24			39.200	1900	447540.061	327394.711	2.300
25	0.112	4.00	49.000	1200	447481.549	327082.174	1.500
26	0.012	4.00	45.300		447475.538	327127.217	0.500
27	0.171	4.00	48.000	1200	447470.082	327196.777	4.000
28			42.600		447467.132	327193.545	0.500
29	0.060	4.00	48.000	1200	447457.644	327279.212	4.000
30	0.018	4.00	41.000		447450.654	327274.809	0.500
31		4.00	48.000	1200	447396.139	327474.291	1.300
32	0.040	4.00	47.000	1200	447410.443	327443.013	1.500
33	0.028	4.00	42.300		447388.589	327426.869	1.300
34	0.039	4.00	46.000	1200	447422.195	327412.991	1.600
35	0.032	4.00	41.600		447399.668	327401.366	0.500
36	0.038	4.00	44.500	1200	447433.131	327381.748	1.900
37	0.031	4.00	41.200		447411.790	327372.531	0.400
38	0.059	4.00	47.000	1200	447446.830	327332.098	1.600
39	0.063	4.00	40.500		447433.245	327325.988	0.900
40	0.013	4.00	42.000		447482.654	327206.021	0.500
41			41.100		447475.517	327279.084	0.500

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
42	0.052	4.00	40.500		447469.661	327335.869	1.100
43	0.025	4.00	40.500		447462.156	327388.232	1.200
44	0.033	4.00	41.700	1200	447453.190	327419.530	1.500
45	0.031	4.00	41.900	1200	447446.724	327451.931	1.700
46			40.800		447469.589	327395.280	1.600
47			40.800		447477.995	327396.137	1.600

Links (Results)

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	2.113	233.4	43.6	1.325	1.315	0.322	0.0
1.001	1.459	161.1	55.7	1.315	1.335	0.411	0.0
1.002	1.477	163.2	39.0	1.335	1.704	0.509	0.0
2.000	1.004	283.7	5.4	1.200	1.497	0.040	0.0
1.003	2.634	744.8	44.2	1.704	1.200	0.580	0.0
3.000	1.280	1279.6	50.0	0.100	0.500	0.369	0.0
3.001	0.977	155.5	50.0	0.550	0.690	0.369	0.0
3.002	1.020	162.3	58.0	1.200	1.316	0.428	0.0
3.003	1.002	159.3	55.9	1.316	2.127	0.428	0.0
3.004	1.005	639.7	58.5	2.127	2.070	0.493	0.0
1.004	1.009	642.0	93.3	2.070	2.143	1.239	0.0
4.000	1.994	79.3	3.6	1.200	1.200	0.027	0.0
5.000	1.011	40.2	6.9	1.200	1.337	0.051	0.0
1.005	1.002	637.3	97.7	2.143	1.670	1.317	0.0
1.006	1.047	665.9	97.3	1.670	1.679	1.317	0.0
6.000	3.479	384.2	3.6	1.905	1.200	0.027	0.0
1.007	1.336	850.0	97.2	1.679	1.200	1.344	0.0
7.000	6.525	259.4	9.8	1.125	1.327	0.072	0.0
1.008	3.085	1962.3	101.5	1.200	0.900	1.416	0.0

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Links (Results)

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
8.000	3.205	127.4	15.2	1.275	0.275	0.112	0.0
8.001	2.115	2114.5	16.9	0.000	0.000	0.124	0.0
9.000	8.686	345.4	23.2	3.775	0.275	0.171	0.0
8.002	1.462	1461.6	39.8	0.000	0.000	0.296	0.0
10.000	8.580	341.1	8.2	3.775	0.275	0.060	0.0
8.003	1.012	1012.5	46.1	0.000	0.000	0.374	0.0
11.000	4.534	180.3	0.0	1.075	1.075	0.000	0.0
12.000	4.858	193.2	5.4	1.275	0.275	0.040	0.0
11.001	1.670	1669.5	9.2	0.000	0.000	0.068	0.0
13.000	4.750	188.9	5.3	1.375	0.275	0.039	0.0
11.002	1.030	1030.5	18.9	0.000	-0.100	0.140	0.0
14.000	3.660	145.5	5.1	1.675	0.175	0.038	0.0
11.003	1.314	1313.7	28.3	-0.100	0.000	0.209	0.0
15.000	6.113	108.0	8.0	1.450	0.350	0.059	0.0
8.004	0.268	10.6	85.1	0.675	0.875	0.705	0.0
16.000	1.165	1165.1	1.8	0.000	0.000	0.013	0.0
16.001	1.526	1525.6	1.8	0.000	0.600	0.013	0.0
8.005	0.457	457.5	81.0	0.600	0.700	0.770	0.0
8.006	1.488	1488.1	83.4	0.700	1.100	0.795	0.0
17.000	5.891	234.2	4.2	1.475	1.375	0.031	0.0
18.000	5.891	234.2	4.4	1.275	1.375	0.033	0.0
8.007	1.145	1144.7	91.7	1.000	1.100	0.859	0.0
8.008	0.510	20.3	88.7	1.375	1.275	0.859	0.0
19.000	1.000	282.8	157.5	1.200	1.202	1.162	0.0
20.000	7.253	288.4	11.5	1.125	1.375	0.085	0.0
1.009	7.030	5521.5	340.8	0.900	1.250	3.522	0.0
1.010	1.797	1411.0	336.0	1.250	1.300	3.522	0.0

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Simulation Settings

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

Storm Durations

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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
30	0	0	0	100	25	0	0
30	25	0	0	100	40	0	0

Node 47 Online Orifice Control

Flap Valve	x	Invert Level (m)	39.200	Design Flow (l/s)	4.0	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Depth (m)	1.000	Diameter (m)	0.044		

Node 19 Online Orifice Control

Flap Valve	x	Invert Level (m)	39.330	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.225		

Node 19 Offline Weir Control

Flap Valve	x	Loop to Node	47	Invert Level (m)	40.700	Width (m)	1.000	Discharge Coefficient	0.590

Node 10 Offline Orifice Control

Flap Valve	x	Loop to Node	39	Invert Level (m)	40.700	Diameter (m)	2.000	Discharge Coefficient	0.600

Node 10 Online Orifice Control

Flap Valve	x	Invert Level (m)	39.573	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.400		

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Node 8 Offline Weir Control

Flap Valve	x	Loop to Node	39	Invert Level (m)	41.000	Width (m)	2.000	Discharge Coefficient	0.590

Node 8 Online Orifice Control

Flap Valve	x	Invert Level (m)	40.250	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.200		

Node 39 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	39.600
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	650.0	650.0	0.500	792.6	800.3	0.900	916.9	931.3

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Results for 1 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.183	0.073	19.8	0.1044	0.0000	OK
30 minute summer	2	19	42.701	0.101	27.4	0.1441	0.0000	OK
30 minute summer	3	20	41.974	0.114	35.5	0.1636	0.0000	OK
15 minute summer	4	11	41.356	0.056	5.5	0.0993	0.0000	OK
30 minute summer	5	20	41.091	0.095	38.6	0.1679	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	11	41.785	0.105	51.5	0.0000	0.0000	OK
15 minute summer	7	12	40.933	0.153	45.9	0.0000	0.0000	OK
15 minute summer	8	12	40.708	0.458	44.7	0.6556	0.0000	SURCHARGED
15 minute summer	9	13	40.393	0.159	44.4	0.2276	0.0000	OK
15 minute summer	10	14	39.798	0.225	43.3	0.5730	0.0000	OK
120 minute summer	11	74	39.751	0.271	66.6	0.6892	0.0000	OK
15 minute summer	12	10	41.409	0.034	3.7	0.0383	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	19.8	1.094	0.085	2.1329	
30 minute summer	2	1.001	3	26.1	1.012	0.162	2.9584	
30 minute summer	3	1.002	5	32.8	1.170	0.201	2.6871	
15 minute summer	4	2.000	5	4.5	0.426	0.016	0.5933	
30 minute summer	5	1.003	11	38.8	1.398	0.052	0.8212	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	2.6124	
15 minute summer	6	3.000	7	45.9	0.478	0.036	6.8887	
15 minute summer	7	3.001	8	40.6	0.916	0.261	0.3788	
15 minute summer	8	3.002	9	44.4	1.031	0.274	0.3330	
15 minute summer	8	Weir	39	0.0				0.0
15 minute summer	9	3.003	10	40.6	0.903	0.255	3.9108	
15 minute summer	10	3.004	11	42.9	0.417	0.067	9.3325	
15 minute summer	10	Orifice	39	0.0				0.0
120 minute summer	11	1.004	14	60.0	0.535	0.093	3.6672	
15 minute summer	12	4.000	14	3.7	1.009	0.047	0.0476	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	13	10	41.044	0.069	7.1	0.0775	0.0000	OK
120 minute summer	14	74	39.747	0.290	64.4	0.7369	0.0000	OK
120 minute summer	15	74	39.743	0.313	60.7	0.7955	0.0000	OK
15 minute summer	16	10	40.827	0.027	3.8	0.0386	0.0000	OK
120 minute summer	17	74	39.740	0.319	59.1	0.8123	0.0000	OK
15 minute summer	18	10	41.991	0.031	10.1	0.0356	0.0000	OK
120 minute summer	19	74	39.738	0.408	58.6	1.0378	0.0000	OK
15 minute summer	20	10	39.216	0.316	162.0	0.0000	0.0000	OK
15 minute summer	21	10	41.432	0.032	11.8	0.0366	0.0000	OK
15 minute summer	22	11	38.824	0.124	191.0	0.3516	0.0000	OK
15 minute summer	23	11	37.218	0.268	191.8	0.7594	0.0000	OK
15 minute summer	24	11	37.142	0.242	193.7	0.0000	0.0000	OK
15 minute summer	25	9	47.555	0.055	15.6	0.0628	0.0000	OK
15 minute summer	26	10	44.845	0.045	17.4	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)
15 minute summer	13	5.000	14	7.1	0.733	0.177	0.0596	
120 minute summer	14	1.005	15	60.7	0.543	0.095	4.8240	
120 minute summer	15	1.006	17	57.8	0.557	0.087	1.5740	
15 minute summer	16	6.000	17	3.8	1.109	0.010	0.0351	
120 minute summer	17	1.007	19	55.8	0.377	0.066	11.8865	
15 minute summer	18	7.000	19	10.1	3.108	0.039	0.0276	
120 minute summer	19	1.008	22	57.4	1.405	0.029	2.2338	
120 minute summer	19	Weir	47	0.0				0.0
15 minute summer	20	19.000	22	161.6	1.221	0.571	7.9437	
15 minute summer	21	20.000	22	11.8	3.504	0.041	0.0267	
15 minute summer	22	1.009	23	191.8	1.793	0.035	4.4504	
15 minute summer	23	1.010	24	193.7	1.234	0.137	2.7014	172.9
15 minute summer	25	8.000	26	15.7	2.459	0.123	0.3006	
15 minute summer	26	8.001	28	16.0	0.366	0.008	3.1270	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	27	10	44.039	0.039	23.9	0.0442	0.0000	OK
15 minute summer	28	11	42.185	0.085	39.9	0.0000	0.0000	OK
15 minute summer	29	10	44.024	0.024	8.4	0.0270	0.0000	OK
30 minute summer	30	21	40.615	0.115	37.2	0.0000	0.0000	OK
15 minute summer	31	1	46.700	0.000	0.0	0.0000	0.0000	OK
15 minute summer	32	10	45.526	0.026	5.6	0.0300	0.0000	OK
120 minute summer	33	62	41.825	0.825	4.6	0.0000	0.0000	OK
15 minute summer	34	10	44.426	0.026	5.5	0.0298	0.0000	OK
120 minute summer	35	64	41.149	0.049	9.3	0.0000	0.0000	OK
15 minute summer	36	10	42.629	0.029	5.2	0.0329	0.0000	OK
15 minute summer	37	12	40.862	0.062	18.2	0.0000	0.0000	OK
15 minute summer	38	10	45.429	0.029	8.3	0.0324	0.0000	OK
600 minute summer	39	375	39.735	0.135	16.8	90.4682	0.0000	OK
30 minute summer	40	20	41.520	0.020	1.6	0.0000	0.0000	OK
30 minute summer	41	26	40.609	0.009	1.1	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	27	9.000	28	23.9	4.033	0.069	0.0390	
15 minute summer	28	8.002	30	35.2	0.527	0.024	6.0966	
15 minute summer	29	10.000	30	8.4	3.220	0.025	0.0854	
30 minute summer	30	8.003	39	25.9	0.396	0.026	3.6742	
15 minute summer	31	11.000	33	0.0	0.000	0.000	0.9552	
15 minute summer	32	12.000	33	5.6	2.158	0.029	0.0705	
120 minute summer	33	11.001	35	4.4	0.204	0.003	0.6376	
15 minute summer	34	13.000	35	5.5	1.586	0.029	0.1111	
120 minute summer	35	11.002	37	8.9	0.249	0.009	1.1298	
15 minute summer	36	14.000	37	5.2	1.515	0.036	0.1291	
15 minute summer	37	11.003	39	12.8	0.396	0.010	1.6895	
15 minute summer	38	15.000	39	8.3	3.629	0.077	0.0341	
600 minute summer	39	8.004	42	7.1	0.260	0.671	1.2145	
30 minute summer	40	16.000	41	1.1	0.148	0.001	0.5348	
30 minute summer	41	16.001	42	0.7	0.050	0.000	0.9612	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	42	585	39.718	0.318	7.7	0.0000	0.0000	OK
720 minute summer	43	585	39.718	0.418	4.9	0.0000	0.0000	OK
15 minute summer	44	10	40.222	0.022	4.6	0.0247	0.0000	OK
15 minute summer	45	10	40.221	0.021	4.3	0.0239	0.0000	OK
720 minute summer	46	585	39.718	0.518	3.5	0.0000	0.0000	OK
720 minute summer	47	585	39.718	0.518	2.9	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute summer	42	8.005	43	4.7	0.078	0.010	31.5813	
720 minute summer	43	8.006	46	3.0	0.018	0.002	4.4883	
15 minute summer	44	18.000	46	4.6	1.051	0.020	0.0990	
15 minute summer	45	17.000	46	4.3	1.051	0.018	0.0990	
720 minute summer	46	8.007	47	2.9	0.035	0.003	7.5852	
720 minute summer	47	8.008	22	2.7	0.391	0.134	0.0364	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.253	0.143	73.9	0.2045	0.0000	OK
30 minute summer	2	19	42.813	0.213	103.4	0.3051	0.0000	OK
30 minute summer	3	19	42.121	0.261	138.7	0.3735	0.0000	OK
15 minute summer	4	11	41.406	0.106	20.1	0.1870	0.0000	OK
15 minute summer	5	11	41.196	0.200	157.8	0.3530	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	41.884	0.204	187.6	0.0000	0.0000	OK
15 minute summer	7	11	41.143	0.363	173.5	0.0000	0.0000	OK
15 minute summer	8	11	41.097	0.847	177.0	1.2114	0.0000	SURCHARGED
60 minute summer	9	39	40.809	0.575	82.1	0.8233	0.0000	SURCHARGED
60 minute summer	10	38	40.784	1.211	83.3	3.0816	0.0000	SURCHARGED
60 minute summer	11	38	40.786	1.306	201.9	3.3225	0.0000	SURCHARGED
15 minute summer	12	10	41.441	0.066	13.5	0.0747	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	73.9	1.572	0.317	5.6468	
30 minute summer	2	1.001	3	101.8	1.393	0.632	8.3325	
30 minute summer	3	1.002	5	131.1	1.652	0.803	7.6334	
15 minute summer	4	2.000	5	18.4	0.642	0.065	1.6174	
15 minute summer	5	1.003	11	157.8	2.043	0.212	2.2856	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	6.8904	
15 minute summer	6	3.000	7	173.5	0.579	0.136	24.3266	
15 minute summer	7	3.001	8	158.0	1.200	1.016	1.1273	
15 minute summer	8	3.002	9	65.8	1.134	0.406	0.4679	
15 minute summer	8	Weir	39	110.8				29.2
60 minute summer	9	3.003	10	66.5	1.014	0.418	13.5903	
60 minute summer	10	3.004	11	52.2	0.314	0.082	56.2715	
60 minute summer	10	Orifice	39	71.0				21.7
60 minute summer	11	1.004	14	141.7	0.538	0.221	13.8169	
15 minute summer	12	4.000	14	13.5	1.446	0.170	0.1212	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	13	10	41.122	0.147	25.9	0.1661	0.0000	OK
60 minute winter	14	39	40.781	1.324	142.6	3.3706	0.0000	SURCHARGED
60 minute winter	15	39	40.784	1.354	142.4	3.4469	0.0000	SURCHARGED
15 minute summer	16	10	40.851	0.051	13.7	0.0724	0.0000	OK
60 minute winter	17	39	40.784	1.363	149.5	3.4685	0.0000	SURCHARGED
15 minute summer	18	10	42.022	0.062	36.7	0.0698	0.0000	OK
60 minute winter	19	39	40.783	1.453	164.3	3.6975	0.0000	SURCHARGED
15 minute summer	20	9	39.769	0.869	590.4	0.0000	0.0000	SURCHARGED
15 minute summer	21	10	41.464	0.064	43.1	0.0725	0.0000	OK
15 minute summer	22	10	38.933	0.233	699.7	0.6601	0.0000	OK
15 minute summer	23	10	37.498	0.548	699.4	1.5528	0.0000	OK
15 minute summer	24	10	37.376	0.476	700.6	0.0000	0.0000	OK
15 minute summer	25	9	47.609	0.109	56.9	0.1237	0.0000	OK
15 minute summer	26	10	44.894	0.094	63.3	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)
15 minute summer	13	5.000	14	25.9	1.011	0.644	0.1574	
60 minute winter	14	1.005	15	142.4	0.576	0.223	16.4572	
60 minute winter	15	1.006	17	145.4	0.617	0.218	5.0290	
15 minute summer	16	6.000	17	13.7	1.610	0.036	0.0872	
60 minute winter	17	1.007	19	153.5	0.419	0.181	31.3712	
15 minute summer	18	7.000	19	36.7	4.414	0.141	0.1831	
60 minute winter	19	1.008	22	119.6	1.736	0.061	3.7684	
60 minute winter	19	Weir	47	44.1				9.9
15 minute summer	20	19.000	22	590.3	2.117	2.087	15.8584	
15 minute summer	21	20.000	22	43.1	4.965	0.149	0.0688	
15 minute summer	22	1.009	23	699.4	2.478	0.127	11.4655	
15 minute summer	23	1.010	24	700.6	1.737	0.497	6.9390	674.5
15 minute summer	25	8.000	26	57.0	3.343	0.447	0.7900	
15 minute summer	26	8.001	28	61.4	0.537	0.029	8.0454	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	27	9	44.077	0.077	87.0	0.0869	0.0000	OK
15 minute summer	28	11	42.269	0.169	148.4	0.0000	0.0000	OK
15 minute summer	29	10	44.044	0.044	30.7	0.0503	0.0000	OK
15 minute summer	30	12	40.730	0.230	166.9	0.0000	0.0000	OK
15 minute summer	31	1	46.700	0.000	0.0	0.0000	0.0000	OK
15 minute summer	32	10	45.549	0.049	20.3	0.0555	0.0000	OK
15 minute summer	33	10	41.878	0.878	34.5	0.0000	0.0000	OK
15 minute summer	34	10	44.449	0.049	20.0	0.0557	0.0000	OK
15 minute summer	35	11	41.240	0.140	70.2	0.0000	0.0000	OK
15 minute summer	36	10	42.655	0.055	19.1	0.0621	0.0000	OK
15 minute summer	37	12	40.953	0.153	96.4	0.0000	0.0000	OK
15 minute summer	38	10	45.456	0.056	30.1	0.0629	0.0000	OK
480 minute winter	39	472	39.993	0.393	34.7	277.5409	0.0000	SURCHARGED
15 minute summer	40	11	41.550	0.050	6.7	0.0000	0.0000	OK
30 minute summer	41	22	40.624	0.024	5.0	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)	Discharge Vol (m³)
15 minute summer	27	9.000	28	87.0	5.245	0.252	0.0933	
15 minute summer	28	8.002	30	133.8	0.711	0.092	17.8004	
15 minute summer	29	10.000	30	30.7	4.188	0.090	0.1826	
15 minute summer	30	8.003	39	127.6	0.650	0.126	10.9227	
15 minute summer	31	11.000	33	0.0	0.000	0.000	0.9552	
15 minute summer	32	12.000	33	20.3	2.929	0.105	0.2525	
15 minute summer	33	11.001	35	33.9	0.396	0.020	2.5585	
15 minute summer	34	13.000	35	20.0	2.024	0.106	0.4059	
15 minute summer	35	11.002	37	65.0	0.496	0.063	4.2724	
15 minute summer	36	14.000	37	19.1	1.937	0.131	0.4061	
15 minute summer	37	11.003	39	81.7	0.692	0.062	6.1246	
15 minute summer	38	15.000	39	30.1	5.216	0.279	0.0860	
480 minute winter	39	8.004	42	9.0	0.262	0.847	1.4938	
15 minute summer	40	16.000	41	5.2	0.260	0.004	1.5243	
30 minute summer	41	16.001	42	3.9	0.043	0.003	20.4102	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	42	720	39.974	0.574	10.0	0.0000	0.0000	SURCHARGED
720 minute winter	43	720	39.974	0.674	5.7	0.0000	0.0000	SURCHARGED
15 minute summer	44	10	40.240	0.040	16.7	0.0457	0.0000	OK
15 minute summer	45	10	40.239	0.039	15.6	0.0443	0.0000	OK
720 minute winter	46	720	39.974	0.774	4.2	0.0000	0.0000	SURCHARGED
720 minute winter	47	720	39.974	0.774	3.5	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	42	8.005	43	4.9	0.068	0.011	78.6301	
720 minute winter	43	8.006	46	3.3	0.017	0.002	9.7035	
15 minute summer	44	18.000	46	16.7	0.704	0.071	0.1115	
15 minute summer	45	17.000	46	15.6	0.663	0.067	0.1109	
720 minute winter	46	8.007	47	3.5	0.076	0.003	16.3989	
720 minute winter	47	8.008	22	3.4	0.418	0.167	0.0423	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.271	0.161	92.3	0.2310	0.0000	OK
30 minute summer	2	19	42.846	0.246	129.3	0.3518	0.0000	OK
30 minute summer	3	19	42.179	0.319	175.0	0.4562	0.0000	OK
15 minute summer	4	10	41.419	0.119	25.1	0.2095	0.0000	OK
15 minute summer	5	11	41.223	0.227	197.9	0.4018	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	41.907	0.227	234.4	0.0000	0.0000	OK
15 minute summer	7	11	41.187	0.407	218.8	0.0000	0.0000	OK
15 minute summer	8	11	41.122	0.872	224.4	1.2476	0.0000	SURCHARGED
15 minute winter	9	15	41.052	0.818	66.7	1.1704	0.0000	SURCHARGED
60 minute summer	10	35	40.829	1.256	137.1	3.1960	0.0000	SURCHARGED
30 minute summer	11	21	40.853	1.373	278.5	3.4941	0.0000	SURCHARGED
15 minute summer	12	10	41.450	0.075	16.9	0.0845	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	92.3	1.657	0.395	6.6741	
30 minute summer	2	1.001	3	127.2	1.463	0.789	10.0314	
30 minute summer	3	1.002	5	162.9	1.697	0.998	9.2599	
15 minute summer	4	2.000	5	23.2	0.690	0.082	1.9014	
15 minute summer	5	1.003	11	195.9	2.158	0.263	2.7048	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	8.1778	
15 minute summer	6	3.000	7	218.8	0.570	0.171	29.3383	
15 minute summer	7	3.001	8	198.3	1.384	1.276	1.2268	
15 minute summer	8	3.002	9	67.1	1.146	0.413	0.9938	
15 minute summer	8	Weir	39	157.1				49.8
15 minute winter	9	3.003	10	69.3	1.020	0.435	13.5903	
60 minute summer	10	3.004	11	-52.9	0.330	-0.083	56.2715	
60 minute summer	10	Orifice	39	136.2				55.4
30 minute summer	11	1.004	14	174.3	0.633	0.271	13.8169	
15 minute summer	12	4.000	14	16.9	1.533	0.213	0.1431	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	13	10	41.149	0.174	32.3	0.1964	0.0000	OK
30 minute summer	14	21	40.840	1.383	215.1	3.5194	0.0000	SURCHARGED
30 minute summer	15	20	40.849	1.419	190.6	3.6112	0.0000	SURCHARGED
15 minute summer	16	10	40.857	0.057	17.1	0.0810	0.0000	OK
30 minute summer	17	20	40.851	1.430	194.0	3.6383	0.0000	SURCHARGED
15 minute summer	18	9	42.030	0.070	45.8	0.0789	0.0000	OK
30 minute summer	19	21	40.826	1.496	206.7	3.8075	0.0000	SURCHARGED
15 minute summer	20	9	40.078	1.178	737.9	0.0000	0.0000	SURCHARGED
15 minute summer	21	10	41.473	0.073	53.9	0.0823	0.0000	OK
15 minute summer	22	10	38.959	0.259	867.0	0.7346	0.0000	OK
15 minute summer	23	10	37.569	0.619	865.3	1.7538	0.0000	OK
15 minute summer	24	10	37.432	0.532	864.0	0.0000	0.0000	OK
15 minute summer	25	9	47.625	0.125	71.1	0.1416	0.0000	OK
15 minute summer	26	10	44.906	0.106	79.1	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	13	5.000	14	32.3	1.055	0.803	0.1880	
30 minute summer	14	1.005	15	190.6	0.653	0.299	16.4572	
30 minute summer	15	1.006	17	188.7	0.661	0.283	5.0290	
15 minute summer	16	6.000	17	17.1	1.711	0.045	0.5472	
30 minute summer	17	1.007	19	190.4	0.452	0.224	31.3712	
15 minute summer	18	7.000	19	46.9	4.652	0.181	0.2017	
30 minute summer	19	1.008	22	122.4	1.746	0.062	3.8341	
30 minute summer	19	Weir	47	82.4				26.2
15 minute summer	20	19.000	22	738.2	2.623	2.610	16.3698	
15 minute summer	21	20.000	22	53.9	5.248	0.187	0.0814	
15 minute summer	22	1.009	23	865.3	2.619	0.157	13.2989	
15 minute summer	23	1.010	24	864.0	1.855	0.612	8.0124	821.5
15 minute summer	25	8.000	26	71.2	3.529	0.559	0.9313	
15 minute summer	26	8.001	28	77.1	0.573	0.036	9.4971	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	27	9	44.088	0.088	108.7	0.1000	0.0000	OK
15 minute summer	28	11	42.288	0.188	185.8	0.0000	0.0000	OK
15 minute summer	29	10	44.050	0.050	38.3	0.0561	0.0000	OK
15 minute summer	30	12	40.757	0.257	210.1	0.0000	0.0000	OK
15 minute summer	31	1	46.700	0.000	0.0	0.0000	0.0000	OK
15 minute summer	32	10	45.555	0.055	25.4	0.0621	0.0000	OK
15 minute summer	33	10	41.888	0.888	43.2	0.0000	0.0000	OK
15 minute summer	34	10	44.455	0.055	25.1	0.0624	0.0000	OK
15 minute summer	35	10	41.260	0.160	88.4	0.0000	0.0000	OK
15 minute summer	36	10	42.661	0.061	23.8	0.0693	0.0000	OK
15 minute summer	37	11	40.973	0.173	126.8	0.0000	0.0000	OK
15 minute summer	38	10	45.463	0.063	37.6	0.0712	0.0000	OK
120 minute summer	39	124	40.130	0.530	310.8	384.7296	0.0000	SURCHARGED
15 minute summer	40	11	41.558	0.058	8.4	0.0000	0.0000	OK
30 minute summer	41	22	40.628	0.028	6.5	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)
15 minute summer	27	9.000	28	108.7	5.424	0.315	0.1070	
15 minute summer	28	8.002	30	168.4	0.736	0.115	21.1533	
15 minute summer	29	10.000	30	38.3	4.382	0.112	0.1894	
15 minute summer	30	8.003	39	167.4	0.704	0.165	13.2092	
15 minute summer	31	11.000	33	0.0	0.000	0.000	0.9552	
15 minute summer	32	12.000	33	25.4	2.823	0.131	0.2979	
15 minute summer	33	11.001	35	42.9	0.416	0.026	3.1148	
15 minute summer	34	13.000	35	25.1	2.110	0.133	0.4775	
15 minute summer	35	11.002	37	83.0	0.538	0.081	5.1620	
15 minute summer	36	14.000	37	23.8	2.029	0.164	0.4707	
15 minute summer	37	11.003	39	106.7	0.743	0.081	7.4462	
15 minute summer	38	15.000	39	37.6	5.530	0.348	0.1013	
120 minute summer	39	8.004	42	10.6	0.269	0.994	1.4938	
15 minute summer	40	16.000	41	6.8	0.284	0.006	1.8207	
30 minute summer	41	16.001	42	5.1	0.043	0.003	30.8384	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	42	945	40.069	0.669	9.1	0.0000	0.0000	SURCHARGED
960 minute winter	43	945	40.069	0.769	5.4	0.0000	0.0000	SURCHARGED
15 minute summer	44	10	40.245	0.045	20.8	0.0509	0.0000	OK
15 minute summer	45	10	40.244	0.044	19.5	0.0493	0.0000	OK
960 minute winter	46	945	40.069	0.869	4.3	0.0000	0.0000	SURCHARGED
960 minute winter	47	945	40.069	0.869	3.7	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	42	8.005	43	4.8	0.067	0.010	101.5174	
960 minute winter	43	8.006	46	3.5	0.016	0.002	12.1535	
15 minute summer	44	18.000	46	20.8	0.760	0.089	0.1135	
15 minute summer	45	17.000	46	19.5	0.717	0.083	0.1129	
960 minute winter	46	8.007	47	3.7	0.038	0.003	20.5394	
960 minute winter	47	8.008	22	3.6	0.426	0.178	0.0442	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.276	0.166	97.0	0.2375	0.0000	OK
30 minute summer	2	19	42.854	0.254	135.9	0.3640	0.0000	OK
30 minute summer	3	19	42.198	0.338	184.3	0.4840	0.0000	OK
15 minute summer	4	10	41.421	0.121	26.2	0.2142	0.0000	OK
15 minute summer	5	11	41.229	0.233	205.5	0.4109	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	41.912	0.232	244.4	0.0000	0.0000	OK
15 minute summer	7	11	41.196	0.416	228.4	0.0000	0.0000	OK
30 minute summer	8	20	41.134	0.884	215.8	1.2651	0.0000	SURCHARGED
30 minute summer	9	20	41.141	0.907	67.1	1.2975	0.0000	SURCHARGED
30 minute winter	10	21	40.824	1.251	127.2	3.1834	0.0000	SURCHARGED
60 minute summer	11	35	40.860	1.380	231.5	3.5112	0.0000	SURCHARGED
15 minute summer	12	10	41.451	0.076	17.6	0.0864	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	97.0	1.676	0.416	6.9302	
30 minute summer	2	1.001	3	133.4	1.477	0.828	10.4766	
30 minute summer	3	1.002	5	169.6	1.699	1.039	9.5641	
15 minute summer	4	2.000	5	24.3	0.698	0.086	1.9634	
15 minute summer	5	1.003	11	203.4	2.176	0.273	2.7856	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	8.4411	
15 minute summer	6	3.000	7	228.4	0.569	0.178	30.4035	
15 minute summer	7	3.001	8	206.5	1.421	1.329	1.2437	
30 minute summer	8	3.002	9	67.1	0.935	0.413	0.9938	
30 minute summer	8	Weir	39	180.9				64.6
30 minute summer	9	3.003	10	69.1	1.014	0.433	13.5903	
30 minute winter	10	3.004	11	-121.1	0.315	-0.189	56.2715	
30 minute winter	10	Orifice	39	129.3				49.2
60 minute summer	11	1.004	14	168.1	0.556	0.262	13.8169	
15 minute summer	12	4.000	14	17.6	1.549	0.222	0.1475	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	13	10	41.154	0.179	33.7	0.2024	0.0000	OK
30 minute winter	14	21	40.866	1.409	196.6	3.5868	0.0000	SURCHARGED
30 minute summer	15	20	40.862	1.432	188.3	3.6435	0.0000	SURCHARGED
60 minute summer	16	35	40.860	0.060	11.2	0.0865	0.0000	OK
60 minute summer	17	35	40.856	1.435	201.3	3.6532	0.0000	SURCHARGED
15 minute summer	18	9	42.031	0.071	47.8	0.0808	0.0000	OK
60 minute summer	19	35	40.847	1.517	228.4	3.8613	0.0000	SURCHARGED
15 minute summer	20	9	40.170	1.270	769.3	0.0000	0.0000	SURCHARGED
15 minute summer	21	10	41.475	0.075	56.2	0.0843	0.0000	OK
15 minute summer	22	10	38.965	0.264	902.3	0.7499	0.0000	OK
15 minute summer	23	10	37.583	0.633	901.2	1.7953	0.0000	OK
15 minute summer	24	10	37.443	0.543	898.9	0.0000	0.0000	OK
15 minute summer	25	9	47.628	0.128	74.1	0.1453	0.0000	OK
15 minute summer	26	10	44.909	0.109	82.5	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)
15 minute summer	13	5.000	14	33.7	1.070	0.838	0.1931	
30 minute winter	14	1.005	15	194.9	0.674	0.306	16.4572	
30 minute summer	15	1.006	17	191.1	0.669	0.287	5.0290	
60 minute summer	16	6.000	17	11.7	1.516	0.030	0.6233	
60 minute summer	17	1.007	19	205.7	0.422	0.242	31.3712	
15 minute summer	18	7.000	19	48.7	4.702	0.188	0.2038	
60 minute summer	19	1.008	22	123.0	1.748	0.063	3.8482	
60 minute summer	19	Weir	47	104.2				40.9
15 minute summer	20	19.000	22	769.7	2.733	2.721	16.4426	
15 minute summer	21	20.000	22	56.2	5.301	0.195	0.0840	
15 minute summer	22	1.009	23	901.2	2.648	0.163	13.6720	
15 minute summer	23	1.010	24	898.9	1.879	0.637	8.2271	843.2
15 minute summer	25	8.000	26	74.2	3.563	0.582	0.9603	
15 minute summer	26	8.001	28	80.5	0.579	0.038	9.7980	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	27	9	44.091	0.091	113.3	0.1027	0.0000	OK
15 minute summer	28	11	42.292	0.192	193.8	0.0000	0.0000	OK
15 minute summer	29	10	44.051	0.051	39.9	0.0572	0.0000	OK
15 minute summer	30	12	40.763	0.263	219.5	0.0000	0.0000	OK
15 minute summer	31	1	46.700	0.000	0.0	0.0000	0.0000	OK
15 minute summer	32	10	45.556	0.056	26.5	0.0634	0.0000	OK
15 minute summer	33	10	41.890	0.890	45.0	0.0000	0.0000	OK
15 minute summer	34	10	44.456	0.056	26.1	0.0636	0.0000	OK
15 minute summer	35	10	41.263	0.163	92.0	0.0000	0.0000	OK
15 minute summer	36	10	42.663	0.063	24.8	0.0708	0.0000	OK
15 minute summer	37	11	40.977	0.177	132.8	0.0000	0.0000	OK
15 minute summer	38	10	45.464	0.064	39.2	0.0729	0.0000	OK
180 minute summer	39	184	40.175	0.575	248.8	420.5724	0.0000	SURCHARGED
15 minute summer	40	11	41.559	0.059	8.8	0.0000	0.0000	OK
30 minute summer	41	22	40.629	0.029	6.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	27	9.000	28	113.3	5.477	0.328	0.1097	
15 minute summer	28	8.002	30	175.9	0.741	0.120	21.8392	
15 minute summer	29	10.000	30	39.9	4.446	0.117	0.1916	
15 minute summer	30	8.003	39	175.9	0.714	0.174	13.6782	
15 minute summer	31	11.000	33	0.0	0.000	0.000	0.9552	
15 minute summer	32	12.000	33	26.5	2.745	0.137	0.3069	
15 minute summer	33	11.001	35	44.7	0.418	0.027	3.2167	
15 minute summer	34	13.000	35	26.1	2.132	0.138	0.4895	
15 minute summer	35	11.002	37	87.2	0.545	0.085	5.3332	
15 minute summer	36	14.000	37	24.8	2.046	0.170	0.4820	
15 minute summer	37	11.003	39	112.2	0.753	0.085	7.7237	
15 minute summer	38	15.000	39	39.2	5.590	0.363	0.1045	
180 minute summer	39	8.004	42	10.5	0.266	0.984	1.4938	
15 minute summer	40	16.000	41	7.2	0.290	0.006	1.8781	
30 minute summer	41	16.001	42	5.4	0.043	0.004	33.7107	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	42	735	40.094	0.694	10.2	0.0000	0.0000	SURCHARGED
720 minute winter	43	735	40.094	0.794	5.8	0.0000	0.0000	SURCHARGED
15 minute summer	44	10	40.246	0.046	21.7	0.0520	0.0000	OK
15 minute summer	45	10	40.244	0.044	20.3	0.0503	0.0000	OK
720 minute winter	46	735	40.094	0.894	4.6	0.0000	0.0000	SURCHARGED
720 minute winter	47	735	40.094	0.894	3.8	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	42	8.005	43	4.9	0.064	0.011	108.0248	
720 minute winter	43	8.006	46	3.6	0.015	0.002	12.8440	
15 minute summer	44	18.000	46	21.7	0.790	0.093	0.1139	
15 minute summer	45	17.000	46	20.3	0.743	0.087	0.1133	
720 minute winter	46	8.007	47	3.8	0.049	0.003	21.7064	
720 minute winter	47	8.008	22	3.7	0.428	0.181	0.0447	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.299	0.189	121.2	0.2700	0.0000	OK
30 minute summer	2	21	43.074	0.474	170.1	0.6781	0.0000	SURCHARGED
30 minute summer	3	19	42.436	0.576	219.4	0.8242	0.0000	SURCHARGED
15 minute summer	4	10	41.436	0.136	32.7	0.2405	0.0000	OK
15 minute summer	5	11	41.253	0.257	243.7	0.4540	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	41.938	0.258	305.5	0.0000	0.0000	OK
15 minute summer	7	11	41.251	0.471	287.8	0.0000	0.0000	SURCHARGED
30 minute summer	8	19	41.154	0.904	260.5	1.2939	0.0000	SURCHARGED
30 minute summer	9	19	41.046	0.812	67.4	1.1618	0.0000	SURCHARGED
30 minute summer	10	19	40.869	1.296	207.8	3.2989	0.0000	SURCHARGED
30 minute summer	11	19	40.974	1.494	344.1	3.8020	0.0000	SURCHARGED
15 minute summer	12	10	41.462	0.087	22.0	0.0980	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	121.2	1.750	0.519	9.2146	
30 minute summer	2	1.001	3	160.1	1.500	0.994	12.5428	
30 minute summer	3	1.002	5	195.3	1.781	1.197	10.0969	
15 minute summer	4	2.000	5	30.5	0.745	0.108	2.3236	
15 minute summer	5	1.003	11	241.1	2.253	0.324	3.2771	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	10.0182	
15 minute summer	6	3.000	7	287.8	0.569	0.225	37.1688	
15 minute summer	7	3.001	8	256.0	1.643	1.647	1.3041	
30 minute summer	8	3.002	9	67.4	0.960	0.415	0.9938	
30 minute summer	8	Weir	39	224.2				94.5
30 minute summer	9	3.003	10	69.2	1.013	0.434	13.5903	
30 minute summer	10	3.004	11	-109.5	0.341	-0.171	56.2715	
30 minute summer	10	Orifice	39	204.8				89.7
30 minute summer	11	1.004	14	213.8	0.639	0.333	13.8169	
15 minute summer	12	4.000	14	22.0	1.640	0.278	0.1742	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	13	10	41.191	0.216	42.1	0.2443	0.0000	OK
30 minute summer	14	19	40.969	1.512	267.3	3.8486	0.0000	SURCHARGED
30 minute summer	15	19	40.930	1.500	273.5	3.8182	0.0000	SURCHARGED
30 minute summer	16	19	40.922	0.122	19.6	0.1750	0.0000	OK
30 minute summer	17	19	40.920	1.499	290.2	3.8139	0.0000	SURCHARGED
15 minute summer	18	9	42.041	0.081	59.7	0.0919	0.0000	OK
30 minute summer	19	19	40.926	1.596	320.2	4.0612	0.0000	SURCHARGED
15 minute summer	20	9	40.663	1.763	961.7	0.0000	0.0000	FLOOD RISK
15 minute summer	21	10	41.485	0.085	70.3	0.0961	0.0000	OK
15 minute summer	22	10	39.002	0.302	1116.5	0.8550	0.0000	OK
15 minute summer	23	10	37.669	0.719	1114.1	2.0385	0.0000	OK
15 minute summer	24	10	37.507	0.607	1112.2	0.0000	0.0000	OK
15 minute summer	25	9	47.649	0.149	92.6	0.1690	0.0000	OK
15 minute summer	26	10	44.922	0.122	103.0	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)	Discharge Vol (m³)
15 minute summer	13	5.000	14	42.1	1.156	1.047	0.2207	
30 minute summer	14	1.005	15	273.5	0.660	0.429	16.4572	
30 minute summer	15	1.006	17	285.4	0.681	0.429	5.0290	
30 minute summer	16	6.000	17	19.5	1.771	0.051	0.7241	
30 minute summer	17	1.007	19	279.9	0.467	0.329	31.3712	
15 minute summer	18	7.000	19	59.7	4.962	0.230	0.2158	
30 minute summer	19	1.008	22	126.7	1.761	0.065	4.2074	
30 minute summer	19	Weir	47	199.0				64.6
15 minute summer	20	19.000	22	961.4	3.414	3.399	16.6042	
15 minute summer	21	20.000	22	70.3	5.590	0.244	0.0997	
15 minute summer	22	1.009	23	1114.1	2.775	0.202	15.9245	
15 minute summer	23	1.010	24	1112.2	2.020	0.788	9.4573	962.1
15 minute summer	25	8.000	26	92.7	3.752	0.727	1.1335	
15 minute summer	26	8.001	28	100.9	0.615	0.048	11.5728	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	27	9	44.105	0.105	141.7	0.1193	0.0000	OK
15 minute summer	28	11	42.315	0.215	242.7	0.0000	0.0000	OK
15 minute summer	29	10	44.057	0.057	49.9	0.0640	0.0000	OK
15 minute summer	30	12	40.793	0.293	277.7	0.0000	0.0000	OK
15 minute summer	31	1	46.700	0.000	0.0	0.0000	0.0000	OK
15 minute summer	32	10	45.563	0.063	33.1	0.0709	0.0000	OK
15 minute summer	33	10	41.902	0.902	56.3	0.0000	0.0000	OK
15 minute summer	34	10	44.463	0.063	32.6	0.0712	0.0000	OK
15 minute summer	35	10	41.283	0.183	115.1	0.0000	0.0000	OK
15 minute summer	36	10	42.670	0.070	31.1	0.0796	0.0000	OK
15 minute summer	37	11	41.000	0.200	169.3	0.0000	0.0000	OK
15 minute summer	38	10	45.473	0.073	49.0	0.0831	0.0000	OK
180 minute summer	39	184	40.370	0.770	329.2	586.1624	0.0000	FLOOD RISK
15 minute summer	40	11	41.567	0.067	11.0	0.0000	0.0000	OK
30 minute summer	41	21	40.634	0.034	8.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	27	9.000	28	141.7	5.644	0.410	0.1239	
15 minute summer	28	8.002	30	221.4	0.774	0.151	26.0374	
15 minute summer	29	10.000	30	49.9	4.609	0.146	0.1966	
15 minute summer	30	8.003	39	228.7	0.770	0.226	16.4587	
15 minute summer	31	11.000	33	0.0	0.000	0.000	0.9552	
15 minute summer	32	12.000	33	33.1	2.913	0.171	0.3592	
15 minute summer	33	11.001	35	56.0	0.433	0.034	3.8166	
15 minute summer	34	13.000	35	32.6	2.216	0.173	0.5543	
15 minute summer	35	11.002	37	112.2	0.576	0.109	6.3614	
15 minute summer	36	14.000	37	31.1	2.178	0.214	0.5422	
15 minute summer	37	11.003	39	147.1	0.811	0.112	9.3988	
15 minute summer	38	15.000	39	49.0	5.914	0.454	0.1234	
180 minute summer	39	8.004	42	11.5	0.289	1.079	1.4938	
15 minute summer	40	16.000	41	9.4	0.322	0.008	2.2194	
30 minute summer	41	16.001	42	6.9	0.040	0.005	49.7044	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	42	448	40.252	0.852	54.6	0.0000	0.0000	FLOOD RISK
240 minute summer	43	452	40.252	0.952	49.1	0.0000	0.0000	FLOOD RISK
240 minute summer	44	452	40.252	0.052	6.9	0.0586	0.0000	OK
240 minute summer	45	452	40.252	0.052	6.5	0.0586	0.0000	OK
240 minute summer	46	452	40.252	1.052	49.6	0.0000	0.0000	SURCHARGED
240 minute summer	47	452	40.252	1.052	42.6	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	42	8.005	43	-32.8	0.061	-0.072	153.2769	
240 minute summer	43	8.006	46	-43.8	-0.038	-0.029	17.5946	
240 minute summer	44	18.000	46	6.9	0.272	0.029	0.1166	
240 minute summer	45	17.000	46	6.5	0.257	0.028	0.1166	
240 minute summer	46	8.007	47	-36.2	0.098	-0.032	29.7351	
240 minute summer	47	8.008	22	4.0	0.439	0.197	0.0474	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	23	44.312	0.202	135.8	0.2891	0.0000	OK
30 minute summer	2	21	43.479	0.879	190.8	1.2582	0.0000	SURCHARGED
30 minute summer	3	20	42.613	0.753	240.0	1.0771	0.0000	SURCHARGED
15 minute summer	4	10	41.444	0.144	36.6	0.2552	0.0000	OK
30 minute summer	5	18	41.275	0.279	257.9	0.4928	0.0000	OK
15 minute summer	6	1	42.580	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3.000:50%	10	41.953	0.273	342.2	0.0000	0.0000	OK
15 minute summer	7	12	41.284	0.504	323.7	0.0000	0.0000	SURCHARGED
15 minute summer	8	12	41.196	0.946	322.8	1.3536	0.0000	SURCHARGED
15 minute winter	9	12	41.265	1.031	69.0	1.4753	0.0000	SURCHARGED
30 minute summer	10	19	40.867	1.294	200.8	3.2939	0.0000	SURCHARGED
30 minute summer	11	18	41.016	1.536	382.8	3.9094	0.0000	SURCHARGED
15 minute summer	12	10	41.467	0.092	24.6	0.1045	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	135.8	1.651	0.582	9.4952	
30 minute summer	2	1.001	3	171.5	1.555	1.064	12.5428	
30 minute summer	3	1.002	5	211.9	1.923	1.298	10.2225	
15 minute summer	4	2.000	5	34.3	0.773	0.121	2.5282	
30 minute summer	5	1.003	11	258.6	2.216	0.347	4.5606	
15 minute summer	6	3.000	3.000:50%	0.0	0.000	0.000	10.9290	
15 minute summer	6	3.000	7	323.7	0.581	0.253	41.3910	
15 minute summer	7	3.001	8	277.8	1.755	1.787	1.3466	
15 minute summer	8	3.002	9	69.4	1.170	0.428	0.9938	
15 minute summer	8	Weir	39	321.1				99.6
15 minute winter	9	3.003	10	69.6	1.001	0.437	13.5903	
30 minute summer	10	3.004	11	-185.8	0.346	-0.291	56.2715	
30 minute summer	10	Orifice	39	202.3				101.5
30 minute summer	11	1.004	14	258.8	0.646	0.403	13.8169	
15 minute summer	12	4.000	14	24.6	1.686	0.310	0.1895	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	13	10	41.219	0.244	47.2	0.2759	0.0000	SURCHARGED
30 minute summer	14	18	41.009	1.552	308.7	3.9493	0.0000	SURCHARGED
30 minute summer	15	18	40.999	1.569	312.7	3.9925	0.0000	SURCHARGED
30 minute summer	16	18	40.988	0.188	21.9	0.2697	0.0000	OK
30 minute summer	17	19	40.982	1.561	333.9	3.9725	0.0000	SURCHARGED
15 minute summer	18	9	42.045	0.085	66.9	0.0961	0.0000	OK
30 minute summer	19	18	40.971	1.641	392.6	4.1761	0.0000	SURCHARGED
15 minute summer	20	9	40.700	1.800	1077.0	0.0000	0.0000	FLOOD RISK
15 minute summer	21	10	41.491	0.091	78.7	0.1029	0.0000	OK
15 minute summer	22	10	39.025	0.325	1245.2	0.9204	0.0000	OK
15 minute summer	23	10	37.720	0.770	1242.5	2.1826	0.0000	OK
15 minute summer	24	10	37.542	0.642	1240.0	0.0000	0.0000	OK
15 minute summer	25	10	47.663	0.163	103.7	0.1844	0.0000	OK
15 minute summer	26	10	44.929	0.129	115.4	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)
15 minute summer	13	5.000	14	47.2	1.214	1.174	0.2277	
30 minute summer	14	1.005	15	312.7	0.670	0.491	16.4572	
30 minute summer	15	1.006	17	306.0	0.700	0.460	5.0290	
30 minute summer	16	6.000	17	27.9	1.824	0.073	0.8484	
30 minute summer	17	1.007	19	337.4	0.533	0.397	31.3712	
15 minute summer	18	7.000	19	68.3	4.850	0.263	0.2198	
30 minute summer	19	1.008	22	127.6	1.761	0.065	4.7561	
30 minute summer	19	Weir	47	259.9				94.1
15 minute summer	20	19.000	22	1076.9	3.823	3.807	16.6042	
15 minute summer	21	20.000	22	78.7	5.737	0.273	0.1087	
15 minute summer	22	1.009	23	1242.5	2.835	0.225	17.2295	
15 minute summer	23	1.010	24	1240.0	2.099	0.879	10.1321	1028.8
15 minute summer	25	8.000	26	103.8	3.836	0.814	1.2361	
15 minute summer	26	8.001	28	113.3	0.634	0.054	12.5988	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	27	9	44.114	0.114	158.7	0.1292	0.0000	OK
15 minute summer	28	11	42.327	0.227	272.0	0.0000	0.0000	OK
15 minute summer	29	10	44.060	0.060	55.9	0.0678	0.0000	OK
15 minute summer	30	12	40.809	0.309	313.0	0.0000	0.0000	OK
15 minute summer	31	1	46.700	0.000	0.0	0.0000	0.0000	OK
15 minute summer	32	10	45.566	0.066	37.1	0.0752	0.0000	OK
15 minute summer	33	10	41.908	0.908	63.0	0.0000	0.0000	OK
15 minute summer	34	10	44.467	0.067	36.6	0.0756	0.0000	OK
15 minute summer	35	10	41.294	0.194	129.1	0.0000	0.0000	OK
15 minute summer	36	10	42.675	0.075	34.8	0.0844	0.0000	OK
15 minute summer	37	11	41.012	0.212	190.0	0.0000	0.0000	OK
15 minute summer	38	10	45.479	0.079	54.9	0.0890	0.0000	OK
180 minute summer	39	184	40.481	0.881	380.6	685.5669	0.0000	FLOOD RISK
15 minute summer	40	11	41.571	0.071	12.3	0.0000	0.0000	OK
30 minute summer	41	21	40.636	0.036	10.0	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)	Discharge Vol (m³)
15 minute summer	27	9.000	28	158.7	5.729	0.460	0.1305	
15 minute summer	28	8.002	30	248.8	0.793	0.170	28.5308	
15 minute summer	29	10.000	30	55.9	4.717	0.164	0.1993	
15 minute summer	30	8.003	39	260.7	0.799	0.257	18.0562	
15 minute summer	31	11.000	33	0.0	0.000	0.000	0.9552	
15 minute summer	32	12.000	33	37.1	2.928	0.192	0.3883	
15 minute summer	33	11.001	35	62.8	0.443	0.038	4.1523	
15 minute summer	34	13.000	35	36.6	2.251	0.194	0.5864	
15 minute summer	35	11.002	37	126.0	0.588	0.122	6.9417	
15 minute summer	36	14.000	37	34.8	2.247	0.239	0.5687	
15 minute summer	37	11.003	39	167.7	0.840	0.128	10.3430	
15 minute summer	38	15.000	39	54.9	6.078	0.508	0.1346	
180 minute summer	39	8.004	42	12.0	0.302	1.128	1.4938	
15 minute summer	40	16.000	41	10.7	0.339	0.009	2.4187	
30 minute summer	41	16.001	42	7.8	0.040	0.005	60.0408	

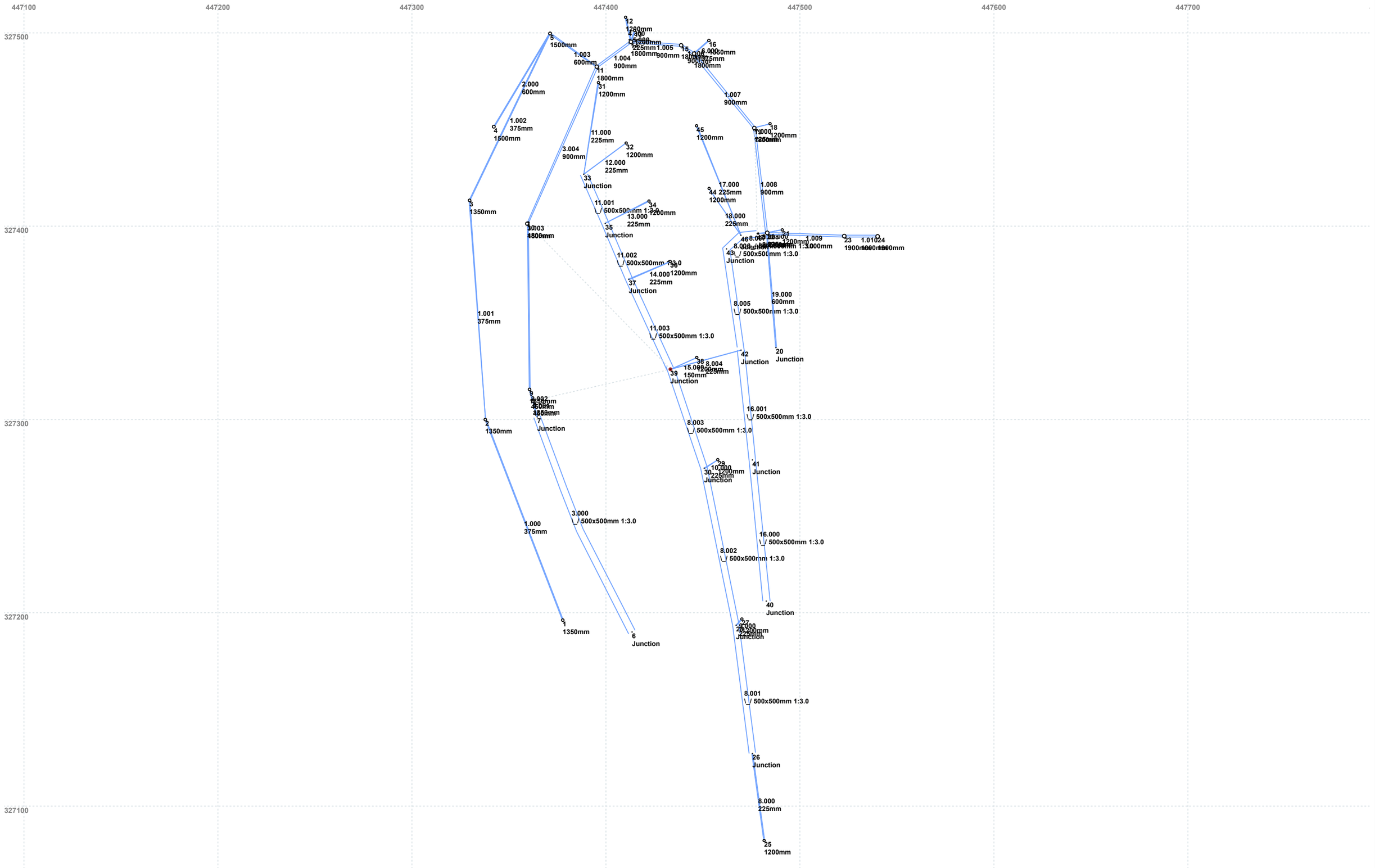
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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute summer	42	492	40.346	0.946	51.2	0.0000	0.0000	FLOOD RISK
240 minute summer	43	492	40.346	1.046	58.0	0.0000	0.0000	FLOOD RISK
240 minute summer	44	492	40.347	0.147	7.8	0.1658	0.0000	OK
240 minute summer	45	492	40.347	0.147	7.3	0.1658	0.0000	OK
240 minute summer	46	492	40.346	1.146	60.1	0.0000	0.0000	SURCHARGED
240 minute summer	47	492	40.346	1.146	53.4	0.0000	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	42	8.005	43	-26.6	0.062	-0.058	184.3489	
240 minute summer	43	8.006	46	-52.1	-0.043	-0.035	20.8148	
240 minute summer	44	18.000	46	7.8	0.306	0.033	0.1679	
240 minute summer	45	17.000	46	7.3	0.287	0.031	0.1679	
240 minute summer	46	8.007	47	-45.0	0.094	-0.039	35.1771	
240 minute summer	47	8.008	22	4.2	0.446	0.206	0.0489	

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Appendix 9: DCO Works No.10 Proposed Drainage

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	0.900
Return Period (years)	5	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	✓
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Circular Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

Kerb_Drain Link Type

Shape	Rectangular	Height (mm)	300	Follow Ground	x	ks (mm) / n	0.001
Barrels	1	Auto Increment (mm)	75	Velocity	Manning		

Available Diameters (mm)

300

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1		5.00	40.000	1200	447326.917	327737.608	1.000
2			39.450	1200	447314.336	327758.243	1.000
3			38.940	1200	447302.166	327785.246	1.000
4			38.210	1350	447293.080	327814.056	1.275
5			37.520	1350	447284.852	327850.038	1.275
6			37.300	1350	447282.059	327860.428	1.275
7	0.043	5.00	37.130	1350	447280.871	327871.382	1.275
8			36.880	1350	447280.168	327883.249	1.275
9	0.110	5.00	35.890	1350	447277.659	327952.380	1.275

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
10	0.073	5.00	34.950	1350	447289.683	328012.306	1.275
11	0.082	5.00	34.090	1350	447308.426	328071.043	1.275
12			33.500	1350	447329.424	328064.079	1.275
13	0.121	5.00	33.386	1350	447365.090	328203.343	1.604
14	0.080	5.00	31.730		447302.183	328514.728	0.400
15			31.500	1200	447312.040	328441.262	0.400
16	0.069	5.00	31.500		447313.542	328439.536	0.400
17			31.760	1200	447320.319	328376.349	1.005
18	0.069	5.00	31.760		447321.863	328375.243	0.400
19			31.950	1200	447327.062	328320.390	1.251
20	0.033	5.00	33.640	1200	447307.367	328099.927	0.250
21	0.018	5.00	33.390	1200	447311.781	328113.776	0.250
22	0.017	5.00	33.145	1200	447315.925	328127.943	0.254
23	0.017	5.00	32.950	1200	447319.901	328142.117	0.307
24	0.018	5.00	32.710	1200	447323.368	328156.833	0.322
25	0.039	5.00	32.370	1200	447328.911	328187.020	0.362
26	0.044	5.00	32.090	1200	447332.409	328223.860	0.449
27	0.022	5.00	32.060	1200	447332.945	328242.008	0.599
28	0.051	5.00	31.950		447328.532	328318.496	0.400
29	0.048	5.00	32.060		447334.748	328241.878	0.400
30			32.100	1200	447331.597	328276.048	2.110
31	0.126	5.00	32.300	3000	447365.207	328280.285	3.050
32			34.000	2100	447472.439	328288.085	4.858

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Links (Results)

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	1.166	9.2	0.0	0.900	0.900	0.000	0.0
1.001	1.012	8.0	0.0	0.900	0.900	0.000	0.0
1.002	1.202	9.4	0.0	0.900	0.900	0.000	0.0
1.003	2.482	274.1	0.0	0.900	0.900	0.000	0.0
1.004	2.596	286.7	0.0	0.900	0.900	0.000	0.0
1.005	2.253	248.9	0.0	0.900	0.900	0.000	0.0
1.006	2.633	290.8	5.9	0.900	0.900	0.043	0.0
1.007	2.170	239.6	5.9	0.900	0.900	0.043	0.0
1.008	2.250	248.5	20.8	0.900	0.900	0.154	0.0
1.009	2.142	236.6	30.7	0.900	0.900	0.226	0.0
1.010	2.966	327.6	41.8	0.900	0.900	0.309	0.0
1.011	1.000	110.5	41.8	0.900	1.229	0.309	0.0
1.012	1.797	198.4	58.3	1.229	0.900	0.430	0.0
2.000	12.001	1080.1	10.9	0.100	0.100	0.080	0.0
2.001	4.957	38.9	10.9	0.300	0.780	0.080	0.0
3.000	15.874	1428.7	9.4	0.100	0.705	0.069	0.0
2.002	4.627	184.0	20.3	0.780	1.026	0.149	0.0
4.000	6.807	612.6	9.3	0.100	0.345	0.069	0.0
2.003	4.665	185.5	29.6	1.026	1.221	0.218	0.0
5.000	1.321	23.3	4.5	0.100	0.100	0.033	0.0
5.001	1.308	23.1	6.9	0.100	0.104	0.051	0.0
5.002	1.308	23.1	9.2	0.104	0.157	0.068	0.0
5.003	1.308	23.1	11.5	0.157	0.172	0.085	0.0
5.004	1.001	17.7	14.0	0.172	0.137	0.103	0.0
5.005	1.302	51.8	19.2	0.137	0.224	0.142	0.0
5.006	1.301	51.7	25.2	0.224	0.374	0.186	0.0
5.007	1.302	51.8	28.2	0.374	0.752	0.208	0.0
6.000	6.848	616.3	6.9	0.100	0.293	0.051	0.0
7.000	6.782	610.3	6.5	0.100	0.174	0.048	0.0
2.004	11.313	2449.0	71.3	1.585	1.850	0.526	0.0
1.013	1.177	1331.2	135.7	1.850	3.658	1.082	0.0

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Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Detailed	Additional Storage (m³/ha)	20.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
30	0	0	0	100	25	0	0
30	25	0	0	100	40	0	0

Node 31 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	29.250	Product Number	CTL-SHE-0281-5000-2000-5000
Design Depth (m)	2.000	Min Outlet Diameter (m)	0.300
Design Flow (l/s)	50.0	Min Node Diameter (mm)	2700

Node 31 Online Orifice Control

Flap Valve	x	Invert Level (m)	30.300	Design Flow (l/s)	200.0	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Depth (m)	1.200	Diameter (m)	0.290		

Node 30 Online Orifice Control

Flap Valve	x	Invert Level (m)	29.990	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.525		

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.450	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	37.940	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	36.935	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.245	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.025	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	35.891	0.036	5.4	0.0757	0.0000	OK
15 minute summer	8	11	35.643	0.038	5.4	0.0546	0.0000	OK
15 minute summer	9	11	34.683	0.068	18.8	0.2160	0.0000	OK
15 minute summer	10	11	33.761	0.086	27.1	0.2208	0.0000	OK
15 minute summer	11	11	32.898	0.083	36.4	0.2257	0.0000	OK
15 minute summer	12	12	32.371	0.146	35.9	0.2090	0.0000	OK
15 minute summer	13	13	31.899	0.117	45.5	0.3454	0.0000	OK
15 minute summer	14	9	31.342	0.012	10.1	0.0492	0.0000	OK
15 minute summer	15	11	31.156	0.056	10.0	0.0638	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.0294	
15 minute summer	7	1.006	8	5.4	0.992	0.018	0.0656	
15 minute summer	8	1.007	9	5.3	0.553	0.022	0.6751	
15 minute summer	9	1.008	10	18.4	1.130	0.074	0.9971	
15 minute summer	10	1.009	11	26.6	1.437	0.112	1.1411	
15 minute summer	11	1.010	12	35.9	1.429	0.110	0.6344	
15 minute summer	12	1.011	13	33.7	0.995	0.305	4.8829	
15 minute summer	13	1.012	31	41.4	1.430	0.208	2.2264	
15 minute summer	14	2.000	15	10.0	1.160	0.009	0.7581	
15 minute summer	15	2.001	17	9.9	3.157	0.255	0.2267	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	16	10	31.109	0.009	8.7	0.0319	0.0000	OK
15 minute summer	17	11	30.853	0.098	18.2	0.1108	0.0000	OK
15 minute summer	18	10	31.385	0.025	8.6	0.0861	0.0000	OK
15 minute summer	19	12	30.812	0.113	27.5	0.1283	0.0000	OK
15 minute summer	20	10	33.432	0.042	4.1	0.1582	0.0000	OK
15 minute summer	21	11	33.193	0.053	6.2	0.1357	0.0000	OK
15 minute summer	22	11	32.955	0.064	8.2	0.1594	0.0000	OK
15 minute summer	23	11	32.714	0.071	10.3	0.1598	0.0000	OK
15 minute summer	24	11	32.481	0.093	12.4	0.2088	0.0000	OK
15 minute summer	25	11	32.094	0.086	16.5	0.2820	0.0000	OK
15 minute summer	26	12	31.746	0.105	21.5	0.3264	0.0000	OK
15 minute summer	27	12	31.571	0.110	23.5	0.2056	0.0000	OK
15 minute summer	28	10	31.570	0.020	6.4	0.0513	0.0000	OK
15 minute summer	29	9	31.680	0.020	6.0	0.0477	0.0000	OK
30 minute summer	30	22	30.500	0.510	55.1	0.5764	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	16	3.000	17	8.6	0.729	0.006	1.0199	
15 minute summer	17	2.002	19	18.8	1.421	0.102	1.0268	
15 minute summer	18	4.000	19	9.7	1.822	0.016	0.3388	
15 minute summer	19	2.003	30	28.1	2.170	0.151	0.6326	
15 minute summer	20	5.000	21	4.0	0.836	0.171	0.0698	
15 minute summer	21	5.001	22	6.1	0.968	0.266	0.0938	
15 minute summer	22	5.002	23	8.3	1.077	0.359	0.1133	
15 minute summer	23	5.003	24	10.3	1.051	0.446	0.1496	
15 minute summer	24	5.004	25	12.0	1.064	0.678	0.3459	
15 minute summer	25	5.005	26	16.2	1.010	0.313	0.5941	
15 minute summer	26	5.006	27	21.1	1.136	0.408	0.3391	
15 minute summer	27	5.007	30	23.5	1.255	0.454	0.6378	
15 minute summer	28	6.000	30	7.0	1.577	0.011	0.2134	
15 minute summer	29	7.000	30	6.5	1.469	0.011	0.1676	
30 minute summer	30	2.004	31	50.3	2.081	0.021	7.2684	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	15	30.488	1.238	124.6	9.7713	0.0000	SURCHARGED
15 minute summer	32	16	29.284	0.142	75.0	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)	Discharge Vol (m³)
15 minute summer	31	1.013	32	75.0	0.777	0.056	10.4572	58.4

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.450	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	37.940	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	36.935	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.245	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.025	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	35.924	0.069	19.8	0.1456	0.0000	OK
15 minute summer	8	11	35.676	0.071	19.7	0.1019	0.0000	OK
15 minute summer	9	11	34.747	0.132	69.6	0.4189	0.0000	OK
15 minute summer	10	11	33.849	0.174	100.5	0.4473	0.0000	OK
15 minute summer	11	11	32.994	0.179	136.7	0.4876	0.0000	OK
15 minute summer	12	12	32.641	0.416	136.6	0.5953	0.0000	SURCHARGED
15 minute summer	13	12	32.064	0.282	174.4	0.8316	0.0000	OK
60 minute summer	14	40	31.526	0.196	24.4	0.7867	0.0000	OK
30 minute winter	15	22	31.500	0.400	34.1	0.4524	4.3227	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.0765	
15 minute summer	7	1.006	8	19.7	1.390	0.068	0.1683	
15 minute summer	8	1.007	9	19.3	0.800	0.081	1.7044	
15 minute summer	9	1.008	10	68.2	1.613	0.275	2.5889	
15 minute summer	10	1.009	11	100.9	2.028	0.427	3.1425	
15 minute summer	11	1.010	12	136.6	1.813	0.417	1.7901	
15 minute summer	12	1.011	13	130.9	1.261	1.185	14.3256	
15 minute summer	13	1.012	31	166.7	1.643	0.840	7.6673	
60 minute summer	14	2.000	15	27.5	1.205	0.026	6.6251	
30 minute winter	15	2.001	17	25.6	4.096	0.658	0.5120	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	16	20	31.500	0.400	97.0	1.3820	15.8980	FLOOD
30 minute summer	17	19	31.584	0.829	84.1	0.9375	0.0000	FLOOD RISK
30 minute summer	18	21	31.611	0.251	58.7	0.8601	0.0000	OK
30 minute summer	19	21	31.595	0.896	101.3	1.0133	0.0000	SURCHARGED
15 minute summer	20	11	33.487	0.097	15.1	0.3657	0.0000	OK
15 minute summer	21	11	33.390	0.250	22.7	0.6378	0.0723	FLOOD
15 minute summer	22	10	33.145	0.254	28.1	0.6358	1.8019	FLOOD
30 minute summer	23	17	32.950	0.307	25.2	0.6868	1.2193	FLOOD
30 minute summer	24	17	32.710	0.322	27.3	0.7200	1.4361	FLOOD
15 minute summer	25	12	32.270	0.262	39.7	0.8576	0.0000	FLOOD RISK
15 minute summer	26	12	32.090	0.449	58.4	1.3955	0.5465	FLOOD
15 minute summer	27	12	31.952	0.491	59.4	0.9205	0.0000	FLOOD RISK
15 minute summer	28	9	31.609	0.059	23.4	0.1503	0.0000	OK
15 minute summer	29	9	31.717	0.057	22.0	0.1360	0.0000	OK
15 minute summer	30	12	31.609	1.619	141.2	1.8309	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	16	3.000	17	-75.7	1.032	-0.053	11.6693	
30 minute summer	17	2.002	19	69.7	1.752	0.379	2.2417	
30 minute summer	18	4.000	19	55.5	1.950	0.091	4.4697	
30 minute summer	19	2.003	30	79.9	2.707	0.431	1.7727	
15 minute summer	20	5.000	21	14.6	1.068	0.625	0.2155	
15 minute summer	21	5.001	22	20.5	1.162	0.885	0.2599	
15 minute summer	22	5.002	23	18.3	1.211	0.791	0.2592	
30 minute summer	23	5.003	24	20.0	1.166	0.867	0.2662	
30 minute summer	24	5.004	25	22.0	1.254	1.246	0.5403	
15 minute summer	25	5.005	26	38.1	1.126	0.737	1.4718	
15 minute summer	26	5.006	27	49.7	1.302	0.961	0.7221	
15 minute summer	27	5.007	30	51.3	1.402	0.992	1.3549	
15 minute summer	28	6.000	30	25.3	1.963	0.041	0.8751	
15 minute summer	29	7.000	30	23.2	2.159	0.038	0.4299	
15 minute summer	30	2.004	31	154.0	2.324	0.063	7.3183	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	12	31.606	2.356	331.9	18.5967	0.0000	SURCHARGED
15 minute summer	32	13	29.402	0.260	240.5	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)
15 minute summer	31	1.013	32	240.5	1.103	0.181	23.7650	191.9

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.450	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	37.940	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	36.935	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.245	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.025	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	35.933	0.078	24.7	0.1637	0.0000	OK
15 minute summer	8	11	35.684	0.079	24.5	0.1136	0.0000	OK
15 minute summer	9	11	34.764	0.149	87.0	0.4725	0.0000	OK
15 minute summer	10	11	33.873	0.198	126.1	0.5087	0.0000	OK
15 minute summer	11	13	33.196	0.381	172.3	1.0355	0.0000	SURCHARGED
15 minute summer	12	13	33.064	0.839	167.1	1.2004	0.0000	SURCHARGED
15 minute summer	13	12	32.420	0.638	201.7	1.8785	0.0000	SURCHARGED
30 minute summer	14	20	31.549	0.219	41.1	0.8819	0.0000	OK
30 minute winter	15	18	31.500	0.400	59.1	0.4524	11.4281	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.0904	
15 minute summer	7	1.006	8	24.5	1.474	0.084	0.1980	
15 minute summer	8	1.007	9	24.1	0.849	0.101	2.0013	
15 minute summer	9	1.008	10	85.3	1.712	0.343	3.0495	
15 minute summer	10	1.009	11	127.5	2.028	0.539	5.0225	
15 minute summer	11	1.010	12	167.1	1.862	0.510	2.4403	
15 minute summer	12	1.011	13	136.9	1.241	1.240	15.8562	
15 minute summer	13	1.012	31	184.7	1.757	0.931	8.4865	
30 minute summer	14	2.000	15	61.1	1.253	0.057	6.8885	
30 minute winter	15	2.001	17	26.1	4.046	0.671	0.5120	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	16	18	31.500	0.400	122.6	1.3820	35.0284	FLOOD
30 minute summer	17	18	31.576	0.821	85.6	0.9287	0.0000	FLOOD RISK
15 minute summer	18	13	31.713	0.353	39.9	1.2098	0.0000	FLOOD RISK
30 minute summer	19	20	31.750	1.051	109.3	1.1888	0.0000	FLOOD RISK
15 minute summer	20	11	33.552	0.162	18.9	0.6115	0.0000	FLOOD RISK
15 minute summer	21	10	33.390	0.250	26.7	0.6378	0.9809	FLOOD
30 minute summer	22	16	33.145	0.254	29.4	0.6358	3.2581	FLOOD
30 minute summer	23	16	32.950	0.307	27.0	0.6868	2.0985	FLOOD
30 minute summer	24	16	32.710	0.322	29.1	0.7200	2.8895	FLOOD
15 minute summer	25	11	32.335	0.327	43.1	1.0702	0.0000	FLOOD RISK
15 minute summer	26	10	32.090	0.449	64.2	1.3955	4.7212	FLOOD
15 minute summer	27	11	32.000	0.539	62.3	1.0113	0.0000	FLOOD RISK
15 minute summer	28	12	31.732	0.182	29.3	0.4661	0.0000	OK
15 minute summer	29	9	31.727	0.067	27.5	0.1601	0.0000	OK
15 minute summer	30	13	31.711	1.721	143.1	1.9468	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	16	3.000	17	-103.5	1.280	-0.072	11.6420	
30 minute summer	17	2.002	19	-85.6	-2.153	-0.465	2.2417	
15 minute summer	18	4.000	19	42.2	1.859	0.069	5.6893	
30 minute summer	19	2.003	30	72.1	2.605	0.389	1.7727	
15 minute summer	20	5.000	21	16.8	1.075	0.718	0.2560	
15 minute summer	21	5.001	22	20.5	1.172	0.885	0.2599	
30 minute summer	22	5.002	23	20.2	1.189	0.872	0.2592	
30 minute summer	23	5.003	24	20.0	1.141	0.867	0.2662	
30 minute summer	24	5.004	25	22.0	1.254	1.246	0.5403	
15 minute summer	25	5.005	26	40.0	1.125	0.774	1.4718	
15 minute summer	26	5.006	27	50.2	1.311	0.971	0.7221	
15 minute summer	27	5.007	30	55.4	1.438	1.070	1.3549	
15 minute summer	28	6.000	30	31.2	1.761	0.051	2.3808	
15 minute summer	29	7.000	30	28.7	2.006	0.047	0.6836	
15 minute summer	30	2.004	31	150.3	1.999	0.061	7.3183	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	13	31.710	2.460	321.6	19.4204	0.0000	SURCHARGED
15 minute summer	32	12	29.408	0.266	252.0	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)	Discharge Vol (m³)
15 minute summer	31	1.013	32	252.0	1.115	0.189	24.3804	213.8

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.450	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	37.940	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	36.935	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.245	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.025	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	35.934	0.079	25.8	0.1675	0.0000	OK
15 minute summer	8	11	35.686	0.081	25.6	0.1160	0.0000	OK
15 minute summer	9	11	34.768	0.153	90.8	0.4834	0.0000	OK
15 minute summer	10	11	33.877	0.202	131.5	0.5190	0.0000	OK
15 minute summer	11	13	33.354	0.539	180.7	1.4663	0.0000	SURCHARGED
15 minute summer	12	13	33.211	0.986	171.2	1.4107	0.0000	FLOOD RISK
15 minute summer	13	12	32.469	0.687	202.8	2.0246	0.0000	SURCHARGED
30 minute winter	14	19	31.570	0.240	44.1	0.9645	0.0000	OK
60 minute summer	15	35	31.500	0.400	63.1	0.4524	12.1807	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.0935	
15 minute summer	7	1.006	8	25.6	1.491	0.088	0.2044	
15 minute summer	8	1.007	9	25.2	0.859	0.105	2.0630	
15 minute summer	9	1.008	10	89.0	1.736	0.358	3.1342	
15 minute summer	10	1.009	11	134.1	2.044	0.567	5.0864	
15 minute summer	11	1.010	12	171.2	1.868	0.522	2.4403	
15 minute summer	12	1.011	13	140.6	1.275	1.273	15.8562	
15 minute summer	13	1.012	31	187.0	1.695	0.942	8.4865	
30 minute winter	14	2.000	15	67.6	1.236	0.063	6.6532	
60 minute summer	15	2.001	17	25.6	3.754	0.658	0.5120	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	16	18	31.500	0.400	110.3	1.3820	40.7757	FLOOD
30 minute summer	17	18	31.637	0.882	92.3	0.9980	0.0000	FLOOD RISK
15 minute summer	18	13	31.734	0.374	52.4	1.2813	0.0000	FLOOD RISK
30 minute summer	19	20	31.769	1.070	113.1	1.2097	0.0000	FLOOD RISK
15 minute summer	20	11	33.572	0.182	19.7	0.6846	0.0000	FLOOD RISK
15 minute summer	21	10	33.390	0.250	27.8	0.6378	1.1660	FLOOD
30 minute summer	22	16	33.145	0.254	29.9	0.6358	3.4466	FLOOD
30 minute summer	23	16	32.950	0.307	27.4	0.6868	2.2801	FLOOD
30 minute summer	24	16	32.710	0.322	29.6	0.7200	3.1278	FLOOD
15 minute summer	25	11	32.346	0.338	44.0	1.1050	0.0000	FLOOD RISK
15 minute summer	26	10	32.090	0.449	65.2	1.3955	5.7743	FLOOD
15 minute summer	27	11	32.008	0.547	63.7	1.0250	0.0000	FLOOD RISK
15 minute summer	28	12	31.782	0.232	30.5	0.5941	0.0000	OK
15 minute summer	29	9	31.729	0.069	28.6	0.1649	0.0000	OK
15 minute summer	30	13	31.751	1.761	152.7	1.9913	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	16	3.000	17	-90.6	1.308	-0.063	12.2256	
30 minute summer	17	2.002	19	-90.4	-2.273	-0.491	2.2417	
15 minute summer	18	4.000	19	42.8	1.734	0.070	5.9754	
30 minute summer	19	2.003	30	74.6	2.685	0.402	1.7727	
15 minute summer	20	5.000	21	17.7	1.078	0.756	0.2560	
15 minute summer	21	5.001	22	20.5	1.164	0.885	0.2599	
30 minute summer	22	5.002	23	19.2	1.195	0.833	0.2592	
30 minute summer	23	5.003	24	20.0	1.155	0.867	0.2662	
30 minute summer	24	5.004	25	22.0	1.254	1.246	0.5403	
15 minute summer	25	5.005	26	40.0	1.131	0.773	1.4718	
15 minute summer	26	5.006	27	51.0	1.314	0.985	0.7221	
15 minute summer	27	5.007	30	56.6	1.472	1.093	1.3549	
15 minute summer	28	6.000	30	31.4	1.783	0.051	2.7960	
15 minute summer	29	7.000	30	29.8	2.192	0.049	0.9046	
15 minute summer	30	2.004	31	117.2	2.209	0.048	7.3183	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	13	31.761	2.511	298.7	19.8155	0.0000	SURCHARGED
15 minute summer	32	12	29.409	0.267	253.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	31	1.013	32	253.2	1.118	0.190	24.4469	218.4

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.450	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	37.940	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	36.935	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.245	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.025	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	35.945	0.090	32.2	0.1890	0.0000	OK
15 minute summer	8	11	35.696	0.091	32.0	0.1296	0.0000	OK
15 minute summer	9	10	34.789	0.174	113.5	0.5489	0.0000	OK
15 minute summer	10	12	34.029	0.354	165.0	0.9112	0.0000	OK
15 minute summer	11	11	33.773	0.958	223.6	2.6054	0.0000	SURCHARGED
15 minute summer	12	11	33.500	1.275	178.8	1.8245	7.0284	FLOOD
15 minute summer	13	11	32.835	1.053	218.0	3.1013	0.0000	SURCHARGED
30 minute winter	14	18	31.600	0.270	49.8	1.0868	0.0000	OK
60 minute summer	15	31	31.500	0.400	84.7	0.4524	23.5962	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.1110	
15 minute summer	7	1.006	8	32.0	1.577	0.110	0.2412	
15 minute summer	8	1.007	9	31.4	0.908	0.131	2.4310	
15 minute summer	9	1.008	10	111.3	1.822	0.448	4.6911	
15 minute summer	10	1.009	11	162.5	2.029	0.687	6.7253	
15 minute summer	11	1.010	12	178.8	1.890	0.546	2.4403	
15 minute summer	12	1.011	13	152.8	1.385	1.383	15.8562	
15 minute summer	13	1.012	31	212.9	1.931	1.073	8.4865	
30 minute winter	14	2.000	15	91.8	1.236	0.085	7.4558	
60 minute summer	15	2.001	17	26.1	3.675	0.670	0.5120	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	16	17	31.500	0.400	154.6	1.3820	65.8947	FLOOD
30 minute summer	17	17	31.627	0.872	113.6	0.9863	0.0000	FLOOD RISK
15 minute summer	18	11	31.760	0.400	63.6	1.3720	4.8595	FLOOD
30 minute summer	19	19	31.818	1.119	116.3	1.2658	0.0000	FLOOD RISK
15 minute summer	20	11	33.640	0.250	24.6	0.9428	0.1551	FLOOD
15 minute summer	21	9	33.390	0.250	33.7	0.6378	2.9691	FLOOD
30 minute summer	22	15	33.145	0.254	32.2	0.6358	5.2631	FLOOD
30 minute summer	23	15	32.950	0.307	29.7	0.6868	3.4826	FLOOD
30 minute summer	24	15	32.710	0.322	32.0	0.7200	5.0135	FLOOD
15 minute summer	25	10	32.370	0.362	47.6	1.1834	0.4357	FLOOD
30 minute summer	26	16	32.090	0.449	71.7	1.3955	13.8099	FLOOD
15 minute summer	27	12	32.060	0.599	63.3	1.1231	0.0543	FLOOD
15 minute summer	28	11	31.938	0.388	38.2	0.9943	0.0000	FLOOD RISK
15 minute summer	29	12	31.954	0.294	35.8	0.7077	0.0000	OK
15 minute summer	30	12	31.918	1.928	152.3	2.1801	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	16	3.000	17	-119.1	1.249	-0.083	11.3772	
30 minute summer	17	2.002	19	-113.6	-2.857	-0.618	2.2417	
15 minute summer	18	4.000	19	46.6	1.998	0.076	7.1873	
30 minute summer	19	2.003	30	-88.5	2.609	-0.477	1.7727	
15 minute summer	20	5.000	21	20.8	1.182	0.891	0.2560	
15 minute summer	21	5.001	22	20.5	1.162	0.885	0.2599	
30 minute summer	22	5.002	23	19.9	1.186	0.861	0.2592	
30 minute summer	23	5.003	24	20.0	1.139	0.867	0.2662	
30 minute summer	24	5.004	25	22.0	1.254	1.246	0.5403	
15 minute summer	25	5.005	26	41.9	1.121	0.809	1.4718	
30 minute summer	26	5.006	27	48.7	1.289	0.942	0.7221	
15 minute summer	27	5.007	30	55.9	1.443	1.079	1.3549	
15 minute summer	28	6.000	30	43.2	1.920	0.070	4.7935	
15 minute summer	29	7.000	30	38.8	1.920	0.064	3.0199	
15 minute summer	30	2.004	31	104.1	2.086	0.043	7.3183	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	12	31.943	2.693	352.2	21.2527	0.0000	SURCHARGED
15 minute summer	32	13	29.415	0.273	265.1	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	31	1.013	32	265.1	1.135	0.199	25.2549	241.9

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	1	39.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	2	1	38.450	0.000	0.0	0.0000	0.0000	OK
15 minute summer	3	1	37.940	0.000	0.0	0.0000	0.0000	OK
15 minute summer	4	1	36.935	0.000	0.0	0.0000	0.0000	OK
15 minute summer	5	1	36.245	0.000	0.0	0.0000	0.0000	OK
15 minute summer	6	1	36.025	0.000	0.0	0.0000	0.0000	OK
15 minute summer	7	10	35.950	0.095	36.1	0.2012	0.0000	OK
15 minute summer	8	10	35.701	0.096	35.9	0.1372	0.0000	OK
15 minute summer	9	10	34.801	0.186	127.2	0.5893	0.0000	OK
15 minute summer	10	12	34.336	0.661	185.1	1.6996	0.0000	SURCHARGED
15 minute summer	11	12	33.863	1.048	232.1	2.8506	0.0000	FLOOD RISK
15 minute summer	12	11	33.500	1.275	216.7	1.8245	13.4883	FLOOD
15 minute summer	13	11	32.927	1.145	229.2	3.3724	0.0000	SURCHARGED
60 minute summer	14	32	31.597	0.267	49.0	1.0740	0.0000	OK
60 minute winter	15	31	31.500	0.400	78.3	0.4524	30.3503	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	1	1.000	2	0.0	0.000	0.000	0.0000	
15 minute summer	2	1.001	3	0.0	0.000	0.000	0.0000	
15 minute summer	3	1.002	4	0.0	0.000	0.000	0.0000	
15 minute summer	4	1.003	5	0.0	0.000	0.000	0.0000	
15 minute summer	5	1.004	6	0.0	0.000	0.000	0.0000	
15 minute summer	6	1.005	7	0.0	0.000	0.000	0.1213	
15 minute summer	7	1.006	8	35.9	1.623	0.123	0.2627	
15 minute summer	8	1.007	9	35.1	0.934	0.147	2.6570	
15 minute summer	9	1.008	10	124.7	1.850	0.502	5.0249	
15 minute summer	10	1.009	11	163.6	2.049	0.692	6.8004	
15 minute summer	11	1.010	12	216.7	1.965	0.661	2.4403	
15 minute summer	12	1.011	13	152.5	1.383	1.381	15.8562	
15 minute summer	13	1.012	31	218.8	1.984	1.103	8.4865	
60 minute summer	14	2.000	15	93.2	1.208	0.086	7.4202	
60 minute winter	15	2.001	17	24.5	3.681	0.629	0.5120	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	16	16	31.500	0.400	156.0	1.3820	83.4294	FLOOD
30 minute winter	17	16	31.639	0.884	116.3	0.9994	0.0000	FLOOD RISK
30 minute summer	18	18	31.760	0.400	74.5	1.3720	5.5056	FLOOD
15 minute winter	19	11	31.855	1.156	126.8	1.3074	0.0000	FLOOD RISK
15 minute summer	20	10	33.640	0.250	27.5	0.9428	0.7712	FLOOD
30 minute summer	21	16	33.390	0.250	34.2	0.6378	3.7141	FLOOD
30 minute winter	22	14	33.145	0.254	31.1	0.6358	6.2689	FLOOD
30 minute winter	23	14	32.950	0.307	28.6	0.6868	4.1526	FLOOD
30 minute winter	24	14	32.710	0.322	30.8	0.7200	6.0358	FLOOD
15 minute summer	25	10	32.370	0.362	49.6	1.1834	0.8876	FLOOD
30 minute summer	26	16	32.090	0.449	75.3	1.3955	17.3085	FLOOD
15 minute summer	27	11	32.060	0.599	65.4	1.1231	0.7424	FLOOD
15 minute summer	28	12	31.950	0.400	54.9	1.0256	1.9209	FLOOD
30 minute summer	29	19	32.007	0.347	36.2	0.8354	0.0000	FLOOD RISK
15 minute summer	30	12	31.971	1.981	140.7	2.2406	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	16	3.000	17	-120.4	1.263	-0.084	12.2370	
30 minute winter	17	2.002	19	-116.3	-2.925	-0.632	2.2417	
30 minute summer	18	4.000	19	46.8	1.671	0.076	7.1373	
15 minute winter	19	2.003	30	-104.1	2.851	-0.561	1.7727	
15 minute summer	20	5.000	21	20.8	1.182	0.891	0.2560	
30 minute summer	21	5.001	22	20.5	1.162	0.885	0.2599	
30 minute winter	22	5.002	23	18.3	1.209	0.791	0.2592	
30 minute winter	23	5.003	24	20.0	1.139	0.867	0.2662	
30 minute winter	24	5.004	25	22.0	1.254	1.246	0.5403	
15 minute summer	25	5.005	26	41.9	1.117	0.809	1.4718	
30 minute summer	26	5.006	27	48.0	1.296	0.927	0.7221	
15 minute summer	27	5.007	30	55.2	1.481	1.067	1.3549	
15 minute summer	28	6.000	30	46.8	1.990	0.076	5.5189	
30 minute summer	29	7.000	30	35.7	2.189	0.058	3.5174	
15 minute summer	30	2.004	31	146.3	2.254	0.060	7.3183	

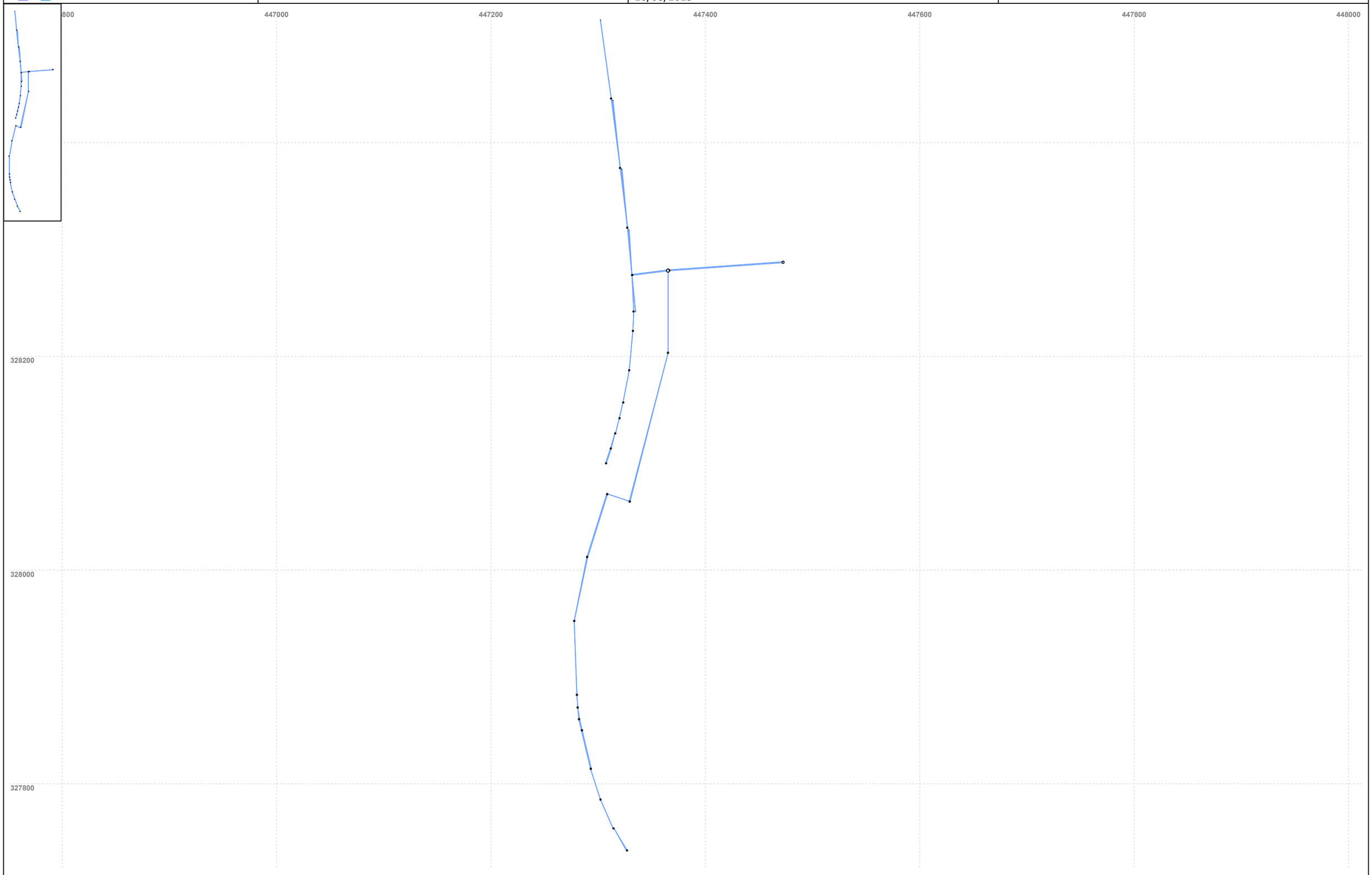
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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	31	12	31.976	2.726	328.5	21.5139	0.0000	SURCHARGED
15 minute summer	32	12	29.418	0.276	270.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	31	1.013	32	270.7	1.141	0.203	25.6478	251.4

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Appendix 10: DCO Works No.11 Proposed Drainage

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)	18.100	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	x

1 STANDARD Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

MD Double Pipe Link Type

Shape	Circular	Barrels	2	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100

MD 300 1:2 Ditch Link Type

Shape	Trapezoidal	Height (mm)	300	Auto Increment (mm)	75
Barrels	1	Side Slope (1:X)	1.2	Follow Ground	x

Available Diameters (mm)

100

MD 150 1:3 Swale Link Type

Shape	Trapezoidal	Height (mm)	150	Auto Increment (mm)	75
Barrels	1	Side Slope (1:X)	3.0	Follow Ground	x

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Available Diameters (mm)
100

1 -1 [] Link Type

Shape	Closed User Defined	Width (mm)	2000	Follow Ground	x
Barrels	1	Auto Increment (mm)	100		

Available Diameters (mm)
1000

Depth / Total	Width / Total	Depth / Total	Width / Total
0.000	0.999	1.000	1.000

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S230	0.277	5.00	32.442	1200	447571.858	328730.642	1.742
S231	0.109	5.00	30.569	1200	447566.725	328698.240	0.943
232a	0.152	5.00	33.557	1050	447546.649	328534.841	1.400
S232	0.078	5.00	33.343	1050	447563.045	328588.035	1.454
HW03			30.541	1200	447531.226	328592.594	0.921
S234	0.163	5.00	36.240	1200	447502.346	328160.913	1.540
234B	0.014	5.00	35.061	1200	447508.457	328124.882	2.511
S235a	0.206	5.00	33.315	1200	447539.781	328119.433	1.515
S235	0.027	5.00	34.510	1200	447511.670	328093.527	1.425
S236	0.301	5.00	33.440	1200	447527.836	328119.908	1.915
S237	0.040	5.00	32.920	1200	447528.249	328149.820	1.545
S238	0.094	5.00	32.043	1200	447525.043	328211.019	1.200
S239	0.227	5.00	31.837	1500	447515.415	328264.278	1.222
S240	0.058	5.00	32.254	1500	447526.600	328266.300	1.686
S241	0.207	5.00	33.230	1200	447534.918	328315.604	1.425
S242			33.116	1500	447524.093	328315.040	2.744
S243	0.035	5.00	33.706	1500	447522.417	328354.722	3.499
S244	0.029	5.00	33.706	1500	447520.292	328411.745	3.647

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S245	0.021	5.00	34.364	1500	447523.888	328459.211	4.424
S246	0.074	5.00	38.260	1200	447502.504	328377.421	1.425
S247	0.026	5.00	36.954	1200	447511.431	328427.775	1.425
S248	0.050	5.00	35.672	1200	447518.511	328459.733	1.425
S249	0.018	5.00	34.082	1500	447529.878	328498.927	4.239
S251			30.516	1500	447509.642	328540.404	0.796
S252	0.113	5.00	31.700		447423.400	328501.496	1.900
Wetland 1			30.500	1500	447479.075	328565.352	0.900
Wetland 2	0.056	5.00	30.500	1200	447471.000	328436.850	0.950
Wetland 3	0.203	5.00	30.500	1200	447457.317	328397.929	1.050
S254			31.100	1500	447461.866	328348.375	1.715
Start of Ditch	0.075	5.00	32.360	1200	447368.446	328646.120	1.560
HW06	0.259	5.00	32.130	1200	447419.358	328518.750	2.108
S257			32.565	1500	447413.799	328483.036	2.634
HW06a			31.718	1200	447432.758	328443.321	1.902
HW11a	0.333	5.00	30.871	1200	447452.369	328373.080	1.231
S260	0.010	5.00	34.095	1200	447469.432	328255.990	1.350
S259b			34.060	1200	447453.989	328321.447	3.000
S259a			31.575	1200	447461.634	328342.190	1.050
S259			33.020	1800	447453.330	328341.919	3.685
SBA275A	0.100	5.00	34.000	1500	447469.079	328245.708	3.020
Culvert Start			34.274	3000	447477.214	328282.590	5.024
Culvert End			30.500		447557.225	328293.027	1.280

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	0.840	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Normal	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	0.750	Skip Steady State	✓	Starting Level (m)			

Storm Durations

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

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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
30	0	0	0	100	25	0	0
30	25	0	0	100	40	0	0

Node S254 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	29.385	Product Number	CTL-SHE-0164-1280-0900-1280
Design Depth (m)	0.900	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	12.8	Min Node Diameter (mm)	1500

Node Wetland 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.600
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	2418.0	0.0	0.200	4986.0	0.0	0.400	5970.0	0.0	0.600	6952.0	0.0	0.800	7932.0	0.0
0.100	3847.0	0.0	0.300	5476.0	0.0	0.500	6461.0	0.0	0.700	7442.0	0.0	0.900	8600.0	0.0

Node Wetland 2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.550
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	150

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.150	299.0	0.0	0.350	383.0	0.0	0.550	469.0	0.0	0.750	641.0	0.0	0.950	841.0	0.0
0.050	29.6	0.0	0.250	341.0	0.0	0.450	426.0	0.0	0.650	540.0	0.0	0.850	741.0	0.0			

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Node Wetland 3 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	29.450
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	45

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	10.0	0.0	0.150	116.0	0.0	0.350	197.0	0.0	0.550	284.0	0.0	0.750	377.0	0.0	0.950	444.0	0.0
0.050	76.7	0.0	0.250	156.0	0.0	0.450	240.0	0.0	0.650	330.0	0.0	0.850	428.0	0.0	1.050	472.0	0.0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	76.777	21.725	1 year 1440 minute summer	4.409	1.182
1 year 15 minute winter	53.878	21.725	1 year 1440 minute winter	2.963	1.182
1 year 30 minute summer	48.990	13.863	30 year 15 minute summer	279.897	79.201
1 year 30 minute winter	34.379	13.863	30 year 15 minute winter	196.419	79.201
1 year 60 minute summer	32.661	8.631	30 year 30 minute summer	182.667	51.688
1 year 60 minute winter	21.699	8.631	30 year 30 minute winter	128.187	51.688
1 year 120 minute summer	24.515	6.479	30 year 60 minute summer	121.798	32.188
1 year 120 minute winter	16.287	6.479	30 year 60 minute winter	80.920	32.188
1 year 180 minute summer	20.290	5.221	30 year 120 minute summer	75.753	20.019
1 year 180 minute winter	13.189	5.221	30 year 120 minute winter	50.329	20.019
1 year 240 minute summer	16.663	4.404	30 year 180 minute summer	58.243	14.988
1 year 240 minute winter	11.071	4.404	30 year 180 minute winter	37.859	14.988
1 year 360 minute summer	13.157	3.386	30 year 240 minute summer	45.879	12.124
1 year 360 minute winter	8.552	3.386	30 year 240 minute winter	30.481	12.124
1 year 480 minute summer	10.463	2.765	30 year 360 minute summer	34.546	8.890
1 year 480 minute winter	6.951	2.765	30 year 360 minute winter	22.456	8.890
1 year 600 minute summer	8.578	2.346	30 year 480 minute summer	26.718	7.061
1 year 600 minute winter	5.861	2.346	30 year 480 minute winter	17.751	7.061
1 year 720 minute summer	7.626	2.044	30 year 600 minute summer	21.494	5.879
1 year 720 minute winter	5.125	2.044	30 year 600 minute winter	14.686	5.879
1 year 960 minute summer	6.203	1.634	30 year 720 minute summer	18.840	5.049
1 year 960 minute winter	4.109	1.634	30 year 720 minute winter	12.662	5.049

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 960 minute summer	15.024	3.956
30 year 960 minute winter	9.952	3.956
30 year 1440 minute summer	10.403	2.788
30 year 1440 minute winter	6.992	2.788
30 year +25% CC 15 minute summer	349.871	99.002
30 year +25% CC 15 minute winter	245.524	99.002
30 year +25% CC 30 minute summer	228.334	64.611
30 year +25% CC 30 minute winter	160.234	64.611
30 year +25% CC 60 minute summer	152.248	40.235
30 year +25% CC 60 minute winter	101.150	40.235
30 year +25% CC 120 minute summer	94.691	25.024
30 year +25% CC 120 minute winter	62.911	25.024
30 year +25% CC 180 minute summer	72.803	18.735
30 year +25% CC 180 minute winter	47.324	18.735
30 year +25% CC 240 minute summer	57.349	15.156
30 year +25% CC 240 minute winter	38.101	15.156
30 year +25% CC 360 minute summer	43.182	11.112
30 year +25% CC 360 minute winter	28.069	11.112
30 year +25% CC 480 minute summer	33.398	8.826
30 year +25% CC 480 minute winter	22.189	8.826
30 year +25% CC 600 minute summer	26.867	7.349
30 year +25% CC 600 minute winter	18.357	7.349
30 year +25% CC 720 minute summer	23.550	6.312
30 year +25% CC 720 minute winter	15.827	6.312
30 year +25% CC 960 minute summer	18.780	4.945
30 year +25% CC 960 minute winter	12.440	4.945
30 year +25% CC 1440 minute summer	13.004	3.485
30 year +25% CC 1440 minute winter	8.739	3.485
100 year 15 minute summer	364.661	103.186
100 year 15 minute winter	255.902	103.186
100 year 30 minute summer	239.884	67.879
100 year 30 minute winter	168.340	67.879
100 year 60 minute summer	160.969	42.539
100 year 60 minute winter	106.944	42.539
100 year 120 minute summer	100.180	26.475
100 year 120 minute winter	66.557	26.475
100 year 180 minute summer	77.199	19.866
100 year 180 minute winter	50.182	19.866
100 year 240 minute summer	60.869	16.086
100 year 240 minute winter	40.440	16.086
100 year 360 minute summer	45.775	11.779
100 year 360 minute winter	29.755	11.779
100 year 480 minute summer	35.370	9.347
100 year 480 minute winter	23.499	9.347
100 year 600 minute summer	28.397	7.767
100 year 600 minute winter	19.403	7.767
100 year 720 minute summer	24.828	6.654
100 year 720 minute winter	16.686	6.654
100 year 960 minute summer	19.675	5.181
100 year 960 minute winter	13.033	5.181
100 year 1440 minute summer	13.466	3.609
100 year 1440 minute winter	9.050	3.609
100 year +25% CC 15 minute summer	455.826	128.983
100 year +25% CC 15 minute winter	319.878	128.983
100 year +25% CC 30 minute summer	299.855	84.849
100 year +25% CC 30 minute winter	210.424	84.849
100 year +25% CC 60 minute summer	201.211	53.174
100 year +25% CC 60 minute winter	133.680	53.174
100 year +25% CC 120 minute summer	125.225	33.093
100 year +25% CC 120 minute winter	83.197	33.093
100 year +25% CC 180 minute summer	96.499	24.833
100 year +25% CC 180 minute winter	62.727	24.833
100 year +25% CC 240 minute summer	76.086	20.107
100 year +25% CC 240 minute winter	50.550	20.107

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +25% CC 360 minute summer	57.219	14.724	100 year +40% CC 120 minute summer	140.252	37.065
100 year +25% CC 360 minute winter	37.194	14.724	100 year +40% CC 120 minute winter	93.180	37.065
100 year +25% CC 480 minute summer	44.213	11.684	100 year +40% CC 180 minute summer	108.079	27.812
100 year +25% CC 480 minute winter	29.374	11.684	100 year +40% CC 180 minute winter	70.254	27.812
100 year +25% CC 600 minute summer	35.497	9.709	100 year +40% CC 240 minute summer	85.216	22.520
100 year +25% CC 600 minute winter	24.253	9.709	100 year +40% CC 240 minute winter	56.616	22.520
100 year +25% CC 720 minute summer	31.035	8.318	100 year +40% CC 360 minute summer	64.085	16.491
100 year +25% CC 720 minute winter	20.858	8.318	100 year +40% CC 360 minute winter	41.657	16.491
100 year +25% CC 960 minute summer	24.593	6.476	100 year +40% CC 480 minute summer	49.518	13.086
100 year +25% CC 960 minute winter	16.291	6.476	100 year +40% CC 480 minute winter	32.899	13.086
100 year +25% CC 1440 minute summer	16.832	4.511	100 year +40% CC 600 minute summer	39.756	10.874
100 year +25% CC 1440 minute winter	11.312	4.511	100 year +40% CC 600 minute winter	27.164	10.874
100 year +40% CC 15 minute summer	510.525	144.461	100 year +40% CC 720 minute summer	34.760	9.316
100 year +40% CC 15 minute winter	358.263	144.461	100 year +40% CC 720 minute winter	23.361	9.316
100 year +40% CC 30 minute summer	335.837	95.030	100 year +40% CC 960 minute summer	27.544	7.253
100 year +40% CC 30 minute winter	235.675	95.030	100 year +40% CC 960 minute winter	18.246	7.253
100 year +40% CC 60 minute summer	225.357	59.555	100 year +40% CC 1440 minute summer	18.852	5.053
100 year +40% CC 60 minute winter	149.722	59.555	100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	30.774	0.074	27.4	0.0836	0.0000	OK
15 minute winter	S231	10	29.797	0.171	38.0	0.1932	0.0000	OK
15 minute winter	232a	10	32.250	0.093	15.0	0.0803	0.0000	OK
15 minute winter	S232	11	31.954	0.065	22.3	0.0562	0.0000	OK
15 minute winter	HW03	12	29.824	0.204	22.0	0.2309	0.0000	OK
15 minute winter	S234	10	34.758	0.058	16.1	0.0652	0.0000	OK
15 minute winter	234B	10	32.609	0.059	17.3	0.0666	0.0000	OK
15 minute winter	S235a	10	31.890	0.090	20.4	0.1022	0.0000	OK
15 minute winter	S235	10	33.109	0.024	2.7	0.0268	0.0000	OK
15 minute winter	S236	10	31.748	0.223	69.9	0.2522	0.0000	OK
15 minute winter	S237	11	31.559	0.184	72.2	0.2076	0.0000	OK
15 minute winter	S238	12	31.125	0.282	81.9	0.3187	0.0000	OK
15 minute winter	S239	12	30.824	0.209	94.7	0.3690	0.0000	OK
15 minute winter	S240	12	30.773	0.205	99.3	0.3617	0.0000	OK
15 minute winter	S241	10	31.850	0.045	20.5	0.0514	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	27.2	1.008	0.135	0.9002	
15 minute winter	S231	1.001	Wetland 1	37.2	0.976	0.519	0.1905	
15 minute winter	232a	2.000	S232	14.6	0.994	0.189	0.8249	
15 minute winter	S232	2.001	HW03	22.0	1.151	0.074	0.9515	
15 minute winter	HW03	2.002	Wetland 1	18.4	0.558	0.906	1.9551	
15 minute winter	S234	3.000	234B	15.9	2.008	0.139	0.2888	
15 minute winter	234B	3.001	S236	17.2	1.364	0.151	0.3595	
15 minute winter	S235a	4.000	S236	20.4	1.116	0.302	0.2545	
15 minute winter	S235	5.000	S236	2.6	0.685	0.023	0.4624	
15 minute winter	S236	3.002	S237	68.6	1.351	0.874	1.5134	
15 minute winter	S237	3.003	S238	73.2	1.320	0.707	3.4324	
15 minute winter	S238	3.004	S239	76.5	1.232	1.068	3.3278	
15 minute winter	S239	3.005	S240	94.4	0.915	0.664	1.1773	
15 minute winter	S240	3.006	S242	100.1	1.148	0.685	4.2531	
15 minute winter	S241	6.000	S242	20.4	1.800	0.050	0.2517	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	12	30.541	0.169	116.3	0.2980	0.0000	OK
15 minute winter	S243	12	30.398	0.191	119.9	0.3370	0.0000	OK
15 minute winter	S244	13	30.257	0.198	120.3	0.3503	0.0000	OK
15 minute winter	S245	14	30.142	0.202	119.5	0.3561	0.0000	OK
15 minute winter	S246	10	36.880	0.045	7.3	0.0504	0.0000	OK
15 minute winter	S247	10	35.576	0.047	9.8	0.0533	0.0000	OK
15 minute winter	S248	11	34.292	0.045	14.4	0.0510	0.0000	OK
15 minute winter	S249	14	30.041	0.198	127.9	0.3492	0.0000	OK
15 minute winter	S251	16	29.972	0.252	126.0	0.4445	0.0000	OK
15 minute winter	S252	10	29.879	0.079	11.2	0.0000	0.0000	OK
600 minute winter	Wetland 1	450	29.697	0.097	31.7	303.0334	0.0000	OK
600 minute winter	Wetland 2	465	29.658	0.108	10.6	7.0895	0.0000	OK
600 minute winter	Wetland 3	450	29.638	0.188	11.2	16.6524	0.0000	OK
600 minute winter	S254	450	29.634	0.249	11.2	0.4400	0.0000	OK
15 minute winter	Start of Ditch	12	30.841	0.041	7.4	0.0467	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	117.2	0.993	0.282	4.6919	
15 minute winter	S243	3.008	S244	118.7	0.911	0.363	7.4751	
15 minute winter	S244	3.009	S245	118.3	0.899	0.361	6.3139	
15 minute winter	S245	3.010	S249	119.2	0.890	0.370	5.3792	
15 minute winter	S246	7.000	S247	7.2	1.243	0.086	0.2957	
15 minute winter	S247	7.001	S248	9.6	1.646	0.093	0.1907	
15 minute winter	S248	7.002	S249	14.4	2.578	0.086	0.2282	
15 minute winter	S249	3.011	S251	126.0	0.859	0.380	7.2527	
15 minute winter	S251	3.012	Wetland 1	121.4	0.834	0.859	6.4400	
15 minute winter	S252	8.000	Wetland 1	11.0	0.899	0.256	0.1776	
600 minute winter	Wetland 1	1.002	Wetland 2	10.4	0.606	0.350	0.2673	
600 minute winter	Wetland 2	1.003	Wetland 3	10.5	0.440	0.393	1.0067	
600 minute winter	Wetland 3	1.004	S254	11.2	0.389	0.207	0.2254	
600 minute winter	S254	1.005	S259	11.2	0.486	0.148	0.2786	
15 minute winter	Start of Ditch	9.000	HW06	5.1	0.175	0.029	4.2326	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	12	30.098	0.076	29.3	0.0858	0.0000	OK
15 minute winter	S257	12	30.003	0.072	26.7	0.1279	0.0000	OK
30 minute winter	HW06a	25	29.959	0.143	21.9	0.1619	0.0000	OK
15 minute winter	HW11a	11	29.696	0.056	36.6	0.0636	0.0000	OK
15 minute winter	S260	10	32.764	0.019	1.0	0.0214	0.0000	OK
15 minute winter	S259b	12	31.080	0.020	0.9	0.0225	0.0000	OK
15 minute winter	S259a	12	30.538	0.013	0.9	0.0152	0.0000	OK
15 minute winter	S259	12	29.523	0.188	38.0	0.4787	0.0000	OK
15 minute winter	SBA275A	10	31.024	0.044	9.9	0.0770	0.0000	OK
30 minute winter	Culvert Start	22	29.319	0.069	39.8	0.4893	0.0000	OK
30 minute winter	Culvert End	23	29.288	0.068	37.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HW06	9.001	S257	26.7	0.669	0.082	1.4447	
15 minute winter	S257	9.002	HW06a	26.8	0.642	0.081	2.5407	
30 minute winter	HW06a	9.003	HW11a	15.0	0.218	0.484	5.5270	
15 minute winter	HW11a	9.004	S259	36.4	0.485	0.156	2.7605	
15 minute winter	S260	10.000	S259b	0.9	0.740	0.033	0.0890	
15 minute winter	S259b	10.001	S259a	0.9	0.856	0.033	0.0237	
15 minute winter	S259a	10.002	S259	0.9	1.191	0.016	0.0063	
15 minute winter	S259	1.006	Culvert Start	35.5	1.196	0.259	2.0096	
15 minute winter	SBA275A	11.000	Culvert Start	9.6	1.374	0.028	0.2653	
30 minute winter	Culvert Start	1.007	Culvert End	37.8	0.276	0.025	11.0504	93.6

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	30.847	0.147	99.8	0.1666	0.0000	OK
15 minute winter	S231	10	30.069	0.443	138.6	0.5006	0.0000	SURCHARGED
15 minute winter	232a	10	32.351	0.194	54.8	0.1676	0.0000	OK
15 minute winter	S232	10	32.005	0.116	81.9	0.1006	0.0000	OK
15 minute winter	HW03	11	30.152	0.532	81.1	0.6018	0.0000	SURCHARGED
15 minute winter	S234	10	34.819	0.119	58.7	0.1350	0.0000	OK
15 minute winter	234B	11	33.791	1.241	63.0	1.4035	0.0000	SURCHARGED
15 minute winter	S235a	9	33.315	1.515	116.0	1.7135	26.3137	FLOOD
30 minute summer	S235	17	33.587	0.502	8.3	0.5683	0.0000	SURCHARGED
15 minute summer	S236	10	33.440	1.915	174.3	2.1655	0.0000	FLOOD RISK
15 minute winter	S237	9	32.920	1.545	143.2	1.7474	3.3749	FLOOD
15 minute winter	S238	9	32.043	1.200	158.0	1.3572	9.3407	FLOOD
15 minute winter	S239	10	31.355	0.740	198.3	1.3079	0.0000	SURCHARGED
15 minute winter	S240	10	31.211	0.643	218.3	1.1366	0.0000	SURCHARGED
15 minute winter	S241	10	31.891	0.086	74.6	0.0975	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	99.3	1.652	0.492	1.7193	
15 minute winter	S231	1.001	Wetland 1	137.4	1.951	1.916	0.3455	
15 minute winter	232a	2.000	S232	53.8	1.473	0.700	2.0384	
15 minute winter	S232	2.001	HW03	81.1	1.478	0.273	1.4901	
15 minute winter	HW03	2.002	Wetland 1	77.3	1.147	3.797	3.6769	
15 minute winter	S234	3.000	234B	58.0	2.618	0.508	1.1174	
15 minute winter	234B	3.001	S236	62.3	1.565	0.547	0.7957	
15 minute winter	S235a	4.000	S236	-43.1	1.097	-0.639	0.4754	
30 minute summer	S235	5.000	S236	11.3	0.719	0.099	1.2305	
15 minute summer	S236	3.002	S237	130.6	1.855	1.666	2.1066	
15 minute winter	S237	3.003	S238	124.1	1.763	1.199	4.3155	
15 minute winter	S238	3.004	S239	136.6	1.940	1.906	3.8112	
15 minute winter	S239	3.005	S240	197.4	1.402	1.388	1.6009	
15 minute winter	S240	3.006	S242	217.5	1.544	1.487	6.8735	
15 minute winter	S241	6.000	S242	74.5	2.312	0.183	0.4723	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	11	30.677	0.305	292.0	0.5394	0.0000	OK
15 minute winter	S243	11	30.566	0.359	301.5	0.6350	0.0000	OK
15 minute winter	S244	13	30.447	0.388	306.2	0.6853	0.0000	OK
15 minute winter	S245	13	30.365	0.425	300.7	0.7511	0.0000	OK
15 minute winter	S246	10	36.922	0.087	26.7	0.0986	0.0000	OK
15 minute winter	S247	10	35.623	0.094	35.8	0.1062	0.0000	OK
15 minute winter	S248	10	34.336	0.089	53.2	0.1004	0.0000	OK
15 minute winter	S249	13	30.285	0.442	339.4	0.7810	0.0000	OK
15 minute winter	S251	13	30.164	0.444	320.0	0.7839	0.0000	OK
15 minute winter	S252	10	29.981	0.181	40.7	0.0000	0.0000	OK
480 minute winter	Wetland 1	472	29.822	0.222	96.0	867.6893	0.0000	OK
480 minute winter	Wetland 2	472	29.813	0.263	16.1	53.8442	0.0000	SURCHARGED
480 minute winter	Wetland 3	456	29.791	0.341	16.3	41.7008	0.0000	SURCHARGED
480 minute winter	S254	456	29.785	0.400	12.8	0.7062	0.0000	SURCHARGED
15 minute winter	Start of Ditch	12	30.897	0.097	27.0	0.1095	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	288.9	1.199	0.696	9.9380	
15 minute winter	S243	3.008	S244	296.4	1.115	0.905	15.8535	
15 minute winter	S244	3.009	S245	293.6	1.090	0.895	14.2234	
15 minute winter	S245	3.010	S249	283.4	1.001	0.879	12.5313	
15 minute winter	S246	7.000	S247	26.4	1.767	0.317	0.7637	
15 minute winter	S247	7.001	S248	35.2	2.365	0.341	0.4946	
15 minute winter	S248	7.002	S249	52.7	3.626	0.315	1.0219	
15 minute winter	S249	3.011	S251	320.0	1.090	0.964	14.5738	
15 minute winter	S251	3.012	Wetland 1	320.0	1.170	2.265	11.5899	
15 minute winter	S252	8.000	Wetland 1	40.1	1.215	0.931	0.4784	
480 minute winter	Wetland 1	1.002	Wetland 2	13.8	0.573	0.466	0.6037	
480 minute winter	Wetland 2	1.003	Wetland 3	12.4	0.313	0.465	1.4782	
480 minute winter	Wetland 3	1.004	S254	12.8	0.377	0.236	0.2386	
480 minute winter	S254	1.005	S259	12.8	0.540	0.169	0.4471	
15 minute winter	Start of Ditch	9.000	HW06	21.8	0.274	0.126	11.3999	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	11	30.194	0.172	111.5	0.1942	0.0000	OK
15 minute winter	S257	15	30.097	0.166	105.1	0.2941	0.0000	OK
15 minute winter	HW06a	14	30.097	0.281	105.6	0.3176	0.0000	SURCHARGED
15 minute winter	HW11a	12	29.761	0.121	158.5	0.1366	0.0000	OK
15 minute winter	S260	10	32.781	0.036	3.6	0.0404	0.0000	OK
15 minute winter	S259b	11	31.099	0.039	3.5	0.0437	0.0000	OK
15 minute winter	S259a	11	30.551	0.026	3.5	0.0290	0.0000	OK
15 minute winter	S259	13	29.707	0.372	159.1	0.9464	0.0000	OK
15 minute winter	SBA275A	10	31.063	0.083	36.0	0.1466	0.0000	OK
15 minute winter	Culvert Start	13	29.433	0.183	182.6	1.2911	0.0000	OK
15 minute winter	Culvert End	13	29.397	0.177	174.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HW06	9.001	S257	105.1	0.966	0.323	3.9345	
15 minute winter	S257	9.002	HW06a	105.6	0.836	0.318	7.1864	
15 minute winter	HW06a	9.003	HW11a	72.7	0.360	2.350	16.3375	
15 minute winter	HW11a	9.004	S259	155.7	0.694	0.668	9.3113	
15 minute winter	S260	10.000	S259b	3.5	1.057	0.124	0.2275	
15 minute winter	S259b	10.001	S259a	3.5	1.254	0.125	0.0617	
15 minute winter	S259a	10.002	S259	3.5	1.725	0.060	0.0233	
15 minute winter	S259	1.006	Culvert Start	154.9	1.627	1.129	6.0371	
15 minute winter	SBA275A	11.000	Culvert Start	35.4	2.005	0.103	0.6677	
15 minute winter	Culvert Start	1.007	Culvert End	174.6	0.486	0.115	28.9734	287.6

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	30.887	0.187	124.7	0.2110	0.0000	OK
15 minute winter	S231	10	30.171	0.545	172.7	0.6163	0.0000	SURCHARGED
15 minute winter	232a	10	32.383	0.226	68.5	0.1955	0.0000	OK
15 minute winter	S232	10	32.019	0.130	102.3	0.1124	0.0000	OK
15 minute winter	HW03	11	30.326	0.706	101.4	0.7984	0.0000	FLOOD RISK
15 minute winter	S234	10	34.860	0.160	73.4	0.1804	0.0000	OK
15 minute winter	234B	11	33.995	1.445	78.4	1.6342	0.0000	SURCHARGED
30 minute winter	S235a	15	33.315	1.515	115.5	1.7135	42.0935	FLOOD
15 minute summer	S235	9	33.671	0.586	11.6	0.6626	0.0000	SURCHARGED
15 minute winter	S236	9	33.440	1.915	224.2	2.1659	7.8277	FLOOD
15 minute winter	S237	8	32.920	1.545	148.7	1.7474	6.5757	FLOOD
15 minute winter	S238	8	32.043	1.200	166.4	1.3572	17.7158	FLOOD
15 minute winter	S239	10	31.488	0.873	207.2	1.5427	0.0000	SURCHARGED
15 minute winter	S240	10	31.331	0.763	232.2	1.3485	0.0000	SURCHARGED
15 minute winter	S241	10	31.902	0.097	93.2	0.1095	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	123.7	1.917	0.613	1.9101	
15 minute winter	S231	1.001	Wetland 1	171.2	2.431	2.388	0.3485	
15 minute winter	232a	2.000	S232	67.2	1.557	0.874	2.3953	
15 minute winter	S232	2.001	HW03	101.4	1.790	0.341	1.5536	
15 minute winter	HW03	2.002	Wetland 1	96.2	1.390	4.726	3.8552	
15 minute winter	S234	3.000	234B	72.1	2.552	0.633	1.2768	
15 minute winter	234B	3.001	S236	77.1	1.938	0.677	0.7957	
30 minute winter	S235a	4.000	S236	-44.0	-1.107	-0.653	0.4754	
15 minute summer	S235	5.000	S236	15.0	0.593	0.131	1.2305	
15 minute winter	S236	3.002	S237	130.7	1.857	1.667	2.1066	
15 minute winter	S237	3.003	S238	124.1	1.763	1.199	4.3155	
15 minute winter	S238	3.004	S239	135.0	1.918	1.885	3.8112	
15 minute winter	S239	3.005	S240	206.1	1.463	1.448	1.6009	
15 minute winter	S240	3.006	S242	231.1	1.641	1.581	6.8735	
15 minute winter	S241	6.000	S242	93.1	2.400	0.229	0.4882	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	12	30.819	0.447	324.2	0.7897	0.0000	OK
15 minute winter	S243	12	30.726	0.519	335.7	0.9163	0.0000	SURCHARGED
15 minute summer	S244	12	30.585	0.526	331.4	0.9297	0.0000	SURCHARGED
15 minute summer	S245	12	30.478	0.538	323.3	0.9514	0.0000	SURCHARGED
15 minute winter	S246	10	36.934	0.099	33.3	0.1116	0.0000	OK
15 minute winter	S247	10	35.636	0.107	44.7	0.1214	0.0000	OK
15 minute summer	S248	10	34.345	0.098	63.5	0.1105	0.0000	OK
15 minute winter	S249	12	30.385	0.542	358.7	0.9580	0.0000	SURCHARGED
15 minute winter	S251	12	30.198	0.478	360.9	0.8454	0.0000	SURCHARGED
15 minute winter	S252	10	30.046	0.246	50.9	0.0000	0.0000	SURCHARGED
480 minute winter	Wetland 1	472	29.872	0.272	119.6	1128.0910	0.0000	SURCHARGED
480 minute winter	Wetland 2	472	29.862	0.312	16.6	71.5862	0.0000	SURCHARGED
480 minute winter	Wetland 3	464	29.841	0.391	17.3	51.9619	0.0000	SURCHARGED
480 minute winter	S254	464	29.835	0.450	12.8	0.7947	0.0000	SURCHARGED
15 minute winter	Start of Ditch	12	30.911	0.111	33.8	0.1258	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	319.9	1.204	0.770	12.5777	
15 minute winter	S243	3.008	S244	323.8	1.138	0.989	18.0825	
15 minute summer	S244	3.009	S245	314.7	1.116	0.959	15.0845	
15 minute summer	S245	3.010	S249	298.9	1.003	0.928	12.7278	
15 minute winter	S246	7.000	S247	33.0	1.862	0.395	0.9056	
15 minute winter	S247	7.001	S248	43.9	2.502	0.424	0.5755	
15 minute summer	S248	7.002	S249	64.6	3.734	0.386	1.1041	
15 minute winter	S249	3.011	S251	360.9	1.139	1.087	14.6243	
15 minute winter	S251	3.012	Wetland 1	356.5	1.227	2.523	11.9198	
15 minute winter	S252	8.000	Wetland 1	50.3	1.282	1.167	0.5434	
480 minute winter	Wetland 1	1.002	Wetland 2	13.9	0.574	0.469	0.6045	
480 minute winter	Wetland 2	1.003	Wetland 3	12.3	0.311	0.461	1.4782	
480 minute winter	Wetland 3	1.004	S254	12.8	0.435	0.237	0.2386	
480 minute winter	S254	1.005	S259	12.8	0.540	0.169	0.4899	
15 minute winter	Start of Ditch	9.000	HW06	27.8	0.292	0.160	13.6269	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	11	30.219	0.197	140.2	0.2224	0.0000	OK
15 minute winter	S257	15	30.127	0.196	132.9	0.3461	0.0000	OK
15 minute winter	HW06a	14	30.128	0.312	130.8	0.3526	0.0000	SURCHARGED
15 minute winter	HW11a	12	29.777	0.137	204.2	0.1551	0.0000	OK
15 minute winter	S260	10	32.785	0.040	4.5	0.0452	0.0000	OK
15 minute winter	S259b	11	31.103	0.043	4.4	0.0492	0.0000	OK
15 minute winter	S259a	11	30.553	0.028	4.3	0.0315	0.0000	OK
15 minute winter	S259	13	29.775	0.440	205.2	1.1195	0.0000	OK
15 minute winter	SBA275A	10	31.073	0.093	45.0	0.1647	0.0000	OK
15 minute winter	Culvert Start	13	29.462	0.212	228.4	1.5006	0.0000	OK
15 minute winter	Culvert End	13	29.425	0.205	220.4	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)
15 minute winter	HW06	9.001	S257	132.9	1.014	0.408	4.7386	
15 minute winter	S257	9.002	HW06a	130.8	0.871	0.394	8.5867	
15 minute winter	HW06a	9.003	HW11a	94.0	0.390	3.040	19.4920	
15 minute winter	HW11a	9.004	S259	201.1	0.706	0.863	12.3974	
15 minute winter	S260	10.000	S259b	4.4	1.120	0.155	0.2669	
15 minute winter	S259b	10.001	S259a	4.3	1.351	0.156	0.0715	
15 minute winter	S259a	10.002	S259	4.3	1.706	0.075	0.0646	
15 minute winter	S259	1.006	Culvert Start	195.3	1.681	1.424	7.1810	
15 minute winter	SBA275A	11.000	Culvert Start	44.3	2.132	0.129	0.7857	
15 minute winter	Culvert Start	1.007	Culvert End	220.4	0.528	0.145	33.6607	339.8

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	30.896	0.196	130.0	0.2220	0.0000	OK
15 minute winter	S231	10	30.195	0.569	180.0	0.6437	0.0000	SURCHARGED
15 minute winter	232a	10	32.390	0.233	71.3	0.2018	0.0000	OK
15 minute winter	S232	10	32.022	0.133	106.6	0.1148	0.0000	OK
15 minute winter	HW03	11	30.368	0.748	105.7	0.8456	0.0000	FLOOD RISK
15 minute winter	S234	10	34.871	0.171	76.4	0.1936	0.0000	OK
15 minute winter	234B	11	34.043	1.493	81.6	1.6890	0.0000	SURCHARGED
30 minute winter	S235a	15	33.315	1.515	119.8	1.7135	47.3878	FLOOD
30 minute summer	S235	16	33.639	0.554	10.9	0.6269	0.0000	SURCHARGED
15 minute winter	S236	9	33.440	1.915	231.1	2.1659	9.3599	FLOOD
15 minute winter	S237	8	32.920	1.545	149.5	1.7474	6.9882	FLOOD
15 minute winter	S238	8	32.043	1.200	168.2	1.3572	19.9003	FLOOD
15 minute winter	S239	12	31.541	0.926	209.0	1.6371	0.0000	FLOOD RISK
15 minute winter	S240	12	31.416	0.848	235.1	1.4990	0.0000	SURCHARGED
15 minute winter	S241	10	31.904	0.099	97.1	0.1119	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	128.9	1.968	0.639	1.9562	
15 minute winter	S231	1.001	Wetland 1	178.4	2.534	2.488	0.3485	
15 minute winter	232a	2.000	S232	70.0	1.571	0.911	2.4695	
15 minute winter	S232	2.001	HW03	105.7	1.854	0.355	1.5666	
15 minute winter	HW03	2.002	Wetland 1	100.2	1.443	4.925	3.8862	
15 minute winter	S234	3.000	234B	75.0	2.580	0.658	1.3191	
15 minute winter	234B	3.001	S236	80.4	2.021	0.706	0.7957	
30 minute winter	S235a	4.000	S236	-44.7	-1.125	-0.664	0.4754	
30 minute summer	S235	5.000	S236	12.1	0.685	0.106	1.2305	
15 minute winter	S236	3.002	S237	130.7	1.857	1.667	2.1066	
15 minute winter	S237	3.003	S238	124.1	1.763	1.199	4.3155	
15 minute winter	S238	3.004	S239	135.2	1.920	1.887	3.8112	
15 minute winter	S239	3.005	S240	207.9	1.476	1.461	1.6009	
15 minute winter	S240	3.006	S242	234.0	1.662	1.600	6.8735	
15 minute winter	S241	6.000	S242	97.1	2.421	0.239	0.4914	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	12	30.919	0.547	331.1	0.9669	0.0000	SURCHARGED
15 minute winter	S243	12	30.836	0.629	342.8	1.1117	0.0000	SURCHARGED
15 minute winter	S244	12	30.674	0.615	340.1	1.0858	0.0000	SURCHARGED
15 minute winter	S245	12	30.532	0.592	324.9	1.0469	0.0000	SURCHARGED
15 minute winter	S246	10	36.936	0.101	34.7	0.1143	0.0000	OK
15 minute winter	S247	10	35.639	0.110	46.5	0.1245	0.0000	OK
15 minute winter	S248	10	34.347	0.100	69.3	0.1130	0.0000	OK
15 minute winter	S249	12	30.434	0.591	382.3	1.0437	0.0000	SURCHARGED
15 minute winter	S251	12	30.211	0.491	377.6	0.8672	0.0000	SURCHARGED
15 minute winter	S252	10	30.062	0.262	53.0	0.0000	0.0000	SURCHARGED
480 minute winter	Wetland 1	480	29.887	0.287	126.9	1205.2750	0.0000	SURCHARGED
480 minute winter	Wetland 2	472	29.877	0.327	16.6	76.9486	0.0000	SURCHARGED
480 minute winter	Wetland 3	464	29.856	0.406	17.5	55.1368	0.0000	SURCHARGED
480 minute winter	S254	464	29.849	0.464	12.8	0.8204	0.0000	SURCHARGED
15 minute winter	Start of Ditch	12	30.914	0.114	35.2	0.1289	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	326.4	1.209	0.786	12.5861	
15 minute winter	S243	3.008	S244	326.5	1.141	0.998	18.0825	
15 minute winter	S244	3.009	S245	315.0	1.103	0.960	15.0845	
15 minute winter	S245	3.010	S249	316.4	1.013	0.982	12.7278	
15 minute winter	S246	7.000	S247	34.3	1.879	0.412	0.9348	
15 minute winter	S247	7.001	S248	45.8	2.528	0.443	0.5943	
15 minute winter	S248	7.002	S249	68.7	3.819	0.410	1.1549	
15 minute winter	S249	3.011	S251	377.6	1.192	1.138	14.6243	
15 minute winter	S251	3.012	Wetland 1	368.0	1.250	2.604	12.0110	
15 minute winter	S252	8.000	Wetland 1	52.5	1.331	1.219	0.5477	
480 minute winter	Wetland 1	1.002	Wetland 2	13.9	0.574	0.469	0.6045	
480 minute winter	Wetland 2	1.003	Wetland 3	12.3	0.310	0.460	1.4782	
480 minute winter	Wetland 3	1.004	S254	12.8	0.379	0.237	0.2386	
480 minute winter	S254	1.005	S259	12.8	0.539	0.169	0.5018	
15 minute winter	Start of Ditch	9.000	HW06	29.1	0.295	0.167	14.0799	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	11	30.224	0.202	146.2	0.2280	0.0000	OK
15 minute winter	S257	15	30.132	0.201	138.8	0.3558	0.0000	OK
15 minute winter	HW06a	14	30.134	0.318	136.1	0.3595	0.0000	SURCHARGED
15 minute winter	HW11a	12	29.780	0.140	214.2	0.1588	0.0000	OK
15 minute winter	S260	10	32.786	0.041	4.7	0.0462	0.0000	OK
15 minute winter	S259b	11	31.105	0.045	4.6	0.0503	0.0000	OK
15 minute winter	S259a	11	30.553	0.028	4.5	0.0322	0.0000	OK
15 minute winter	S259	13	29.796	0.461	215.1	1.1722	0.0000	OK
15 minute winter	SBA275A	10	31.075	0.095	46.9	0.1683	0.0000	OK
15 minute winter	Culvert Start	13	29.466	0.216	236.6	1.5276	0.0000	OK
15 minute winter	Culvert End	13	29.429	0.209	226.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HW06	9.001	S257	138.8	1.023	0.426	4.9084	
15 minute winter	S257	9.002	HW06a	136.1	0.878	0.410	8.8795	
15 minute winter	HW06a	9.003	HW11a	98.7	0.396	3.191	20.1508	
15 minute winter	HW11a	9.004	S259	210.8	0.708	0.905	13.4113	
15 minute winter	S260	10.000	S259b	4.6	1.132	0.162	0.2759	
15 minute winter	S259b	10.001	S259a	4.5	1.368	0.163	0.0740	
15 minute winter	S259a	10.002	S259	4.5	1.733	0.078	0.0753	
15 minute winter	S259	1.006	Culvert Start	197.9	1.687	1.443	7.3861	
15 minute winter	SBA275A	11.000	Culvert Start	46.2	2.157	0.135	0.8097	
15 minute winter	Culvert Start	1.007	Culvert End	226.9	0.534	0.149	34.2814	348.6

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	31.184	0.484	162.5	0.5474	0.0000	SURCHARGED
15 minute winter	S231	10	30.353	0.727	221.3	0.8225	0.0000	FLOOD RISK
15 minute winter	232a	11	32.487	0.330	89.1	0.2857	0.0000	SURCHARGED
15 minute winter	S232	10	32.037	0.148	131.1	0.1282	0.0000	OK
15 minute winter	HW03	11	30.541	0.921	129.8	1.0417	0.9514	FLOOD
15 minute winter	S234	11	35.650	0.950	95.6	1.0745	0.0000	SURCHARGED
15 minute winter	234B	11	34.350	1.800	98.5	2.0357	0.0000	SURCHARGED
30 minute winter	S235a	14	33.315	1.515	138.6	1.7135	69.2278	FLOOD
30 minute winter	S235	14	33.582	0.497	12.3	0.5619	0.0000	SURCHARGED
15 minute winter	S236	8	33.440	1.915	286.6	2.1659	27.0286	FLOOD
30 minute winter	S237	14	32.920	1.545	148.9	1.7474	11.0429	FLOOD
15 minute winter	S238	7	32.043	1.200	179.3	1.3572	33.5732	FLOOD
15 minute winter	S239	11	31.837	1.222	219.5	2.1593	1.0979	FLOOD
15 minute winter	S240	11	31.730	1.162	248.2	2.0529	0.0000	SURCHARGED
15 minute winter	S241	11	31.932	0.127	121.4	0.1438	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	157.3	2.234	0.780	2.3102	
15 minute winter	S231	1.001	Wetland 1	219.2	3.113	3.057	0.3485	
15 minute winter	232a	2.000	S232	85.3	1.652	1.110	2.9141	
15 minute winter	S232	2.001	HW03	129.8	2.201	0.436	1.6402	
15 minute winter	HW03	2.002	Wetland 1	116.1	1.654	5.707	3.9861	
15 minute winter	S234	3.000	234B	90.8	2.483	0.797	1.4535	
15 minute winter	234B	3.001	S236	98.5	2.477	0.865	0.7957	
30 minute winter	S235a	4.000	S236	-44.7	1.142	-0.664	0.4754	
30 minute winter	S235	5.000	S236	17.1	0.641	0.149	1.2305	
15 minute winter	S236	3.002	S237	130.7	1.857	1.667	2.1066	
30 minute winter	S237	3.003	S238	124.1	1.763	1.199	4.3155	
15 minute winter	S238	3.004	S239	134.0	1.902	1.870	3.8112	
15 minute winter	S239	3.005	S240	215.7	1.532	1.516	1.6009	
15 minute winter	S240	3.006	S242	244.3	1.735	1.671	6.8735	
15 minute winter	S241	6.000	S242	119.6	2.521	0.294	0.5356	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	11	31.258	0.886	358.7	1.5647	0.0000	SURCHARGED
15 minute winter	S243	11	31.134	0.927	365.8	1.6371	0.0000	SURCHARGED
15 minute winter	S244	11	30.944	0.885	353.3	1.5639	0.0000	SURCHARGED
15 minute winter	S245	11	30.773	0.833	364.8	1.4720	0.0000	SURCHARGED
15 minute winter	S246	10	36.950	0.115	43.4	0.1303	0.0000	OK
15 minute winter	S247	10	35.656	0.127	58.2	0.1435	0.0000	OK
15 minute winter	S248	10	34.361	0.114	86.7	0.1287	0.0000	OK
15 minute winter	S249	11	30.609	0.766	458.3	1.3542	0.0000	SURCHARGED
15 minute winter	S251	11	30.321	0.601	455.5	1.0612	0.0000	FLOOD RISK
15 minute winter	S252	10	30.176	0.376	66.3	0.0000	0.0000	SURCHARGED
600 minute winter	Wetland 1	600	29.951	0.351	130.8	1561.6690	0.0000	SURCHARGED
600 minute winter	Wetland 2	600	29.941	0.391	16.4	101.8856	0.0000	SURCHARGED
600 minute winter	Wetland 3	585	29.921	0.471	17.4	70.4513	0.0000	SURCHARGED
600 minute winter	S254	585	29.914	0.529	12.8	0.9353	0.0000	SURCHARGED
15 minute winter	Start of Ditch	12	30.930	0.130	44.0	0.1474	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	346.5	1.232	0.834	12.5861	
15 minute winter	S243	3.008	S244	337.3	1.144	1.030	18.0825	
15 minute winter	S244	3.009	S245	353.2	1.122	1.077	15.0845	
15 minute winter	S245	3.010	S249	363.6	1.147	1.128	12.7278	
15 minute winter	S246	7.000	S247	42.9	1.975	0.515	1.1120	
15 minute winter	S247	7.001	S248	57.5	2.665	0.556	0.7066	
15 minute winter	S248	7.002	S249	86.2	3.796	0.515	1.2221	
15 minute winter	S249	3.011	S251	455.5	1.437	1.372	14.6243	
15 minute winter	S251	3.012	Wetland 1	451.2	1.476	3.192	12.6022	
15 minute winter	S252	8.000	Wetland 1	65.6	1.650	1.522	0.5643	
600 minute winter	Wetland 1	1.002	Wetland 2	13.9	0.586	0.468	0.6045	
600 minute winter	Wetland 2	1.003	Wetland 3	12.1	0.326	0.453	1.4782	
600 minute winter	Wetland 3	1.004	S254	12.8	0.323	0.237	0.2386	
600 minute winter	S254	1.005	S259	12.8	0.537	0.169	0.5104	
15 minute winter	Start of Ditch	9.000	HW06	36.8	0.313	0.212	16.8334	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	11	30.252	0.230	183.8	0.2604	0.0000	OK
15 minute winter	S257	12	30.162	0.231	174.9	0.4076	0.0000	OK
15 minute winter	HW06a	13	30.151	0.335	168.7	0.3790	0.0000	SURCHARGED
15 minute winter	HW11a	16	29.949	0.309	289.4	0.3492	0.0000	SURCHARGED
15 minute winter	S260	10	32.791	0.046	5.9	0.0519	0.0000	OK
15 minute winter	S259b	11	31.110	0.050	5.7	0.0568	0.0000	OK
15 minute winter	S259a	11	30.557	0.032	5.7	0.0360	0.0000	OK
15 minute winter	S259	14	29.989	0.654	533.8	1.6640	0.0000	SURCHARGED
15 minute winter	SBA275A	10	31.087	0.107	58.7	0.1895	0.0000	OK
15 minute winter	Culvert Start	13	29.481	0.231	260.1	1.6300	0.0000	OK
15 minute winter	Culvert End	13	29.443	0.223	250.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HW06	9.001	S257	174.9	1.066	0.537	5.9672	
15 minute winter	S257	9.002	HW06a	168.7	0.915	0.509	9.9114	
15 minute winter	HW06a	9.003	HW11a	161.6	0.404	5.227	29.9601	
15 minute winter	HW11a	9.004	S259	531.1	0.785	2.279	25.5730	
15 minute winter	S260	10.000	S259b	5.7	1.202	0.203	0.3249	
15 minute winter	S259b	10.001	S259a	5.7	1.456	0.205	0.0872	
15 minute winter	S259a	10.002	S259	5.7	1.681	0.099	0.0845	
15 minute winter	S259	1.006	Culvert Start	233.8	1.735	1.705	7.6807	
15 minute winter	SBA275A	11.000	Culvert Start	57.9	2.294	0.169	0.9531	
15 minute winter	Culvert Start	1.007	Culvert End	250.7	0.553	0.165	36.5689	388.0

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S230	10	31.537	0.837	182.0	0.9469	0.0000	SURCHARGED
15 minute winter	S231	10	30.483	0.857	249.9	0.9688	0.0000	FLOOD RISK
15 minute winter	232a	11	32.610	0.453	99.8	0.3922	0.0000	SURCHARGED
15 minute winter	S232	11	32.051	0.162	144.4	0.1400	0.0000	OK
15 minute winter	HW03	10	30.541	0.921	145.3	1.0417	4.2317	FLOOD
15 minute winter	S234	11	36.182	1.482	107.0	1.6764	0.0000	FLOOD RISK
15 minute winter	234B	11	34.567	2.017	109.9	2.2810	0.0000	SURCHARGED
30 minute winter	S235a	13	33.315	1.515	149.8	1.7135	80.9231	FLOOD
15 minute summer	S235	8	33.694	0.609	16.9	0.6891	0.0000	SURCHARGED
15 minute winter	S236	8	33.440	1.915	319.3	2.1659	36.0234	FLOOD
30 minute winter	S237	13	32.920	1.545	151.1	1.7474	12.9664	FLOOD
30 minute winter	S238	13	32.043	1.200	172.1	1.3572	43.4996	FLOOD
15 minute winter	S239	10	31.837	1.222	225.4	2.1593	6.3957	FLOOD
15 minute winter	S240	11	31.751	1.183	256.9	2.0903	0.0000	SURCHARGED
15 minute winter	S241	10	31.952	0.147	136.0	0.1666	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S230	1.000	S231	178.3	2.532	0.884	2.3102	
15 minute winter	S231	1.001	Wetland 1	248.5	3.530	3.466	0.3485	
15 minute winter	232a	2.000	S232	96.2	1.658	1.252	3.0369	
15 minute winter	S232	2.001	HW03	145.3	2.397	0.488	1.7057	
15 minute winter	HW03	2.002	Wetland 1	116.1	1.654	5.707	3.9861	
15 minute winter	S234	3.000	234B	101.2	2.557	0.888	1.4535	
15 minute winter	234B	3.001	S236	109.6	2.756	0.963	0.7957	
30 minute winter	S235a	4.000	S236	-44.7	-1.125	-0.664	0.4754	
15 minute summer	S235	5.000	S236	15.9	0.607	0.139	1.2305	
15 minute winter	S236	3.002	S237	130.7	1.857	1.667	2.1066	
30 minute winter	S237	3.003	S238	124.1	1.763	1.199	4.3155	
30 minute winter	S238	3.004	S239	135.0	1.917	1.884	3.8112	
15 minute winter	S239	3.005	S240	221.0	1.570	1.554	1.6009	
15 minute winter	S240	3.006	S242	252.9	1.796	1.730	6.8735	
15 minute winter	S241	6.000	S242	134.5	3.373	0.331	0.5682	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S242	11	31.337	0.965	380.6	1.7056	0.0000	SURCHARGED
15 minute winter	S243	11	31.216	1.009	386.2	1.7826	0.0000	SURCHARGED
15 minute winter	S244	11	31.026	0.967	373.2	1.7088	0.0000	SURCHARGED
15 minute winter	S245	11	30.844	0.904	372.4	1.5976	0.0000	SURCHARGED
15 minute winter	S246	10	36.959	0.124	48.6	0.1397	0.0000	OK
15 minute winter	S247	10	35.666	0.137	65.2	0.1546	0.0000	OK
15 minute winter	S248	10	34.369	0.122	97.2	0.1378	0.0000	OK
15 minute winter	S249	11	30.674	0.831	479.0	1.4681	0.0000	SURCHARGED
15 minute winter	S251	11	30.356	0.636	480.7	1.1235	0.0000	FLOOD RISK
15 minute winter	S252	10	30.253	0.453	74.3	0.0000	0.0000	SURCHARGED
600 minute winter	Wetland 1	600	29.988	0.388	146.4	1777.0910	0.0000	SURCHARGED
600 minute winter	Wetland 2	600	29.978	0.428	16.4	117.1204	0.0000	SURCHARGED
600 minute winter	Wetland 3	585	29.958	0.508	18.0	80.1470	0.0000	SURCHARGED
600 minute winter	S254	585	29.952	0.567	12.8	1.0019	0.0000	SURCHARGED
15 minute winter	Start of Ditch	12	30.939	0.139	49.3	0.1576	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S242	3.007	S243	364.5	1.226	0.878	12.5861	
15 minute winter	S243	3.008	S244	355.3	1.159	1.086	18.0825	
15 minute winter	S244	3.009	S245	359.4	1.134	1.096	15.0845	
15 minute winter	S245	3.010	S249	372.9	1.177	1.157	12.7278	
15 minute winter	S246	7.000	S247	48.1	2.023	0.577	1.2156	
15 minute winter	S247	7.001	S248	64.3	2.732	0.622	0.7719	
15 minute winter	S248	7.002	S249	96.6	3.910	0.577	1.2591	
15 minute winter	S249	3.011	S251	480.7	1.517	1.448	14.6243	
15 minute winter	S251	3.012	Wetland 1	483.3	1.568	3.419	12.7883	
15 minute winter	S252	8.000	Wetland 1	73.6	1.851	1.709	0.5691	
600 minute winter	Wetland 1	1.002	Wetland 2	14.0	0.587	0.472	0.6045	
600 minute winter	Wetland 2	1.003	Wetland 3	12.0	0.330	0.448	1.4782	
600 minute winter	Wetland 3	1.004	S254	12.8	0.360	0.237	0.2386	
600 minute winter	S254	1.005	S259	12.8	0.535	0.169	0.5347	
15 minute winter	Start of Ditch	9.000	HW06	41.5	0.322	0.239	18.4453	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.51%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HW06	11	30.268	0.246	206.3	0.2785	0.0000	OK
15 minute winter	S257	12	30.179	0.248	196.5	0.4379	0.0000	OK
15 minute winter	HW06a	13	30.159	0.342	191.2	0.3874	0.0000	SURCHARGED
15 minute winter	HW11a	15	30.034	0.394	543.7	0.4456	0.0000	SURCHARGED
15 minute winter	S260	10	32.794	0.049	6.6	0.0551	0.0000	OK
15 minute winter	S259b	11	31.113	0.053	6.4	0.0604	0.0000	OK
15 minute winter	S259a	11	30.559	0.034	6.4	0.0382	0.0000	OK
30 minute winter	S259	23	30.101	0.766	864.1	1.9497	0.0000	SURCHARGED
15 minute winter	SBA275A	10	31.094	0.114	65.7	0.2014	0.0000	OK
30 minute winter	Culvert Start	22	29.491	0.241	280.3	1.7056	0.0000	OK
15 minute winter	Culvert End	13	29.453	0.233	267.7	0.0000	0.0000	OK

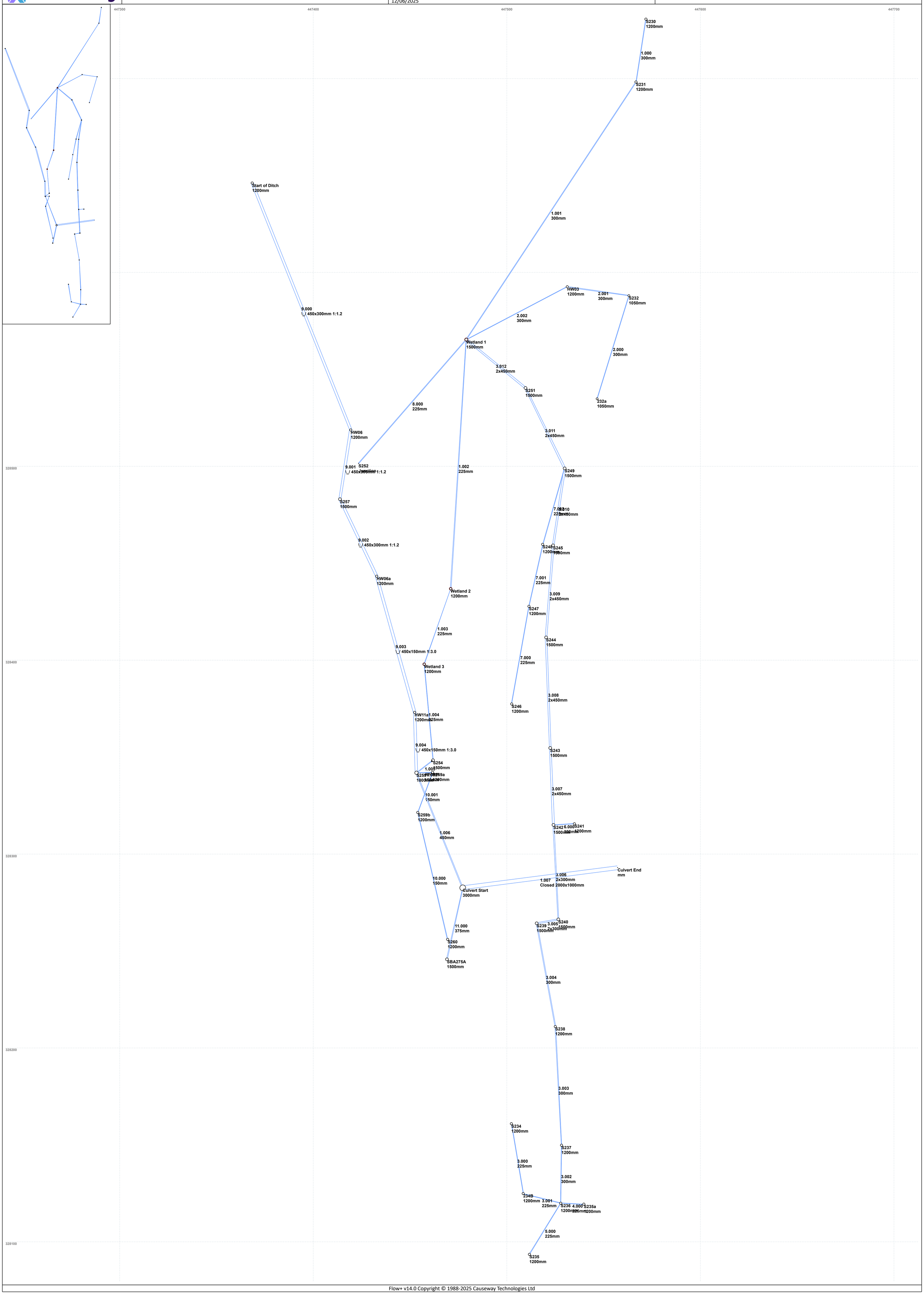
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HW06	9.001	S257	196.5	1.087	0.604	6.5712	
15 minute winter	S257	9.002	HW06a	191.2	0.934	0.576	10.4486	
15 minute winter	HW06a	9.003	HW11a	170.5	0.399	5.515	40.0029	
15 minute winter	HW11a	9.004	S259	755.6	0.832	3.243	30.1999	
15 minute winter	S260	10.000	S259b	6.4	1.238	0.228	0.3536	
15 minute winter	S259b	10.001	S259a	6.4	1.504	0.230	0.0949	
15 minute winter	S259a	10.002	S259	6.4	1.744	0.111	0.0854	
30 minute winter	S259	1.006	Culvert Start	254.2	1.843	1.854	7.8338	
15 minute winter	SBA275A	11.000	Culvert Start	64.8	2.364	0.189	1.0356	
30 minute winter	Culvert Start	1.007	Culvert End	267.7	0.565	0.176	38.2135	496.6

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Water Quality

	Area (ha)	Intended Land Use	Entering via Node or Link	Name	SuDS Component	Pollution hazard indices TSS	Pollution hazard indices Metals	Pollution hazard indices Hydrocarbons	Pollution mitigation indices TSS	Pollution mitigation indices Metals	Pollution mitigation indices Hydrocarbons	Cumulative pollution hazard indices TSS	Cumulative pollution hazard indices Metals	Cumulative pollution hazard indices Hydrocarbons
x	0.016	Busy lorry access	Node	S232		0.8	0.8	0.9				0.8	0.8	0.9
x	0.200	Busy lorry access	Node	S235a		0.8	0.8	0.9				0.8	0.8	0.9
✓	0.136	Roads	Node	S236		0.7	0.6	0.7				0.7	0.6	0.7
x	0.019	Busy lorry access	Node	S240		0.8	0.8	0.9				0.8	0.8	0.9
x	0.043	Busy lorry access	Node	S241		0.8	0.8	0.9				0.8	0.8	0.9
			Node	Wetland 1	Wetland				0.8	0.8	0.8	0	0	0.1
			Node	Wetland 2	Wetland				0.4	0.4	0.4	0	0	0
			Node	Wetland 3	Wetland				0.4	0.4	0.4	0	0	0
			Node	Culvert End								0	0	0
												Sufficient	Sufficient	Sufficient

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Appendix 11: DCO Works No.13 Proposed Drainage

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	0.600
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	✓
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	2.00	Minimum Backdrop Height (m)	0.200		

1 STANDARD Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)

100 | 150

1 -1 \/ Link Type

Shape	Closed User Defined	Width (mm)	9700	Follow Ground	x
Barrels	1	Auto Increment (mm)	100		

Available Diameters (mm)

1450

Depth / Total	Width / Total	Depth / Total	Width / Total
0.000	0.103	1.000	1.000

1 -2 _/ Link Type

Shape	Closed User Defined	Width (mm)	6500	Follow Ground	x
Barrels	1	Auto Increment (mm)	100		

Available Diameters (mm)

1000

Depth / Total	Width / Total	Depth / Total	Width / Total
0.000	0.077	1.000	1.000

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
EX MH1	0.128	2.00	78.770	1050	447173.559	326141.687	1.760
SW2	0.084	2.00	78.590	1050	447198.241	326218.218	2.396
SW3	0.168	2.00	77.855	1050	447216.848	326284.420	2.138
SW4	0.023	2.00	77.671	1050	447229.286	326344.734	2.222
SW5	0.034	2.00	77.520	1050	447233.260	326396.842	1.425
SW6			77.439	1050	447235.537	326383.836	2.162
EX MH2	0.011	2.00	78.500	1050	447184.443	326137.453	1.760
SW8	0.020	2.00	78.420	1050	447206.870	326196.647	2.052
SW9	0.016	2.00	78.350	1050	447234.366	326280.261	2.500
SW10	0.028	2.00	78.280	1050	447247.718	326332.307	2.746
SW11	0.015	2.00	77.749	1050	447255.232	326382.980	2.666
EX MH3	0.082	2.00	80.270	1050	447213.044	326144.879	1.390
EX MH4	0.059	2.00	79.850	1050	447239.335	326219.092	1.300
SW14			79.620	1050	447251.338	326249.644	1.725
SW15	0.085	2.00	79.820	1050	447239.436	326254.549	2.078
SW16	0.052	2.00	78.000	1050	447272.384	326338.301	1.780
SW17			77.550	1050	447284.472	326382.803	1.560
SW18	0.013	2.00	77.471	1200	447261.809	326396.926	2.445
SW19	0.123	2.00	76.351	1200	447273.039	326416.945	1.451
SW20	0.279	2.00	76.817	1050	447316.412	326428.567	1.795
SW21			76.800	1050	447291.042	326432.696	1.890
N01	0.030	2.00	76.175	1	447276.685	326436.735	1.451
SW22	0.073	2.00	76.627	1050	447295.094	326450.094	1.425
N02			76.135	1	447280.198	326455.690	1.450
SW23	0.008	2.00	77.583	1200	447240.965	326430.384	1.350
SW24			77.455	1200	447242.829	326443.895	1.350
SW25	0.019	2.00	77.113	1200	447247.285	326486.298	1.613
SW26	0.002	2.00	77.331	1200	447249.247	326469.949	2.071
SW27	0.104	2.00	76.308	1200	447283.335	326472.760	1.778
SW28	0.025	2.00	76.561	1200	447288.889	326489.900	2.091
N03			75.000	100	447310.157	326544.704	1.000
SW29	0.046	2.00	76.592	1050	447274.823	326503.347	1.350

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
SW30	0.070	2.00	75.723	1050	447292.043	326535.947	1.425
SW31			75.013	1050	447306.963	326561.175	1.425
N04	0.009	2.00	74.150	100	447316.240	326558.464	1.000
SW32			73.934	1200	447322.629	326572.044	1.500
SW33	0.070	2.00	74.960	1050	447328.035	326519.909	1.425
SW34	0.057	2.00	73.586	1050	447342.774	326567.688	1.425
SW35			71.651	1050	447360.779	326614.333	1.425
SW36			69.714	1050	447377.337	326652.393	1.772
SW37	0.060	2.00	69.453	1500	447368.464	326661.926	1.653
SW38	0.046	2.00	66.050	1200	447388.141	326707.891	1.500
SW39	0.046	2.00	62.900	1200	447402.243	326745.323	1.500
SW40	0.056	2.00	59.957	1200	447414.848	326783.285	1.500
SW41	0.035	2.00	74.915	1050	447297.115	326568.616	1.350
SW42	0.042	2.00	73.420	1050	447317.034	326597.980	1.350
SW43	0.042	2.00	71.591	1050	447336.905	326630.655	1.350
SW44	0.041	2.00	69.402	1050	447354.934	326664.196	1.425
SW45	0.041	2.00	66.898	1050	447370.841	326697.972	1.425
SW46	0.038	2.00	64.056	1050	447384.906	326732.253	1.425
SW47	0.073	2.00	61.016	1050	447397.429	326768.046	1.500
SW48			57.420	1050	447413.220	326822.292	1.500
SW49			57.389	1350	447426.181	326824.453	2.178
SW50	0.017	2.00	76.576	1050	447307.121	326402.894	1.350
SW51	0.018	2.00	77.281	1050	447308.255	326416.753	2.162
SW52	0.031	2.00	76.721	1050	447315.216	326437.851	1.475
SW53	0.025	2.00	76.614	1050	447323.186	326427.440	1.714
SW54	0.050	2.00	76.007	1050	447333.905	326427.232	2.082
SW55	0.132	2.00	74.332	1050	447341.196	326444.447	1.425
N06	0.018	2.00	72.501	100	447335.068	326460.679	1.001
SW56	0.027	2.00	75.806	1200	447308.061	326507.335	1.350
SW57	0.047	2.00	76.241	1200	447302.678	326485.119	2.102
SW58	0.024	2.00	75.456	1200	447326.279	326513.291	1.350
SW59	0.015	2.00	76.241	1200	447317.955	326481.062	2.632

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
N07	0.012	2.00	72.243	100	447337.210	326480.818	1.001
N08			72.000	100	447340.426	326500.245	1.000
N09	0.018	2.00	71.851	100	447345.505	326524.794	1.001
N10	0.010	2.00	70.851	100	447351.559	326538.495	1.001
N11	0.010	2.00	69.851	100	447357.083	326550.349	1.001
N12	0.010	2.00	68.851	100	447362.267	326560.935	1.001
N13	0.008	2.00	67.851	100	447368.249	326573.333	1.001
N14	0.005	2.00	67.201	100	447372.460	326582.117	1.001
N15	0.013	2.00	66.851	100	447374.266	326588.008	1.001
N16	0.010	2.00	65.851	100	447380.718	326606.070	1.001
N17	0.011	2.00	65.255	100	447386.211	326619.119	1.001
N18			64.200	100	447393.191	326638.304	1.000
KD9 OD	0.041	2.00	76.463	600	447246.743	326507.689	0.900
SW60	0.026	2.00	68.887	600	447255.323	326543.609	0.825
SW61	0.032	2.00	64.882	600	447283.688	326596.467	0.825
SW62	0.033	2.00	61.239	600	447313.819	326648.346	1.125
SW63	0.030	2.00	58.230	600	447342.968	326700.821	0.825
SW64	0.009	2.00	57.278	600	447382.108	326765.763	0.815
SW65	0.005	2.00	55.154	600	447396.333	326806.060	0.825
EX MH			54.420	1500	447442.131	326888.778	2.180
EX HW			62.364		447413.919	326721.050	2.484
HW13			54.000		447408.644	326836.466	0.399

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Detailed	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	x	Starting Level (m)			

Storm Durations

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

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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
30	0	0	0	100	25	0	0
30	25	0	0	100	40	0	0

Node SW27 Online Orifice Control

Flap Valve	x	Invert Level (m)	74.530	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.225		

Node N03 Online Orifice Control

Flap Valve	x	Invert Level (m)	74.000	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.100		

Node N04 Online Orifice Control

Flap Valve	x	Invert Level (m)	73.200	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.150		

Node N10 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	69.850	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	45.000		

Node N12 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	67.850	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	45.000		

Node N14 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	66.200	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	45.000		

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Node N17 Online V-Notch Weir Control

Flap Valve	x	Invert Level (m)	64.254	Discharge Coefficient	0.590
Replaces Downstream Link	x	Angle of V (degrees)	45.000		

Node N03 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	74.100
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	531.0	0.0	0.200	604.0	0.0	0.400	679.0	0.0	0.600	759.0	0.0	0.800	837.0	0.0	0.910	0.0	0.0
0.100	568.0	0.0	0.300	641.0	0.0	0.500	721.0	0.0	0.700	798.0	0.0	0.900	877.0	0.0			

Node N04 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	73.200
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	25

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	22.0	0.0	0.200	52.6	0.0	0.400	85.8	0.0	0.600	122.2	0.0	0.800	162.0	0.0
0.100	37.1	0.0	0.300	68.9	0.0	0.500	103.6	0.0	0.700	141.7	0.0	0.900	180.3	0.0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	76.777	21.725	1 year 120 minute winter	16.287	6.479
1 year 15 minute winter	53.878	21.725	1 year 180 minute summer	20.290	5.221
1 year 30 minute summer	48.990	13.863	1 year 180 minute winter	13.189	5.221
1 year 30 minute winter	34.379	13.863	1 year 240 minute summer	16.663	4.404
1 year 60 minute summer	32.661	8.631	1 year 240 minute winter	11.071	4.404
1 year 60 minute winter	21.699	8.631	1 year 360 minute summer	13.157	3.386
1 year 120 minute summer	24.515	6.479	1 year 360 minute winter	8.552	3.386

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 480 minute summer	10.463	2.765
1 year 480 minute winter	6.951	2.765
1 year 600 minute summer	8.578	2.346
1 year 600 minute winter	5.861	2.346
1 year 720 minute summer	7.626	2.044
1 year 720 minute winter	5.125	2.044
1 year 960 minute summer	6.203	1.634
1 year 960 minute winter	4.109	1.634
1 year 1440 minute summer	4.409	1.182
1 year 1440 minute winter	2.963	1.182
30 year 15 minute summer	279.897	79.201
30 year 15 minute winter	196.419	79.201
30 year 30 minute summer	182.667	51.688
30 year 30 minute winter	128.187	51.688
30 year 60 minute summer	121.798	32.188
30 year 60 minute winter	80.920	32.188
30 year 120 minute summer	75.753	20.019
30 year 120 minute winter	50.329	20.019
30 year 180 minute summer	58.243	14.988
30 year 180 minute winter	37.859	14.988
30 year 240 minute summer	45.879	12.124
30 year 240 minute winter	30.481	12.124
30 year 360 minute summer	34.546	8.890
30 year 360 minute winter	22.456	8.890
30 year 480 minute summer	26.718	7.061
30 year 480 minute winter	17.751	7.061
30 year 600 minute summer	21.494	5.879
30 year 600 minute winter	14.686	5.879
30 year 720 minute summer	18.840	5.049
30 year 720 minute winter	12.662	5.049
30 year 960 minute summer	15.024	3.956
30 year 960 minute winter	9.952	3.956
30 year 1440 minute summer	10.403	2.788
30 year 1440 minute winter	6.992	2.788
30 year +25% CC 15 minute summer	349.871	99.002
30 year +25% CC 15 minute winter	245.524	99.002
30 year +25% CC 30 minute summer	228.334	64.611
30 year +25% CC 30 minute winter	160.234	64.611
30 year +25% CC 60 minute summer	152.248	40.235
30 year +25% CC 60 minute winter	101.150	40.235
30 year +25% CC 120 minute summer	94.691	25.024
30 year +25% CC 120 minute winter	62.911	25.024
30 year +25% CC 180 minute summer	72.803	18.735
30 year +25% CC 180 minute winter	47.324	18.735
30 year +25% CC 240 minute summer	57.349	15.156
30 year +25% CC 240 minute winter	38.101	15.156
30 year +25% CC 360 minute summer	43.182	11.112
30 year +25% CC 360 minute winter	28.069	11.112
30 year +25% CC 480 minute summer	33.398	8.826
30 year +25% CC 480 minute winter	22.189	8.826
30 year +25% CC 600 minute summer	26.867	7.349
30 year +25% CC 600 minute winter	18.357	7.349
30 year +25% CC 720 minute summer	23.550	6.312
30 year +25% CC 720 minute winter	15.827	6.312
30 year +25% CC 960 minute summer	18.780	4.945
30 year +25% CC 960 minute winter	12.440	4.945
30 year +25% CC 1440 minute summer	13.004	3.485
30 year +25% CC 1440 minute winter	8.739	3.485
100 year 15 minute summer	364.661	103.186
100 year 15 minute winter	255.902	103.186
100 year 30 minute summer	239.884	67.879
100 year 30 minute winter	168.340	67.879
100 year 60 minute summer	160.969	42.539
100 year 60 minute winter	106.944	42.539

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year 120 minute summer	100.180	26.475	100 year +25% CC 480 minute summer	44.213	11.684
100 year 120 minute winter	66.557	26.475	100 year +25% CC 480 minute winter	29.374	11.684
100 year 180 minute summer	77.199	19.866	100 year +25% CC 600 minute summer	35.497	9.709
100 year 180 minute winter	50.182	19.866	100 year +25% CC 600 minute winter	24.253	9.709
100 year 240 minute summer	60.869	16.086	100 year +25% CC 720 minute summer	31.035	8.318
100 year 240 minute winter	40.440	16.086	100 year +25% CC 720 minute winter	20.858	8.318
100 year 360 minute summer	45.775	11.779	100 year +25% CC 960 minute summer	24.593	6.476
100 year 360 minute winter	29.755	11.779	100 year +25% CC 960 minute winter	16.291	6.476
100 year 480 minute summer	35.370	9.347	100 year +25% CC 1440 minute summer	16.832	4.511
100 year 480 minute winter	23.499	9.347	100 year +25% CC 1440 minute winter	11.312	4.511
100 year 600 minute summer	28.397	7.767	100 year +40% CC 15 minute summer	510.525	144.461
100 year 600 minute winter	19.403	7.767	100 year +40% CC 15 minute winter	358.263	144.461
100 year 720 minute summer	24.828	6.654	100 year +40% CC 30 minute summer	335.837	95.030
100 year 720 minute winter	16.686	6.654	100 year +40% CC 30 minute winter	235.675	95.030
100 year 960 minute summer	19.675	5.181	100 year +40% CC 60 minute summer	225.357	59.555
100 year 960 minute winter	13.033	5.181	100 year +40% CC 60 minute winter	149.722	59.555
100 year 1440 minute summer	13.466	3.609	100 year +40% CC 120 minute summer	140.252	37.065
100 year 1440 minute winter	9.050	3.609	100 year +40% CC 120 minute winter	93.180	37.065
100 year +25% CC 15 minute summer	455.826	128.983	100 year +40% CC 180 minute summer	108.079	27.812
100 year +25% CC 15 minute winter	319.878	128.983	100 year +40% CC 180 minute winter	70.254	27.812
100 year +25% CC 30 minute summer	299.855	84.849	100 year +40% CC 240 minute summer	85.216	22.520
100 year +25% CC 30 minute winter	210.424	84.849	100 year +40% CC 240 minute winter	56.616	22.520
100 year +25% CC 60 minute summer	201.211	53.174	100 year +40% CC 360 minute summer	64.085	16.491
100 year +25% CC 60 minute winter	133.680	53.174	100 year +40% CC 360 minute winter	41.657	16.491
100 year +25% CC 120 minute summer	125.225	33.093	100 year +40% CC 480 minute summer	49.518	13.086
100 year +25% CC 120 minute winter	83.197	33.093	100 year +40% CC 480 minute winter	32.899	13.086
100 year +25% CC 180 minute summer	96.499	24.833	100 year +40% CC 600 minute summer	39.756	10.874
100 year +25% CC 180 minute winter	62.727	24.833	100 year +40% CC 600 minute winter	27.164	10.874
100 year +25% CC 240 minute summer	76.086	20.107	100 year +40% CC 720 minute summer	34.760	9.316
100 year +25% CC 240 minute winter	50.550	20.107	100 year +40% CC 720 minute winter	23.361	9.316
100 year +25% CC 360 minute summer	57.219	14.724	100 year +40% CC 960 minute summer	27.544	7.253
100 year +25% CC 360 minute winter	37.194	14.724	100 year +40% CC 960 minute winter	18.246	7.253

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 1440 minute summer	18.852	5.053	100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	EX MH1	10	77.156	0.146	22.4	0.1264	0.0000	OK
15 minute summer	SW2	10	76.339	0.145	32.6	0.1253	0.0000	OK
15 minute summer	SW3	9	75.918	0.201	56.7	0.1738	0.0000	OK
15 minute summer	SW4	10	75.658	0.209	57.5	0.1807	0.0000	OK
15 minute summer	SW5	9	76.135	0.040	6.0	0.0350	0.0000	OK
15 minute summer	SW6	10	75.473	0.196	60.4	0.1700	0.0000	OK
15 minute summer	EX MH2	9	76.771	0.031	1.9	0.0270	0.0000	OK
15 minute summer	SW8	10	76.416	0.048	5.1	0.0414	0.0000	OK
15 minute summer	SW9	10	75.904	0.054	6.3	0.0470	0.0000	OK
15 minute summer	SW10	10	75.601	0.067	9.0	0.0582	0.0000	OK
15 minute summer	SW11	11	75.340	0.257	67.7	0.2228	0.0000	OK
15 minute summer	EX MH3	9	78.984	0.104	14.4	0.0900	0.0000	OK
15 minute summer	EX MH4	9	78.635	0.085	24.0	0.0733	0.0000	OK
15 minute summer	SW14	10	78.022	0.127	22.4	0.1096	0.0000	OK
15 minute summer	SW15	10	77.838	0.096	34.5	0.0831	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	EX MH1	1.000	SW2	17.9	1.108	1.050	1.3236	
15 minute summer	SW2	1.001	SW3	29.2	1.095	0.738	1.8351	
15 minute summer	SW3	1.002	SW4	53.5	1.102	0.733	3.0232	
15 minute summer	SW4	1.003	SW6	56.6	1.118	0.776	2.0028	
15 minute summer	SW5	2.000	SW6	6.0	1.604	0.149	0.0494	
15 minute summer	SW6	1.004	SW11	58.2	1.260	0.676	0.9110	
15 minute summer	EX MH2	3.000	SW8	1.7	0.370	0.042	0.2921	
15 minute summer	SW8	3.001	SW9	4.0	0.591	0.100	0.5939	
15 minute summer	SW9	3.002	SW10	5.1	0.602	0.129	0.4648	
15 minute summer	SW10	3.003	SW11	7.8	0.706	0.197	0.7232	
15 minute summer	SW11	1.005	SW18	65.1	0.794	0.537	1.3204	
15 minute summer	EX MH3	4.000	EX MH4	13.8	0.873	0.411	1.2424	
15 minute summer	EX MH4	4.001	SW14	22.4	1.270	0.304	0.5890	
15 minute summer	SW14	4.002	SW15	22.1	1.006	0.549	0.2832	
15 minute summer	SW15	4.003	SW16	32.6	1.216	0.225	2.5539	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	10	76.377	0.157	40.7	0.1361	0.0000	OK
15 minute summer	SW17	10	76.075	0.085	38.4	0.0735	0.0000	OK
15 minute summer	SW18	11	75.313	0.287	102.2	0.3251	0.0000	OK
30 minute summer	SW19	23	75.074	0.174	97.3	0.1966	0.0000	OK
15 minute summer	SW20	9	75.215	0.193	48.8	0.1672	0.0000	OK
15 minute summer	SW21	9	75.107	0.197	48.7	0.1702	0.0000	OK
30 minute summer	N01	23	75.073	0.349	128.0	0.0000	0.0000	OK
15 minute summer	SW22	9	75.309	0.107	12.8	0.0931	0.0000	OK
30 minute summer	N02	23	75.072	0.387	99.8	0.0000	0.0000	OK
15 minute summer	SW23	9	76.264	0.031	1.4	0.0349	0.0000	OK
15 minute summer	SW24	9	76.126	0.021	1.4	0.0237	0.0000	OK
15 minute summer	SW25	9	75.545	0.045	3.3	0.0506	0.0000	OK
15 minute summer	SW26	10	75.308	0.048	4.9	0.0542	0.0000	OK
30 minute summer	SW27	23	75.072	0.542	73.0	0.6130	0.0000	SURCHARGED
30 minute summer	SW28	23	74.517	0.047	62.3	0.0529	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	SW16	4.004	SW17	38.4	1.445	0.491	1.2384	
15 minute summer	SW17	4.005	SW18	37.5	0.872	0.177	1.1401	
15 minute summer	SW18	1.006	SW19	103.4	1.258	0.903	1.8813	
30 minute summer	SW19	1.007	N01	95.9	0.329	0.008	9.8574	
15 minute summer	SW20	5.000	SW21	48.7	1.026	0.666	1.2446	
15 minute summer	SW21	5.001	N01	48.6	1.075	0.693	0.6741	
30 minute summer	N01	1.008	N02	92.4	0.274	0.016	14.9687	
15 minute summer	SW22	6.000	N02	12.8	0.751	0.435	0.2718	
30 minute summer	N02	1.009	SW27	61.5	0.218	0.011	15.5801	
15 minute summer	SW23	7.000	SW24	1.4	0.696	0.082	0.0279	
15 minute summer	SW24	7.001	SW26	1.2	0.839	0.041	0.0396	
15 minute summer	SW25	8.000	SW26	3.3	0.758	0.184	0.0711	
15 minute summer	SW26	7.002	SW27	4.5	0.731	0.099	0.2096	
30 minute summer	SW27	1.010	SW28	61.8	1.950	0.538	0.6119	
30 minute summer	SW28	1.011	N03	62.2	0.361	0.018	23.4777	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	N03	256	74.320	0.320	46.4	125.8402	0.0000	OK
15 minute summer	SW29	9	75.299	0.057	8.1	0.0490	0.0000	OK
15 minute summer	SW30	9	74.374	0.076	20.3	0.0660	0.0000	OK
15 minute summer	SW31	9	73.696	0.108	20.3	0.0937	0.0000	OK
120 minute summer	N04	68	73.358	0.208	15.4	5.3882	0.0000	SURCHARGED
120 minute summer	SW32	68	72.482	0.048	13.5	0.0545	0.0000	OK
15 minute summer	SW33	9	73.592	0.057	12.3	0.0494	0.0000	OK
15 minute summer	SW34	9	72.235	0.074	22.3	0.0638	0.0000	OK
15 minute summer	SW35	9	70.290	0.064	22.2	0.0552	0.0000	OK
15 minute summer	SW36	10	68.071	0.129	21.6	0.1113	0.0000	OK
15 minute summer	SW37	10	67.870	0.070	33.5	0.1234	0.0000	OK
15 minute summer	SW38	10	64.621	0.071	38.2	0.0800	0.0000	OK
15 minute summer	SW39	10	61.477	0.077	43.2	0.0868	0.0000	OK
15 minute summer	SW40	10	58.541	0.084	49.7	0.0952	0.0000	OK
15 minute summer	SW41	9	73.606	0.041	6.1	0.0359	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	N03	1.012	N04	10.8	0.674	0.023	0.3522	
15 minute summer	SW29	9.000	SW30	8.0	1.335	0.293	0.2215	
15 minute summer	SW30	9.001	SW31	20.3	1.361	0.250	0.4499	
15 minute summer	SW31	9.002	N04	19.8	1.118	0.400	0.1715	
120 minute summer	N04	1.013	SW32	13.5	2.182	0.347	0.0935	
120 minute summer	SW32	1.014	SW37	13.5	1.779	0.057	0.8711	
15 minute summer	SW33	10.000	SW34	12.3	1.285	0.142	0.4796	
15 minute summer	SW34	10.001	SW35	22.2	2.170	0.216	0.5127	
15 minute summer	SW35	10.002	SW36	21.6	1.408	0.176	0.6621	
15 minute summer	SW36	10.003	SW37	20.9	0.932	0.562	0.2917	
15 minute summer	SW37	1.015	SW38	33.4	2.664	0.117	0.6267	
15 minute summer	SW38	1.016	SW39	38.4	2.863	0.122	0.5368	
15 minute summer	SW39	1.017	SW40	43.7	2.880	0.144	0.6070	
15 minute summer	SW40	1.018	SW49	50.6	3.182	0.166	0.6784	
15 minute summer	SW41	11.000	SW42	6.1	1.161	0.166	0.1886	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	9	72.131	0.061	13.5	0.0526	0.0000	OK
15 minute summer	SW43	9	70.316	0.075	20.8	0.0648	0.0000	OK
15 minute summer	SW44	9	68.046	0.069	27.6	0.0596	0.0000	OK
15 minute summer	SW45	9	65.548	0.075	34.6	0.0646	0.0000	OK
15 minute summer	SW46	9	62.713	0.082	40.9	0.0708	0.0000	OK
15 minute summer	SW47	9	59.602	0.086	52.5	0.0749	0.0000	OK
15 minute summer	SW48	9	56.020	0.100	51.7	0.0863	0.0000	OK
15 minute summer	SW49	10	55.337	0.126	98.6	0.1797	0.0000	OK
15 minute summer	SW50	9	75.271	0.045	3.0	0.0385	0.0000	OK
15 minute summer	SW51	9	75.179	0.060	6.2	0.0517	0.0000	OK
15 minute summer	SW52	9	75.290	0.044	5.4	0.0380	0.0000	OK
15 minute summer	SW53	9	74.961	0.061	16.0	0.0525	0.0000	OK
15 minute summer	SW54	9	73.993	0.068	24.7	0.0592	0.0000	OK
15 minute summer	SW55	9	73.013	0.106	47.7	0.0917	0.0000	OK
15 minute summer	N06	9	71.604	0.104	50.9	0.0008	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	SW42	11.001	SW43	13.4	1.740	0.344	0.2955	
15 minute summer	SW43	11.002	SW44	20.4	2.364	0.476	0.3287	
15 minute summer	SW44	11.003	SW45	27.4	2.521	0.203	0.4062	
15 minute summer	SW45	11.004	SW46	34.2	2.795	0.236	0.4538	
15 minute summer	SW46	11.005	SW47	39.7	3.119	0.268	0.4829	
15 minute summer	SW47	11.006	SW48	51.7	2.781	0.184	1.0517	
15 minute summer	SW48	11.007	SW49	49.5	2.586	0.202	0.2523	
15 minute summer	SW49	1.019	EX MH	100.6	3.165	0.237	2.1077	120.0
15 minute summer	SW50	12.000	SW51	3.0	0.552	0.193	0.0758	
15 minute summer	SW51	12.001	SW53	6.2	0.935	0.318	0.1212	
15 minute summer	SW52	13.000	SW53	5.4	1.023	0.186	0.0718	
15 minute summer	SW53	12.002	SW54	15.9	2.484	0.307	0.0687	
15 minute summer	SW54	12.003	SW55	24.7	1.740	0.202	0.2667	
15 minute summer	SW55	12.004	N06	47.7	2.724	0.399	0.3037	
15 minute summer	N06	12.005	N07	50.3	0.532	0.010	1.9233	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	74.509	0.053	4.7	0.0596	0.0000	OK
15 minute summer	SW57	9	74.197	0.058	12.8	0.0655	0.0000	OK
15 minute summer	SW58	9	74.153	0.047	4.2	0.0526	0.0000	OK
15 minute summer	SW59	9	73.663	0.054	19.5	0.0615	0.0000	OK
15 minute summer	N07	9	71.363	0.121	71.8	0.0010	0.0000	OK
15 minute summer	N08	11	71.314	0.314	67.2	0.0025	0.0000	SURCHARGED
15 minute summer	N09	11	70.916	0.066	49.1	0.0005	0.0000	OK
15 minute summer	N10	12	70.221	0.371	49.8	0.0030	0.0000	OK
15 minute summer	N11	12	68.911	0.061	48.5	0.0005	0.0000	OK
15 minute summer	N12	13	68.220	0.370	48.9	0.0030	0.0000	OK
15 minute summer	N13	13	66.915	0.065	48.0	0.0005	0.0000	OK
15 minute summer	N14	14	66.568	0.368	47.9	0.0029	0.0000	OK
15 minute summer	N15	14	65.919	0.069	47.6	0.0006	0.0000	OK
15 minute summer	N16	14	64.923	0.073	47.7	0.0006	0.0000	OK
15 minute summer	N17	15	64.617	0.363	47.6	0.0029	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	SW56	14.000	SW57	4.6	0.855	0.254	0.1241	
15 minute summer	SW57	14.001	SW59	12.8	1.660	0.134	0.1222	
15 minute summer	SW58	15.000	SW59	4.0	0.882	0.202	0.1527	
15 minute summer	SW59	14.002	N07	19.4	2.685	0.121	0.1389	
15 minute summer	N07	12.006	N08	67.2	0.396	0.014	5.2298	
15 minute summer	N08	12.007	N09	48.1	1.679	1.201	0.6201	
15 minute summer	N09	12.008	N10	49.3	0.257	0.004	4.8170	
15 minute summer	N10	12.009	N11	48.1	1.116	0.004	0.5642	
15 minute summer	N11	12.010	N12	48.5	0.221	0.004	3.7527	
15 minute summer	N12	12.011	N13	47.8	1.067	0.004	0.6161	
15 minute summer	N13	12.012	N14	47.8	0.217	0.004	3.0993	
15 minute summer	N14	12.013	N15	47.3	0.966	0.005	0.3014	
15 minute summer	N15	12.014	N16	47.5	0.931	0.005	0.9784	
15 minute summer	N16	12.015	N17	47.3	0.224	0.005	4.4540	
15 minute summer	N17	12.016	N18	45.4	0.701	0.005	1.3733	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	N18	16	63.306	0.106	45.4	0.0008	0.0000	OK
15 minute summer	KD9 OD	9	75.593	0.030	7.2	0.0085	0.0000	OK
15 minute summer	SW60	9	68.107	0.045	11.8	0.0127	0.0000	OK
15 minute summer	SW61	9	64.111	0.054	17.3	0.0153	0.0000	OK
15 minute summer	SW62	9	60.181	0.067	22.7	0.0190	0.0000	OK
15 minute summer	SW63	10	57.516	0.111	26.9	0.0313	0.0000	OK
15 minute summer	SW64	10	56.535	0.072	26.0	0.0203	0.0000	OK
15 minute summer	SW65	10	54.421	0.092	26.3	0.0260	0.0000	OK
15 minute summer	EX MH	10	52.363	0.123	100.6	0.0000	0.0000	OK
15 minute summer	EX HW	16	59.984	0.104	45.4	0.0000	0.0000	OK
15 minute summer	HW13	10	53.689	0.088	25.5	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)
15 minute summer	N18	12.017	EX HW	45.4	2.506	0.441	1.5463	27.4
15 minute summer	KD9 OD	16.000	SW60	7.2	2.161	0.089	0.1279	
15 minute summer	SW60	16.001	SW61	11.7	1.831	0.087	0.3859	
15 minute summer	SW61	16.002	SW62	17.0	1.978	0.126	0.5158	
15 minute summer	SW62	16.003	SW63	21.6	1.539	0.195	0.8594	
15 minute summer	SW63	16.004	SW64	25.1	1.665	0.432	1.1469	
15 minute summer	SW64	16.005	SW65	25.8	1.984	0.221	0.5564	
15 minute summer	SW65	16.006	HW13	25.5	1.720	0.328	0.4855	9.5

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	EX MH1	8	78.770	1.760	81.7	1.5242	11.0418	FLOOD
15 minute summer	SW2	9	78.590	2.396	72.5	2.0749	0.6464	FLOOD
15 minute summer	SW3	9	77.855	2.138	158.3	1.8515	2.3284	FLOOD
15 minute summer	SW4	10	77.104	1.655	135.1	1.4332	0.0000	SURCHARGED
15 minute summer	SW5	10	76.615	0.520	21.7	0.4505	0.0000	SURCHARGED
15 minute summer	SW6	10	76.509	1.232	149.9	1.0668	0.0000	SURCHARGED
15 minute summer	EX MH2	9	76.802	0.062	7.0	0.0535	0.0000	OK
15 minute summer	SW8	9	76.468	0.100	19.4	0.0866	0.0000	OK
30 minute summer	SW9	19	76.296	0.446	25.8	0.3864	0.0000	SURCHARGED
30 minute summer	SW10	19	76.239	0.705	33.9	0.6109	0.0000	SURCHARGED
30 minute summer	SW11	19	76.140	1.057	154.1	0.9156	0.0000	SURCHARGED
15 minute summer	EX MH3	9	79.715	0.835	52.4	0.7232	0.0000	SURCHARGED
15 minute summer	EX MH4	9	79.127	0.577	79.2	0.4994	0.0000	SURCHARGED
15 minute summer	SW14	10	78.368	0.473	72.5	0.4094	0.0000	SURCHARGED
15 minute summer	SW15	10	77.953	0.211	124.3	0.1830	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	EX MH1	1.000	SW2	22.6	1.285	1.328	1.4157	
15 minute summer	SW2	1.001	SW3	51.0	1.281	1.286	2.7350	
15 minute summer	SW3	1.002	SW4	120.4	1.710	1.650	4.3366	
15 minute summer	SW4	1.003	SW6	132.5	1.882	1.817	2.7885	
15 minute summer	SW5	2.000	SW6	18.7	1.814	0.464	0.2325	
15 minute summer	SW6	1.004	SW11	146.6	2.082	1.702	1.3882	
15 minute summer	EX MH2	3.000	SW8	6.7	0.519	0.168	0.8186	
15 minute summer	SW8	3.001	SW9	16.1	0.867	0.406	2.4873	
30 minute summer	SW9	3.002	SW10	18.9	0.721	0.477	2.1369	
30 minute summer	SW10	3.003	SW11	23.1	0.744	0.581	2.0374	
30 minute summer	SW11	1.005	SW18	151.8	1.377	1.254	1.7007	
15 minute summer	EX MH3	4.000	EX MH4	42.0	1.056	1.254	3.1313	
15 minute summer	EX MH4	4.001	SW14	72.5	1.824	0.985	1.3055	
15 minute summer	SW14	4.002	SW15	73.1	1.838	1.811	0.5050	
15 minute summer	SW15	4.003	SW16	115.9	1.737	0.801	5.5551	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	10	76.992	0.772	149.1	0.6686	0.0000	SURCHARGED
15 minute summer	SW17	11	76.375	0.385	126.4	0.3333	0.0000	SURCHARGED
30 minute summer	SW18	19	76.029	1.003	255.3	1.1343	0.0000	SURCHARGED
60 minute summer	SW19	44	75.741	0.841	243.6	0.9517	0.0000	OK
15 minute summer	SW20	9	76.626	1.604	178.2	1.3894	0.0000	FLOOD RISK
15 minute summer	SW21	9	75.797	0.887	175.7	0.7679	0.0000	SURCHARGED
60 minute summer	N01	44	75.741	1.017	283.9	0.0000	0.0000	OK
60 minute summer	SW22	44	75.742	0.540	24.7	0.4680	0.0000	SURCHARGED
60 minute summer	N02	44	75.741	1.056	193.6	0.0000	0.0000	OK
15 minute summer	SW23	9	76.293	0.060	5.1	0.0675	0.0000	OK
15 minute summer	SW24	9	76.147	0.042	5.1	0.0475	0.0000	OK
60 minute summer	SW25	44	75.743	0.243	6.4	0.2748	0.0000	SURCHARGED
60 minute summer	SW26	44	75.742	0.482	9.5	0.5455	0.0000	SURCHARGED
60 minute summer	SW27	44	75.741	1.211	118.9	1.3700	0.0000	SURCHARGED
240 minute winter	SW28	236	74.742	0.272	87.7	0.3073	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	SW16	4.004	SW17	126.4	1.795	1.616	3.2473	
15 minute summer	SW17	4.005	SW18	117.6	1.670	0.555	1.8804	
30 minute summer	SW18	1.006	SW19	249.2	2.260	2.176	2.5318	
60 minute summer	SW19	1.007	N01	191.9	0.273	0.016	71.3505	
15 minute summer	SW20	5.000	SW21	175.7	2.495	2.405	1.8101	
15 minute summer	SW21	5.001	N01	173.1	2.459	2.468	1.0502	
60 minute summer	N01	1.008	N02	171.6	0.260	0.030	82.2287	
60 minute summer	SW22	6.000	N02	22.1	0.835	0.748	0.6328	
60 minute summer	N02	1.009	SW27	96.8	0.224	0.017	78.7245	
15 minute summer	SW23	7.000	SW24	5.1	0.978	0.298	0.0720	
15 minute summer	SW24	7.001	SW26	5.0	1.254	0.165	0.2587	
60 minute summer	SW25	8.000	SW26	6.3	0.900	0.352	0.2899	
60 minute summer	SW26	7.002	SW27	8.2	0.627	0.181	1.3603	
60 minute summer	SW27	1.010	SW28	102.7	2.213	0.894	0.8627	
240 minute winter	SW28	1.011	N03	87.4	0.266	0.025	92.3520	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	N03	236	74.742	0.742	87.4	418.1642	0.0000	FLOOD RISK
15 minute summer	SW29	9	75.412	0.170	29.4	0.1476	0.0000	SURCHARGED
15 minute summer	SW30	9	74.565	0.267	70.1	0.2312	0.0000	SURCHARGED
15 minute summer	SW31	9	73.952	0.364	68.2	0.3154	0.0000	SURCHARGED
60 minute summer	N04	38	73.556	0.406	48.8	17.6650	0.0000	SURCHARGED
60 minute summer	SW32	39	72.499	0.065	24.9	0.0735	0.0000	OK
15 minute summer	SW33	9	73.649	0.114	44.7	0.0987	0.0000	OK
15 minute summer	SW34	9	72.322	0.161	81.1	0.1398	0.0000	OK
15 minute summer	SW35	9	70.358	0.132	81.2	0.1146	0.0000	OK
15 minute summer	SW36	9	68.459	0.517	80.7	0.4478	0.0000	SURCHARGED
15 minute summer	SW37	9	67.941	0.141	129.6	0.2486	0.0000	OK
15 minute summer	SW38	9	64.698	0.148	151.7	0.1668	0.0000	OK
15 minute summer	SW39	9	61.567	0.167	176.5	0.1888	0.0000	OK
15 minute summer	SW40	9	58.641	0.184	207.5	0.2083	0.0000	OK
15 minute summer	SW41	9	73.652	0.087	22.4	0.0752	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	N03	1.012	N04	17.4	0.673	0.037	0.7272	
15 minute summer	SW29	9.000	SW30	25.7	1.792	0.939	0.6491	
15 minute summer	SW30	9.001	SW31	68.2	1.714	0.840	1.1657	
15 minute summer	SW31	9.002	N04	67.7	1.702	1.365	0.3774	
60 minute summer	N04	1.013	SW32	24.9	2.529	0.638	0.1474	
60 minute summer	SW32	1.014	SW37	24.9	2.078	0.104	1.7121	
15 minute summer	SW33	10.000	SW34	44.7	1.781	0.517	1.2664	
15 minute summer	SW34	10.001	SW35	81.2	2.958	0.790	1.3689	
15 minute summer	SW35	10.002	SW36	80.7	2.253	0.658	1.3290	
15 minute summer	SW36	10.003	SW37	75.0	1.887	2.020	0.5117	
15 minute summer	SW37	1.015	SW38	123.5	3.749	0.434	1.6726	
15 minute summer	SW38	1.016	SW39	147.1	3.998	0.469	1.4945	
15 minute summer	SW39	1.017	SW40	171.7	4.087	0.567	1.7122	
15 minute summer	SW40	1.018	SW49	202.4	4.203	0.665	2.0869	
15 minute summer	SW41	11.000	SW42	21.5	1.455	0.587	0.4998	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	10	72.980	0.910	48.3	0.7885	0.0000	SURCHARGED
15 minute summer	SW43	10	71.535	1.294	62.6	1.1203	0.0000	FLOOD RISK
15 minute summer	SW44	9	68.098	0.121	75.4	0.1044	0.0000	OK
15 minute summer	SW45	9	65.612	0.139	101.2	0.1203	0.0000	OK
15 minute summer	SW46	9	62.799	0.168	124.9	0.1451	0.0000	OK
15 minute summer	SW47	9	59.682	0.166	170.2	0.1439	0.0000	OK
15 minute summer	SW48	9	56.137	0.217	169.6	0.1875	0.0000	OK
15 minute summer	SW49	9	55.495	0.284	370.7	0.4064	0.0000	OK
15 minute summer	SW50	10	75.530	0.304	10.9	0.2629	0.0000	SURCHARGED
15 minute summer	SW51	10	75.487	0.368	21.5	0.3188	0.0000	SURCHARGED
15 minute summer	SW52	10	75.399	0.153	19.8	0.1322	0.0000	SURCHARGED
15 minute summer	SW53	9	75.286	0.386	53.4	0.3341	0.0000	SURCHARGED
15 minute summer	SW54	9	74.485	0.560	79.4	0.4846	0.0000	SURCHARGED
15 minute summer	SW55	9	74.050	1.143	157.0	0.9896	0.0000	FLOOD RISK
15 minute summer	N06	12	71.740	0.240	162.0	0.0019	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	SW42	11.001	SW43	35.8	2.063	0.917	0.6732	
15 minute summer	SW43	11.002	SW44	50.6	2.872	1.179	0.6704	
15 minute summer	SW44	11.003	SW45	75.0	3.175	0.554	0.8841	
15 minute summer	SW45	11.004	SW46	100.6	3.496	0.695	1.0637	
15 minute summer	SW46	11.005	SW47	123.5	4.047	0.834	1.1571	
15 minute summer	SW47	11.006	SW48	169.6	3.575	0.602	2.6695	
15 minute summer	SW48	11.007	SW49	168.3	3.197	0.687	0.7020	
15 minute summer	SW49	1.019	EX MH	360.2	4.279	0.847	5.6664	307.8
15 minute summer	SW50	12.000	SW51	10.0	0.712	0.645	0.2448	
15 minute summer	SW51	12.001	SW53	19.5	1.277	1.007	0.3232	
15 minute summer	SW52	13.000	SW53	18.9	1.264	0.651	0.2308	
15 minute summer	SW53	12.002	SW54	47.7	3.064	0.920	0.1888	
15 minute summer	SW54	12.003	SW55	76.8	1.941	0.629	0.7435	
15 minute summer	SW55	12.004	N06	150.5	3.784	1.259	0.6897	
15 minute summer	N06	12.005	N07	159.6	0.642	0.033	12.8688	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	74.579	0.123	17.3	0.1394	0.0000	OK
15 minute summer	SW57	9	74.260	0.121	47.1	0.1369	0.0000	OK
15 minute summer	SW58	9	74.207	0.101	15.3	0.1142	0.0000	OK
15 minute summer	SW59	9	73.722	0.113	71.8	0.1278	0.0000	OK
15 minute summer	N07	12	71.735	0.493	239.0	0.0039	0.0000	OK
15 minute summer	N08	12	71.738	0.738	158.2	0.0059	0.0000	FLOOD RISK
15 minute summer	N09	10	70.933	0.083	75.8	0.0007	0.0000	OK
15 minute summer	N10	10	70.301	0.451	81.1	0.0036	0.0000	OK
15 minute summer	N11	10	68.931	0.081	81.9	0.0006	0.0000	OK
15 minute summer	N12	11	68.313	0.463	85.6	0.0037	0.0000	OK
15 minute summer	N13	11	66.939	0.089	85.5	0.0007	0.0000	OK
30 minute summer	N14	19	66.670	0.470	86.8	0.0038	0.0000	OK
30 minute summer	N15	19	65.947	0.097	89.8	0.0008	0.0000	OK
30 minute summer	N16	19	64.954	0.104	92.2	0.0008	0.0000	OK
30 minute summer	N17	19	64.739	0.485	94.9	0.0039	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	SW56	14.000	SW57	17.2	1.144	0.939	0.3424	
15 minute summer	SW57	14.001	SW59	47.1	2.260	0.493	0.3297	
15 minute summer	SW58	15.000	SW59	15.1	1.225	0.755	0.4106	
15 minute summer	SW59	14.002	N07	71.7	3.767	0.447	0.3665	
15 minute summer	N07	12.006	N08	158.2	0.486	0.033	29.3389	
15 minute summer	N08	12.007	N09	71.8	2.298	1.790	0.6655	
15 minute summer	N09	12.008	N10	75.9	0.349	0.007	6.7239	
15 minute summer	N10	12.009	N11	78.4	1.279	0.007	0.8033	
15 minute summer	N11	12.010	N12	81.8	0.250	0.006	5.5125	
15 minute summer	N12	12.011	N13	83.9	1.252	0.007	0.9233	
15 minute summer	N13	12.012	N14	85.7	0.246	0.008	4.6789	
30 minute summer	N14	12.013	N15	86.7	1.135	0.008	0.4706	
30 minute summer	N15	12.014	N16	89.8	1.108	0.009	1.5552	
30 minute summer	N16	12.015	N17	92.3	0.228	0.010	7.3098	
30 minute summer	N17	12.016	N18	93.8	0.791	0.009	2.6101	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	N18	20	63.372	0.172	93.8	0.0014	0.0000	OK
15 minute summer	KD9 OD	9	75.622	0.059	26.2	0.0166	0.0000	OK
15 minute summer	SW60	9	68.149	0.087	42.8	0.0245	0.0000	OK
15 minute summer	SW61	9	64.165	0.108	63.3	0.0305	0.0000	OK
15 minute summer	SW62	9	60.258	0.144	84.1	0.0407	0.0000	OK
15 minute summer	SW63	10	58.220	0.815	102.0	0.2306	0.0000	FLOOD RISK
15 minute summer	SW64	10	56.588	0.125	71.1	0.0355	0.0000	OK
15 minute summer	SW65	10	54.513	0.184	72.4	0.0521	0.0000	OK
15 minute summer	EX MH	9	52.500	0.260	360.2	0.0000	0.0000	OK
30 minute summer	EX HW	20	60.046	0.166	93.4	0.0000	0.0000	OK
15 minute summer	HW13	11	53.770	0.169	71.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	N18	12.017	EX HW	93.4	2.914	0.907	2.7350	131.5
15 minute summer	KD9 OD	16.000	SW60	26.2	3.162	0.324	0.3119	
15 minute summer	SW60	16.001	SW61	42.8	2.612	0.317	0.9858	
15 minute summer	SW61	16.002	SW62	63.0	2.758	0.470	1.3681	
15 minute summer	SW62	16.003	SW63	82.9	2.257	0.747	1.9981	
15 minute summer	SW63	16.004	SW64	67.7	1.921	1.167	2.3692	
15 minute summer	SW64	16.005	SW65	70.5	2.422	0.604	1.2290	
15 minute summer	SW65	16.006	HW13	71.9	2.151	0.925	1.0951	35.0

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	EX MH1	7	78.770	1.760	81.2	1.5242	16.9332	FLOOD
15 minute summer	SW2	8	78.590	2.396	77.1	2.0749	3.1594	FLOOD
15 minute summer	SW3	8	77.855	2.138	185.1	1.8515	9.2317	FLOOD
30 minute summer	SW4	18	77.226	1.777	132.4	1.5385	0.0000	SURCHARGED
15 minute summer	SW5	10	76.864	0.769	27.2	0.6664	0.0000	SURCHARGED
30 minute summer	SW6	18	76.728	1.451	143.1	1.2570	0.0000	SURCHARGED
15 minute summer	EX MH2	9	76.810	0.070	8.8	0.0605	0.0000	OK
30 minute summer	SW8	20	76.519	0.151	19.1	0.1305	0.0000	OK
15 minute summer	SW9	11	76.517	0.667	49.4	0.5778	0.0000	SURCHARGED
30 minute summer	SW10	18	76.496	0.962	30.8	0.8331	0.0000	SURCHARGED
30 minute summer	SW11	19	76.395	1.312	158.9	1.1364	0.0000	SURCHARGED
15 minute summer	EX MH3	9	80.270	1.390	65.4	1.2037	1.2355	FLOOD
15 minute summer	EX MH4	10	79.767	1.217	91.9	1.0543	0.0000	FLOOD RISK
15 minute summer	SW14	10	79.070	1.175	84.5	1.0179	0.0000	SURCHARGED
15 minute summer	SW15	10	78.718	0.976	134.5	0.8449	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	EX MH1	1.000	SW2	22.6	1.283	1.325	1.4157	
15 minute summer	SW2	1.001	SW3	51.0	1.282	1.287	2.7350	
15 minute summer	SW3	1.002	SW4	127.1	1.805	1.741	4.3366	
30 minute summer	SW4	1.003	SW6	127.6	1.813	1.750	2.7885	
15 minute summer	SW5	2.000	SW6	22.0	1.728	0.548	0.2325	
30 minute summer	SW6	1.004	SW11	138.2	1.962	1.604	1.3882	
15 minute summer	EX MH2	3.000	SW8	8.4	0.551	0.213	0.9765	
30 minute summer	SW8	3.001	SW9	17.3	0.789	0.436	2.9940	
15 minute summer	SW9	3.002	SW10	22.0	0.677	0.554	2.1369	
30 minute summer	SW10	3.003	SW11	24.9	0.754	0.626	2.0374	
30 minute summer	SW11	1.005	SW18	153.7	1.394	1.269	1.7007	
15 minute summer	EX MH3	4.000	EX MH4	44.8	1.127	1.338	3.1313	
15 minute summer	EX MH4	4.001	SW14	84.5	2.124	1.147	1.3055	
15 minute summer	SW14	4.002	SW15	76.3	1.918	1.891	0.5120	
15 minute summer	SW15	4.003	SW16	119.8	1.739	0.827	6.3377	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	10	77.622	1.402	161.2	1.2144	0.0000	SURCHARGED
15 minute summer	SW17	10	76.739	0.749	145.2	0.6489	0.0000	SURCHARGED
30 minute summer	SW18	19	76.266	1.240	279.5	1.4026	0.0000	SURCHARGED
60 minute winter	SW19	47	75.929	1.029	225.8	1.1635	0.0000	OK
15 minute summer	SW20	8	76.817	1.795	222.7	1.5545	4.1630	FLOOD
30 minute summer	SW21	17	75.966	1.056	169.6	0.9149	0.0000	SURCHARGED
60 minute winter	N01	47	75.929	1.205	265.5	0.0000	0.0000	OK
60 minute winter	SW22	47	75.930	0.728	20.5	0.6305	0.0000	SURCHARGED
60 minute winter	N02	47	75.929	1.244	183.8	0.0000	0.0000	OK
15 minute summer	SW23	9	76.301	0.068	6.4	0.0764	0.0000	OK
15 minute summer	SW24	9	76.152	0.047	6.4	0.0537	0.0000	OK
60 minute winter	SW25	47	75.931	0.431	5.3	0.4874	0.0000	SURCHARGED
60 minute winter	SW26	47	75.930	0.670	8.1	0.7575	0.0000	SURCHARGED
60 minute winter	SW27	47	75.929	1.399	118.0	1.5820	0.0000	SURCHARGED
360 minute winter	SW28	344	74.888	0.418	88.7	0.4730	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	SW16	4.004	SW17	145.2	2.068	1.856	3.2473	
15 minute summer	SW17	4.005	SW18	141.2	2.006	0.666	1.8804	
30 minute summer	SW18	1.006	SW19	277.9	2.520	2.426	2.5318	
60 minute winter	SW19	1.007	N01	180.6	0.303	0.015	98.2601	
15 minute summer	SW20	5.000	SW21	193.3	2.745	2.646	1.8101	
30 minute summer	SW21	5.001	N01	165.6	2.351	2.360	1.0502	
60 minute winter	N01	1.008	N02	164.5	0.282	0.029	110.3432	
60 minute winter	SW22	6.000	N02	19.6	0.772	0.664	0.6328	
60 minute winter	N02	1.009	SW27	103.5	0.233	0.018	104.7588	
15 minute summer	SW23	7.000	SW24	6.4	1.036	0.373	0.0851	
15 minute summer	SW24	7.001	SW26	6.3	1.338	0.208	0.2731	
60 minute winter	SW25	8.000	SW26	5.3	0.835	0.298	0.2899	
60 minute winter	SW26	7.002	SW27	6.4	0.633	0.141	1.3603	
60 minute winter	SW27	1.010	SW28	111.7	2.253	0.972	1.1334	
360 minute winter	SW28	1.011	N03	81.9	0.222	0.024	118.3429	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	N03	344	74.888	0.888	81.9	535.8285	0.0000	FLOOD RISK
15 minute summer	SW29	9	76.057	0.815	36.8	0.7059	0.0000	SURCHARGED
15 minute summer	SW30	9	74.934	0.636	84.6	0.5510	0.0000	SURCHARGED
15 minute summer	SW31	9	74.060	0.472	81.7	0.4091	0.0000	SURCHARGED
60 minute summer	N04	39	73.619	0.469	59.5	22.9370	0.0000	SURCHARGED
60 minute summer	SW32	39	72.502	0.068	27.6	0.0772	0.0000	OK
15 minute summer	SW33	9	73.666	0.131	55.8	0.1132	0.0000	OK
15 minute summer	SW34	9	72.363	0.202	101.4	0.1747	0.0000	OK
15 minute summer	SW35	9	70.389	0.163	101.2	0.1413	0.0000	OK
15 minute summer	SW36	10	68.678	0.736	97.9	0.6377	0.0000	SURCHARGED
15 minute summer	SW37	9	67.959	0.159	157.4	0.2811	0.0000	OK
15 minute summer	SW38	9	64.718	0.168	187.1	0.1905	0.0000	OK
15 minute summer	SW39	9	61.594	0.194	219.4	0.2199	0.0000	OK
15 minute summer	SW40	9	58.668	0.211	258.7	0.2391	0.0000	OK
15 minute summer	SW41	10	73.951	0.386	28.0	0.3347	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	N03	1.012	N04	19.1	0.611	0.041	0.8081	
15 minute summer	SW29	9.000	SW30	31.3	1.815	1.145	0.6491	
15 minute summer	SW30	9.001	SW31	81.7	2.054	1.006	1.1657	
15 minute summer	SW31	9.002	N04	80.7	2.030	1.629	0.3805	
60 minute summer	N04	1.013	SW32	27.6	2.577	0.706	0.1595	
60 minute summer	SW32	1.014	SW37	27.5	2.173	0.115	1.9367	
15 minute summer	SW33	10.000	SW34	55.9	1.855	0.646	1.5367	
15 minute summer	SW34	10.001	SW35	101.2	2.978	0.985	1.7097	
15 minute summer	SW35	10.002	SW36	97.9	2.572	0.798	1.4652	
15 minute summer	SW36	10.003	SW37	95.8	2.410	2.580	0.5127	
15 minute summer	SW37	1.015	SW38	151.2	3.923	0.531	1.9660	
15 minute summer	SW38	1.016	SW39	182.7	4.163	0.583	1.7804	
15 minute summer	SW39	1.017	SW40	214.1	4.275	0.707	2.0278	
15 minute summer	SW40	1.018	SW49	257.1	4.158	0.845	2.6366	
15 minute summer	SW41	11.000	SW42	26.1	1.611	0.712	0.6247	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	9	73.420	1.350	59.7	1.1691	1.1358	FLOOD
15 minute summer	SW43	9	71.591	1.350	69.9	1.1691	1.4416	FLOOD
15 minute summer	SW44	9	68.105	0.128	83.7	0.1113	0.0000	OK
15 minute summer	SW45	9	65.626	0.153	116.5	0.1322	0.0000	OK
15 minute summer	SW46	9	62.826	0.195	146.8	0.1692	0.0000	OK
15 minute summer	SW47	9	59.705	0.189	207.5	0.1639	0.0000	OK
15 minute summer	SW48	10	56.311	0.391	207.4	0.3389	0.0000	SURCHARGED
15 minute summer	SW49	10	55.857	0.646	457.7	0.9248	0.0000	SURCHARGED
15 minute summer	SW50	10	76.087	0.861	13.6	0.7455	0.0000	SURCHARGED
15 minute summer	SW51	10	76.047	0.928	21.7	0.8041	0.0000	SURCHARGED
15 minute summer	SW52	10	75.995	0.749	24.8	0.6484	0.0000	SURCHARGED
15 minute summer	SW53	10	75.833	0.933	55.8	0.8078	0.0000	SURCHARGED
15 minute summer	SW54	9	74.909	0.984	84.1	0.8521	0.0000	SURCHARGED
15 minute summer	SW55	9	74.332	1.425	185.6	1.2341	1.4074	FLOOD
30 minute summer	N06	21	71.840	0.340	158.0	0.0027	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	SW42	11.001	SW43	36.3	2.133	0.929	0.6732	
15 minute summer	SW43	11.002	SW44	51.0	2.895	1.188	0.6700	
15 minute summer	SW44	11.003	SW45	83.8	3.212	0.619	0.9724	
15 minute summer	SW45	11.004	SW46	116.4	3.532	0.804	1.2099	
15 minute summer	SW46	11.005	SW47	149.3	4.073	1.008	1.4486	
15 minute summer	SW47	11.006	SW48	207.4	3.642	0.736	3.1705	
15 minute summer	SW48	11.007	SW49	200.5	3.235	0.818	0.9253	
15 minute summer	SW49	1.019	EX MH	414.9	4.062	0.976	6.7079	359.7
15 minute summer	SW50	12.000	SW51	10.9	0.682	0.702	0.2448	
15 minute summer	SW51	12.001	SW53	22.5	1.281	1.162	0.3232	
15 minute summer	SW52	13.000	SW53	20.5	1.259	0.708	0.2308	
15 minute summer	SW53	12.002	SW54	55.2	3.135	1.064	0.1888	
15 minute summer	SW54	12.003	SW55	83.9	2.324	0.688	0.7435	
15 minute summer	SW55	12.004	N06	162.0	4.073	1.355	0.6889	
30 minute summer	N06	12.005	N07	153.1	0.600	0.031	19.1463	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	74.663	0.207	21.6	0.2345	0.0000	SURCHARGED
15 minute summer	SW57	9	74.278	0.139	57.8	0.1568	0.0000	OK
15 minute summer	SW58	9	74.228	0.122	19.2	0.1380	0.0000	OK
15 minute summer	SW59	9	73.738	0.129	88.6	0.1463	0.0000	OK
30 minute summer	N07	21	71.840	0.598	228.9	0.0048	0.0000	OK
30 minute summer	N08	21	71.841	0.841	142.4	0.0067	0.0000	FLOOD RISK
15 minute summer	N09	9	70.936	0.086	82.4	0.0007	0.0000	OK
15 minute summer	N10	10	70.318	0.468	89.3	0.0037	0.0000	OK
15 minute summer	N11	10	68.936	0.086	90.6	0.0007	0.0000	OK
15 minute summer	N12	10	68.334	0.484	95.4	0.0039	0.0000	OK
15 minute summer	N13	10	66.944	0.094	97.0	0.0008	0.0000	OK
15 minute summer	N14	11	66.693	0.493	98.9	0.0039	0.0000	OK
15 minute summer	N15	11	65.953	0.103	101.0	0.0008	0.0000	OK
30 minute summer	N16	18	64.961	0.111	105.0	0.0009	0.0000	OK
30 minute summer	N17	19	64.766	0.512	109.0	0.0041	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	SW56	14.000	SW57	20.3	1.156	1.109	0.3863	
15 minute summer	SW57	14.001	SW59	57.7	2.343	0.604	0.3894	
15 minute summer	SW58	15.000	SW59	18.9	1.262	0.942	0.4972	
15 minute summer	SW59	14.002	N07	88.2	3.942	0.550	0.4310	
30 minute summer	N07	12.006	N08	142.4	0.437	0.030	38.5439	
30 minute summer	N08	12.007	N09	76.7	2.433	1.914	0.6742	
15 minute summer	N09	12.008	N10	81.3	0.349	0.007	7.1645	
15 minute summer	N10	12.009	N11	85.8	1.306	0.007	0.8605	
15 minute summer	N11	12.010	N12	90.7	0.270	0.007	5.9529	
15 minute summer	N12	12.011	N13	93.2	1.284	0.008	1.0009	
15 minute summer	N13	12.012	N14	96.5	0.245	0.009	5.1084	
15 minute summer	N14	12.013	N15	97.7	1.173	0.009	0.5132	
15 minute summer	N15	12.014	N16	101.4	1.147	0.010	1.6963	
30 minute summer	N16	12.015	N17	104.5	0.236	0.012	8.0519	
30 minute summer	N17	12.016	N18	107.7	0.801	0.011	2.9901	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	N18	20	63.391	0.191	107.7	0.0015	0.0000	OK
15 minute summer	KD9 OD	9	75.629	0.066	32.8	0.0188	0.0000	OK
15 minute summer	SW60	9	68.160	0.098	53.6	0.0277	0.0000	OK
15 minute summer	SW61	9	64.180	0.123	79.2	0.0349	0.0000	OK
15 minute summer	SW62	9	60.299	0.185	105.3	0.0524	0.0000	OK
15 minute summer	SW63	9	58.230	0.825	122.5	0.2335	5.4004	FLOOD
15 minute summer	SW64	10	56.591	0.128	75.2	0.0363	0.0000	OK
15 minute summer	SW65	10	54.527	0.198	76.7	0.0561	0.0000	OK
15 minute summer	EX MH	9	52.532	0.292	414.9	0.0000	0.0000	OK
15 minute winter	EX HW	13	60.108	0.228	104.9	0.0000	0.0000	OK
15 minute summer	HW13	10	53.814	0.213	77.0	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)	Discharge Vol (m³)
30 minute summer	N18	12.017	EX HW	106.7	2.922	1.036	3.2292	164.4
15 minute summer	KD9 OD	16.000	SW60	32.8	3.379	0.406	0.3636	
15 minute summer	SW60	16.001	SW61	53.6	2.771	0.397	1.1657	
15 minute summer	SW61	16.002	SW62	78.9	2.871	0.589	1.7174	
15 minute summer	SW62	16.003	SW63	98.5	2.509	0.887	2.2432	
15 minute summer	SW63	16.004	SW64	68.3	1.980	1.178	2.3937	
15 minute summer	SW64	16.005	SW65	73.2	2.435	0.627	1.2911	
15 minute summer	SW65	16.006	HW13	77.0	2.151	0.992	1.2463	39.8

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	EX MH1	14	78.770	1.760	85.2	1.5242	19.1596	FLOOD
15 minute summer	SW2	8	78.590	2.396	79.2	2.0749	3.3783	FLOOD
15 minute summer	SW3	8	77.855	2.138	190.6	1.8515	10.6972	FLOOD
30 minute summer	SW4	18	77.263	1.814	137.7	1.5713	0.0000	SURCHARGED
15 minute summer	SW5	10	76.927	0.832	28.3	0.7204	0.0000	SURCHARGED
30 minute summer	SW6	18	76.785	1.508	142.4	1.3063	0.0000	SURCHARGED
15 minute summer	EX MH2	9	76.812	0.072	9.2	0.0620	0.0000	OK
30 minute summer	SW8	20	76.561	0.193	19.9	0.1674	0.0000	OK
30 minute summer	SW9	18	76.561	0.711	40.1	0.6154	0.0000	SURCHARGED
30 minute summer	SW10	18	76.530	0.996	35.0	0.8625	0.0000	SURCHARGED
30 minute summer	SW11	18	76.442	1.359	159.8	1.1772	0.0000	SURCHARGED
15 minute summer	EX MH3	9	80.270	1.390	68.2	1.2037	1.8429	FLOOD
15 minute summer	EX MH4	10	79.838	1.288	90.5	1.1157	0.0000	FLOOD RISK
15 minute summer	SW14	10	79.172	1.277	81.5	1.1059	0.0000	SURCHARGED
15 minute summer	SW15	10	78.833	1.091	137.7	0.9446	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	EX MH1	1.000	SW2	23.8	1.350	1.395	1.4157	
15 minute summer	SW2	1.001	SW3	51.0	1.282	1.287	2.7350	
15 minute summer	SW3	1.002	SW4	123.6	1.755	1.693	4.3366	
30 minute summer	SW4	1.003	SW6	126.5	1.797	1.735	2.7885	
15 minute summer	SW5	2.000	SW6	22.9	1.733	0.568	0.2325	
30 minute summer	SW6	1.004	SW11	138.2	1.963	1.605	1.3882	
15 minute summer	EX MH2	3.000	SW8	8.8	0.557	0.222	1.1632	
30 minute summer	SW8	3.001	SW9	18.1	0.799	0.456	3.3484	
30 minute summer	SW9	3.002	SW10	21.3	0.716	0.535	2.1369	
30 minute summer	SW10	3.003	SW11	25.1	0.746	0.631	2.0374	
30 minute summer	SW11	1.005	SW18	156.1	1.415	1.289	1.7007	
15 minute summer	EX MH3	4.000	EX MH4	41.5	1.044	1.240	3.1313	
15 minute summer	EX MH4	4.001	SW14	81.5	2.051	1.108	1.3055	
15 minute summer	SW14	4.002	SW15	76.5	1.924	1.896	0.5120	
15 minute summer	SW15	4.003	SW16	123.0	1.769	0.850	6.3377	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	10	77.725	1.505	166.2	1.3032	0.0000	FLOOD RISK
15 minute summer	SW17	10	76.810	0.820	147.6	0.7102	0.0000	SURCHARGED
30 minute summer	SW18	19	76.313	1.287	287.4	1.4556	0.0000	SURCHARGED
60 minute winter	SW19	47	75.981	1.081	232.8	1.2222	0.0000	OK
15 minute summer	SW20	8	76.817	1.795	232.1	1.5545	5.5012	FLOOD
30 minute summer	SW21	17	76.038	1.128	176.4	0.9766	0.0000	SURCHARGED
60 minute winter	N01	47	75.981	1.257	273.2	0.0000	0.0000	OK
60 minute winter	SW22	48	75.982	0.780	21.7	0.6757	0.0000	SURCHARGED
60 minute winter	N02	47	75.981	1.296	188.1	0.0000	0.0000	OK
15 minute summer	SW23	9	76.302	0.069	6.7	0.0784	0.0000	OK
15 minute summer	SW24	9	76.154	0.049	6.7	0.0550	0.0000	OK
60 minute winter	SW25	47	75.983	0.483	5.6	0.5459	0.0000	SURCHARGED
60 minute winter	SW26	47	75.981	0.721	8.5	0.8160	0.0000	SURCHARGED
60 minute winter	SW27	47	75.981	1.451	119.9	1.6407	0.0000	SURCHARGED
360 minute winter	SW28	344	74.941	0.471	91.9	0.5325	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	SW16	4.004	SW17	147.6	2.096	1.887	3.2473	
15 minute summer	SW17	4.005	SW18	144.6	2.054	0.682	1.8804	
30 minute summer	SW18	1.006	SW19	286.3	2.596	2.500	2.5318	
60 minute winter	SW19	1.007	N01	184.2	0.308	0.016	106.4648	
15 minute summer	SW20	5.000	SW21	191.2	2.715	2.617	1.8101	
30 minute summer	SW21	5.001	N01	173.5	2.464	2.473	1.0502	
60 minute winter	N01	1.008	N02	167.5	0.285	0.030	118.8607	
60 minute winter	SW22	6.000	N02	20.8	0.785	0.705	0.6328	
60 minute winter	N02	1.009	SW27	106.2	0.235	0.019	112.6342	
15 minute summer	SW23	7.000	SW24	6.7	1.048	0.390	0.0880	
15 minute summer	SW24	7.001	SW26	6.6	1.355	0.218	0.2906	
60 minute winter	SW25	8.000	SW26	5.6	0.835	0.313	0.2899	
60 minute winter	SW26	7.002	SW27	7.1	0.622	0.157	1.3603	
60 minute winter	SW27	1.010	SW28	114.1	2.262	0.993	1.2417	
360 minute winter	SW28	1.011	N03	83.9	0.228	0.024	118.3429	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	N03	344	74.941	0.941	83.9	580.1406	0.0000	FLOOD RISK
15 minute summer	SW29	9	76.189	0.947	38.2	0.8197	0.0000	SURCHARGED
15 minute summer	SW30	9	75.015	0.717	87.6	0.6212	0.0000	SURCHARGED
15 minute summer	SW31	9	74.083	0.495	84.4	0.4287	0.0000	SURCHARGED
60 minute summer	N04	39	73.636	0.486	62.2	24.4909	0.0000	SURCHARGED
60 minute summer	SW32	40	72.503	0.069	28.2	0.0782	0.0000	OK
15 minute summer	SW33	9	73.669	0.134	58.2	0.1163	0.0000	OK
15 minute summer	SW34	9	72.385	0.224	105.7	0.1940	0.0000	OK
15 minute summer	SW35	9	70.394	0.168	101.0	0.1452	0.0000	OK
15 minute summer	SW36	10	68.713	0.771	99.8	0.6677	0.0000	SURCHARGED
15 minute summer	SW37	9	67.962	0.162	162.4	0.2871	0.0000	OK
15 minute summer	SW38	9	64.722	0.172	193.8	0.1949	0.0000	OK
15 minute summer	SW39	9	61.600	0.200	227.8	0.2265	0.0000	OK
15 minute summer	SW40	9	58.675	0.218	269.0	0.2461	0.0000	OK
15 minute summer	SW41	10	74.022	0.457	29.1	0.3954	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	N03	1.012	N04	19.7	0.593	0.042	0.8362	
15 minute summer	SW29	9.000	SW30	32.3	1.834	1.179	0.6491	
15 minute summer	SW30	9.001	SW31	84.4	2.121	1.039	1.1657	
15 minute summer	SW31	9.002	N04	83.3	2.095	1.681	0.3805	
60 minute summer	N04	1.013	SW32	28.2	2.587	0.723	0.1626	
60 minute summer	SW32	1.014	SW37	28.2	2.197	0.118	1.9971	
15 minute summer	SW33	10.000	SW34	58.3	1.866	0.674	1.6107	
15 minute summer	SW34	10.001	SW35	101.0	2.986	0.983	1.7865	
15 minute summer	SW35	10.002	SW36	99.8	2.602	0.814	1.4839	
15 minute summer	SW36	10.003	SW37	98.0	2.464	2.638	0.5127	
15 minute summer	SW37	1.015	SW38	155.6	3.927	0.546	2.0201	
15 minute summer	SW38	1.016	SW39	189.6	4.194	0.605	1.8367	
15 minute summer	SW39	1.017	SW40	222.5	4.248	0.734	2.0940	
15 minute summer	SW40	1.018	SW49	261.6	4.162	0.859	2.6721	
15 minute summer	SW41	11.000	SW42	26.4	1.611	0.720	0.6247	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	9	73.420	1.350	61.4	1.1691	1.4601	FLOOD
15 minute summer	SW43	9	71.591	1.350	71.3	1.1691	1.5773	FLOOD
15 minute summer	SW44	9	68.107	0.130	85.0	0.1122	0.0000	OK
15 minute summer	SW45	9	65.628	0.155	119.1	0.1344	0.0000	OK
15 minute summer	SW46	9	62.833	0.202	150.7	0.1750	0.0000	OK
15 minute summer	SW47	9	59.708	0.192	211.5	0.1661	0.0000	OK
15 minute summer	SW48	10	56.471	0.551	211.6	0.4774	0.0000	SURCHARGED
15 minute summer	SW49	10	55.984	0.773	442.5	1.1064	0.0000	SURCHARGED
15 minute summer	SW50	10	76.192	0.966	14.2	0.8362	0.0000	SURCHARGED
15 minute summer	SW51	10	76.151	1.032	20.6	0.8935	0.0000	SURCHARGED
15 minute summer	SW52	10	76.100	0.854	25.8	0.7395	0.0000	SURCHARGED
15 minute summer	SW53	10	75.931	1.031	53.7	0.8931	0.0000	SURCHARGED
15 minute summer	SW54	9	74.946	1.021	84.7	0.8840	0.0000	SURCHARGED
15 minute summer	SW55	9	74.332	1.425	192.4	1.2341	1.8269	FLOOD
30 minute summer	N06	21	71.861	0.361	163.1	0.0029	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	SW42	11.001	SW43	36.3	2.138	0.929	0.6732	
15 minute summer	SW43	11.002	SW44	51.0	2.895	1.188	0.6695	
15 minute summer	SW44	11.003	SW45	85.0	3.212	0.628	0.9869	
15 minute summer	SW45	11.004	SW46	119.2	3.533	0.823	1.2379	
15 minute summer	SW46	11.005	SW47	150.8	4.082	1.018	1.4670	
15 minute summer	SW47	11.006	SW48	211.6	3.646	0.751	3.3330	
15 minute summer	SW48	11.007	SW49	181.0	3.222	0.738	0.9253	
15 minute summer	SW49	1.019	EX MH	427.7	4.089	1.006	7.3094	366.8
15 minute summer	SW50	12.000	SW51	11.1	0.689	0.712	0.2448	
15 minute summer	SW51	12.001	SW53	22.6	1.284	1.165	0.3232	
15 minute summer	SW52	13.000	SW53	18.5	1.267	0.637	0.2308	
15 minute summer	SW53	12.002	SW54	57.0	3.238	1.099	0.1888	
15 minute summer	SW54	12.003	SW55	83.5	2.204	0.685	0.7435	
15 minute summer	SW55	12.004	N06	162.0	4.073	1.355	0.6870	
30 minute summer	N06	12.005	N07	158.1	0.607	0.032	20.8304	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	74.691	0.235	22.5	0.2654	0.0000	SURCHARGED
15 minute summer	SW57	9	74.281	0.142	60.1	0.1611	0.0000	OK
15 minute summer	SW58	9	74.233	0.127	20.0	0.1439	0.0000	OK
15 minute summer	SW59	9	73.742	0.133	92.1	0.1502	0.0000	OK
30 minute summer	N07	21	71.867	0.625	237.7	0.0050	0.0000	OK
30 minute summer	N08	21	71.868	0.868	130.7	0.0069	0.0000	FLOOD RISK
15 minute summer	N09	9	70.937	0.087	83.6	0.0007	0.0000	OK
15 minute summer	N10	10	70.321	0.471	90.9	0.0038	0.0000	OK
15 minute summer	N11	10	68.937	0.087	92.2	0.0007	0.0000	OK
15 minute summer	N12	10	68.338	0.488	97.3	0.0039	0.0000	OK
15 minute summer	N13	10	66.946	0.096	99.2	0.0008	0.0000	OK
15 minute summer	N14	11	66.697	0.497	101.3	0.0040	0.0000	OK
30 minute summer	N15	18	65.955	0.105	104.2	0.0008	0.0000	OK
30 minute summer	N16	18	64.963	0.113	108.2	0.0009	0.0000	OK
30 minute summer	N17	19	64.773	0.519	112.6	0.0042	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	SW56	14.000	SW57	21.0	1.197	1.152	0.3887	
15 minute summer	SW57	14.001	SW59	60.0	2.359	0.628	0.4021	
15 minute summer	SW58	15.000	SW59	19.6	1.259	0.981	0.5319	
15 minute summer	SW59	14.002	N07	91.8	3.974	0.572	0.4446	
30 minute summer	N07	12.006	N08	130.7	0.445	0.027	41.1521	
30 minute summer	N08	12.007	N09	78.0	2.466	1.945	0.6762	
15 minute summer	N09	12.008	N10	82.6	0.350	0.007	7.2421	
15 minute summer	N10	12.009	N11	87.3	1.311	0.007	0.8709	
15 minute summer	N11	12.010	N12	92.4	0.277	0.007	6.0459	
15 minute summer	N12	12.011	N13	95.3	1.290	0.008	1.0175	
15 minute summer	N13	12.012	N14	98.8	0.246	0.009	5.1852	
15 minute summer	N14	12.013	N15	99.8	1.180	0.010	0.5215	
30 minute summer	N15	12.014	N16	103.9	1.153	0.010	1.7327	
30 minute summer	N16	12.015	N17	107.9	0.238	0.012	8.2315	
30 minute summer	N17	12.016	N18	111.2	0.800	0.011	3.1916	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	N18	20	63.402	0.202	111.2	0.0016	0.0000	OK
15 minute summer	KD9 OD	9	75.631	0.068	34.0	0.0192	0.0000	OK
15 minute summer	SW60	9	68.162	0.100	55.8	0.0284	0.0000	OK
15 minute summer	SW61	9	64.183	0.126	82.3	0.0358	0.0000	OK
15 minute summer	SW62	10	60.327	0.213	109.6	0.0603	0.0000	OK
15 minute summer	SW63	9	58.230	0.825	126.6	0.2335	5.9293	FLOOD
15 minute summer	SW64	9	56.592	0.129	75.7	0.0366	0.0000	OK
15 minute summer	SW65	10	54.530	0.201	78.2	0.0569	0.0000	OK
15 minute summer	EX MH	10	52.619	0.379	427.7	0.0000	0.0000	OK
15 minute winter	EX HW	14	60.108	0.228	106.3	0.0000	0.0000	OK
15 minute summer	HW13	10	53.814	0.213	77.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	N18	12.017	EX HW	108.9	2.923	1.057	3.2959	172.8
15 minute summer	KD9 OD	16.000	SW60	34.1	3.418	0.422	0.3735	
15 minute summer	SW60	16.001	SW61	55.8	2.801	0.413	1.2013	
15 minute summer	SW61	16.002	SW62	82.1	2.897	0.613	1.8056	
15 minute summer	SW62	16.003	SW63	101.6	2.558	0.916	2.3625	
15 minute summer	SW63	16.004	SW64	68.3	1.983	1.178	2.4019	
15 minute summer	SW64	16.005	SW65	74.0	2.428	0.634	1.3008	
15 minute summer	SW65	16.006	HW13	77.5	2.151	0.998	1.2532	40.7

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	EX MH1	13	78.770	1.760	74.8	1.5242	27.1479	FLOOD
15 minute summer	SW2	8	78.590	2.396	95.4	2.0749	5.8448	FLOOD
15 minute summer	SW3	8	77.855	2.138	225.7	1.8515	18.5281	FLOOD
30 minute summer	SW4	17	77.384	1.935	132.4	1.6760	0.0000	FLOOD RISK
15 minute summer	SW5	9	77.297	1.202	35.4	1.0410	0.0000	FLOOD RISK
30 minute summer	SW6	18	76.956	1.679	145.4	1.4536	0.0000	SURCHARGED
30 minute summer	EX MH2	20	76.885	0.145	10.3	0.1256	0.0000	OK
30 minute summer	SW8	20	76.870	0.502	31.6	0.4345	0.0000	SURCHARGED
30 minute summer	SW9	19	76.838	0.988	46.1	0.8558	0.0000	SURCHARGED
30 minute summer	SW10	19	76.802	1.268	29.7	1.0977	0.0000	SURCHARGED
30 minute summer	SW11	19	76.654	1.571	159.4	1.3603	0.0000	SURCHARGED
15 minute summer	EX MH3	8	80.270	1.390	85.3	1.2037	6.0924	FLOOD
15 minute summer	EX MH4	9	79.850	1.300	108.5	1.1258	3.5247	FLOOD
15 minute summer	SW14	9	79.474	1.579	86.0	1.3675	0.0000	FLOOD RISK
15 minute summer	SW15	9	79.340	1.598	167.4	1.3839	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	EX MH1	1.000	SW2	23.5	1.335	1.380	1.4157	
15 minute summer	SW2	1.001	SW3	51.0	1.282	1.287	2.7350	
15 minute summer	SW3	1.002	SW4	114.8	1.631	1.573	4.3366	
30 minute summer	SW4	1.003	SW6	128.6	1.826	1.763	2.7885	
15 minute summer	SW5	2.000	SW6	29.1	1.665	0.723	0.2325	
30 minute summer	SW6	1.004	SW11	139.2	1.977	1.617	1.3882	
30 minute summer	EX MH2	3.000	SW8	8.5	0.549	0.213	2.1152	
30 minute summer	SW8	3.001	SW9	20.7	0.788	0.522	3.5006	
30 minute summer	SW9	3.002	SW10	19.5	0.701	0.490	2.1369	
30 minute summer	SW10	3.003	SW11	27.0	0.727	0.680	2.0374	
30 minute summer	SW11	1.005	SW18	156.9	1.423	1.296	1.7007	
15 minute summer	EX MH3	4.000	EX MH4	47.1	1.186	1.408	3.1313	
15 minute summer	EX MH4	4.001	SW14	86.0	2.161	1.167	1.3055	
15 minute summer	SW14	4.002	SW15	79.0	1.985	1.957	0.5120	
15 minute summer	SW15	4.003	SW16	126.0	1.789	0.870	6.3377	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	9	78.000	1.780	180.0	1.5415	1.4912	FLOOD
30 minute summer	SW17	18	77.063	1.073	148.3	0.9292	0.0000	SURCHARGED
30 minute summer	SW18	19	76.518	1.492	313.2	1.6871	0.0000	SURCHARGED
60 minute summer	SW19	42	76.138	1.238	334.3	1.3999	0.0000	OK
15 minute summer	SW20	8	76.817	1.795	290.1	1.5545	13.3719	FLOOD
30 minute summer	SW21	18	76.185	1.275	176.6	1.1039	0.0000	SURCHARGED
60 minute summer	N01	43	76.137	1.413	406.8	0.0000	0.0000	OK
60 minute winter	SW22	41	76.146	0.944	27.1	0.8173	0.0000	SURCHARGED
60 minute winter	N02	42	76.135	1.450	216.1	0.0000	22.7239	FLOOD
15 minute summer	SW23	9	76.312	0.079	8.3	0.0888	0.0000	OK
15 minute summer	SW24	9	76.159	0.054	8.3	0.0608	0.0000	OK
60 minute winter	SW25	43	76.145	0.645	7.1	0.7290	0.0000	SURCHARGED
60 minute winter	SW26	43	76.139	0.879	9.6	0.9947	0.0000	SURCHARGED
60 minute summer	SW27	40	76.135	1.605	136.8	1.8153	0.0000	FLOOD RISK
240 minute winter	SW28	220	75.000	0.530	116.0	0.5997	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	SW16	4.004	SW17	157.2	2.232	2.010	3.2473	
30 minute summer	SW17	4.005	SW18	146.8	2.085	0.693	1.8804	
30 minute summer	SW18	1.006	SW19	310.6	2.816	2.711	2.5318	
60 minute summer	SW19	1.007	N01	245.1	0.313	0.021	133.1829	
15 minute summer	SW20	5.000	SW21	186.6	2.651	2.555	1.8101	
30 minute summer	SW21	5.001	N01	176.1	2.502	2.511	1.0502	
60 minute summer	N01	1.008	N02	220.9	0.290	0.039	145.4670	
60 minute winter	SW22	6.000	N02	26.1	0.763	0.884	0.6328	
60 minute winter	N02	1.009	SW27	115.5	0.233	0.020	134.0851	
15 minute summer	SW23	7.000	SW24	8.3	1.110	0.483	0.1023	
15 minute summer	SW24	7.001	SW26	8.3	1.320	0.275	0.2991	
60 minute winter	SW25	8.000	SW26	6.3	0.846	0.356	0.2899	
60 minute winter	SW26	7.002	SW27	7.7	0.604	0.169	1.3603	
60 minute summer	SW27	1.010	SW28	120.9	2.288	1.052	1.6513	
240 minute winter	SW28	1.011	N03	106.7	0.293	0.031	118.3429	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	N03	336	75.000	1.000	86.0	631.3735	166.3746	FLOOD
15 minute summer	SW29	9	76.592	1.350	47.9	1.1691	1.1471	FLOOD
15 minute summer	SW30	9	75.501	1.203	101.5	1.0420	0.0000	FLOOD RISK
15 minute summer	SW31	9	74.223	0.635	99.0	0.5501	0.0000	SURCHARGED
60 minute summer	N04	39	73.711	0.561	76.2	31.8398	0.0000	SURCHARGED
60 minute summer	SW32	40	72.506	0.072	31.0	0.0820	0.0000	OK
15 minute summer	SW33	9	73.715	0.180	72.8	0.1558	0.0000	OK
15 minute summer	SW34	10	72.842	0.681	129.2	0.5900	0.0000	SURCHARGED
15 minute summer	SW35	10	70.475	0.249	108.8	0.2158	0.0000	SURCHARGED
15 minute summer	SW36	10	68.777	0.835	101.4	0.7231	0.0000	SURCHARGED
15 minute summer	SW37	9	67.974	0.174	179.8	0.3078	0.0000	OK
15 minute summer	SW38	9	64.741	0.191	223.5	0.2157	0.0000	OK
15 minute summer	SW39	10	61.648	0.248	269.4	0.2806	0.0000	OK
15 minute summer	SW40	10	59.738	1.281	315.7	1.4493	0.0000	FLOOD RISK
15 minute summer	SW41	9	74.506	0.941	36.4	0.8152	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
480 minute winter	N03	1.012	N04	20.3	0.657	0.044	0.8963	
15 minute summer	SW29	9.000	SW30	33.0	1.874	1.205	0.6491	
15 minute summer	SW30	9.001	SW31	99.0	2.490	1.220	1.1657	
15 minute summer	SW31	9.002	N04	98.0	2.464	1.977	0.3805	
60 minute summer	N04	1.013	SW32	31.0	2.617	0.794	0.1755	
60 minute summer	SW32	1.014	SW37	31.0	2.291	0.130	2.2630	
15 minute summer	SW33	10.000	SW34	70.0	1.841	0.809	1.8451	
15 minute summer	SW34	10.001	SW35	108.8	2.844	1.059	1.9886	
15 minute summer	SW35	10.002	SW36	101.4	2.619	0.827	1.6507	
15 minute summer	SW36	10.003	SW37	103.7	2.607	2.792	0.5127	
15 minute summer	SW37	1.015	SW38	175.6	4.053	0.617	2.2412	
15 minute summer	SW38	1.016	SW39	221.5	4.216	0.707	2.0953	
15 minute summer	SW39	1.017	SW40	257.5	4.106	0.850	2.6547	
15 minute summer	SW40	1.018	SW49	278.1	4.163	0.914	3.0069	
15 minute summer	SW41	11.000	SW42	28.7	1.629	0.782	0.6247	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	9	73.420	1.350	72.3	1.1691	3.2520	FLOOD
15 minute summer	SW43	8	71.591	1.350	80.0	1.1691	3.9729	FLOOD
15 minute summer	SW44	8	68.114	0.137	93.6	0.1189	0.0000	OK
15 minute summer	SW45	9	65.666	0.193	136.3	0.1669	0.0000	OK
15 minute summer	SW46	10	63.508	0.877	171.4	0.7591	0.0000	SURCHARGED
15 minute summer	SW47	9	59.718	0.202	226.2	0.1750	0.0000	OK
15 minute summer	SW48	10	57.152	1.232	221.4	1.0669	0.0000	FLOOD RISK
15 minute summer	SW49	10	56.561	1.350	468.4	1.9313	0.0000	SURCHARGED
15 minute summer	SW50	10	76.576	1.350	17.7	1.1691	0.5727	FLOOD
15 minute summer	SW51	10	76.538	1.419	24.3	1.2287	0.0000	SURCHARGED
15 minute summer	SW52	10	76.697	1.451	32.3	1.2566	0.0000	FLOOD RISK
15 minute summer	SW53	10	76.413	1.513	59.6	1.3103	0.0000	FLOOD RISK
15 minute summer	SW54	9	75.197	1.272	101.3	1.1018	0.0000	SURCHARGED
15 minute summer	SW55	8	74.332	1.425	235.5	1.2341	8.3927	FLOOD
30 minute summer	N06	22	71.976	0.476	177.0	0.0038	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	SW42	11.001	SW43	38.4	2.192	0.983	0.6732	
15 minute summer	SW43	11.002	SW44	51.0	2.895	1.188	0.6701	
15 minute summer	SW44	11.003	SW45	93.7	3.196	0.692	1.1471	
15 minute summer	SW45	11.004	SW46	131.9	3.539	0.910	1.4078	
15 minute summer	SW46	11.005	SW47	153.6	3.883	1.037	1.5080	
15 minute summer	SW47	11.006	SW48	221.4	3.741	0.786	3.4155	
15 minute summer	SW48	11.007	SW49	200.6	3.142	0.818	0.9253	
15 minute summer	SW49	1.019	EX MH	465.0	4.216	1.094	7.3095	425.6
15 minute summer	SW50	12.000	SW51	12.7	0.721	0.817	0.2448	
15 minute summer	SW51	12.001	SW53	25.5	1.451	1.316	0.3232	
15 minute summer	SW52	13.000	SW53	23.0	1.305	0.793	0.2308	
15 minute summer	SW53	12.002	SW54	58.2	3.308	1.123	0.1888	
15 minute summer	SW54	12.003	SW55	98.3	2.471	0.806	0.7435	
15 minute summer	SW55	12.004	N06	162.0	4.073	1.355	0.6900	
30 minute summer	N06	12.005	N07	157.2	0.588	0.032	29.4853	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	74.904	0.448	28.1	0.5063	0.0000	SURCHARGED
15 minute summer	SW57	9	74.308	0.169	74.6	0.1907	0.0000	OK
15 minute summer	SW58	9	74.365	0.259	25.0	0.2928	0.0000	SURCHARGED
15 minute summer	SW59	9	73.762	0.153	112.1	0.1729	0.0000	OK
30 minute summer	N07	22	71.978	0.736	240.0	0.0059	0.0000	OK
30 minute summer	N08	22	71.978	0.978	137.0	0.0078	0.0000	FLOOD RISK
15 minute summer	N09	9	70.941	0.091	90.8	0.0007	0.0000	OK
15 minute summer	N10	10	70.338	0.488	100.4	0.0039	0.0000	OK
15 minute summer	N11	10	68.941	0.091	101.7	0.0007	0.0000	OK
15 minute summer	N12	10	68.363	0.513	110.1	0.0041	0.0000	OK
15 minute summer	N13	10	66.953	0.103	113.2	0.0008	0.0000	OK
15 minute summer	N14	11	66.722	0.522	116.3	0.0042	0.0000	OK
15 minute summer	N15	10	65.963	0.113	120.2	0.0009	0.0000	OK
15 minute summer	N16	10	64.971	0.121	125.7	0.0010	0.0000	OK
30 minute summer	N17	19	64.803	0.549	130.4	0.0044	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	SW56	14.000	SW57	25.7	1.461	1.408	0.3964	
15 minute summer	SW57	14.001	SW59	74.3	2.450	0.778	0.4792	
15 minute summer	SW58	15.000	SW59	22.2	1.263	1.110	0.5695	
15 minute summer	SW59	14.002	N07	111.5	4.123	0.695	0.5203	
30 minute summer	N07	12.006	N08	137.0	0.487	0.028	52.7240	
30 minute summer	N08	12.007	N09	82.9	2.599	2.067	0.6852	
15 minute summer	N09	12.008	N10	90.0	0.338	0.008	7.7018	
15 minute summer	N10	12.009	N11	95.6	1.340	0.008	0.9334	
15 minute summer	N11	12.010	N12	102.4	0.278	0.008	6.5978	
15 minute summer	N12	12.011	N13	108.3	1.333	0.009	1.1186	
15 minute summer	N13	12.012	N14	113.2	0.255	0.010	5.6577	
15 minute summer	N14	12.013	N15	113.0	1.219	0.011	0.5729	
15 minute summer	N15	12.014	N16	119.6	1.195	0.012	1.9193	
15 minute summer	N16	12.015	N17	124.5	0.271	0.014	9.0598	
30 minute summer	N17	12.016	N18	128.3	0.808	0.013	9.6678	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	N18	23	63.659	0.459	128.3	0.0037	0.0000	SURCHARGED
15 minute summer	KD9 OD	9	75.640	0.077	42.7	0.0219	0.0000	OK
15 minute summer	SW60	9	68.176	0.114	69.8	0.0323	0.0000	OK
15 minute summer	SW61	9	64.204	0.147	103.1	0.0415	0.0000	OK
15 minute summer	SW62	10	61.120	1.006	137.2	0.2848	0.0000	FLOOD RISK
15 minute summer	SW63	9	58.230	0.825	133.4	0.2335	9.8249	FLOOD
15 minute summer	SW64	9	56.596	0.133	78.0	0.0377	0.0000	OK
15 minute summer	SW65	10	54.638	0.309	82.9	0.0874	0.0000	SURCHARGED
15 minute summer	EX MH	9	52.620	0.380	465.0	0.0000	0.0000	OK
120 minute summer	EX HW	66	60.108	0.228	103.4	0.0000	0.0000	OK
15 minute winter	HW13	10	53.815	0.214	78.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	N18	12.017	EX HW	107.6	2.886	1.044	3.3924	213.1
15 minute summer	KD9 OD	16.000	SW60	42.7	3.657	0.528	0.4340	
15 minute summer	SW60	16.001	SW61	69.8	2.960	0.517	1.4270	
15 minute summer	SW61	16.002	SW62	102.8	2.964	0.767	2.0148	
15 minute summer	SW62	16.003	SW63	107.9	2.713	0.972	2.3873	
15 minute summer	SW63	16.004	SW64	68.6	1.958	1.183	2.4361	
15 minute summer	SW64	16.005	SW65	77.7	2.416	0.666	1.3716	
15 minute summer	SW65	16.006	HW13	77.8	2.176	1.002	1.2912	46.6

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	EX MH1	12	78.770	1.760	83.8	1.5242	33.9870	FLOOD
15 minute summer	SW2	8	78.590	2.396	105.8	2.0749	7.4650	FLOOD
30 minute summer	SW3	14	77.855	2.138	207.5	1.8515	24.8819	FLOOD
30 minute summer	SW4	17	77.451	2.002	140.1	1.7335	0.0000	FLOOD RISK
15 minute summer	SW5	9	77.520	1.425	39.6	1.2341	0.4203	FLOOD
30 minute summer	SW6	18	77.055	1.778	144.2	1.5394	0.0000	SURCHARGED
30 minute summer	EX MH2	19	77.148	0.408	23.4	0.3533	0.0000	SURCHARGED
30 minute summer	SW8	19	77.129	0.761	39.4	0.6595	0.0000	SURCHARGED
30 minute summer	SW9	19	77.067	1.217	50.7	1.0537	0.0000	SURCHARGED
30 minute summer	SW10	18	76.929	1.395	41.6	1.2080	0.0000	SURCHARGED
60 minute summer	SW11	36	76.758	1.675	156.9	1.4508	0.0000	SURCHARGED
15 minute summer	EX MH3	8	80.270	1.390	95.5	1.2037	8.0400	FLOOD
15 minute summer	EX MH4	8	79.850	1.300	110.0	1.1258	6.4599	FLOOD
15 minute summer	SW14	9	79.620	1.725	89.5	1.4939	0.2135	FLOOD
15 minute summer	SW15	9	79.536	1.794	155.6	1.5536	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	EX MH1	1.000	SW2	22.7	1.292	1.336	1.4157	
15 minute summer	SW2	1.001	SW3	51.0	1.282	1.287	2.7350	
30 minute summer	SW3	1.002	SW4	126.3	1.794	1.730	4.3366	
30 minute summer	SW4	1.003	SW6	129.1	1.834	1.770	2.7885	
15 minute summer	SW5	2.000	SW6	32.5	1.847	0.809	0.2325	
30 minute summer	SW6	1.004	SW11	140.0	1.988	1.625	1.3882	
30 minute summer	EX MH2	3.000	SW8	-16.8	0.545	-0.423	2.5175	
30 minute summer	SW8	3.001	SW9	18.0	0.800	0.453	3.5006	
30 minute summer	SW9	3.002	SW10	21.0	0.722	0.529	2.1369	
30 minute summer	SW10	3.003	SW11	30.6	0.769	0.770	2.0374	
60 minute summer	SW11	1.005	SW18	154.3	1.399	1.274	1.7007	
15 minute summer	EX MH3	4.000	EX MH4	41.2	1.037	1.232	3.1313	
15 minute summer	EX MH4	4.001	SW14	89.5	2.250	1.215	1.3055	
15 minute summer	SW14	4.002	SW15	72.5	1.824	1.798	0.5120	
15 minute summer	SW15	4.003	SW16	136.5	1.939	0.943	6.3377	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW16	9	78.000	1.780	197.0	1.5415	3.4365	FLOOD
30 minute summer	SW17	18	77.124	1.134	152.8	0.9824	0.0000	SURCHARGED
60 minute summer	SW18	36	76.640	1.614	287.3	1.8260	0.0000	SURCHARGED
60 minute summer	SW19	37	76.144	1.244	354.4	1.4069	0.0000	OK
15 minute summer	SW20	8	76.817	1.795	324.9	1.5545	19.3313	FLOOD
60 minute summer	SW21	33	76.277	1.367	156.8	1.1839	0.0000	SURCHARGED
60 minute summer	N01	37	76.141	1.417	427.1	0.0000	0.0000	OK
60 minute summer	SW22	37	76.166	0.964	45.7	0.8347	0.0000	SURCHARGED
60 minute summer	N02	37	76.135	1.450	391.8	0.0000	126.3224	FLOOD
15 minute summer	SW23	9	76.317	0.084	9.3	0.0951	0.0000	OK
15 minute summer	SW24	9	76.162	0.057	9.3	0.0646	0.0000	OK
60 minute winter	SW25	38	76.165	0.665	7.9	0.7519	0.0000	SURCHARGED
60 minute winter	SW26	39	76.144	0.884	10.8	1.0003	0.0000	SURCHARGED
30 minute summer	SW27	26	76.135	1.605	150.5	1.8153	0.0000	FLOOD RISK
240 minute winter	SW28	204	75.000	0.530	122.1	0.5999	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	SW16	4.004	SW17	153.2	2.176	1.959	3.2473	
30 minute summer	SW17	4.005	SW18	144.3	2.049	0.681	1.8804	
60 minute summer	SW18	1.006	SW19	285.8	2.591	2.495	2.5318	
60 minute summer	SW19	1.007	N01	289.1	0.322	0.025	134.0985	
15 minute summer	SW20	5.000	SW21	183.8	2.611	2.517	1.8101	
60 minute summer	SW21	5.001	N01	153.7	2.183	2.191	1.0502	
60 minute summer	N01	1.008	N02	378.0	0.296	0.067	145.8060	
60 minute summer	SW22	6.000	N02	43.9	1.104	1.488	0.6328	
60 minute summer	N02	1.009	SW27	116.1	0.235	0.021	134.0851	
15 minute summer	SW23	7.000	SW24	9.3	1.143	0.541	0.1112	
15 minute summer	SW24	7.001	SW26	9.3	1.365	0.308	0.3187	
60 minute winter	SW25	8.000	SW26	6.7	0.849	0.379	0.2899	
60 minute winter	SW26	7.002	SW27	8.9	0.607	0.197	1.3603	
30 minute summer	SW27	1.010	SW28	120.9	2.287	1.052	1.1799	
240 minute winter	SW28	1.011	N03	112.1	0.303	0.032	118.3429	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	N03	320	75.000	1.000	97.5	631.3735	311.7884	FLOOD
15 minute summer	SW29	9	76.592	1.350	53.5	1.1691	1.6968	FLOOD
15 minute summer	SW30	9	75.723	1.425	109.0	1.2341	0.1128	FLOOD
15 minute summer	SW31	9	74.290	0.702	105.1	0.6083	0.0000	SURCHARGED
60 minute summer	N04	40	73.752	0.602	83.9	36.3484	0.0000	SURCHARGED
60 minute summer	SW32	40	72.508	0.074	32.4	0.0838	0.0000	OK
15 minute summer	SW33	9	74.192	0.657	81.5	0.5690	0.0000	SURCHARGED
15 minute summer	SW34	10	73.403	1.242	140.5	1.0758	0.0000	FLOOD RISK
15 minute summer	SW35	10	70.913	0.687	114.1	0.5946	0.0000	SURCHARGED
15 minute summer	SW36	10	68.838	0.896	108.2	0.7755	0.0000	SURCHARGED
15 minute summer	SW37	9	67.982	0.182	193.0	0.3224	0.0000	OK
15 minute summer	SW38	9	64.744	0.194	240.2	0.2198	0.0000	OK
15 minute summer	SW39	10	62.432	1.032	293.4	1.1671	0.0000	SURCHARGED
15 minute summer	SW40	10	59.957	1.500	298.5	1.6965	0.7458	FLOOD
15 minute summer	SW41	9	74.798	1.233	40.8	1.0680	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)
480 minute winter	N03	1.012	N04	20.3	0.636	0.044	0.9010	
15 minute summer	SW29	9.000	SW30	33.2	1.886	1.213	0.6491	
15 minute summer	SW30	9.001	SW31	105.1	2.642	1.294	1.1657	
15 minute summer	SW31	9.002	N04	104.4	2.625	2.106	0.3805	
60 minute summer	N04	1.013	SW32	32.4	2.622	0.831	0.1823	
60 minute summer	SW32	1.014	SW37	32.4	2.337	0.136	2.4173	
15 minute summer	SW33	10.000	SW34	74.0	1.932	0.856	1.9886	
15 minute summer	SW34	10.001	SW35	114.1	2.905	1.110	1.9886	
15 minute summer	SW35	10.002	SW36	108.2	2.720	0.882	1.6507	
15 minute summer	SW36	10.003	SW37	107.1	2.694	2.884	0.5127	
15 minute summer	SW37	1.015	SW38	186.7	4.058	0.656	2.3283	
15 minute summer	SW38	1.016	SW39	239.9	4.184	0.765	2.3742	
15 minute summer	SW39	1.017	SW40	252.1	4.133	0.832	2.8168	
15 minute summer	SW40	1.018	SW49	285.5	4.143	0.938	3.0069	
15 minute summer	SW41	11.000	SW42	32.4	1.840	0.883	0.6247	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW42	8	73.420	1.350	81.3	1.1691	6.3821	FLOOD
15 minute summer	SW43	8	71.591	1.350	85.3	1.1691	5.0243	FLOOD
15 minute summer	SW44	8	68.119	0.142	98.7	0.1228	0.0000	OK
15 minute summer	SW45	10	66.175	0.702	146.2	0.6083	0.0000	SURCHARGED
15 minute summer	SW46	9	63.710	1.079	181.7	0.9344	0.0000	SURCHARGED
15 minute summer	SW47	9	59.747	0.231	242.3	0.1999	0.0000	OK
15 minute summer	SW48	10	57.420	1.500	235.6	1.2990	0.8179	FLOOD
15 minute summer	SW49	10	56.766	1.554	478.9	2.2245	0.0000	SURCHARGED
15 minute summer	SW50	9	76.576	1.350	24.7	1.1691	2.3304	FLOOD
15 minute summer	SW51	9	76.689	1.570	24.8	1.3599	0.0000	SURCHARGED
15 minute summer	SW52	9	76.721	1.475	36.1	1.2774	1.0890	FLOOD
15 minute summer	SW53	9	76.585	1.685	59.4	1.4594	0.0000	FLOOD RISK
15 minute summer	SW54	9	75.358	1.433	110.4	1.2413	0.0000	SURCHARGED
15 minute summer	SW55	8	74.332	1.425	260.8	1.2341	12.2280	FLOOD
30 minute winter	N06	22	72.000	0.500	169.6	0.0040	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	SW42	11.001	SW43	36.3	2.064	0.929	0.6732	
15 minute summer	SW43	11.002	SW44	51.0	2.895	1.188	0.6703	
15 minute summer	SW44	11.003	SW45	98.5	3.192	0.727	1.2338	
15 minute summer	SW45	11.004	SW46	137.5	3.516	0.949	1.4737	
15 minute summer	SW46	11.005	SW47	157.4	3.965	1.063	1.5081	
15 minute summer	SW47	11.006	SW48	235.6	3.588	0.836	3.6331	
15 minute summer	SW48	11.007	SW49	200.7	3.211	0.818	0.9253	
15 minute summer	SW49	1.019	EX MH	478.9	4.343	1.126	7.3049	458.9
15 minute summer	SW50	12.000	SW51	12.4	0.714	0.800	0.2448	
15 minute summer	SW51	12.001	SW53	25.5	1.447	1.312	0.3232	
15 minute summer	SW52	13.000	SW53	22.3	1.266	0.769	0.2308	
15 minute summer	SW53	12.002	SW54	58.7	3.336	1.132	0.1888	
15 minute summer	SW54	12.003	SW55	107.1	2.693	0.878	0.7435	
15 minute summer	SW55	12.004	N06	162.0	4.073	1.355	0.6897	
30 minute winter	N06	12.005	N07	142.3	0.571	0.029	31.3951	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SW56	9	75.044	0.588	31.5	0.6653	0.0000	SURCHARGED
15 minute summer	SW57	9	74.327	0.188	83.5	0.2129	0.0000	OK
15 minute summer	SW58	9	74.501	0.395	28.0	0.4471	0.0000	SURCHARGED
15 minute summer	SW59	9	73.776	0.167	125.0	0.1888	0.0000	OK
60 minute summer	N07	39	72.000	0.758	211.2	0.0061	0.0000	OK
30 minute winter	N08	21	72.000	1.000	197.6	0.0080	13.5988	FLOOD
15 minute summer	N09	9	70.943	0.093	94.5	0.0007	0.0000	OK
15 minute summer	N10	10	70.348	0.498	105.6	0.0040	0.0000	OK
15 minute summer	N11	10	68.944	0.094	108.2	0.0008	0.0000	OK
15 minute summer	N12	10	68.377	0.527	118.2	0.0042	0.0000	OK
15 minute summer	N13	10	66.957	0.107	121.3	0.0009	0.0000	OK
15 minute summer	N14	10	66.738	0.538	124.9	0.0043	0.0000	OK
15 minute summer	N15	10	65.968	0.118	130.4	0.0009	0.0000	OK
15 minute summer	N16	10	64.977	0.127	136.8	0.0010	0.0000	OK
15 minute summer	N17	11	64.821	0.567	143.6	0.0045	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	SW56	14.000	SW57	28.8	1.635	1.575	0.3984	
15 minute summer	SW57	14.001	SW59	83.2	2.476	0.871	0.5303	
15 minute summer	SW58	15.000	SW59	24.2	1.377	1.211	0.5749	
15 minute summer	SW59	14.002	N07	124.1	4.190	0.774	0.5697	
60 minute summer	N07	12.006	N08	134.4	0.420	0.028	54.8123	
30 minute winter	N08	12.007	N09	84.1	2.624	2.097	0.6887	
15 minute summer	N09	12.008	N10	93.9	0.337	0.008	7.9610	
15 minute summer	N10	12.009	N11	100.4	1.356	0.008	0.9689	
15 minute summer	N11	12.010	N12	108.2	0.274	0.009	6.9071	
15 minute summer	N12	12.011	N13	115.8	1.357	0.010	1.1749	
15 minute summer	N13	12.012	N14	121.5	0.260	0.011	5.9773	
15 minute summer	N14	12.013	N15	121.5	1.238	0.012	0.6082	
15 minute summer	N15	12.014	N16	129.9	1.220	0.013	2.0419	
15 minute summer	N16	12.015	N17	136.0	0.275	0.015	9.6254	
15 minute summer	N17	12.016	N18	138.9	0.893	0.014	10.2356	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.69%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	N18	24	63.762	0.562	137.8	0.0045	0.0000	SURCHARGED
15 minute summer	KD9 OD	9	75.646	0.083	47.7	0.0234	0.0000	OK
15 minute summer	SW60	9	68.184	0.122	78.0	0.0345	0.0000	OK
15 minute summer	SW61	9	64.223	0.166	115.3	0.0471	0.0000	OK
15 minute summer	SW62	9	61.239	1.125	149.1	0.3184	2.3752	FLOOD
15 minute summer	SW63	9	58.230	0.825	144.4	0.2335	16.1611	FLOOD
15 minute summer	SW64	9	56.598	0.135	79.2	0.0381	0.0000	OK
15 minute summer	SW65	10	54.692	0.363	84.9	0.1027	0.0000	SURCHARGED
15 minute winter	EX MH	9	52.620	0.380	459.5	0.0000	0.0000	OK
30 minute winter	EX HW	27	60.108	0.228	109.3	0.0000	0.0000	OK
15 minute summer	HW13	10	53.815	0.214	79.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	N18	12.017	EX HW	108.8	2.973	1.056	3.3925	228.0
15 minute summer	KD9 OD	16.000	SW60	47.8	3.784	0.592	0.4670	
15 minute summer	SW60	16.001	SW61	78.1	3.035	0.578	1.6029	
15 minute summer	SW61	16.002	SW62	110.6	2.891	0.825	2.1370	
15 minute summer	SW62	16.003	SW63	109.9	2.765	0.991	2.3873	
15 minute summer	SW63	16.004	SW64	68.7	1.933	1.185	2.4486	
15 minute summer	SW64	16.005	SW65	79.1	2.435	0.677	1.3800	
15 minute summer	SW65	16.006	HW13	79.5	2.137	1.024	1.3044	49.3

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Appendix 12: DCO Works No.14 Proposed Drainage

Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	0.100
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	x
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Swale Link Type

Shape	Trapezoidal	Side Slope (1:X)	3.0	Follow Ground	x
Barrels	1	Auto Increment (mm)	150	Velocity	Manning
Height (mm)	500	Preferred Cover (m)	0.010	ks (mm) / n	0.040

Available Diameters (mm)
300

Circular Link Type

Shape	Circular	Barrels	1	Auto Increment (mm)	75	Follow Ground	x

Available Diameters (mm)
150

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Width (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.004	5.00	83.000			-182.383	152.895	0.600
2	0.012	5.00	82.900			-175.908	150.743	1.625
3	0.042	5.00	81.500			-154.918	146.227	1.248
4	0.013	5.00	81.100			-149.065	144.889	0.968
5	0.017	5.00	80.350			-140.451	142.715	1.550
6	0.009	5.00	80.100			-136.019	142.046	1.700
7	0.035	5.00	78.700			-118.208	138.115	2.100
8	0.042	5.00	77.300			-97.387	132.343	1.123

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Width (mm)	Easting (m)	Northing (m)	Depth (m)
9	0.006	5.00	77.000			-93.563	133.265	1.572
10	0.027	5.00	75.400			-82.304	127.222	1.233
11	0.019	5.00	74.700			-72.884	121.976	1.221
12	0.014	5.00	74.200			-66.445	119.133	0.857
13	0.009	5.00	74.200			-62.565	115.370	1.016
14	0.014	5.00	74.300			-56.159	113.279	1.255
15	0.016	5.00	73.800			-55.323	115.119	0.825
16	0.004	5.00	73.450			-47.529	112.346	0.637
17	0.004	5.00	73.000			-45.615	111.805	0.649
18	0.004	5.00	72.900			-43.532	111.189	0.592
18_OUT	0.010		72.690	2000	1000	-41.943	112.322	1.590

Simulation Settings

Rainfall Methodology	FEH-22	Winter CV	1.000	Drain Down Time (mins)	240	Check Discharge Rate(s)	x
Rainfall Events	Singular	Analysis Speed	Detailed	Additional Storage (m³/ha)	0.0	Check Discharge Volume	x
Summer CV	1.000	Skip Steady State	✓	Starting Level (m)			

Storm Durations

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

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	0	0	0
30	0	0	0	100	25	0	0
30	25	0	0	100	40	0	0

Node 2 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	1.500
Downstream Link	1.001	Invert Level (m)	82.700	Discharge Coefficient	0.590

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Node 2 Online V-Notch Weir Control

Flap Valve	x	Replaces Downstream Link	x	Angle of V (degrees)	20.000
Downstream Link	1.001	Invert Level (m)	82.275	Discharge Coefficient	0.590

Node 3 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	1.500
Downstream Link	1.002	Invert Level (m)	81.300	Discharge Coefficient	0.590

Node 3 Online V-Notch Weir Control

Flap Valve	x	Replaces Downstream Link	x	Angle of V (degrees)	20.000
Downstream Link	1.002	Invert Level (m)	80.840	Discharge Coefficient	0.590

Node 4 Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	1.003	Invert Level (m)	80.132	Discharge Coefficient	0.600

Node 6 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	1.500
Downstream Link	1.005	Invert Level (m)	79.900	Discharge Coefficient	0.590

Node 6 Online V-Notch Weir Control

Flap Valve	x	Replaces Downstream Link	x	Angle of V (degrees)	20.000
Downstream Link	1.005	Invert Level (m)	78.400	Discharge Coefficient	0.590

Node 7 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	1.500
Downstream Link	1.006	Invert Level (m)	78.500	Discharge Coefficient	0.590

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Node 7 Online V-Notch Weir Control

Flap Valve	x	Replaces Downstream Link	x	Angle of V (degrees)	20.000
Downstream Link	1.006	Invert Level (m)	78.040	Discharge Coefficient	0.590

Node 8 Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.050
Downstream Link	1.007	Invert Level (m)	76.177	Discharge Coefficient	0.600

Node 10 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	1.500
Downstream Link	1.009	Invert Level (m)	75.200	Discharge Coefficient	0.590

Node 10 Online V-Notch Weir Control

Flap Valve	x	Replaces Downstream Link	x	Angle of V (degrees)	20.000
Downstream Link	1.009	Invert Level (m)	74.950	Discharge Coefficient	0.590

Node 11 Online Weir Control

Flap Valve	x	Replaces Downstream Link	x	Width (m)	1.500
Downstream Link	1.010	Invert Level (m)	74.500	Discharge Coefficient	0.590

Node 11 Online V-Notch Weir Control

Flap Valve	x	Replaces Downstream Link	x	Angle of V (degrees)	20.000
Downstream Link	1.010	Invert Level (m)	73.980	Discharge Coefficient	0.590

Node 12 Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.100
Downstream Link	1.011	Invert Level (m)	73.343	Discharge Coefficient	0.600

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Node 14 Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.060
Downstream Link	1.013	Invert Level (m)	73.045	Discharge Coefficient	0.600

Node 16 Online Orifice Control

Flap Valve	x	Replaces Downstream Link	x	Diameter (m)	0.055
Downstream Link	1.015	Invert Level (m)	72.813	Discharge Coefficient	0.600

Node 18 Online Orifice Control

Flap Valve	x	Replaces Downstream Link	✓	Diameter (m)	0.055
Downstream Link	1.017	Invert Level (m)	72.308	Discharge Coefficient	0.600

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	76.777	21.725	1 year 600 minute winter	5.861	2.346
1 year 15 minute winter	53.878	21.725	1 year 720 minute summer	7.626	2.044
1 year 30 minute summer	48.990	13.863	1 year 720 minute winter	5.125	2.044
1 year 30 minute winter	34.379	13.863	1 year 960 minute summer	6.203	1.634
1 year 60 minute summer	32.661	8.631	1 year 960 minute winter	4.109	1.634
1 year 60 minute winter	21.699	8.631	1 year 1440 minute summer	4.409	1.182
1 year 120 minute summer	24.515	6.479	1 year 1440 minute winter	2.963	1.182
1 year 120 minute winter	16.287	6.479	30 year 15 minute summer	279.897	79.201
1 year 180 minute summer	20.290	5.221	30 year 15 minute winter	196.419	79.201
1 year 180 minute winter	13.189	5.221	30 year 30 minute summer	182.667	51.688
1 year 240 minute summer	16.663	4.404	30 year 30 minute winter	128.187	51.688
1 year 240 minute winter	11.071	4.404	30 year 60 minute summer	121.798	32.188
1 year 360 minute summer	13.157	3.386	30 year 60 minute winter	80.920	32.188
1 year 360 minute winter	8.552	3.386	30 year 120 minute summer	75.753	20.019
1 year 480 minute summer	10.463	2.765	30 year 120 minute winter	50.329	20.019
1 year 480 minute winter	6.951	2.765	30 year 180 minute summer	58.243	14.988
1 year 600 minute summer	8.578	2.346	30 year 180 minute winter	37.859	14.988

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 240 minute summer	45.879	12.124
30 year 240 minute winter	30.481	12.124
30 year 360 minute summer	34.546	8.890
30 year 360 minute winter	22.456	8.890
30 year 480 minute summer	26.718	7.061
30 year 480 minute winter	17.751	7.061
30 year 600 minute summer	21.494	5.879
30 year 600 minute winter	14.686	5.879
30 year 720 minute summer	18.840	5.049
30 year 720 minute winter	12.662	5.049
30 year 960 minute summer	15.024	3.956
30 year 960 minute winter	9.952	3.956
30 year 1440 minute summer	10.403	2.788
30 year 1440 minute winter	6.992	2.788
30 year +25% CC 15 minute summer	349.871	99.002
30 year +25% CC 15 minute winter	245.524	99.002
30 year +25% CC 30 minute summer	228.334	64.611
30 year +25% CC 30 minute winter	160.234	64.611
30 year +25% CC 60 minute summer	152.248	40.235
30 year +25% CC 60 minute winter	101.150	40.235
30 year +25% CC 120 minute summer	94.691	25.024
30 year +25% CC 120 minute winter	62.911	25.024
30 year +25% CC 180 minute summer	72.803	18.735
30 year +25% CC 180 minute winter	47.324	18.735
30 year +25% CC 240 minute summer	57.349	15.156
30 year +25% CC 240 minute winter	38.101	15.156
30 year +25% CC 360 minute summer	43.182	11.112
30 year +25% CC 360 minute winter	28.069	11.112
30 year +25% CC 480 minute summer	33.398	8.826
30 year +25% CC 480 minute winter	22.189	8.826
30 year +25% CC 600 minute summer	26.867	7.349
30 year +25% CC 600 minute winter	18.357	7.349
30 year +25% CC 720 minute summer	23.550	6.312
30 year +25% CC 720 minute winter	15.827	6.312
30 year +25% CC 960 minute summer	18.780	4.945
30 year +25% CC 960 minute winter	12.440	4.945
30 year +25% CC 1440 minute summer	13.004	3.485
30 year +25% CC 1440 minute winter	8.739	3.485
100 year 15 minute summer	364.661	103.186
100 year 15 minute winter	255.902	103.186
100 year 30 minute summer	239.884	67.879
100 year 30 minute winter	168.340	67.879
100 year 60 minute summer	160.969	42.539
100 year 60 minute winter	106.944	42.539
100 year 120 minute summer	100.180	26.475
100 year 120 minute winter	66.557	26.475
100 year 180 minute summer	77.199	19.866
100 year 180 minute winter	50.182	19.866
100 year 240 minute summer	60.869	16.086
100 year 240 minute winter	40.440	16.086
100 year 360 minute summer	45.775	11.779
100 year 360 minute winter	29.755	11.779
100 year 480 minute summer	35.370	9.347
100 year 480 minute winter	23.499	9.347
100 year 600 minute summer	28.397	7.767
100 year 600 minute winter	19.403	7.767
100 year 720 minute summer	24.828	6.654
100 year 720 minute winter	16.686	6.654
100 year 960 minute summer	19.675	5.181
100 year 960 minute winter	13.033	5.181
100 year 1440 minute summer	13.466	3.609
100 year 1440 minute winter	9.050	3.609
100 year +25% CC 15 minute summer	455.826	128.983
100 year +25% CC 15 minute winter	319.878	128.983

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Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +25% CC 30 minute summer	299.855	84.849
100 year +25% CC 30 minute winter	210.424	84.849
100 year +25% CC 60 minute summer	201.211	53.174
100 year +25% CC 60 minute winter	133.680	53.174
100 year +25% CC 120 minute summer	125.225	33.093
100 year +25% CC 120 minute winter	83.197	33.093
100 year +25% CC 180 minute summer	96.499	24.833
100 year +25% CC 180 minute winter	62.727	24.833
100 year +25% CC 240 minute summer	76.086	20.107
100 year +25% CC 240 minute winter	50.550	20.107
100 year +25% CC 360 minute summer	57.219	14.724
100 year +25% CC 360 minute winter	37.194	14.724
100 year +25% CC 480 minute summer	44.213	11.684
100 year +25% CC 480 minute winter	29.374	11.684
100 year +25% CC 600 minute summer	35.497	9.709
100 year +25% CC 600 minute winter	24.253	9.709
100 year +25% CC 720 minute summer	31.035	8.318
100 year +25% CC 720 minute winter	20.858	8.318
100 year +25% CC 960 minute summer	24.593	6.476
100 year +25% CC 960 minute winter	16.291	6.476
100 year +25% CC 1440 minute summer	16.832	4.511
100 year +25% CC 1440 minute winter	11.312	4.511
100 year +40% CC 15 minute summer	510.525	144.461
100 year +40% CC 15 minute winter	358.263	144.461
100 year +40% CC 30 minute summer	335.837	95.030
100 year +40% CC 30 minute winter	235.675	95.030
100 year +40% CC 60 minute summer	225.357	59.555
100 year +40% CC 60 minute winter	149.722	59.555
100 year +40% CC 120 minute summer	140.252	37.065
100 year +40% CC 120 minute winter	93.180	37.065
100 year +40% CC 180 minute summer	108.079	27.812
100 year +40% CC 180 minute winter	70.254	27.812
100 year +40% CC 240 minute summer	85.216	22.520
100 year +40% CC 240 minute winter	56.616	22.520
100 year +40% CC 360 minute summer	64.085	16.491
100 year +40% CC 360 minute winter	41.657	16.491
100 year +40% CC 480 minute summer	49.518	13.086
100 year +40% CC 480 minute winter	32.899	13.086
100 year +40% CC 600 minute summer	39.756	10.874
100 year +40% CC 600 minute winter	27.164	10.874
100 year +40% CC 720 minute summer	34.760	9.316
100 year +40% CC 720 minute winter	23.361	9.316
100 year +40% CC 960 minute summer	27.544	7.253
100 year +40% CC 960 minute winter	18.246	7.253
100 year +40% CC 1440 minute summer	18.852	5.053
100 year +40% CC 1440 minute winter	12.670	5.053

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Results for 1 year Critical Storm Duration. Lowest mass balance: 72.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	13	82.426	0.026	0.5	0.0000	0.0000	OK
240 minute summer	2	136	82.360	1.085	0.8	0.0000	0.0000	SURCHARGED
120 minute summer	3	72	80.972	0.720	2.7	0.0000	0.0000	SURCHARGED
120 minute summer	4	70	80.207	0.075	2.1	0.0000	0.0000	OK
120 minute summer	5	70	78.873	0.073	2.9	0.0000	0.0000	OK
15 minute summer	6	12	78.584	0.184	3.6	0.0000	0.0000	OK
180 minute summer	7	112	78.224	1.624	4.5	0.0000	0.0000	SURCHARGED
360 minute summer	8	256	76.440	0.263	4.0	0.0000	0.0000	OK
360 minute summer	9	240	75.480	0.052	2.4	0.0000	0.0000	OK
360 minute summer	10	232	75.112	0.945	2.7	0.0000	0.0000	FLOOD RISK
360 minute summer	11	224	74.148	0.669	2.9	0.0000	0.0000	SURCHARGED
360 minute summer	12	200	73.442	0.099	3.0	0.0000	0.0000	OK
480 minute summer	13	320	73.273	0.089	3.3	0.0000	0.0000	OK
480 minute summer	14	328	73.273	0.228	3.2	0.0000	0.0000	OK
480 minute summer	15	400	73.069	0.094	3.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	0.3	0.100	0.000	0.0690	
240 minute summer	2	1.001	3	0.4	0.019	0.001	2.4618	
120 minute summer	3	1.002	4	1.5	0.149	0.003	0.2567	
120 minute summer	4	1.003	5	2.1	0.333	0.048	0.2123	
120 minute summer	5	1.004	6	2.8	0.208	0.005	0.2609	
15 minute summer	6	1.005	7	2.5	0.163	0.005	1.9666	
180 minute summer	7	1.006	8	3.5	0.062	0.006	9.4111	
360 minute summer	8	1.007	9	2.3	0.275	0.073	0.1278	
360 minute summer	9	1.008	10	2.3	0.087	0.004	4.1895	
360 minute summer	10	1.009	11	2.6	0.054	0.005	2.1886	
360 minute summer	11	1.010	12	2.8	0.118	0.005	0.7313	
360 minute summer	12	1.011	13	3.2	0.249	0.068	0.3700	
480 minute summer	13	1.012	14	3.0	0.054	0.005	3.8089	
480 minute summer	14	1.013	15	3.0	0.289	0.104	0.1208	
480 minute summer	15	1.014	16	3.0	0.065	0.005	5.3203	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 72.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	16	400	73.069	0.256	3.1	0.0000	0.0000	OK
480 minute summer	17	424	72.539	0.188	2.9	0.0000	0.0000	OK
480 minute summer	18	424	72.539	0.231	2.9	0.0000	0.0000	SURCHARGED
15 minute summer	18_OUT	1	71.100	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)
480 minute summer	16	1.015	17	2.9	0.330	0.051	0.3858	
480 minute summer	17	1.016	18	2.9	0.067	0.004	1.7049	
480 minute summer	18	Orifice	18_OUT	2.9				56.0

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Results for 30 year Critical Storm Duration. Lowest mass balance: 72.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	21	82.450	0.050	1.6	0.0000	0.0000	OK
60 minute summer	2	37	82.449	1.174	4.7	0.0000	0.0000	SURCHARGED
60 minute summer	3	40	81.082	0.830	13.2	0.0000	0.0000	SURCHARGED
60 minute summer	4	44	80.357	0.225	8.9	0.0000	0.0000	OK
30 minute summer	5	20	78.926	0.126	11.7	0.0000	0.0000	OK
30 minute summer	6	19	78.726	0.326	14.6	0.0000	0.0000	OK
60 minute summer	7	43	78.349	1.749	20.7	0.0000	0.0000	SURCHARGED
240 minute summer	8	212	76.762	0.585	14.2	0.0000	0.0000	SURCHARGED
240 minute summer	9	216	75.493	0.065	3.8	0.0000	0.0000	OK
120 minute summer	10	74	75.174	1.007	8.3	0.0000	0.0000	FLOOD RISK
120 minute summer	11	76	74.227	0.748	8.0	0.0000	0.0000	SURCHARGED
360 minute summer	12	360	73.599	0.256	7.4	0.0000	0.0000	OK
360 minute summer	13	368	73.558	0.374	7.4	0.0000	0.0000	OK
360 minute summer	14	368	73.558	0.513	6.3	0.0000	0.0000	SURCHARGED
480 minute summer	15	536	73.262	0.287	5.0	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)	Discharge Vol (m³)
30 minute summer	1	1.000	2	1.5	0.121	0.003	1.5049	
60 minute summer	2	1.001	3	2.3	0.033	0.004	8.1898	
60 minute summer	3	1.002	4	6.7	0.163	0.015	2.0249	
60 minute summer	4	1.003	5	7.4	0.487	0.173	0.5174	
30 minute summer	5	1.004	6	11.3	0.310	0.020	0.6955	
30 minute summer	6	1.005	7	12.8	0.153	0.023	11.6046	
60 minute summer	7	1.006	8	12.6	0.071	0.023	38.6779	
240 minute summer	8	1.007	9	3.7	0.320	0.117	0.1756	
240 minute summer	9	1.008	10	3.8	0.121	0.007	7.4587	
120 minute summer	10	1.009	11	5.8	0.061	0.011	4.4367	
120 minute summer	11	1.010	12	7.1	0.095	0.013	3.3003	
360 minute summer	12	1.011	13	6.8	0.258	0.145	2.0834	
360 minute summer	13	1.012	14	5.3	0.054	0.008	20.4420	
360 minute summer	14	1.013	15	4.3	0.286	0.147	0.4986	
480 minute summer	15	1.014	16	4.2	0.070	0.006	17.4249	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 72.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute summer	16	536	73.262	0.449	4.3	0.0000	0.0000	FLOOD RISK
480 minute summer	17	616	72.724	0.373	4.0	0.0000	0.0000	OK
480 minute summer	18	616	72.724	0.416	3.9	0.0000	0.0000	FLOOD RISK
15 minute summer	18_OUT	1	71.100	0.000	6.4	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)
480 minute summer	16	1.015	17	4.0	0.351	0.071	0.5708	
480 minute summer	17	1.016	18	3.9	0.067	0.006	5.0981	
480 minute summer	18	Orifice	18_OUT	3.9				123.0

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 72.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	21	82.471	0.071	2.4	0.0000	0.0000	OK
30 minute summer	2	21	82.469	1.194	7.8	0.0000	0.0000	SURCHARGED
60 minute summer	3	40	81.110	0.858	16.7	0.0000	0.0000	SURCHARGED
60 minute summer	4	48	80.414	0.282	10.3	0.0000	0.0000	OK
15 minute summer	5	12	78.936	0.136	14.6	0.0000	0.0000	OK
15 minute summer	6	11	78.756	0.356	18.3	0.0000	0.0000	OK
60 minute summer	7	42	78.381	1.781	26.0	0.0000	0.0000	SURCHARGED
240 minute summer	8	220	76.837	0.660	17.9	0.0000	0.0000	SURCHARGED
240 minute winter	9	184	75.495	0.067	4.1	0.0000	0.0000	OK
120 minute summer	10	74	75.194	1.027	10.3	0.0000	0.0000	FLOOD RISK
120 minute summer	11	74	74.251	0.772	10.2	0.0000	0.0000	SURCHARGED
480 minute winter	12	472	73.685	0.342	6.7	0.0000	0.0000	OK
480 minute winter	13	480	73.640	0.456	6.6	0.0000	0.0000	OK
480 minute winter	14	480	73.640	0.595	5.8	0.0000	0.0000	SURCHARGED
600 minute winter	15	645	73.309	0.334	4.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	1.7	0.120	0.003	1.9309	
30 minute summer	2	1.001	3	2.7	0.034	0.005	9.8213	
60 minute summer	3	1.002	4	8.3	0.158	0.018	3.5689	
60 minute summer	4	1.003	5	8.8	0.511	0.203	0.5808	
15 minute summer	5	1.004	6	13.8	0.329	0.025	0.8036	
15 minute summer	6	1.005	7	15.3	0.132	0.028	12.0715	
60 minute summer	7	1.006	8	16.1	0.072	0.029	50.4078	
240 minute summer	8	1.007	9	3.9	0.327	0.125	0.1838	
240 minute winter	9	1.008	10	4.0	0.113	0.007	8.0312	
120 minute summer	10	1.009	11	7.3	0.064	0.013	5.2892	
120 minute summer	11	1.010	12	8.5	0.092	0.015	5.6551	
480 minute winter	12	1.011	13	6.0	0.249	0.128	2.4185	
480 minute winter	13	1.012	14	4.9	0.052	0.008	27.7322	
480 minute winter	14	1.013	15	4.4	0.289	0.151	0.5546	
600 minute winter	15	1.014	16	4.3	0.066	0.007	21.4567	

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Results for 30 year +25% CC Critical Storm Duration. Lowest mass balance: 72.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	16	645	73.309	0.496	4.4	0.0000	0.0000	FLOOD RISK
600 minute winter	17	750	72.771	0.420	4.2	0.0000	0.0000	OK
600 minute winter	18	750	72.771	0.463	4.2	0.0000	0.0000	FLOOD RISK
15 minute summer	18_OUT	1	71.100	0.000	7.7	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	16	1.015	17	4.2	0.350	0.075	0.5732	
600 minute winter	17	1.016	18	4.2	0.066	0.006	6.2232	
600 minute winter	18	Orifice	18_OUT	4.2				153.2

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Results for 100 year Critical Storm Duration. Lowest mass balance: 72.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	21	82.474	0.074	2.1	0.0000	0.0000	OK
30 minute summer	2	21	82.474	1.199	8.2	0.0000	0.0000	SURCHARGED
60 minute summer	3	39	81.118	0.866	17.8	0.0000	0.0000	SURCHARGED
60 minute summer	4	48	80.430	0.298	10.8	0.0000	0.0000	OK
30 minute summer	5	19	78.938	0.138	14.9	0.0000	0.0000	OK
15 minute summer	6	11	78.761	0.361	19.1	0.0000	0.0000	OK
60 minute summer	7	41	78.389	1.789	27.4	0.0000	0.0000	SURCHARGED
240 minute summer	8	220	76.857	0.680	19.0	0.0000	0.0000	SURCHARGED
360 minute winter	9	264	75.495	0.067	4.1	0.0000	0.0000	OK
120 minute summer	10	74	75.200	1.033	10.9	0.0000	0.0000	FLOOD RISK
120 minute summer	11	74	74.257	0.778	10.8	0.0000	0.0000	SURCHARGED
360 minute winter	12	352	73.709	0.366	7.5	0.0000	0.0000	OK
480 minute summer	13	488	73.661	0.477	7.5	0.0000	0.0000	OK
480 minute summer	14	488	73.661	0.616	6.5	0.0000	0.0000	SURCHARGED
600 minute winter	15	660	73.323	0.348	5.0	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)	Discharge Vol (m³)
30 minute summer	1	1.000	2	1.8	0.120	0.003	2.0324	
30 minute summer	2	1.001	3	2.9	0.034	0.005	10.3125	
60 minute summer	3	1.002	4	8.8	0.156	0.019	4.0793	
60 minute summer	4	1.003	5	9.1	0.517	0.211	0.5964	
30 minute summer	5	1.004	6	14.4	0.332	0.026	0.8275	
15 minute summer	6	1.005	7	16.0	0.132	0.029	12.5580	
60 minute summer	7	1.006	8	17.0	0.072	0.031	53.7753	
240 minute summer	8	1.007	9	4.0	0.328	0.127	0.1859	
360 minute winter	9	1.008	10	4.1	0.101	0.007	7.8051	
120 minute summer	10	1.009	11	7.7	0.065	0.014	5.5705	
120 minute summer	11	1.010	12	8.8	0.092	0.016	6.6042	
360 minute winter	12	1.011	13	6.4	0.255	0.137	2.4834	
480 minute summer	13	1.012	14	5.3	0.052	0.008	29.7630	
480 minute summer	14	1.013	15	4.5	0.288	0.154	0.5634	
600 minute winter	15	1.014	16	4.4	0.067	0.007	22.7454	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 72.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	16	660	73.323	0.510	4.5	0.0000	0.0000	FLOOD RISK
600 minute winter	17	765	72.784	0.433	4.3	0.0000	0.0000	OK
600 minute winter	18	765	72.784	0.476	4.2	0.0000	0.0000	FLOOD RISK
15 minute summer	18_OUT	1	71.100	0.000	8.0	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)	Discharge Vol (m³)
600 minute winter	16	1.015	17	4.3	0.349	0.076	0.5739	
600 minute winter	17	1.016	18	4.2	0.066	0.007	6.5666	
600 minute winter	18	Orifice	18_OUT	4.2				156.1

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 72.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	21	82.498	0.098	3.1	0.0000	0.0000	OK
30 minute summer	2	21	82.496	1.221	9.1	0.0000	0.0000	SURCHARGED
60 minute summer	3	39	81.150	0.898	22.8	0.0000	0.0000	SURCHARGED
60 minute summer	4	51	80.503	0.371	13.4	0.0000	0.0000	SURCHARGED
15 minute summer	5	11	78.949	0.149	18.3	0.0000	0.0000	OK
15 minute summer	6	12	78.796	0.396	24.6	0.0000	0.0000	OK
60 minute summer	7	40	78.424	1.824	34.2	0.0000	0.0000	FLOOD RISK
240 minute summer	8	236	76.943	0.766	23.3	0.0000	0.0000	SURCHARGED
30 minute summer	9	21	75.500	0.072	6.2	0.0000	0.0000	OK
60 minute summer	10	37	75.212	1.045	17.7	0.0000	0.0000	FLOOD RISK
120 minute summer	11	74	74.292	0.813	14.7	0.0000	0.0000	SURCHARGED
360 minute winter	12	360	73.803	0.460	8.5	0.0000	0.0000	SURCHARGED
600 minute winter	13	600	73.749	0.565	6.6	0.0000	0.0000	SURCHARGED
600 minute winter	14	600	73.749	0.704	6.0	0.0000	0.0000	SURCHARGED
720 minute winter	15	780	73.374	0.399	5.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute summer	1	1.000	2	1.9	0.127	0.003	2.5928	
30 minute summer	2	1.001	3	4.0	0.037	0.007	12.9116	
60 minute summer	3	1.002	4	10.7	0.147	0.024	6.9212	
60 minute summer	4	1.003	5	10.5	0.539	0.245	0.6622	
15 minute summer	5	1.004	6	18.2	0.352	0.033	0.9747	
15 minute summer	6	1.005	7	20.3	0.134	0.037	15.4575	
60 minute summer	7	1.006	8	21.7	0.073	0.039	69.7326	
240 minute summer	8	1.007	9	4.3	0.335	0.136	0.1945	
30 minute summer	9	1.008	10	4.8	0.093	0.009	10.1784	
60 minute summer	10	1.009	11	10.7	0.067	0.019	7.2338	
120 minute summer	11	1.010	12	10.7	0.094	0.019	11.2511	
360 minute winter	12	1.011	13	6.9	0.256	0.147	2.6117	
600 minute winter	13	1.012	14	5.2	0.052	0.008	39.0939	
600 minute winter	14	1.013	15	4.7	0.285	0.160	0.5731	
720 minute winter	15	1.014	16	4.6	0.066	0.007	27.7615	

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Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 72.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	16	780	73.374	0.561	4.7	0.0000	0.0000	FLOOD RISK
720 minute winter	17	900	72.834	0.483	4.5	0.0000	0.0000	OK
720 minute winter	18	900	72.834	0.526	4.5	0.0000	0.0000	FLOOD RISK
15 minute summer	18_OUT	1	71.100	0.000	9.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	16	1.015	17	4.5	0.352	0.080	0.5763	
720 minute winter	17	1.016	18	4.5	0.066	0.007	7.9375	
720 minute winter	18	Orifice	18_OUT	4.5				189.6

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 72.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	1	21	82.508	0.108	4.9	0.0000	0.0000	OK
30 minute summer	2	21	82.509	1.234	10.2	0.0000	0.0000	SURCHARGED
60 minute summer	3	39	81.167	0.915	25.7	0.0000	0.0000	SURCHARGED
120 minute summer	4	84	80.545	0.413	13.8	0.0000	0.0000	SURCHARGED
30 minute summer	5	18	78.951	0.151	19.9	0.0000	0.0000	OK
15 minute summer	6	11	78.818	0.418	28.5	0.0000	0.0000	OK
60 minute summer	7	40	78.444	1.844	38.2	0.0000	0.0000	FLOOD RISK
240 minute winter	8	240	76.991	0.814	19.4	0.0000	0.0000	SURCHARGED
30 minute summer	9	21	75.503	0.075	6.8	0.0000	0.0000	OK
60 minute summer	10	36	75.217	1.050	19.8	0.0000	0.0000	FLOOD RISK
60 minute summer	11	41	74.313	0.834	19.2	0.0000	0.0000	SURCHARGED
360 minute winter	12	360	73.857	0.514	9.1	0.0000	0.0000	SURCHARGED
480 minute winter	13	496	73.798	0.614	7.4	0.0000	0.0000	SURCHARGED
480 minute winter	14	496	73.798	0.753	6.6	0.0000	0.0000	SURCHARGED
720 minute winter	15	810	73.402	0.427	5.4	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)
30 minute summer	1	1.000	2	2.4	0.118	0.004	2.9104	
30 minute summer	2	1.001	3	4.6	0.038	0.008	14.4187	
60 minute summer	3	1.002	4	11.8	0.141	0.026	8.8507	
120 minute summer	4	1.003	5	11.3	0.549	0.262	0.6954	
30 minute summer	5	1.004	6	20.4	0.355	0.037	1.0624	
15 minute summer	6	1.005	7	23.1	0.136	0.042	17.1523	
60 minute summer	7	1.006	8	24.5	0.074	0.044	79.3544	
240 minute winter	8	1.007	9	4.4	0.339	0.141	0.1990	
30 minute summer	9	1.008	10	5.3	0.097	0.010	10.7780	
60 minute summer	10	1.009	11	12.6	0.070	0.023	8.4101	
60 minute summer	11	1.010	12	12.1	0.082	0.022	11.7831	
360 minute winter	12	1.011	13	7.2	0.256	0.154	2.6117	
480 minute winter	13	1.012	14	5.6	0.057	0.009	44.9792	
480 minute winter	14	1.013	15	4.8	0.287	0.166	0.5731	
720 minute winter	15	1.014	16	4.8	0.067	0.007	30.7577	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 72.81%

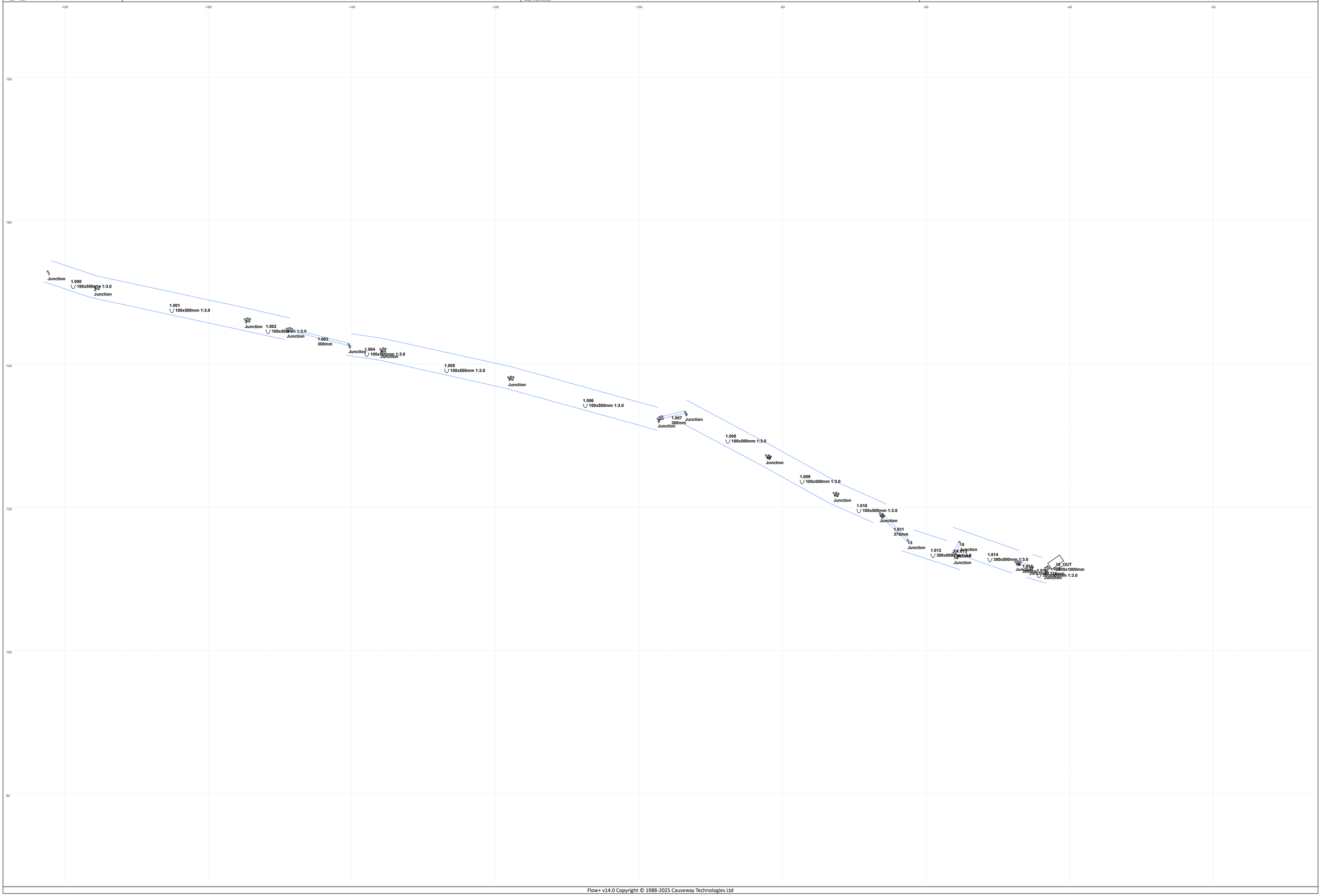
Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	16	810	73.402	0.589	4.9	0.0000	0.0000	FLOOD RISK
720 minute winter	17	945	72.861	0.510	4.6	0.0000	0.0000	FLOOD RISK
720 minute winter	18	945	72.861	0.553	4.6	0.0000	0.0000	FLOOD RISK
15 minute summer	18_OUT	1	71.100	0.000	10.6	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	16	1.015	17	4.6	0.351	0.082	0.5776	
720 minute winter	17	1.016	18	4.6	0.066	0.007	8.7573	
720 minute winter	18	Orifice	18_OUT	4.6				196.4

Water Quality

Area (ha)	Intended Land Use	Entering via Node or Link	Name	SuDS Component	Pollution hazard indices TSS	Pollution hazard indices Metals	Pollution hazard indices Hydrocarbons	Pollution mitigation indices TSS	Pollution mitigation indices Metals	Pollution mitigation indices Hydrocarbons	Cumulative pollution hazard indices TSS	Cumulative pollution hazard indices Metals	Cumulative pollution hazard indices Hydrocarbons
		Link	1.000	Swale				0.5	0.6	0.6			
		Link	1.001	Swale				0.25	0.3	0.3			
		Link	1.002	Swale				0.25	0.3	0.3			
		Link	1.004	Swale				0.25	0.3	0.3			
		Link	1.005	Swale				0.25	0.3	0.3			
		Link	1.006	Swale				0.25	0.3	0.3			
		Link	1.008	Swale				0.25	0.3	0.3			
		Link	1.009	Swale				0.25	0.3	0.3			
		Link	1.010	Swale				0.25	0.3	0.3			
		Link	1.012	Swale				0.25	0.3	0.3			
		Link	1.014	Swale				0.25	0.3	0.3			
		Link	1.016	Swale				0.25	0.3	0.3			
		Node	18_OUT								Sufficient	Sufficient	Sufficient

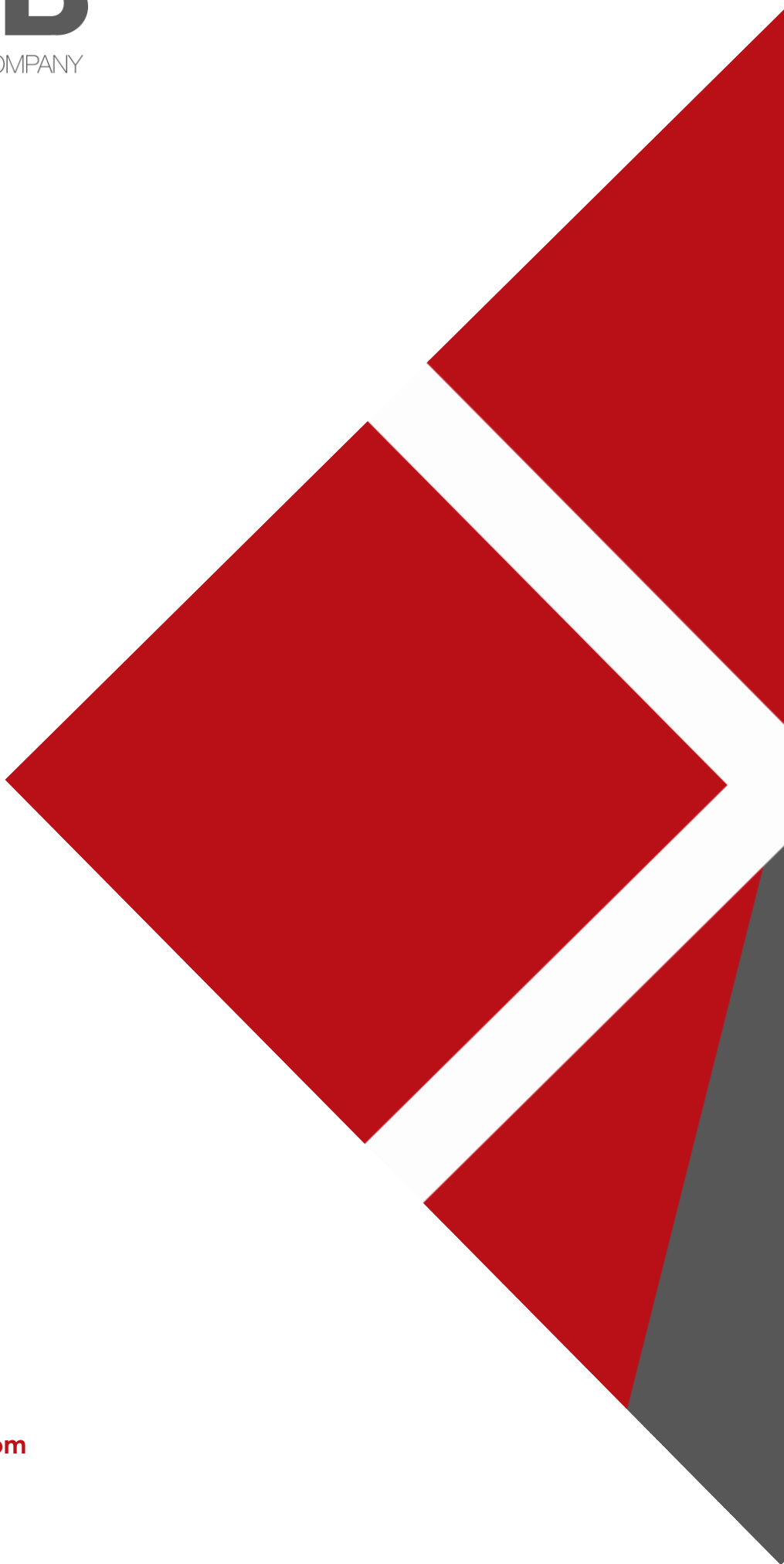
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