Shepherd Gilmour
Consulting Engineers

Shepherd Gilmour Consulting Engineers 3rd Floor, Phoenix House, 45 Cross Street, Manchester M2 4JF Tel: 0161 837 1500

LAND AT BARNHILL STREET/ RABY STREET
MOSS SIDE, MANCHESTER

FLOOD RISK ASSESSMENT
& DRAINAGE STATEMENT

Shepherd Gilmour Infrastructure Ltd.

3rd Floor Phoenix House,

45 Cross Street,

Manchester,

M2 4JF

Shepherd Gilmour Consulting Engineers

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Flood Risk Assessment & Drainage Statement

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Prepared by: [redacted]
Nikola Urbaczka *BSc (Hons)*

Checked & Approved: [redacted]
Renata Bochenek-Gasiorkiewicz *MEng (Hons)*

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CONTENTS

Contents....4
List of Tables....5
List of Figures....5
List of Appendicies....6

SECTION 1 SITE INVESTIGATION....7

INTRODUCTION....7
EXISTING SITE DESCRIPTION....7
PROPOSED SITE LAYOUT....8

SECTION 2 POTENTIAL SOURCES OF FLOODING....9

FLUVIAL FLOOD RISK....9
CANAL FLOOD RISK....11
GROUNDWATER FLOOD RISK....11
ARTIFICIAL WATERBODIES....12
PLUVIAL RUNOFF....13
CRITICAL DRAINAGE AREA....14
FLOOD RISK OVERVIEW....15

SECTION 3 FLOOD RISK ANALYSIS....16

FLUVIAL FLOODING....16
ARTIFICAL WATERBODIES....20
PLUVIAL FLOODING....20
CRITICAL DRAINAGE AREAS....22

SECTION 4 FLOOD ZONE REQUIREMENTS....23

SECTION 5 EXISTING DRAINAGE INFORMATION....25

PUBLIC SEWERS....25
PRIVATE DRAINAGE....26

SECTION 6 SUSTAINABLE DRAINAGE STRATEGY....27

EXISTING PEAK RUNOFF RATE....27
PROPOSED RUNOFF DESTINATION....30
SUSTAINABLE DRAINAGE TECHNIQUES....31
CLIMATE CHANGE ALLOWANCE....32

SECTION 7 PRELIMINARY DRAINAGE STRATEGY....33

SURFACE WATER STRATEGY....33
FOUL WATER STRATEGY....34

SECTION 8 FUTURE DRAINAGE MAINTENANCE....35

SECTION 9 CONCLUSION....37

Shepherd Gilmour Consulting Engineers 3rd Floor, Phoenix House, 45 Cross Street, Manchester M2 4JF Tel: 0161 837 1500

LIST OF TABLES

TABLE 2.1 POTENTIAL SOURCES OF FLOODING OVERVIEW 15
TABLE 3.1 ESTIMATED CORN BROOK FLOOD LEVELS – UNDEFENDED (ENVIRONMENT AGENCY) 17
TABLE 3.2 FLOOD RISK ASSESSMENT GUIDE 18
TABLE 3.2 MINIMUM FINISHED FLOOR LEVELS (DWELLINGS) 19
TABLE 4.1 FLOOD RISK CLASSIFICATION (NPPF) 23
TABLE 6.1 WALLINGFORD PROCEDURE VOLUME 3 VARIABLES 27
TABLE 6.2 SITE ANALYSIS 28
TABLE 6.3 PEAK GREENFIELD RUNOFF RATES 28
TABLE 6.4 RETURN PERIOD RAINFALL INTENSITY 29
TABLE 6.5 EXISTING PEAK BROWNFIELD RUNOFF RATES 29
TABLE 6.6 PROPOSED PEAK RUNOFF RATES 30
TABLE 6.7 SOIL CLASSIFICATION 31
TABLE 6.8 SUDS TECHNIQUES 32
TABLE 8.1 ESTIMATED ATTENUATION VOLUME 33
TABLE 9.1 SUDS MAINTENANCE MANAGEMENT 36

LIST OF FIGURES

FIGURE 1.1 SITE LOCATION (© OPENSTREETMAP CONTRIBUTORS) 8
FIGURE 1.2 ARCHITECTS LAYOUT 8
FIGURE 2.3 FLOOD MAP (ENVIRONMENT AGENCY) 9
FIGURE 2.2 SFRA FLOOD MAP (SFRA) 10
FIGURE 2.4 GROUNDWATER FLOOD MAP (SFRA) 12
FIGURE 2.5 RESERVOIR FLOOD RISK MAP (GOV.UK) 13
FIGURE 2.6 PLUVIAL FLOOD RISK MAP (GOV.UK) 13
FIGURE 2.7 CRITICAL DRAINAGE AREAS (SFRA) 14
FIGURE 3.1 ENVIRONMENT AGENCY MODELLED FLUVIAL EXTENT (0.1% AEP +30%CC) 16
FIGURE 3.1 PLUVIAL FLOOD RISK MAP – 200MM (GOV.UK) 21
FIGURE 3.2 PLUVIAL FLOOD RISK MAP – 300MM (GOV.UK) 21
FIGURE 3.3 CDA RUNOFF RESTRICTIONS (LOCAL FLOOD RISK MANAGEMENT STRATEGY) . 22
FIGURE 4.1 PROPOSED ACCESS AND EGRESS ROUTE 24
FIGURE 5.1 SEWER RECORDS (UU) 25
FIGURE 6.1 UU PRIVATE DRAINAGE 29

Shepherd Gilmour Consulting Engineers 3rd Floor, Phoenix House, 45 Cross Street, Manchester M2 4JF Tel: 0161 837 1500

LIST OF APPENDICIES

APPENDIX A	TOPOGRAPHICAL SURVEY
APPENDIX B	ARCHITECT PROPOSALS
APPENDIX C	ENVIRONMENT AGENCY PRODUCT 4 DATA
APPENDIX D	UNITED UTILITIES RECORD
APPENDIX E	PRELIMINARY DRAINAGE LAYOUT
APPENDIX F	REVIEW OF CCTV SURVEY

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SECTION 1 SITE INVESTIGATION

INTRODUCTION

1.1. Shepherd Gilmour Infrastructure Ltd (SGi) has been engaged by Caddick Construction / Mosscare St Vincent's Housing Group Limited to prepare a Flood Risk Assessment and Drainage Statement sufficient to support of a full planning application for Land at Barnhill Street/ Raby Street Moss Side, Manchester.

1.2. The Flood Risk Assessment has been prepared in accordance with the Flood Risk and Coastal Change Planning Practice Guidance (PPG) and the National Planning Policy Framework (NPPF). It contains information from sources such as the Environment Agency (EA), Local Sewerage Undertaker, District Council and Site Owner.

1.3. The Drainage Statement has been prepared in line with the Non-Statutory Technical Standards for Sustainable Drainage (NSTSSD) and CIRIA Report C753. It also defines the outline proposal for the disposal of surface water runoff and foul effluent from the site.

EXISTING SITE DESCRIPTION

1.4. The proposed development site (PDS) is located off Moss Lane East in Manchester. The site spans over approximately 0.647 hectares with the northern and central part of the site being currently overgrown with grass and vegetation. The south-east corner of the site is currently built over with residential dwellings. Historic maps shows that the entire site was previously developed with residential and commercial buildings, therefore the site is classed as Brownfield.

1.5. The existing topography of the site is mostly flat with some small mounds around the northern and western boundary. The current site levels vary from 32.10m to 33.20m.

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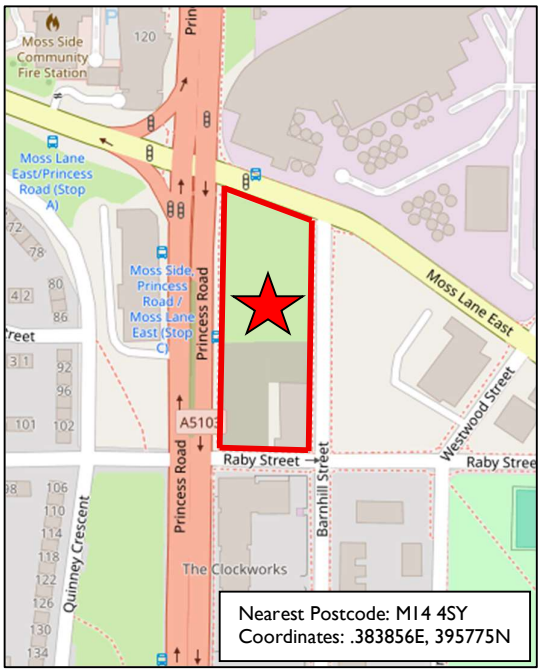


Figure 1.1 Site Location (© OpenStreetMap Contributors)

1.6. A copy of the latest topographical survey has been included within **Appendix A**.

PROPOSED SITE LAYOUT

1.7. Site is proposed to be developed for residential end use with associated infrastructure and soft landscaping. The six residential blocks vary from 10 to 6 storeys and townhouses (Block F) are proposed to be 2 to 3 storeys.

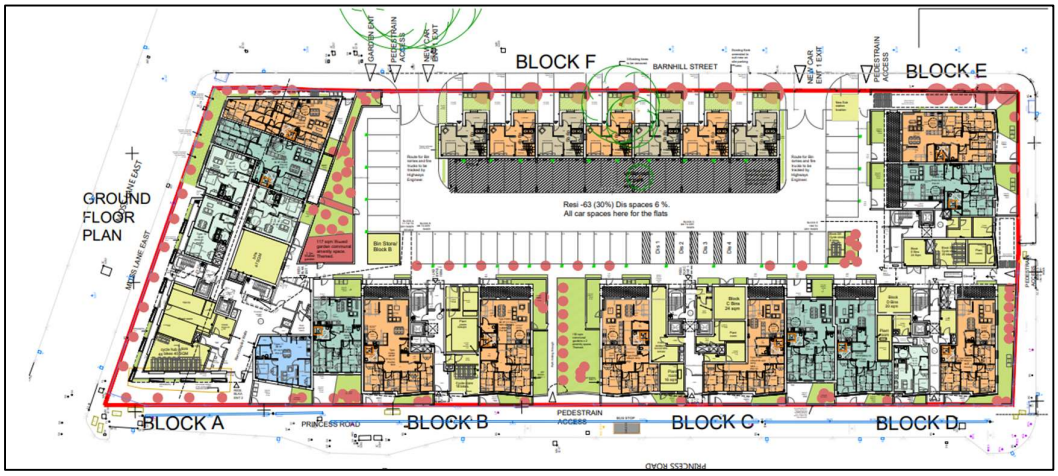


Figure 1.2 Architects Layout

1.8. A full-size copy of the architect's plans has been included within **Appendix B**.

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SECTION 2 POTENTIAL SOURCES OF FLOODING

2.1. There are several sources of flooding that could potentially impact a development.

- *Fluvial/Tidal,*
- *Ground Water,*
- *Artificial Waterbodies (canals, reservoirs etc) and,*
- *Pluvial.*

2.2. The risk of flooding from the above sources has been reviewed at high level in this Section and a more detailed any sources which could impact the site are discussed in further detail in **Section 3 & 4**.

FLUVIAL FLOOD RISK

Environment Agency

2.3. According to the (EA) flood search the site is located within Flood Zones 2 and Flood Zone 1. The impact of these zones is discussed in further detail in **Section 3**.

2.4. An abstract of this EA Flood Map has been shown below in **Figure 2.3**.

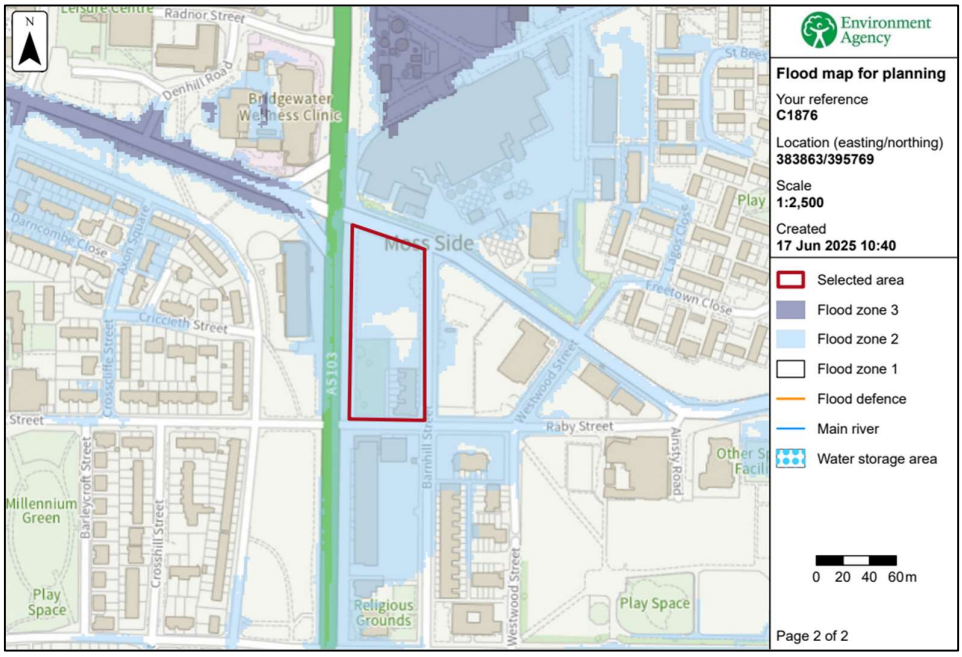


Figure 2.3 Flood Map (Environment Agency)

- *Flood Zone 1 – Low Probability*
- *Land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map – all land outside Zones 2 and 3)*

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- *Flood Zone 2 – Medium Probability*
- *Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. (Land shown in light blue on the Flood Map)*
- *Flood Zone 3 – High Probability*
- *Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding. (Land shown in dark blue on the Flood Map)*

Strategic Flood Risk Assessment

2.5. The NPPF requires Local Planning Authorities to produce Strategic Flood Risk Assessments (SFRA) in support of their Local Plan. These form the basis for preparing appropriate policies for flood risk management within the area and provide the framework for assessing areas of developable land.

2.6. The site is captured within the SFRA for Manchester City, Salford City and Trafford Council and was produced by JBA Consulting in March 2012. The SFRA flood data confirms that the PDS is located within Flood Zone 2. However, the extents of the Flood Zone 2 are greater than shown on the current maps, that were updated in 2025.

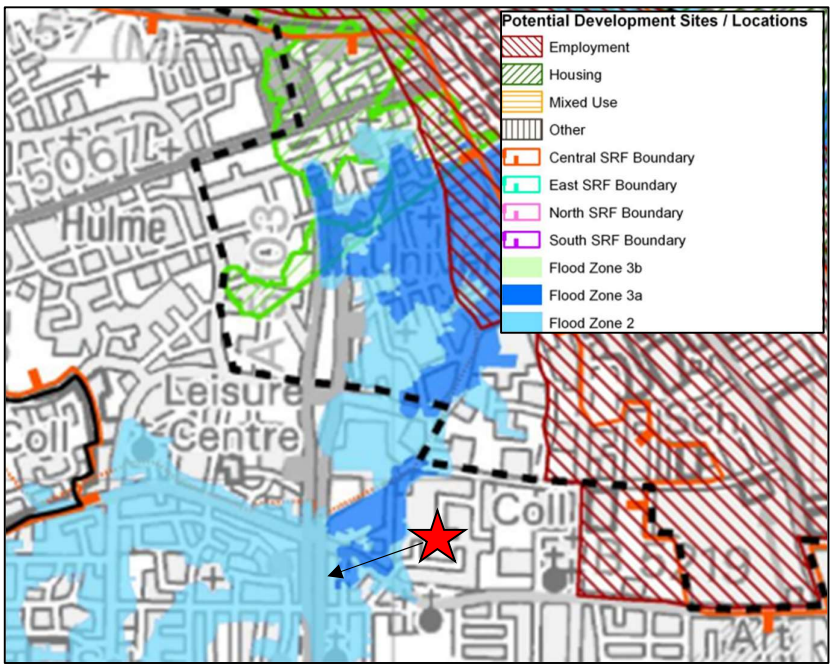


Figure 2.2 SFRA Flood Map (SFRA)

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Ordinary Watercourse

2.7. Ordinary watercourses do not form part of a 'main river' and can consist of rivers, ditches, swales, drains etc. These watercourses are the responsibility of the riparian owner who must ensure that:

- *Flows can pass freely without obstruction, pollution, or diversion (affecting the rights of others).*
- *The banks and bed of the watercourse are maintained (including vegetation).*
- *Any approved onsite watercourse structures are maintained.*

2.8. There are no historic/hidden watercourses indicated on the available maps.

CANAL FLOOD RISK

2.9. Water levels within canals are maintained/regulated by sluice gates along the waterway and whilst a breach or overtopping is unlikely, the possible risk should be assessed.

Canal & River Trust

2.10. Many of canals in England and Wales are owned, maintained, and operated by the Canal & River Trust (CRT). The closest CRT canal to site is the Rochdale Canal approximately 1.7km north of the site.

2.11. The SFRA indicates that the site is located outside of any CRT Flood Risk.

GROUNDWATER FLOOD RISK

2.12. Unlike flooding from rivers and the sea, groundwater does not pose a significant risk to life. It is more associated with damage to the building, due to the flooding persisting over several weeks.

2.13. The SFRA indicates that the site is located inside an area that is not considered to be prone to groundwater flooding (**Figure 2.4**). Any groundwater issues, however, will be confirmed during the Phase II site investigation and any potential issues will be mitigated at the detailed design.

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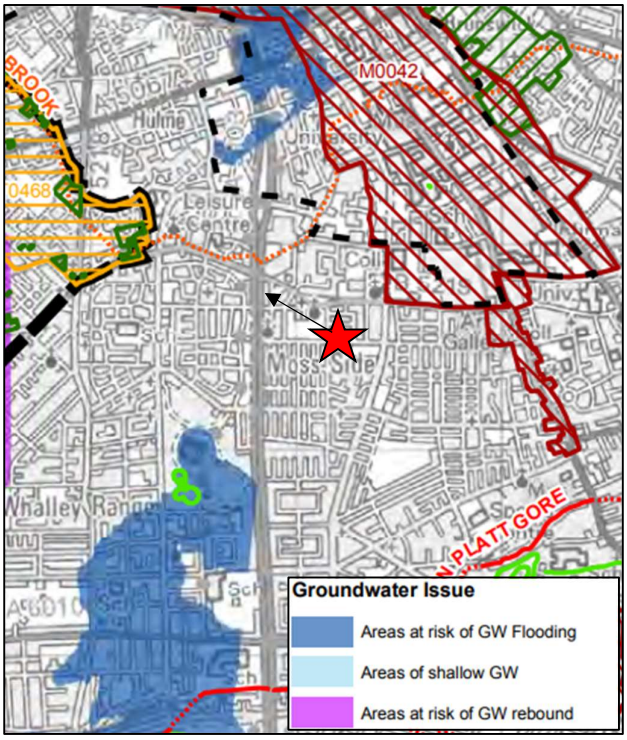


Figure 2.4 Groundwater Flood Map (SFRA)

ARTIFICIAL WATERBODIES

2.14. The reservoirs in the area are owned and operated by United Utilities and are covered by the Reservoirs Act 1975. Whilst the probability of a catastrophic dam failure occurring is relatively low the consequences of such an event are severe.

2.15. Reservoir flood plans are still required and are prepared by their owners. These documents are considered sensitive due to national security and only indicative plans are made available by the Environment Agency/Gov.UK.

2.16. The reservoir flood plan (**Figure 2.5**) indicates that the site is at risk in the event of a breach.

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Figure 2.5 Reservoir Flood Risk Map (Gov.UK)

PLUVIAL RUNOFF

2.17. Pluvial flooding is defined as 'flooding from rainfall generated overland flow before the runoff infiltrates into the ground, enters any watercourse or sewer.' It is usually associated with high-intensity rainfall events but can also occur during low-intensity events when the ground is saturated/frozen or has low permeability.

2.18. Gov.UK (**Figure 2.6**) indicates that there are areas of high chance of pluvial flooding in the northern and southern parts of the site.

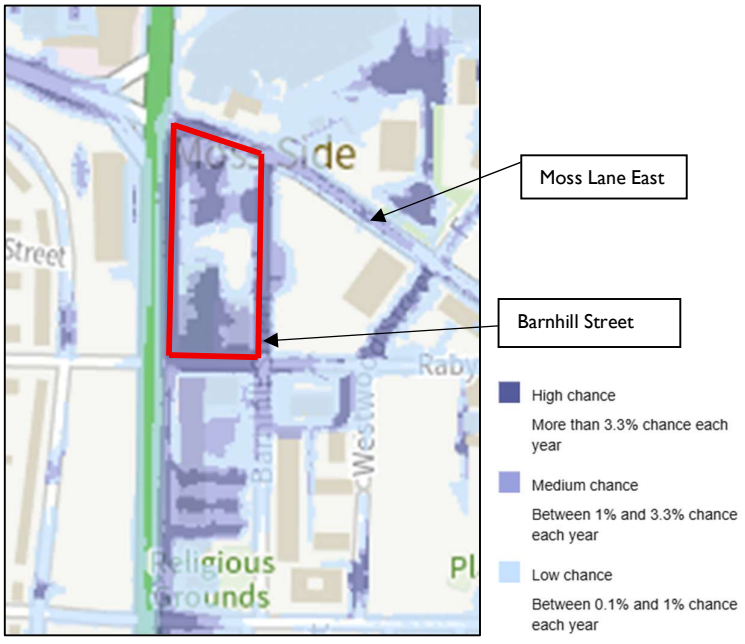


Figure 2.6 Pluvial Flood Risk Map (Gov.UK)

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CRITICAL DRAINAGE AREA

2.19. Critical Drainage Areas (CDA) are areas that are particularly sensitive to an increase in surface water runoff, either as direct overland flow or from the existing sewer network.

2.20. Maps within the SFRA confirm that the PDS is located within the conurbation core.

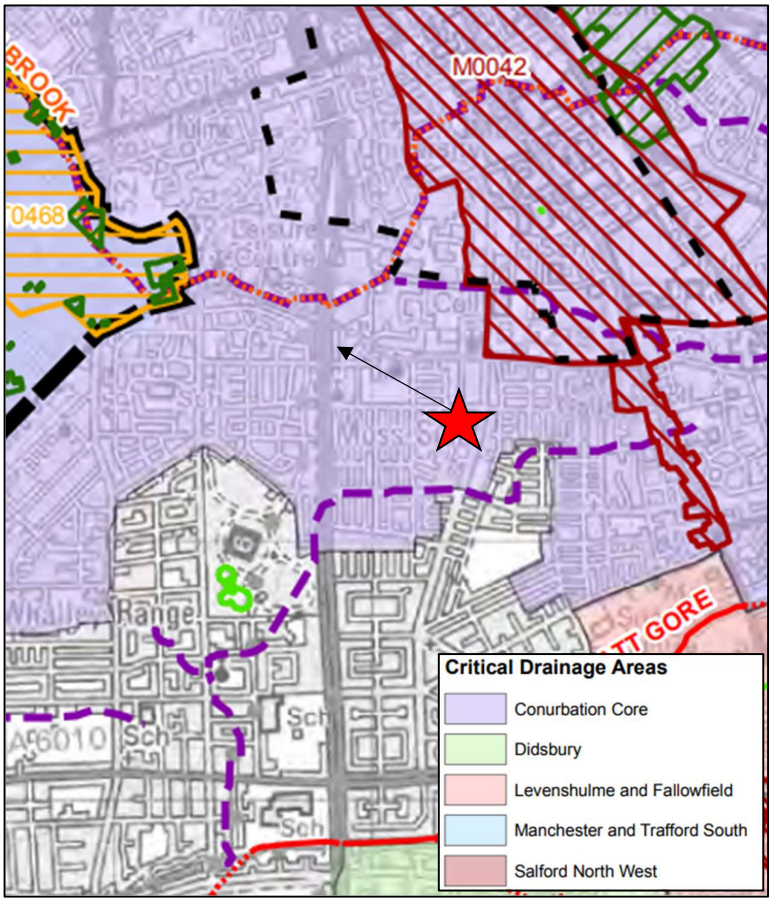


Figure 2.7 Critical Drainage Areas (SFRA)

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FLOOD RISK OVERVIEW

2.21. The potential sources of flooding which could be experienced have been summarised in **Table 2.1**. Those posing the greatest flood risk to the site have been investigated further in **Section 3** to determine the potential mitigation measures.

Source of Flooding	Potential Flood Risk	Site Description
Fluvial/Tidal	Risk Identified	The Environment Agency maps indicate that the site is in Flood Zone 2
Ordinary Watercourse	Unlikely	No Ordinary Watercourses were identified.
Canal	Unlikely	Maps within the SFRA indicate that the PDS is outside of any canal flood risk.
Ground Water	Unlikely	Maps within the SFRA show that the site in not in an area prone to ground water flooding.
Artificial Waterbodies (Reservoir)	Risk Identified	The Gov.UK maps indicate that the site is at risk from reservoir flooding
Pluvial Runoff	Risk Identified	Areas at high risk of pluvial flooding are shown on Gov.UK maps.
Critical/Sensitive Drainage Areas	Risk Identified	The SFRA maps show the site to be in the Conurbation Core.

Table 2.1 Potential Sources of Flooding Overview

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SECTION 3 FLOOD RISK ANALYSIS

FLUVIAL FLOODING

Environment Agency Data

3.1. The Environment Agency has provided estimated flood data at specific node points along Corn Brook. This flood data along with the topographical survey will be used to set the minimum ground level(s) on the proposed development.

3.2. A copy of the Environment Agency data is included within **Appendix C**.

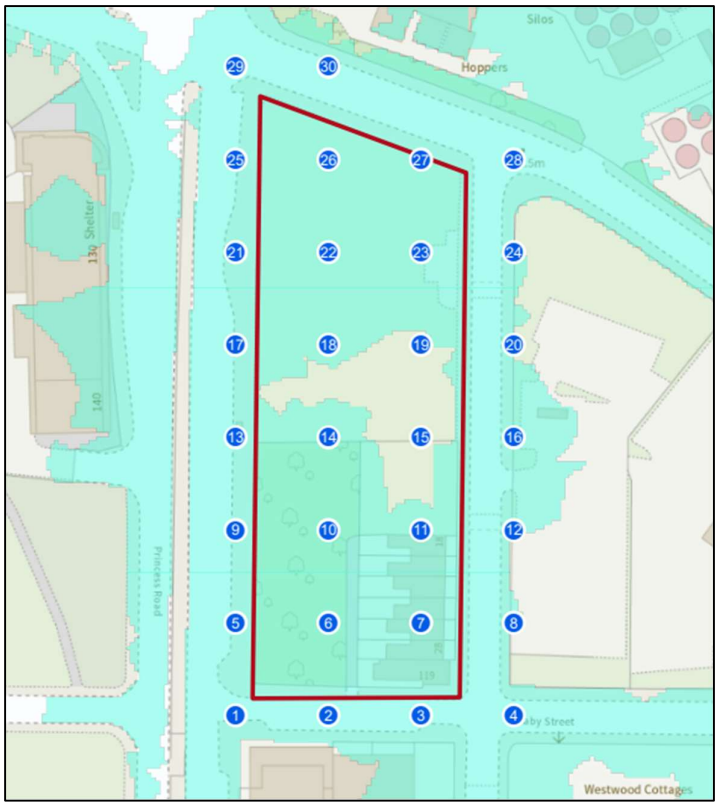


Figure 3.1 Environment Agency Modelled Fluvial Extent (0.1% AEP +30%CC)

Node	100 Year -1% AEP (+30% CC)	100 Year -1% AEP (+35% CC)	100 Year -1% AEP (+70 CC)	1000 Year – 0.1% AEP (+30% CC)
1	No Data	No Data	32.77m	32.83m
2	No Data	No Data	32.77m	32.83m
3	No Data	No Data	32.77m	32.83m
4	No Data	No Data	32.77m	32.84m
5	No Data	No Data	32.77m	32.83m
6	No Data	No Data	32.77m	32.83m
7	No Data	No Data	32.77m	32.83m

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8	No Data	No Data	No Data	32.84m
9	No Data	No Data	32.77m	32.83m
10	No Data	No Data	32.77m	32.83m
11	No Data	No Data	32.77m	32.84m
12	No Data	No Data	No Data	32.85m
13	No Data	No Data	32.77m	32.83m
14	No Data	No Data	32.77m	32.83m
15	No Data	No Data	No Data	No Data
16	No Data	No Data	32.78m	32.86m
17	No Data	No Data	32.78m	32.85m
18	No Data	No Data	32.79m	32.84m
19	No Data	No Data	No Data	No Data
20	No Data	No Data	No Data	32.86m
21	No Data	No Data	32,78m	32.85m
22	No Data	No Data	32.79m	32.86m
23	No Data	No Data	32.79m	32.87m
24	No Data	No Data	32.79m	32.86m
25	No Data	No Data	32.79m	32.86m
26	No Data	No Data	32.79m	32.86m
27	No Data	No Data	32.79m	32.87m
28	No Data	No Data	32.80m	32.87m
29	No Data	No Data	32.79m	32.87m
30	No Data	No Data	32.79m	32.87m

Table 3.1 Estimated Corn Brook Flood Levels – Undefended (Environment Agency)

Climate Change Allowance

3.3. The Environment Agency changed the way climate change was applied to river levels in 2016. Rather than a one size fits all approach it is now applied based on the development type, the development size, and the sites associated flood zone. The following steps confirm the climate change allowance required for the development

Proposed Development Site – Residential = More Vulnerable

- *Minor: 1-9 dwellings/ less than 0.5 ha | Office / light industrial under 1ha | General industrial under 1 ha | Retail under 1 ha | Gypsy/traveller site between 0 and 9 pitches*

- *Small-Major: 10 to 30 dwellings | Office / light industrial 1ha to 5ha | General industrial 1ha to 5ha | Retail over 1ha to 5ha | Gypsy/traveller site over 10 to 30 pitches*
- *Large-Major: 30+ dwellings | Office / light industrial 5ha+ | General industrial 5ha+ | Retail 5ha+ | Gypsy/traveller site over 30+ pitches | any other development that creates a non-residential building or development over 1000 sq m.*

Vulnerability Classification	Flood Risk Assessment Type			
	Flood Zone	Minor	Small-Major	Lager-Major
Highly Vulnerable	Flood Zone 2	Intermediate/Basic	Intermediate/Basic	Detailed
	Flood Zone 3a	Not Appropriate		
	Flood Zone 3b	Not Appropriate		
More Vulnerable	Flood Zone 2	Basic	Basic	Intermediate/Basic
	Flood Zone 3a	Basic	Detailed	Detailed
	Flood Zone 3b	Not Appropriate		
Less Vulnerable	Flood Zone 2	Basic	Basic	Intermediate/Basic
	Flood Zone 3a	Basic	Basic	Detailed
	Flood Zone 3b	Not Appropriate		

Table 3.2 Flood Risk Assessment Guide

- ***Basic:*** *Developer can add an allowance to the 'design flood' (i.e. 1% annual probability) peak levels to account for potential climate change impacts. The allowance should be derived and agreed locally by Environment Agency teams.*
- ***Intermediate:*** *Developer can use existing modelled flood and flow data to construct a stage-discharge rating curve, which can be used to interpolate a flood level based on the required peak flow allowance to apply to the 'design flood' flow.*
- ***Detailed:*** *Perform detailed hydraulic modelling, through either re-running Environment Agency hydraulic models (if available) or construction of a new model by the developer.*

3.4. Based on the above EA guidance the site would require a basic Flood Risk Assessment to be undertaken. A 'Basic' assessment has been deemed adequate by SGi due to the level of risk onsite.

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- *For **Highly Vulnerable developments** in flood zone 2, the '**higher central**' climate change allowance is our minimum benchmark for flood risk mitigation. In sensitive locations it may be necessary to use the **upper end** allowance.*
- *For **More Vulnerable developments** in flood zone 2, the '**central**' climate change allowance is our minimum benchmark for flood risk mitigation, and in flood zone 3 the '**higher central**' climate change allowance is our minimum benchmark for flood risk mitigation. In sensitive locations it may be necessary to use the **higher central** (in flood zone 2) and the **upper end** allowance (in flood zone 3).*
- *For **Less Vulnerable** development (e.g. commercial), the '**central**' climate change allowance for the epoch that most closely represents the lifetime of the development is our minimum benchmark for flood risk mitigation. In sensitive locations it may be necessary to use the **upper end** allowance (particularly in flood zone 3) to inform built in resilience.*

Mitigation Measures - Dwellings

3.5. The finished floor levels of the proposed buildings that are located within the extents of Flood Zone 2 must be set at least 600mm above the most relevant node/river level (i.e., 1% plus climate allowance). This will ensure that the most sensitive elements of the development are protected from fluvial flood risk.

3.6. Node positions 6, 7, 10, 11, 14, 15, 18, 19, 22, 23, 26, and 27 are all located on the site. Node 27 records the highest level and is therefore considered the most appropriate point for setting the finished floor levels.

3.7. Based on the data that we have received from the EA, there is no flooding shown for the 1in100 year +35% event, which is the climate change allowance used for Flood Zone 2.

3.8. We have therefore used that the minimum existing ground level, with 600mm freeboard, should be used to set the proposed development levels.

Minimum Existing Ground Levels	Freeboard	Minimum Finished Floor Levels
32.10m	+600mm	32.70m

Table 3.2 Minimum Finished Floor Levels (Dwellings)

3.9. Minimum finished floor level for the buildings at ground floor is 32.70m.

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Mitigation Measures – Essential Infrastructure

3.10. Essential infrastructure should be set at or above the estimated 100-year flood level with a Central allowance included. The minimum level for all essential infrastructure would therefore be 32.10m.

Fluvial Flood Risk = Low risk after mitigation measures are applied

ARTIFICAL WATERBODIES

3.11. The reservoirs in the UK have an extremely good safety record and are carefully maintained. However, the Gov.UK maps indicate that the PDS could be at risk during a breach (**Figure 2.5**).

Mitigation Measures

3.12. The maps are prepared for emergency planning purposes and reflect a credible worst-case scenario. This means that if a reservoir failure did occur, it would most likely be far less severe than the scenario shown on the map.

3.13. Proposing any mitigation measure to defend against such an event would be impractical and cost prohibitive. So, a residual risk from this source would remain.

Reservoir flood risk = Residual risk remains, however this is unlikely due to ongoing monitoring and maintenance

PLUVIAL FLOODING

3.14. The surface water flood maps available at Gov.UK indicate that the site is at risk of pluvial flooding. These maps are based on LIDAR data and purely highlight low spots/depressions on the ground that may be at risk of pluvial flooding.

3.15. When assessing the "depth" of the pluvial flooding using the Gov.UK maps, there is one area that has a high chance of flooding up to 200mm. The northwestern and southern side of the site have a medium and chance of flooding (**Figure 3.1**).

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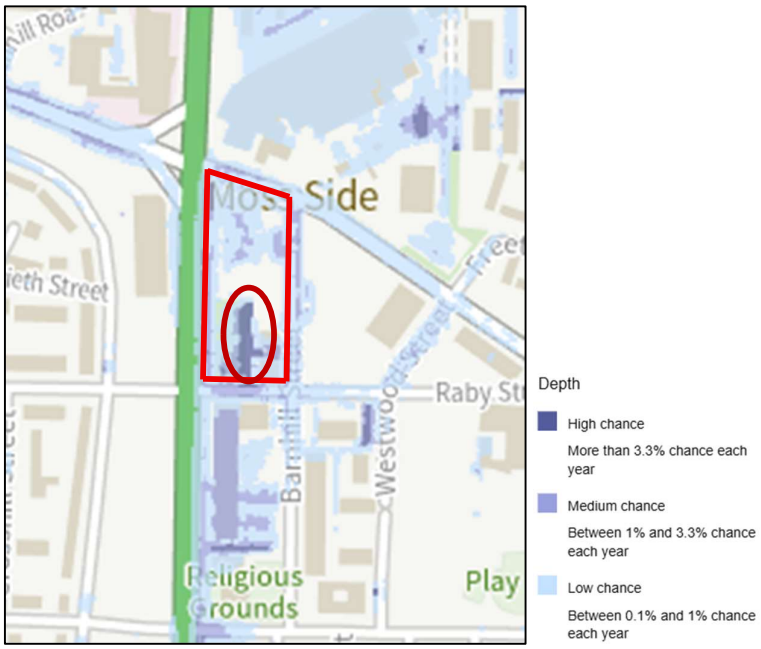


Figure 3.1 Pluvial Flood Risk Map – 200mm (Gov.UK)

3.16. At 300mm there is one area that shows to have a high chance of pluvial flooding, the remained of the site has a low chance.

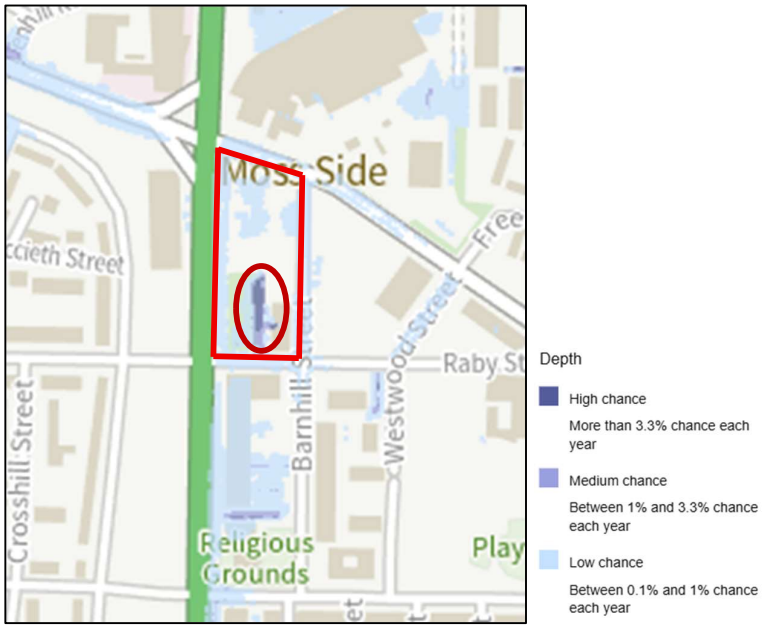


Figure 3.2 Pluvial Flood Risk Map – 300mm (Gov.UK)

Mitigation Measures

3.17. The pluvial flooding indicated on the surface water flood maps relates to the current topography. However, post development existing ground will be reprofiled to suit the development proposals and the minimum finished floor levels in **Table 3.2**. This will remove the onsite risks highlighted with in **Figures 3.1** and **3.2** without posing any risk

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to the neighbouring land. The onsite surface water drainage will be designed to cater sufficiency for all storm events up to and including the 100-year event plus 45% climate change. This will reduce the risk of pluvial flooding onsite/offsite.

Pluvial Flood Risk = Very Low risk after mitigation measures have been implemented

CRITICAL DRAINAGE AREAS

3.18. The PDS is located within the Conurbation Core CDA. Specific details relating to this CDA are limited and further information/discussions with United Utilities and the Lead Local Flood Authority should be undertaken at the detailed design stage.

Mitigation Measures

3.19. Both the SFRA and Local Flood Risk Management Strategy confirm that greenfield sites should restrict runoff up to the 1 in 100-year + 45% climate change storm event and a 50% reduction in brownfield runoff rates, to help mitigate the flood risk in the area.

> Within Critical Drainage Areas, and consistent with Core Strategy policy EN14 Flood Risk, developers should aim to *minimise* surface water runoff from developments, and achieve *at least* the following runoff rates:
>
> - Greenfield runoff on Greenfield sites up to a 1 in 100 year storm event, including consideration of climate change
> - A 50% runoff rate reduction for Brownfield sites, with an aim of reducing runoff to Greenfield rates up to a 1 in 100 year storm event, including consideration of climate change

Figure 3.3 CDA Runoff Restrictions (Local Flood Risk Management Strategy)

CDA Flooding = Risk addressed as required by EN14

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SECTION 4 FLOOD ZONE REQUIREMENTS

4.1. Based on the current information the site is located within Flood Zone 1 and Flood Zone 2.

- *Flood Zone 1 Low Probability - Land having a less than 1 in 1,000 annual probability of river or sea flooding.*
- *Flood Zone 2 Medium Probability - Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding.*

Proposed Development Type

4.2. In accordance with the National Planning Policy Framework Practice Guidance on flooding, the development proposals would be classed as more vulnerable and are permitted within Flood Zone 1 and Flood Zone 2.

Flood Zone	Flood Risk Vulnerability Classification				
	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
1	✓	✓	✓	✓	✓
2	✓	Exception Test Required	✓	✓	✓
3a	Exception Test Required	x	Exception Test Required	✓	✓
3b	Exception Test Required	x	x	x	✓

Key: ✓ Development is appropriate x Development should not be permitted

Table 4.1 Flood Risk Classification (NPPF)

Policy Aims

4.3. In this zone developers and Local Authorities should still seek opportunities to reduce the overall level of flood risk in the area through the layout design and form of development and the appropriate application of sustainable drainage techniques.

4.4. The proposed sustainable drainage techniques along with an outline drainage plan are discussed in further detail in **Section 6 & 7**.

Finished Floor Level Restrictions

4.5. The minimum finished floor level for the proposed developments located within Flood Zone 2, will be 600mm above the lowest level of the existing site which is 32.1m.

Flood Compensation

4.6. Not applicable for developments within Flood Zone 2.

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Safe Access and Egress

4.7. The proposed development will be based on the elevated levels that are above the existing flood levels (**Table 3.2**), therefore post-development the site will be classed as free from flood risk during the 1:100 +35%cc event. However, the adjacent areas, outside of the site extents, will remain within the flood risk. The below is figure illustrates the proposed safe route for the pedestrians to access the public areas with no flood risk.

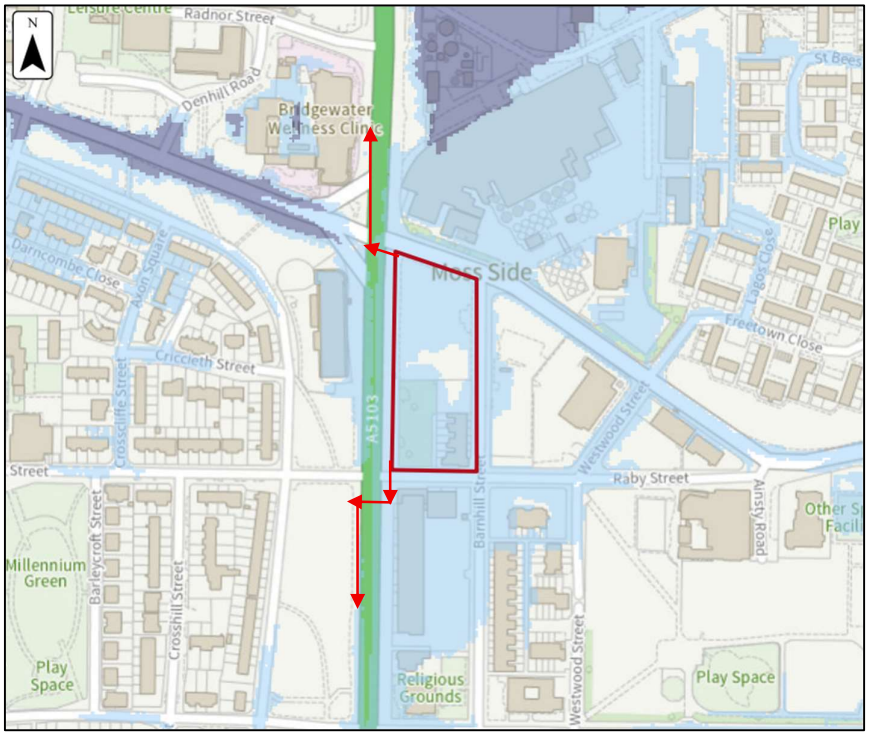


Figure 4.1 Proposed Access and Egress Route

4.8. It is proposed that residents cross the road at the designated crossing points at the northwestern and southwestern boundary of the site. These areas are outside of the flood zone and along the Princess Road which has well established transport links in and out of the city centre.

4.9. At this stage, if required, we would advise that all new residents be informed of how to sign up to EA flood warning service. The flood warning service will alert residents if flooding within the adjacent areas is expected.

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SECTION 5 EXISTING DRAINAGE INFORMATION

PUBLIC SEWERS

5.1. The public sewers in the area are owned and maintained by United Utilities (UU). A copy of these records has been included within **Appendix D.**

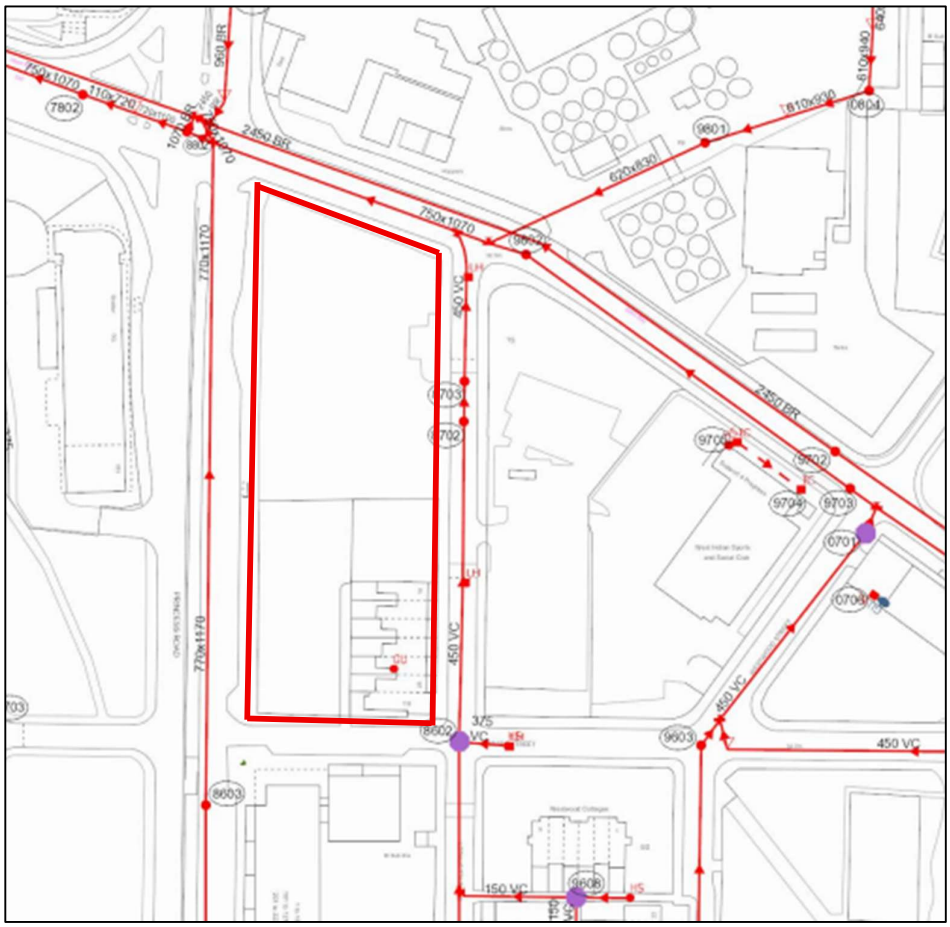


Figure 5.1 Sewer Records (UU)

Surface Water Sewers

5.2. No surface water sewers identified on or around the site.

Foul Water Sewers

5.3. No foul water sewers identified on or around the site.

Combined Water Sewers

5.4. There are four combined water sewers adjacent to the site. UU records indicate these are:

- *750x1070 brick culvert, north of the site.*
- *2450mm sewer, north of the site.*

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- *450mm sewer, east of the site in Barnhill Street. This sewer joins the 750x1070 brick culvert in Moss Lane East.*
- *770x1170 brick culvert along Princess Road that appears to join the 2405mm sewer in Moss Lane East.*

Sewer Diversions

5.5. None expected.

PRIVATE DRAINAGE

5.6. Following on from a consulation with UU, it has been established there are private sewers from the exisitng properties that join into the Barhill Street combined network. Before works commence on site a CCTV survey will be carried out to confirm the location and condition of the sewers.

5.7. As part of the development proposals it is anticipated that these sewers will be disconneted and abandoned.

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SECTION 6 SUSTAINABLE DRAINAGE STRATEGY

6.1. The general requirement set out by the NSSDS 2011 and NSTSSD 2015 technical documents is that 'the development must not increase the risk of flooding elsewhere.' In practical terms this means that the proposed development runoff rate must provide a betterment or be equal to the calculated greenfield rate.

EXISTING PEAK RUNOFF RATE

6.2. The current status of the site is Brownfield. However, in order to calculate the post-development surface water runoff, in line with the United Utilities Guidance and Regulations, the northern part of the site will be assessed as Greenfield. This is due to the UU Greenfield site definition stating that if a previously developed site has been demolished 5 years ago or longer, the site is classed as greenfield for the purpose of calculating the post-development run-off. The southeast part of the site is currently overbuilt therefore it is classed as brownfield.

6.3. For the northern portion of the site the Institute of Hydrology Report 124 Flood Estimation for Small Catchments has been used to calculate the mean annual flood flow from the catchment.

6.4. The Modified Rational Method has been used to calculate the existing runoff rate of the southern part of the site. It requires the existing hardstanding areas, an approximate time of concentration and variables from the Wallingford Procedure.

Volume Wallingford Variables	Value
M5-60 minute rainfall depth	18mm
Ratio of M5-60 to M5-2 day rainfalls	0.364mm
Average Annual Rainfall (SAAR)	860mm
Winter Rain Acceptance Potential (SOIL)	Soil Type 4 (0.47)
Urban Catchment Wetness Index (UCWI)	90
Time of Concentration (mins)	5

Table 6.1 Wallingford Procedure Volume 3 Variables

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	m²	ha
Red Line Boundary	Circa 6469	0.647
Greenfield Area*	5628	0.563
Brownfield Area*	841	0.084
*Areas used in these calculations has been taken from the Architects outline proposals. This calculation is therefore only a guide/proof of concept and must be updated to reflect the actual proposals during the full application/detailed design stage.		

Table 6.2 Site Analysis

Institute of Hydrology Report 124 Flood Estimation for Small Catchments

QBAR rural = $1.08 (AREA/100)^{0.89} \times SAAR^{1.17} \times SOIL^{2.17}$

Where; *AREA* = *50 ha (to be scaled to 0.563ha)*

SAAR = *860mm*

SOIL = *Type 4 (0.47)*

QBAR rural = $1.08 (AREA/100)^{0.89} * SAAR^{1.17} * SOIL^{2.17}$

= $1.08 (50/100)^{0.89} * 860^{1.17} * 0.47^{2.17}$

= *307.1 (50-hectare site)*

Therefore *QBAR* = *(307.1 / 50) * 0.563*

= ***3.5***

Growth Curve Factor

6.5. Growth curve factors have been derived for each of the 10 hydrological regions of the UK. These are based on the work carried out by the Flood Studies research and assists in calculating multiple peak runoff rates for different events using the estimate QBAR value.

6.6. The Microdrainage calculations are shown below in **Table 6.3**.

Hydrological Region	10				
Estimated QBAR Value	3.5				
Growth Curve Year	1	2	5	30	100
Total Greenfield Peak Runoff (l/s)	3	3.2	3.7	5.9	7.2

Table 6.3 Peak Greenfield Runoff Rates

Modified Rational Method

$Q_{Brownfield}$ *(l/s)* = $2.78 \times C_v \times C_r \times R_i \times Area$

Where; PIMP = *(Percentage of impermeable area)* = *100%*

$P_r = 0.829PIMP + 25SOIL + 0.078UCWI - 20.7$ = *80.97%*

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C_v = *Volumetric runoff coefficient* $= P_r/PIMP$ = *0.81*

C_r = *Routing coefficient (Urban Areas)* = *1.3*

R_i = *Rainfall Intensity 1 Year* = *42*

Area = Impermeable Area = *0.084ha*

$Q_{Brownfield}$ *(l/s)* = *2.78 x 0.81 x 1.3 x 42 x 0.084* = ***10.3l/s***

Return Period (Years)	1	2	5	30	100
Rainfall Intensity (mm/h)	42	54	70	99	122

Table 6.4 Return Period Rainfall Intensity

Return Period (Years)	1	2	5	30	100
Peak Runoff Rate (l/s)	10.3	13.3	17.2	24.3	30.0

Table 6.5 Existing Peak Brownfield Runoff Rates

Colebrook Formula

6.7. Following on from a consultation with UU, three surface water pipes have been identified from the existing properties into the combined sewer in Barhill Street (**Figure 6.1**).

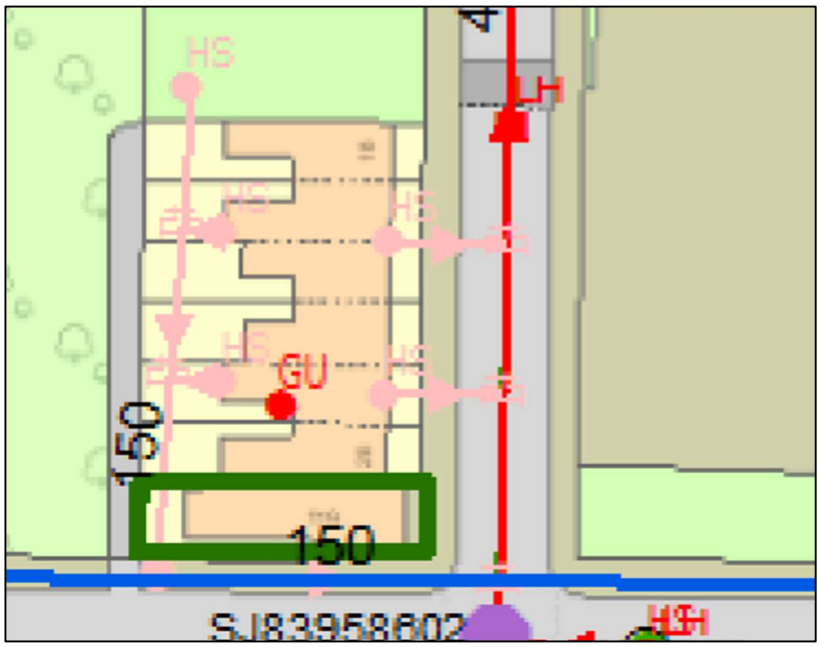


Figure 6.1 UU Private Drainage

6.8. After receiving advice from UU, a CCTV survey was undertaken which identified 6 connections from the existing properties into the combined sewer (**Appendix F**).

6.9. For the purpose of the brownfield, surface water runoff calculations, we have assumed that the 150mm pipe has a gradient of 1 in 150. Based on the Colebrook Formula the

flow capacity of this pipe is 12.6 l/s, as there are 6 such pipes, the total runoff from the existing site is assumed to be 75.6 l/s.

Allowable Runoff Rate

6.10. The flow rates in **Table 6.5** indicate the peak runoff that could be generated in each return period. However, it is unlikely that the underground network was designed to serve the more extreme events.

6.11. Based on the age of the existing buildings, it is assumed that the underground network could have been designed for the 5-year event. The flow rate from the PDS will therefore be restricted to this flow rate with the required betterment (**Figure 3.3**).

5 Year Peak Runoff Rate (l/s)	17.2 l/s
Required Betterment	50% Minimum
Proposed Brownfield Peak Runoff (l/s)	8.6 l/s
Proposed Brownfield Peak Runoff (l/s) *(Q Greenfield + Q Brownfield)*	3.5 + 8.6 **12.1 l/s**

Table 6.6 Proposed Peak Runoff Rates

PROPOSED RUNOFF DESTINATION

Surface Water Hierarchy

6.12. Paragraph 080 of the Flood Risk and Coastal Change Guidance within the Planning Practice Guidance sets out the following hierarchy of surface water runoff destinations:

i. Discharge into the ground (infiltration),

ii. Discharge to a surface waterbody,

iii. Discharge to a surface water sewer,

iv. Discharge to a combined sewer.

Discharge into the ground

6.13. There are five bands of soil classes in England which roughly describe the infiltration potential of an area. It is derived from factors such as, soil permeability, topography, and the likelihood of impermeable layers.

6.14. The soil classification for the PDS is Type 4, see table below. The Phase 1 E3P site assessment states that soakaways are unlikely to be effective due to the potential of cohesive deposits and underlying clay.

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6.15. Infiltration tests should be carried out in accordance with BRE365 at the detailed application stage to confirm the ground type and its permeability.

Soil	WRAP	Runoff	Soil Value	Soil Characteristics
1	Very High	Very Low	0.15	Sandy, well drained
2	High	Low	0.30	Intermediate soils (sandy)
3	Moderate	Moderate	0.40	Intermediate soils (silty)
4	Low	High	0.45	Clayey, poorly drained
5	Very Low	Very High	0.50	Steep, rocky areas

Table 6.7 Soil Classification

Discharge to a surface water body

6.16. No surface water bodies in or close to the site.

Discharge to a surface water sewer

6.17. No surface water sewer identified on or close to the site.

Discharge to a combined sewer

6.18. Consultations with United Utilities have been undertaken with the proposed point of connection for the post development site run-off being to the combine sewer within Barnhill Street.

SUSTAINABLE DRAINAGE TECHNIQUES

6.19. Various SuDS techniques can be used for high and low-density developments. One or more of the below techniques could be incorporated at the detailed application stage to facilitate the required reduction/betterment in flow rates.

6.20. Some of these techniques will also provide all, or part of the required water quality treatment onsite by removing, capturing, and breaking down containments such as hydro-carbons and preventing the migration of sediment and heavy metals downstream.

SuDS Technique		Proposed Development Suitability
Porous pavements	Description	Pavements constructed with porous paving can provide runoff storage within the sub-base and runoff treatment.
	Suitability	Suitable for car parking and pedestrian areas. Suitability subject to detailed drainage design, topography, and infiltration rates.
Swales	Description	Relatively shallow naturally landscaped channels that convey and/or infiltrate the surface water runoff.
	Suitability	No proposed for this development.

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Retention Ponds	Description	Partially filled permanent water bodies that have been designed to provide temporary surface water storage during critical events.
	Suitability	No suitable for this development.
Bioretention Systems	Description	Shallow depression with planted flowers and vegetation that convey and infiltrate the surface water runoff.
	Suitability	Rain gardens may be used around the open public realm,
Green Roofs	Description	Vegetated roof areas that reduce and runoff and increase times of concentration.
	Suitability	Green roofs have been proposed to be used on all the residential buildings.
French Drains	Description	Trench usually filled with stone/gravel and a perforated pipe. Provides attenuation, treatment through filtration and conveyance.
	Suitability	Not currently proposed for this development.
Underground Storage	Description	Attenuation structures installed below ground to provide surface water storage.
	Suitability	Proposed under the access road.

Table 6.8 SuDS Techniques

CLIMATE CHANGE ALLOWANCE

6.21. The PDS is located within the Irwell Management Catchment. The EA current guidance recommends that a climate change allowance of **40**% for the 3.3% event and **45**% for the 1% event. This allowance will therefore need to be added to the rainfall intensities during the detailed design stage.

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SECTION 7 PRELIMINARY DRAINAGE STRATEGY

7.1. A preliminary drainage strategy has been produced to identify any major issues that may affect the foul and surface water drainage for the proposed development. All recommendations are preliminary at this stage and should be developed/investigated further during the detailed application stage.

7.2. A preliminary drainage layout for both schemes, illustrating the below strategy, is included in **Appendix E.**

SURFACE WATER STRATEGY

7.3. A new drainage network will collect and convey the proposed development runoff to the combined sewer within Barhill Street.

7.4. Based on the runoff calculations, the runoff from the development should be permitted to discharge at a rate of 12.1l/s.

Development Area	Approx Impermeable Area	Climate Change +45% Attenuation
0.647ha	95%	319-464m³

Table 8.1 Estimated Attenuation Volume

Note: The storage volumes noted above are estimates only and do not take into account the volume within the network or the potential/allowable surface flooding which may be available.

Water Quality

7.5. The site will only be allowed to discharge clean/treated surface water runoff. The exact treatment process will be confirmed during the detailed design stage.

7.6. At this stage we would recommend that the vehicular hard standing areas fall towards the proposed car parking bay as these are permeable pavements, the open graded sub-base can cleanse the runoff. Runoff within the sub-base will discharge to the underground network (System C) before leaving the site.

7.7. Runoff from some of the proposed buildings will pass through green roofs before discharging from the site into the combined sewer. The runoff from the remained of the buildings will pass through a rain garden before entering the underground network and discharging from site.

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FOUL WATER STRATEGY

Foul Water Drainage

7.8. A new underground drainage network will collect and convey the effluent from the proposed development to the combined sewer within Barhill Street.

Foul Water Flows

7.9. Sewers for Adoption 7th Edition recommends that drainage designs for residential developments should be based on 4000 litres per dwelling per day. Based on this the PDS would generate the following flows.

Q Foul Water (litres) = *4000*

Dwellings/Units = *212 units*

Q Foul Water (litres) = *4000 x 212 = 848000 litres*

Q Foul Water (l/s) = *848000 / (24 x 60 x 60) =* ***9.81 l/s***

Development Connection Point

7.10. The proposed flow rate and any connection point must be agreed with United Utilities during the detailed design stage. Any proposed drainage should also be designed in accordance with Building Regulations Document H1 and Sewers for Adoption 7th Edition.

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SECTION 8 FUTURE DRAINAGE MAINTENANCE

General Drainage Maintenance

8.1. The end-users will be provided with as-built plans to ensure that the private development drainage within their responsibility undergoes a regular maintenance regime (either as required or every 2-5 years). This includes, jetting, vacuumation and a visual/CCTV survey to check the structural condition of pipes and manholes.

SuDS Maintenance

8.2. The maintenance for the onsite SuDS elements will be split into the following sections and will be undertaken by an appointed Maintenance Company once the scheme/plot has been completed.

- *Regular (weeding/inspections/sweeping/litter removal/grass cutting),*
- *Occasional (sediment removal/vacuum brushing) and*
- *Remedial maintenance (repair and replacement).*

8.3. The Maintenance Company will be employed by the end user of the site and will be provided an Operation and Maintenance manual. This manual will outline the location(s) of any drainage infrastructure and detail the maintenance that is required. It will also include the associated cost, and how often each activity should be carried out.

8.4. Records must be kept by the Maintenance Company and the end user for any maintenance works undertaken and must be available for inspection when requested.

Site Specific SuDS elements

8.5. The design of the onsite surface water drainage networks will be carried out during the detailed design stage. But we envisage that the design will include the following SuDS elements.

- *Green Roofs*
- *Pervious Pavement*
- *Rain Gardens*

8.6. The maintenance required for each of the SuDS elements is shown below in **Table 9.1.**

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Operation and Maintenance Activity	Suds Component												
	Pond	Wetland	Detention Basin	Infiltration Basin	Soakaway	Infiltration Trench	Filter Drain	Cellular Storage	Pervious Pavement	Swales/ Bioretention	Filter Strip	Green Roof	Proprietary Systems
Regular Maintenance – Monthly Basis													
Inspection	●	●	●	●	●	●	●	●	●	●	●	●	●
Litter and debris removal	●	●	●	●	○	●	●	○	●	●	●		○
Grass cutting	●	●	●	●	○	●	●	○	○	●	●		
Weed and invasive plant control	○	○	○	○		○	○		○		○	●	
Shrub management	○	○	○	○					○	○	○		
Shoreline vegetation management	●	●	○										
Aquatic vegetation management	●	●	○										
Occasional Maintenance – Annually or as required													
Sediment management	●	●	●	●	●	●	●	●	●	●	●		●
Vegetation replacement	○	○	○	○						○	○	●	
Vacuum sweeping and brushing									●				
Remedial Maintenance – As required													
Structure rehabilitation/repair	○	○	○	○	○	○	○	○	○	○	○	○	
Infiltration surface reconditioning				○	○	○	○		○	○	○		

● Will be required ○ May be required

Table 9.1 SuDS Maintenance Management

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SECTION 9 CONCLUSION

9.1. A Flood Risk Assessment is required to satisfy all requirements of the National Planning Policy Framework (NPPF) and the Flood Risk and Coastal Change Planning Practice Guidance (PPG).

9.2. This Flood Risk Assessment as far as reasonably practical; determines the potential flood risk associated with the site and has concluded the following:

a) The proposed site is located within Flood Zone 1 (Low probability risk of fluvial flooding) and Flood Zone 2 (Medium probability risk of fluvial flooding).

b) The line and level of the existing drainage connection/outfall(s) should be confirmed during the detailed design stage via a CCTV survey.

c) The peak surface water runoff from the proposed developments must be restricted to 12.1 l/s. (**Section 6)**.

d) Surface water attenuation will be required because of the runoff restriction. The estimated attenuation is noted within **Section 8** and the exact type/volume will be confirmed during the detailed design stage.

e) Only clean/treated surface water runoff will be allowed to discharge from the site. Surface water runoff must be treated in accordance with CIRIA C753 (**Section 7)**.

f) The foul water effluent should discharge to the combined sewer in Barnhill Street. The allowable foul water discharge rate must be approved by United Utilities via a S106 and/or S104 application.

g) The proposed onsite drainage system must not contribute to any offsite flood risk or overland flow risk. Any residual risk must be effectively managed onsite with the use of appropriate drainage and/or topographical level consideration.

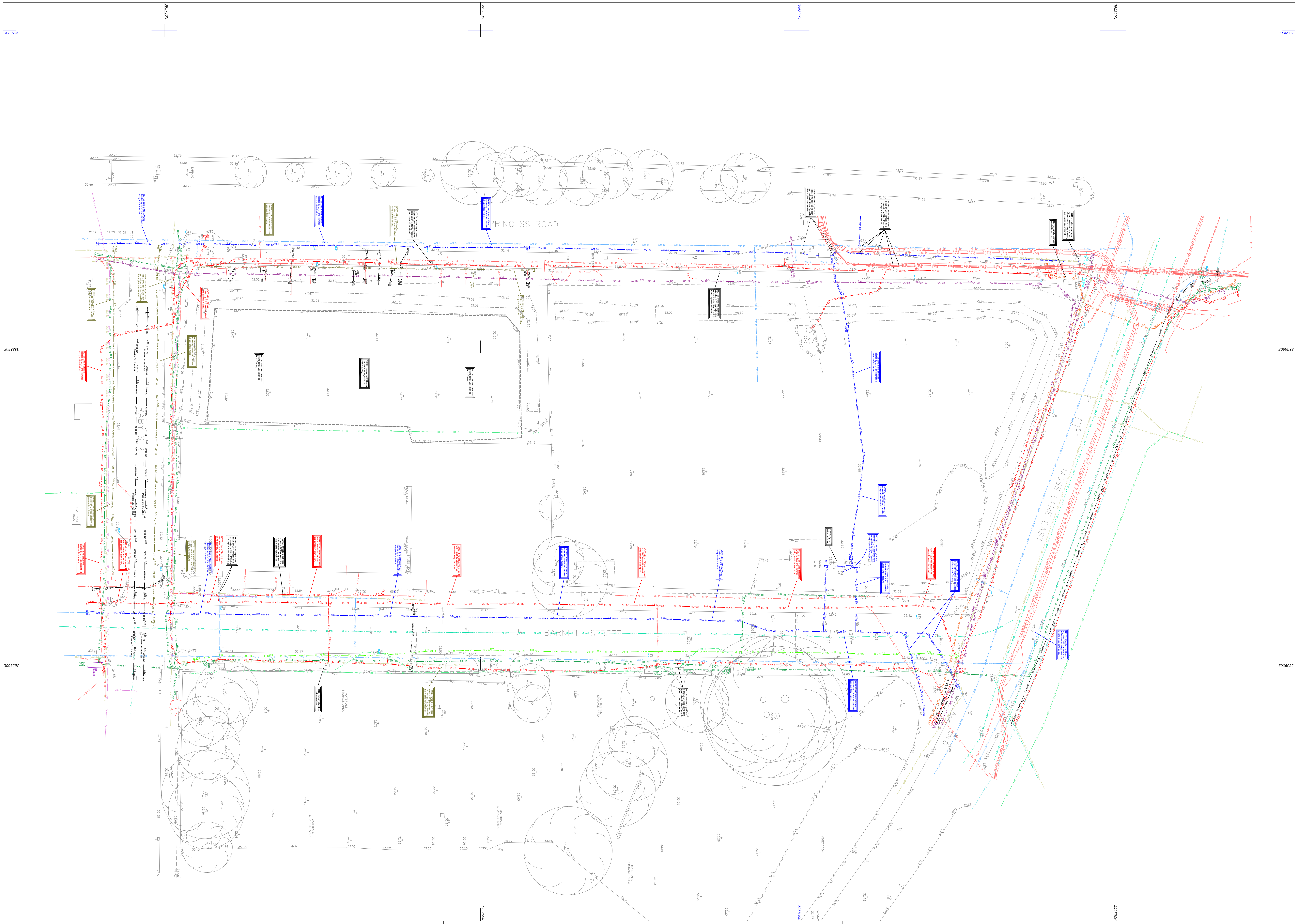
h) The proposed surface water network for the proposed developments must include the "Central" climate change allowance of 40%. The proposed network must also be checked against the "Upper" climate change allowance of 45% to ensure any surface flooding remains wholly within the development.

9.3. SGi recommends that the Local Planning Authority accept this Flood Risk Assessment and Drainage Strategy in support of the Planning Applications.

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APPENDIX A1



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PLAN GRID NORTH

File Name: EN25167-U.dwg

NOTES

The data presented in this drawing has been collected using a combination of the following: consultation of utility asset information, visual survey & inspection of manholes and inspection chambers; electromagnetic location techniques; ground penetrating radar, and, where applicable, trial hole excavations. These techniques have been deployed in accordance with the BSI PAS128 Specification for Underground Utility Detection, Verification and Location using the search methodologies indicated below described in the accompanying report, if requested.
This drawing details the limitations of these techniques and any hindering factors encountered during this survey.
Unless otherwise stated, all utilities shown on this plan have been surveyed using approved detectors and the connections between inspection chambers, if unable to be detected, are generally assumed to be direct unless there are indications to the contrary. The detection confidence for each utility segment is depicted in line with the PAS128 scheme outlined below. Information depicted as QL–C or QL–D cannot be guaranteed as it is based on historic utility records which can be inaccurate and incomplete.

The utility routes depicted may reflect the routes of multiple cables or pipes. It is not always possible to differentiate between buried construction features, utilities and other subsurface linear features therefore it is possible that some features shown are not utility related, and due to the limitations of electromagnetic techniques utility identifications should be treated with caution and verified prior to use during design/building works.

If the location or depth of utilities and features is of particular importance to a project then it is recommended that discussions are held with CMS Surveys Ltd regarding any possible limitations or anomalies

Please note that not all buried pipes, cables and ducts can be detected and mapped in consideration of their depth, location, material type, geology and proximity to other utilities. Even an appropriate and professionally executed survey may not be able to achieve a 100% detection rate. Where an area of utilities is likely to affect client project requirements, it is strongly recommended that a PAS128 Quality Level A verification survey is carried out

No utility mapping survey can be considered a 100% accurate depiction of the sub–surface environment, and the use of these drawings does not remove the requirement for the use of safe digging techniques at all times, in line with the requirements of HSG47 and current CDM regulations.

PAS128 QUALITY LEVELS

QL–D is achieved by a survey type D desk top survey. It is the lowest level of survey and (has no accuracy/confidence attached, even if the information provided contains accuracy information.

QL–C: is achieved by undertaking a type C survey; there is still no accuracy attached but this increases confidence from a type D survey. A type C survey requires a physical site inspection using the QL–D information to establish if visually the information lines up or is missing.

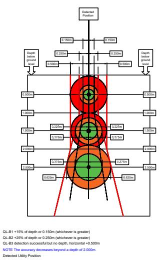
QL–B4: A utility segment which is suspected to exist (either on QL–D or QL–C records) but has not been detected and is therefore shown as an assumed route.

QL–B3: is where the utility is only detected horizontally (X&Y) with either GPR or EML, but not both. The utility is accurate X&Y to ±500 mm.

QL–B2: is where the practitioner is confident that the utility has been detected using either GPR and/or EML, horizontally to within ±250 mm X&Y and vertically to within ±40% on Z (depth).

QL–B1: is where the practitioner is confident that the utility has been detected using either GPR and/or EML, horizontally to within ±150 mm X&Y and vertically to within ±15% on Z (depth).

QL–A: is achieved by a type A survey and provides the highest level of accuracy. This can be via an excavation exposing the utility and therefore allowing the surveyor to measure it, or via a manhole where the utility can either be accurately measured using instruments or GPS.



Key
🟩 QL-B1 +15% of depth or 0.150m (whichever is greater)
🟧 QL-B2 +25% of depth or 0.250m (whichever is greater)
🟥 QL-B3 detection successful but no depth, horizontal +0.500m
NOTE The accuracy decreases beyond a depth of 2.000m.
Detected Utility Position

PAS128 LINESTYLES

BT	BT-A	BT-A
BT STAT RECORD	BT-D	BT-D
CABLE DUCT	DU-A	DU-A
CABLE DUCT STAT RECORD	DU-D	DU-D
CABLE TV	CA-A	CA-A
CABLE TV STAT RECORD	CA-D	CA-D
CCTV	CC-A	CC-A
CCTV STAT RECORD	CC-D	CC-D
TELECOMS	TC-A	TC-A
TELECOMS STAT RECORD	TC-D	TC-D
EARTH ROD STRIP	ER-A	ER-A
EARTH ROD STAT RECORD	ER-D	ER-D
ELECTRIC	EL-A	EL-A
ELECTRIC STAT RECORD	EL-D	EL-D
FIBRE–OPTICS	FO-A	FO-A
FIBRE–OPTICS STAT RECORD	FO-D	FO-D
FUEL LINE	FL-A	FL-A
FUEL LINE STAT RECORD	FL-D	FL-D
GPR DETECTION LINE	GPR-B2	
MAINS GAS	GM-A	GM-A
MAINS GAS STAT RECORD	GM-D	GM-D
MAINS WATER	WM-A	WM-A
MAINS WATER STAT RECORD	WM-D	WM-D
SEWER CW	CW-A	CW-A
SEWER CW STAT RECORD	CW-D	CW-D
SEWER FW	FW-A	FW-A
SEWER FW STAT RECORD	FW-D	FW-D
SEWER SW	SW-A	SW-A
SEWER SW STAT RECORD	SW-D	SW-D
TRAFFIC SIGNAL CABLE	TS-A	TS-A
TSC STAT RECORD	TS-D	TS-D
UNIDENTIFIED TRACE	UI-A	UI-A
UNIDENTIFIED CABLE	UC-A	UC-A
UNIDENTIFIED PIPE	UP-A	UP-A
VEHICLE DETECTION CABLE	VD-A	VD-A
VDC STAT RECORD	VD-D	VD-D
SURVEY BOUNDARY		
LIMITED/IMPEDED SURVEY		

LEGEND

AV	AIR VALVE
BT	BT INSPECTION COVER
CB	CONTROL BOX
CCTV	CCTV CAMERA POST
COM	COMMUNICATIONS COVER
CTV	CABLE TV COVER
DC	DRAINAGE CHANNEL
DP	DOWN PIPE
DR	DRAIN
EIC	ELEC INSPECTION COVER
ELB	ELECTRIC BOX
ER	EARTH ROD
EP	ELECTRICITY POLE
FL	FINISHED FLOOR LEVEL
FH	FIRE HYDRANT
G	GULLY
GLT	GROUND LIGHT
GST	GAS TAP
GSV	GAS VALVE
IC	INSPECTION COVER
IL	INVERT LEVEL
KO	KERB OUTLET
LP	LAMP POST
MH	MANHOLE
MKR	MARKER
OP	OUTFALL PIPE
PN	PYLON
PP	PETROL PUMP
RE	RODDING EYE
RWP	RAINWATER PIPE
SOF	SOFFIT LEVEL
SV	STOP VALVE
TCB	TELEPHONE CALL BOX
TL	TRAFFIC LIGHT
TLB	TRAFFIC LIGHT BOX
TP	TELEGRAPH POLE
WM	WATER METER
WO	WATER OUTLET
WST	WATER STOP TAP
WSV	WATER STOP VALVE
EOT	END OF TRACE
OSA	OUT OF SURVEY AREA
UTL	UNABLE TO LIFT
UTS	UNABLE TO SONDE
UTT	UNABLE TO TRACE
S/L	SIGNAL LOSS
BLK	BLOCKED
NFH	NO FURTHER GPR CONTACTS
BD	BACKDROP PIPE
NVP	NO VISIBLE PIPE
ToP	TOP OF PIPE
⊔	EOT SYMBOL
▚	FITTING FROM RECORDS

PAS128 SURVEY METHODOLOGY KEY

THIS SURVEY HAS BEEN CARRIED OUT IN ACCORDANCE WITH THE PAS128 SPECIFICATION FOR UNDERGROUND UTILITY DETECTION, VERIFICATION & LOCATION. THE SPECIFICATION ALLOWS FOR A RANGE OF TECHNIQUES AND METHODS OF VARYING INTENSITY TO BE DEPLOYED. THE COLOUR CODED SCHEME INDICATES WHERE DIFFERENT SURVEY METHODOLOGIES HAVE BEEN USED ON SITE, AND THE LIST BELOW IDENTIFIES EQUIPMENT USED TO OBTAIN THE SURVEY RESULTS.

- ▦ M4P – EML SEARCH TRANSECT AT 2m INTERVALS – TRACED AT 0.5m INTERVALS. GPR SURVEY GRID AT 0.5m INTERVALS OR HIGH DENSITY ARRAY. POST PROCESSING OF GPR DATA.
- ▦ M3P – EML SEARCH TRANSECT AT 2m INTERVALS – TRACED AT 1m INTERVALS. GPR SURVEY GRID AT 1m INTERVALS OR HIGH DENSITY ARRAY. POST PROCESSING OF GPR DATA.
- ▦ M2P – EML SEARCH TRANSECT AT 5m INTERVALS – TRACED AT 2m INTERVALS. GPR SURVEY GRID AT 2m INTERVALS OR HIGH DENSITY ARRAY. POST PROCESSING OF GPR DATA.
- ▦ M1P – EML SEARCH TRANSECT AT 10m INTERVALS – TRACED AT 5m INTERVALS. GPR SURVEY AS APPROPRIATE. POST PROCESSING OF GPR DATA.
- ▨ M4 – EML SEARCH TRANSECT AT 2m INTERVALS – TRACED AT 0.5m INTERVALS. GPR SURVEY GRID AT 0.5m INTERVALS. GPR MARK–UP ON SITE
- ▨ M3 – EML SEARCH TRANSECT AT 2m INTERVALS – TRACED AT 1m INTERVALS. GPR SURVEY GRID AT 1m INTERVALS. GPR MARK–UP ON SITE.
- ▨ M2 – EML SEARCH TRANSECT AT 5m INTERVALS – TRACED AT 2m INTERVALS. GPR SURVEY GRID AT 2m INTERVALS. GPR MARK–UP ON SITE.
- ▨ M1 – EML SEARCH TRANSECT AT 10m INTERVALS – TRACED AT 5m INTERVALS. GPR SURVEY AS APPROPRIATE. GPR MARK–UP ON SITE

ADDITIONAL INFORMATION

Grid: **OS National Grid**
Using the OS GPS Network and applying OSTN15 Transformation and then removing the scale factor for true distances with a one-step transformation centred on **[coordinate]**

Datum: **OS Level datum**
Using the OS GPS Network and applying OSGM15 National Geoid Model to obtain local area corrections

EQUIPMENT USED

ELECTROMAGNETIC DETECTION	GROUND PENETRATING RADAR	TOTAL STATION	GPS/GNSS
Radio Detection RD8200	Proceq GS8000	Leica TS15	Spectra SP60

REV	DATE	DESCRIPTION

0 2m 4m 8m 12m 16m
SCALE BAR

Logo

Client

Client Address
Caddick Construction
Calder Grange
Knottingley
WF11 8DA

Project Title
Utility Survey of Land at:
Moss Lane East
Moss Side
Manchester
M14 4SS

Surveyed	Drawn	Checked
G.Gilbert	D.Shipton	C.Scouler

Scale	Date	Drawing Ref.	No.	Size	Rev
1:200	May 25	EN25167-U	01	A0	--

SGi Consulting Engineers 3rd Floor, Phoenix House, 45 Cross Street, Manchester M2 4JF Tel: 0161 837 1500

APPENDIX B I

GROUND FLOOR PLAN

BLOCK F

BLOCK E

BLOCK A

BLOCK B

BLOCK C

BLOCK D

GARDEN ENT

PEDESTRAIN ACCESS

NEW CAR ENT 1 EXIT

BARNHILL STREET

MOSS LANE EAST

PRINCESS ROAD

PEDESTRAIN ACCESS

BUS STOP

3 Existing trees to be removed.

Existing Kerb amended to suit new on site parking access

New Sub station location

Route for Bin lorries and fire trucks to be tracked by Highways Engineer.

Undercroft car park area

First floor Private Amenity Spaces above the undercroft car park

Resi -63 (30%) Dis spaces 6 %.
All car spaces here for the flats

Bin Store/ Block B

117 sqm Walled garden communal amenity space. Themed.

1.1m Walled garden

cycle hub /store 44 bikes 40 SQM

Plant room

Bins 47 SQM

Remo Display Walls

Post parcel room

Plant room 42sqm

Cycle store 18 bikes.

150 sqm communal gardens x 2 amenity space. Themed.

Path linking through

POST MOBILITY SCOOTERS 34SQM

Plant room 16 sqm

Block C Bins 24 sqm

Block D Bins 20 sqm

Block E Bins 24 Sqm

Block DE Cycle store 20 bikes

Block DE Cycle store 8 bikes.

Plant room

Ginnel

Dis 1

Dis 2

Dis 3

Dis 4

1:200 scale

0 1 2 5 10 15m
Scale 1:200

Note.
Please note any 2bed 3 (61sqm) person shown with a double bed in the 2nd bedroom, is still clasified as only a 61sq 2b3p flat to suit NSS.

Modern City Architecture & Urbanism

2 Commercial Street
Castlefield
Manchester
M15 4RQ

t: 0161 974 7203
e: info@mcau.co.uk
www.mcau.co.uk

Client
MSV

Project
Land to the West of Barnhill Street

Description
Moss Side
GROUND FLOOR PLAN
Scheme 17-OPTION K

Status
STAGE 3

Drawn By
PJS/JT/SR

Job Number
1215

Scale
1.200@A1

Date
JAN 25

Drawing Number
1215-03-00

Revision
P21

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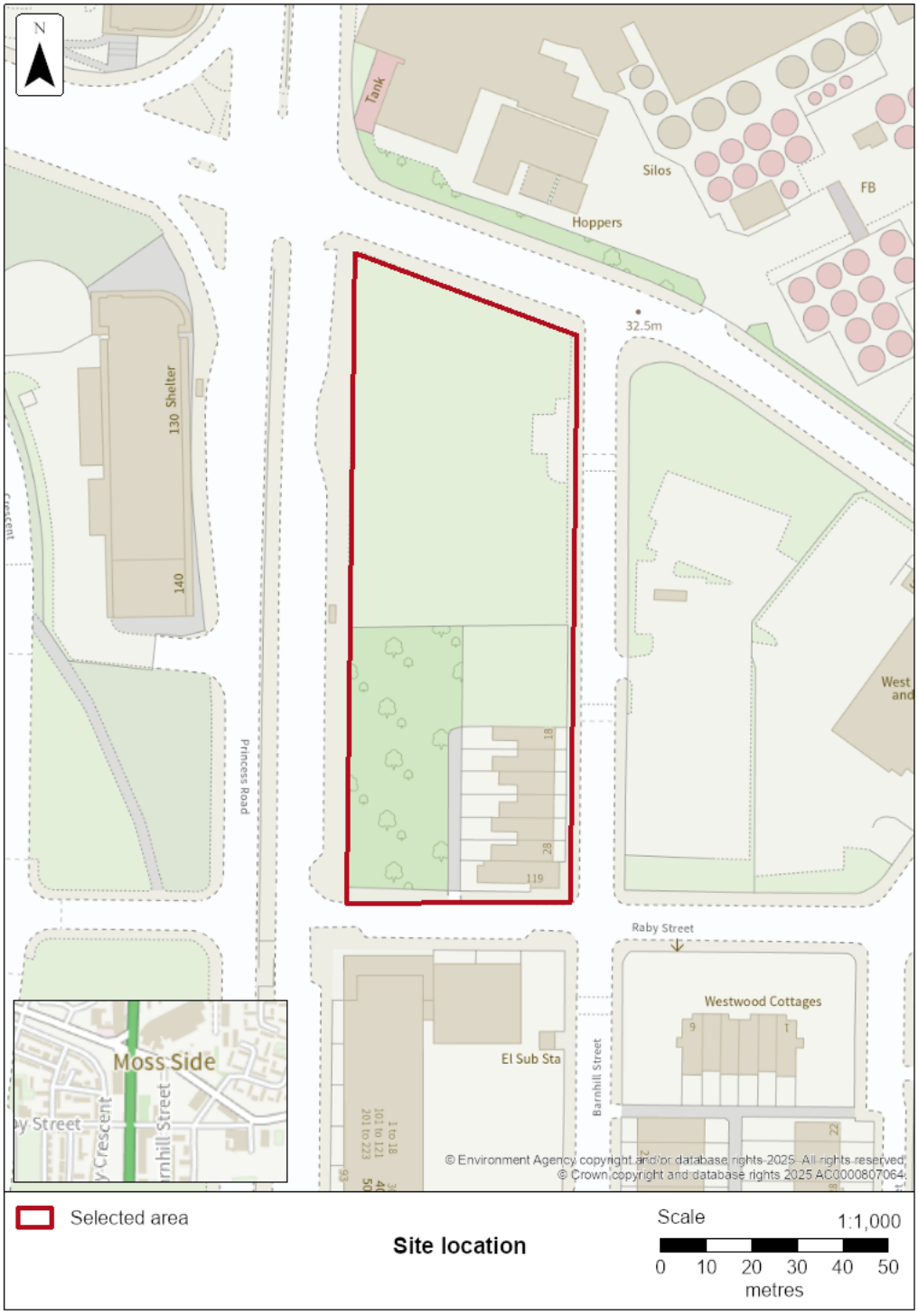
SGi Consulting Engineers 3rd Floor, Phoenix House, 45 Cross Street, Manchester M2 4JF Tel: 0161 837 1500

APPENDIX C1

Flood risk assessment data

Location of site: 383864 / 395767 (shown as easting and northing coordinates)
Document created on: 19 June 2025
This information was previously known as a product 4.
Customer reference number: 4WMMNAY2VBUF

Map showing the location that flood risk assessment data has been requested for.



How to use this information

You can use this information as part of a flood risk assessment for a planning application. To do this, you should include it in the appendix of your flood risk assessment.

> **We recommend that you work with a flood risk consultant to get your flood risk assessment.**

Included in this document

In this document you'll find:

- how to find information about surface water and other sources of flooding
- information on the models used
- definitions for the terminology used throughout
- flood map for planning (rivers and the sea)
- modelled data
- information about strategic flood risk assessments
- information about this data
- information about flood risk activity permits
- help and advice

Information that's unavailable

This document **does not** contain:

- past floods
- flood defences and attributes

We do not have past flooding data for this location.

Please note that:

- flooding may have occurred that we do not have records for
- flooding can come from a range of different sources
- we can only supply flood risk data relating to floodng from rivers or the sea

You can contact your Lead Local Flood Authority or Internal Drainage Board to see if they have other relevant local flood information. Please note that some areas do not have an Internal Drainage Board.

We aren't able to display flood defence locations and attributes as there are no formal flood defences in the area of interest.

Surface water and other sources of flooding

When using the surface water map on the check your long term flood risk service the following considerations apply:

- surface water extents are suitable for use in planning
- surface water climate change scenarios may help to inform risk assessments, but the available data fall short of what is required to assess planned development
- surface water depth information should not be used for planning purposes

To find out about other factors that might affect the flood risk of this location, you should also check:

- reservoir flood risk
- groundwater flood risk - you could use the British Geological Survey groundwater flooding data, groundwater: current status and flood risk and the guide on mining and groundwater constraints for development - further information may be available from the lead local flood authority (LLFA)
- your local planning authority's SFRA, which includes future flood risk

Your Lead Local Flood Authority is Manchester District.

For information about sewer flooding, contact the relevant water company for the area.

Model name: Corn Brook 2017
Scenario(s): No defences exist fluvial, no defences exist climate change fluvial
Date: 31 December 2017

These models contain the most relevant data for your area of interest.

Terminology used

Annual exceedance probability (AEP)

This refers to the probability of a flood event occurring in any year. The probability is expressed as a percentage. For example, a large flood which is calculated to have a 1% chance of occuring in any one year, is described as 1% AEP.

Metres above ordnance datum (mAOD)

All flood levels are given in metres above ordnance datum which is defined as the mean sea level at Newlyn, Cornwall.

Flood map for planning (rivers and the sea)

Your selected location is in flood zone 2.

Flood zone 3 shows the area at risk of flooding for an undefended flood event with a:

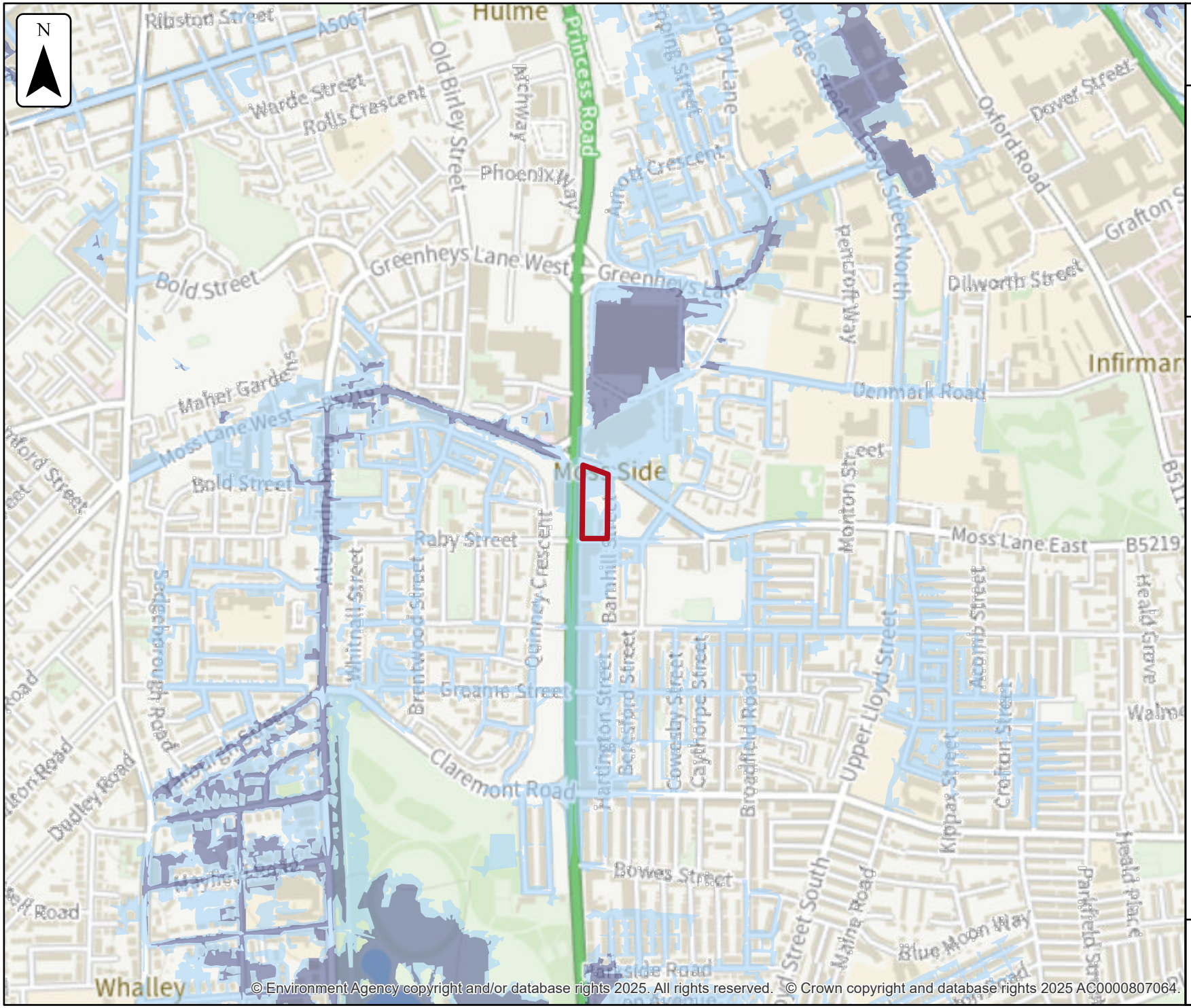
- 0.5% or greater probability of occurring in any year for flooding from the sea
- 1% or greater probability of occurring in any year for fluvial (river) flooding

Flood zone 2 shows the area at risk of flooding for an undefended flood event with:

- between a 0.1% and 0.5% probability of occurring in any year for flooding from the sea
- between a 0.1% and 1% probability of occurring in any year for fluvial (river) flooding

It's important to remember that the flood zones on this map:

- refer to the land at risk of flooding and do not refer to individual properties
- refer to the probability of river and sea flooding, ignoring the presence of defences
- do not take into account potential impacts of climate change


N
Hulme
Princess Road
Old Birley Street
Greenheys Lane West
Bold Street
Moss Side
Denmark Road
Moss Lane East
B5219
Claremont Road
Whalley
Dillworth Street
Oxford Road
Dover Street
Grafton
Infirmar
Phoenix Way
Arnott Crescent
Greenheys Lane
Mahel Gardens
Moss Lane West
Raby Street
Greame Street
Bowes Street
Blue Moon Way
Upper Lloyd Street
Broadfield Road
Kildare Street
Crofton Street
Arabia Street
Morton Street
Barnhill Street
Hartington Street
Beresford Street
Cowaby Street
Caythorpe Street
Brentwood Street
Whitehall Street
Quinney Crescent
Malina Road
Parkfield Street
Dudley Road
Ribston Street
Warde Street
Rolls Crescent
Archway
Boundary Lane
Bridge Street
Lloyd Street North
Peel Hollow Way
Environment Agency
Flood map for planning
Location (easting/northing)
383864/395767
Scale
1:10,000
Created
19 Jun 2025
Selected area
Flood Zone 3
Flood Zone 2
0 100 200 300 400 500
metres
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Modelled data

This section provides details of different scenarios we have modelled and includes the following (where available):

- outline maps showing the area at risk from flooding in different modelled scenarios
- modelled node point map(s) showing the points used to get the data to model the scenarios and table(s) providing details of the flood risk for different return periods
- map(s) showing the approximate water levels for the return period with the largest flood extent for a scenario and table(s) of sample points providing details of the flood risk for different return periods

Climate change

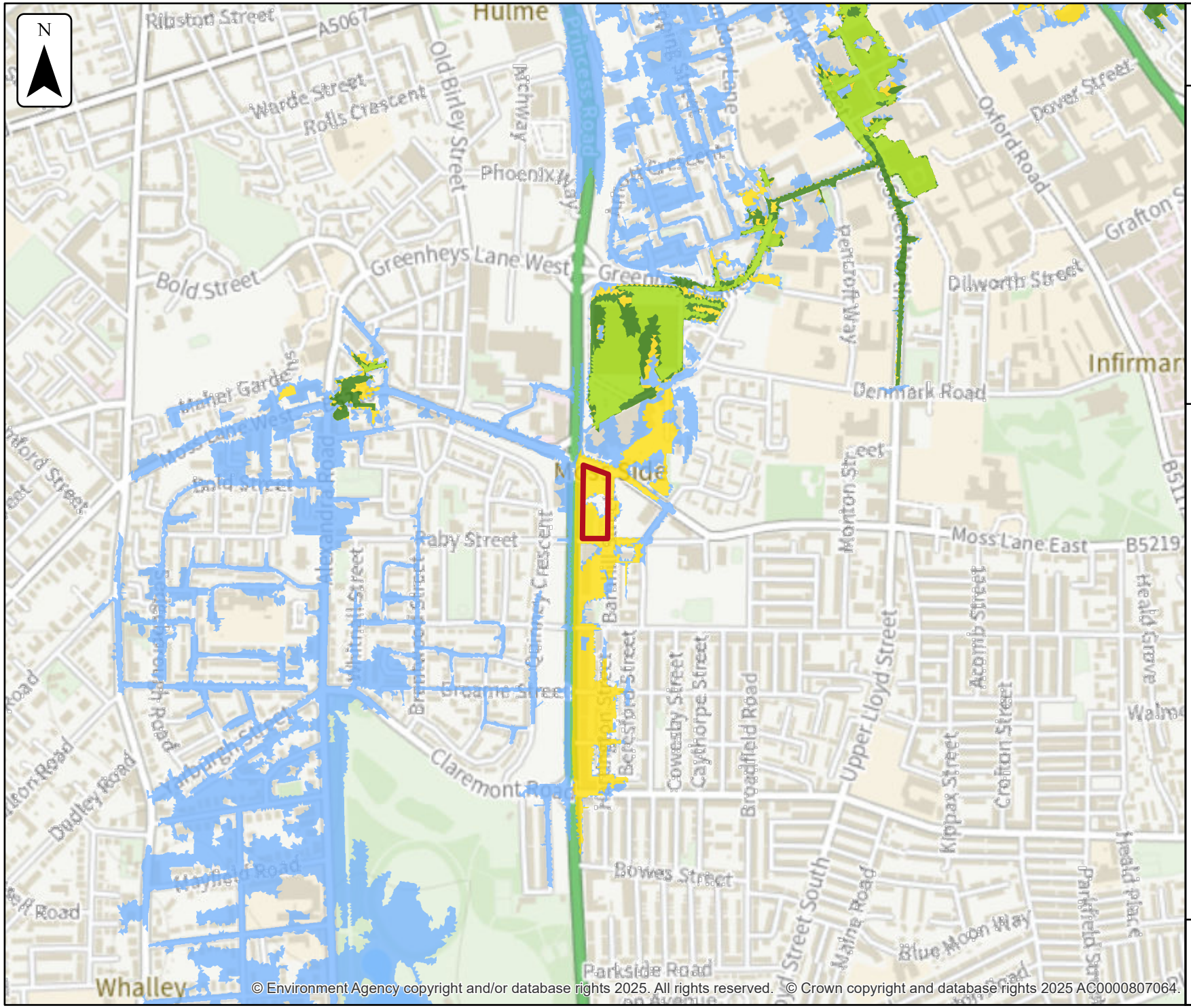
The climate change data included in the models may not include the latest flood risk assessment climate change allowances. Where the new allowances are not available you will need to consider this data and factor in the new allowances to demonstrate the development will be safe from flooding.

The Environment Agency will incorporate the new allowances into future modelling studies. For now, it's your responsibility to demonstrate that new developments will be safe in flood risk terms for their lifetime.

Modelled scenarios

The following scenarios are included:

- Defended modelled fluvial: risk of flooding from rivers where there are flood defences
- Defences removed modelled fluvial: risk of flooding from rivers where flood defences have been removed
- No defences exist modelled fluvial: risk of flooding from rivers where there are no flood defences
- Defended climate change modelled fluvial: risk of flooding from rivers where there are flood defences, including estimated impact of climate change
- Defences removed climate change modelled fluvial: risk of flooding from rivers where flood defences have been removed, including estimated impact of climate change
- No defences exist climate change modelled fluvial: risk of flooding from rivers where there are no flood defences, including estimated impact of climate change



Environment Agency

No defences exist climate change modelled fluvial extent

Location (easting/northing)
383864/395767

Scale
1:10,000

Created
19 Jun 2025

Model name
Corn Brook 2017

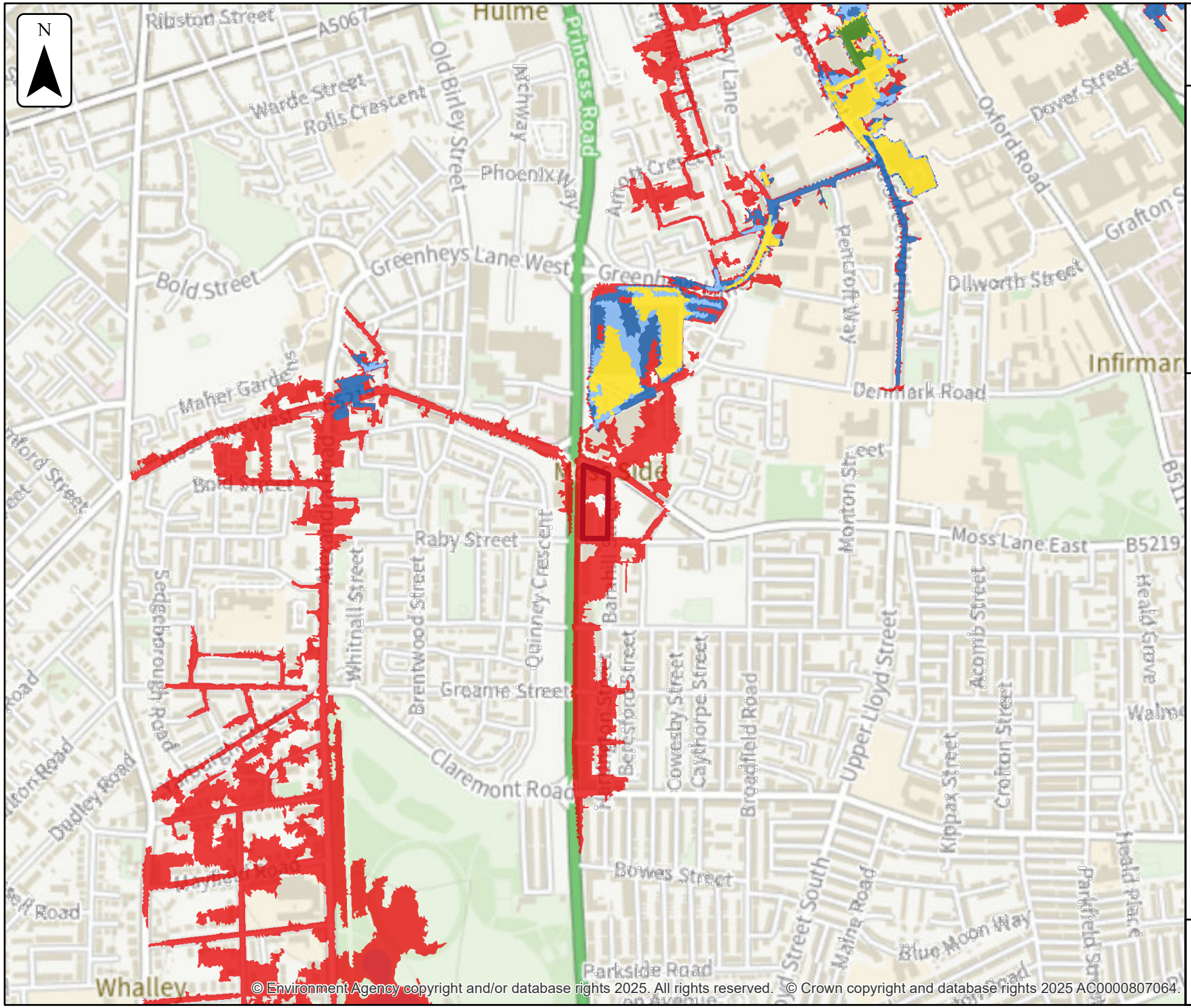
- Selected area
- Main river

Modelled flood extent

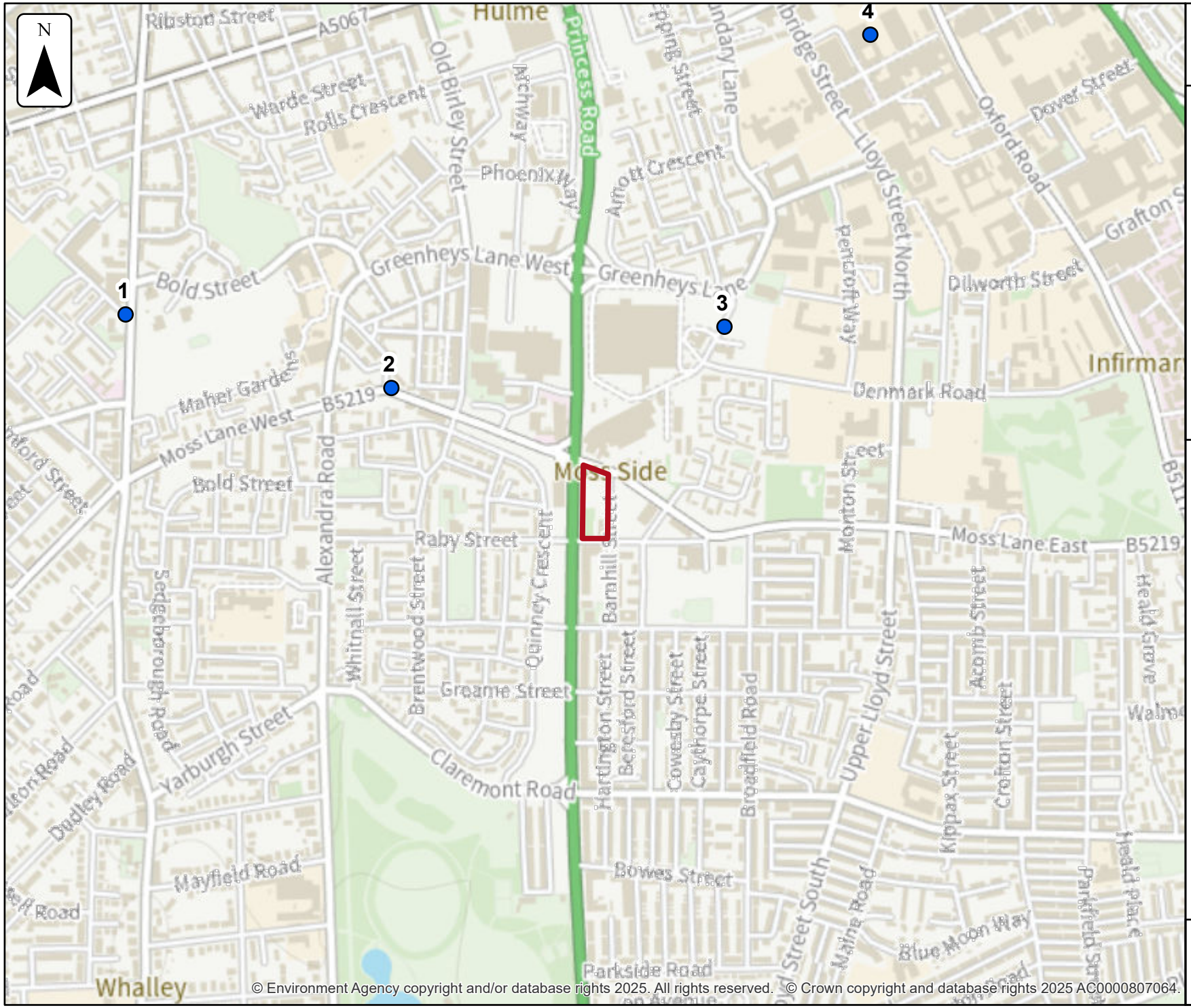
- 1% AEP (+30%)
- 1% AEP (+35%)
- 1% AEP (+70%)
- 0.1% AEP (+30%)

Flood extents may not be visible where they overlap other return periods

0 100 200 300 400 500
metres



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N
1
2
3
4
Princess Road
Moss Side
Whalley
Greenheys Lane West
Greenheys Lane
Bold Street
Moss Lane West
Moss Lane East
B5219
Denmark Road
Claremont Road
Parkside Road
Mayfield Road
Yarburgh Street
Groanne Street
Raby Street
Alexandra Road
Whitnall Street
Brentwood Street
Quinney Crescent
Barnhill Street
Hartington Street
Bereisford Street
Cowaxby Street
Caythorpe Street
Broadfield Road
Upper Lloyd Street
Arpnib Street
Kippax Street
Croston Street
Morton Street
Lloyd Street North
Oxford Road
Dover Street
Dilworth Street
Grafton
Infirmar
Old Birley Street
Arnott Crescent
Phoenix Way
Pendlebury Way
Bowes Street
Blue Moon Way
Malins Road
Ribston Street
A5067
Warde Street
Rolls Crescent
Hulme
Maher Gardens
Sedgebrook Road
Dudley Road
Road
Environment Agency
No defences exist climate change modelled fluvial node locations
Location (easting/northing)
383864/395767
Scale
1:10,000
Created
19 Jun 2025
Model name
Corn Brook 2017
Selected area
Modelled location
Main river
0 100 200 300 400 500
metres
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Modelled node locations data

No defences exist climate change

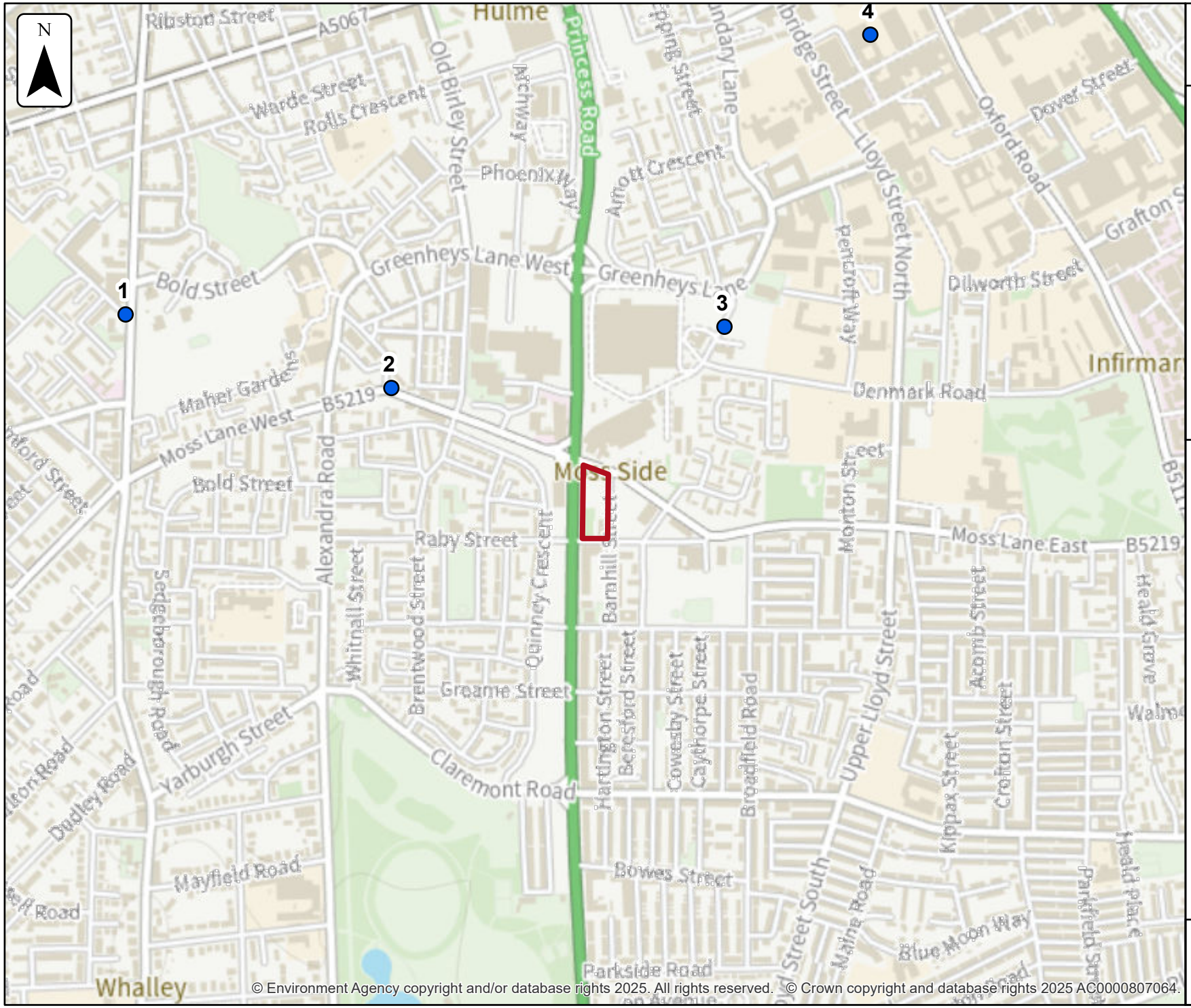
Label	Modelled location ID	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Level	Level	Level	Level
1	952451	382950	396136	30.34	30.39	30.82	31.99
2	952452	383467	395993	32.78	32.81	32.99	33.39
3	952465	384116	396112	33.75	33.79	34.02	34.46
4	952467	384400	396681	37.38	37.39	37.47	37.77

Data in this table comes from the Corn Brook 2017 model.
Level values are shown in mAOD, and flow values are shown in cubic metres per second.
Any blank cells show where a particular scenario has not been modelled for this location.

No defences exist climate change

Label	Modelled location ID	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
				Flow	Flow	Flow	Flow
1	952451	382950	396136	2.24	2.33	2.93	6.63
2	952452	383467	395993	2.03	2.11	2.66	5.98
3	952465	384116	396112	1.57	1.63	2.05	4.51
4	952467	384400	396681	2.40	2.49	3.13	7.13

Data in this table comes from the Corn Brook 2017 model.
Level values are shown in mAOD, and flow values are shown in cubic metres per second.
Any blank cells show where a particular scenario has not been modelled for this location.


N
1
2
3
4
Princess Road
Moss Side
Whalley
Greenheys Lane West
Greenheys Lane
Bold Street
Moss Lane West
Moss Lane East
B5219
Denmark Road
Claremont Road
Parkside Road
Bowes Street
Mayfield Road
Yarburgh Street
Greame Street
Raby Street
Alexandra Road
Whitnall Street
Brentwood Street
Quinney Crescent
Barnhill Street
Hartington Street
Beresford Street
Cowaxby Street
Caythorpe Street
Broadfield Road
Upper Lloyd Street
Lloyd Street North
Oxford Road
Dover Street
Dilworth Street
Grafton Street
Arnott Crescent
Phoenix Way
Old Birley Street
Ribston Street
A5067
Warde Street
Rolls Crescent
Hulme
Infirmary
Maher Gardens
Dudley Road
Blue Moon Way
Parkfield Street
Kippax Street
Crofton Street
Arpnib Street
Morton Street
Pendleton Way
Lundary Lane
Bridge Street
Bold Street
Alford Street
Sedgebrook Road
Heald Grove
Heald Place
Malins Road
Street South
Whalley Road
Dudley Road
Mayfield Road
Yarburgh Street
Claremont Road
Parkside Road
Bowes Street
Greame Street
Raby Street
Moss Lane West
Moss Lane East
Denmark Road
Dilworth Street
Greenheys Lane
Greenheys Lane West
Princess Road
Whalley
Environment Agency
No defences exist modelled fluvial node locations
Location (easting/northing)
383864/395767
Scale
1:10,000
Created
19 Jun 2025
Model name
Corn Brook 2017
Selected area
Modelled location
Main river
0 100 200 300 400 500
metres
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Modelled node locations data

No defences exist

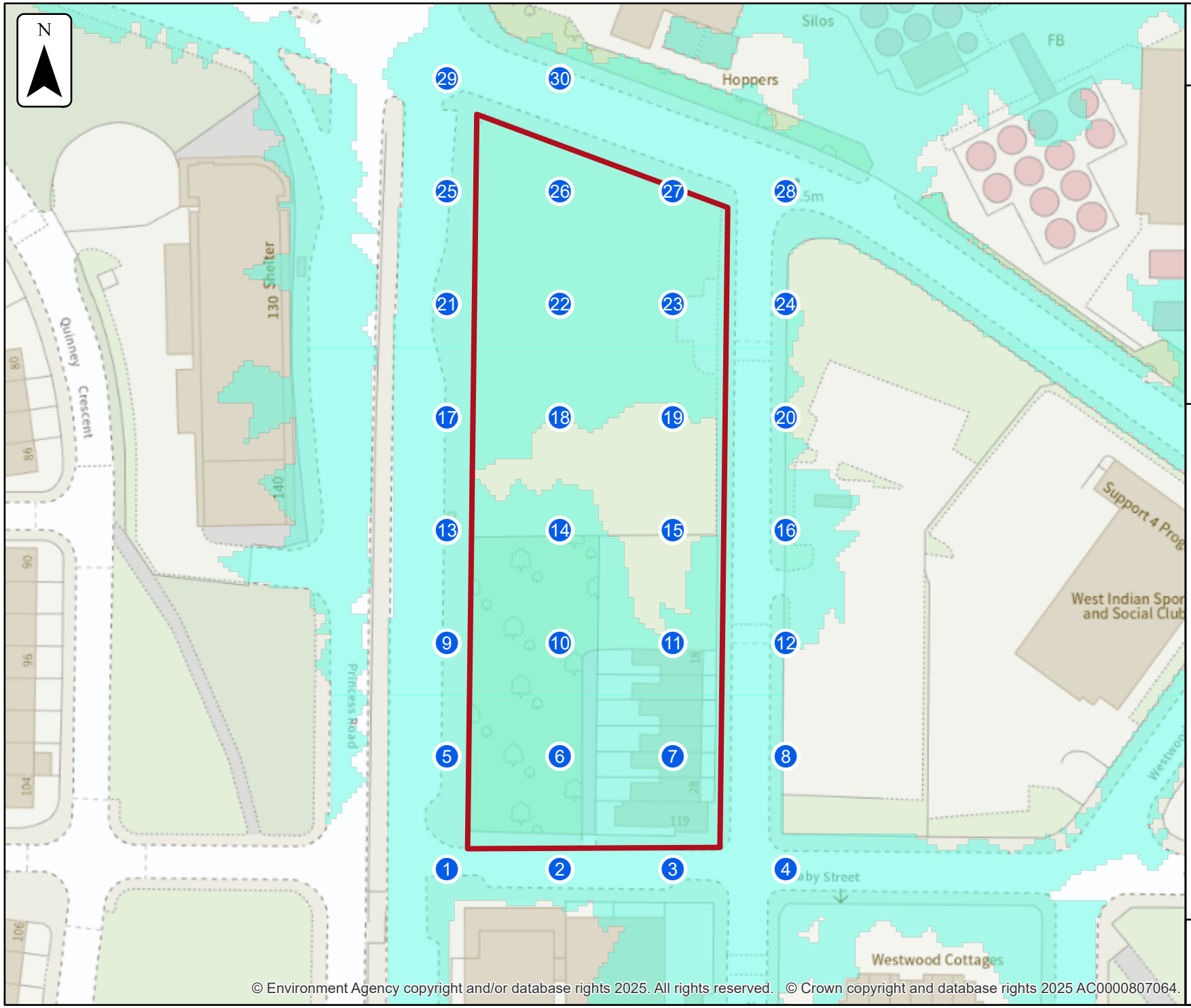
Label	Modelled location ID	Easting	Northing	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
				Level	Level	Level	Level	Level
1	952451	382950	396136	29.95	30.07	30.16	30.47	31.73
2	952452	383467	395993	31.93	32.43	32.58	32.84	33.28
3	952465	384116	396112	32.77	33.26	33.47	33.83	34.34
4	952467	384400	396681	36.89	37.13	37.27	37.41	37.66

Data in this table comes from the Corn Brook 2017 model.
Level values are shown in mAOD, and flow values are shown in cubic metres per second.
Any blank cells show where a particular scenario has not been modelled for this location.

No defences exist

Label	Modelled location ID	Easting	Northing	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
				Flow	Flow	Flow	Flow	Flow
1	952451	382950	396136	1.13	1.46	1.72	2.47	5.10
2	952452	383467	395993	1.03	1.32	1.57	2.24	4.60
3	952465	384116	396112	0.81	1.03	1.21	1.70	3.47
4	952467	384400	396681	1.20	1.56	1.84	2.65	5.49

Data in this table comes from the Corn Brook 2017 model.
Level values are shown in mAOD, and flow values are shown in cubic metres per second.
Any blank cells show where a particular scenario has not been modelled for this location.



Environment Agency

No defences exist modelled fluvial extent and height

Location (easting/northing)
383864/395767

Scale
1:1,000

Created
19 Jun 2025

Model name
Corn Brook 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 0 - 8.75
- 8.75 - 17.5
- 17.5 - 26.25
- 26.25 - 35.0
- 35.0 - 43.75
- 43.75 - 52.5
- 52.5 - 61.25
- 61.25 - 70.0
- 70.0 - 78.75

This map shows the 0.1% AEP height data

0 10 20 30 40
metres

Sample point data

No defences exist

Label	Easting	Northing	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
			Height	Height	Height	Height	Height
1	383835	395696	NoData	NoData	NoData	NoData	32.81
2	383857	395696	NoData	NoData	NoData	NoData	32.81
3	383879	395696	NoData	NoData	NoData	NoData	32.81
4	383901	395696	NoData	NoData	NoData	NoData	32.81
5	383835	395718	NoData	NoData	NoData	NoData	32.81
6	383857	395718	NoData	NoData	NoData	NoData	32.81
7	383879	395718	NoData	NoData	NoData	NoData	32.81
8	383901	395718	NoData	NoData	NoData	NoData	NoData
9	383835	395740	NoData	NoData	NoData	NoData	32.81
10	383857	395740	NoData	NoData	NoData	NoData	32.81
11	383879	395740	NoData	NoData	NoData	NoData	32.82
12	383901	395740	NoData	NoData	NoData	NoData	32.83

Label	Easting	Northing	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
			Height	Height	Height	Height	Height
13	383835	395762	NoData	NoData	NoData	NoData	32.81
14	383857	395762	NoData	NoData	NoData	NoData	32.81
15	383879	395762	NoData	NoData	NoData	NoData	NoData
16	383901	395762	NoData	NoData	NoData	NoData	32.83
17	383835	395784	NoData	NoData	NoData	NoData	32.82
18	383857	395784	NoData	NoData	NoData	NoData	32.83
19	383879	395784	NoData	NoData	NoData	NoData	NoData
20	383901	395784	NoData	NoData	NoData	NoData	32.83
21	383835	395806	NoData	NoData	NoData	NoData	32.83
22	383857	395806	NoData	NoData	NoData	NoData	32.83
23	383879	395806	NoData	NoData	NoData	NoData	32.84
24	383901	395806	NoData	NoData	NoData	NoData	32.83

Label	Easting	Northing	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
			Height	Height	Height	Height	Height
25	383835	395828	NoData	NoData	NoData	NoData	32.83
26	383857	395828	NoData	NoData	NoData	NoData	32.84
27	383879	395828	NoData	NoData	NoData	NoData	32.85
28	383901	395828	NoData	NoData	NoData	NoData	32.85
29	383835	395850	NoData	NoData	NoData	NoData	32.84
30	383857	395850	NoData	NoData	NoData	NoData	32.84
Max value in selected area:			NoData	NoData	NoData	NoData	32.85

Data in this table comes from the Corn Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.
Any blank cells show where a particular scenario has not been modelled for this location.
Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.
'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.

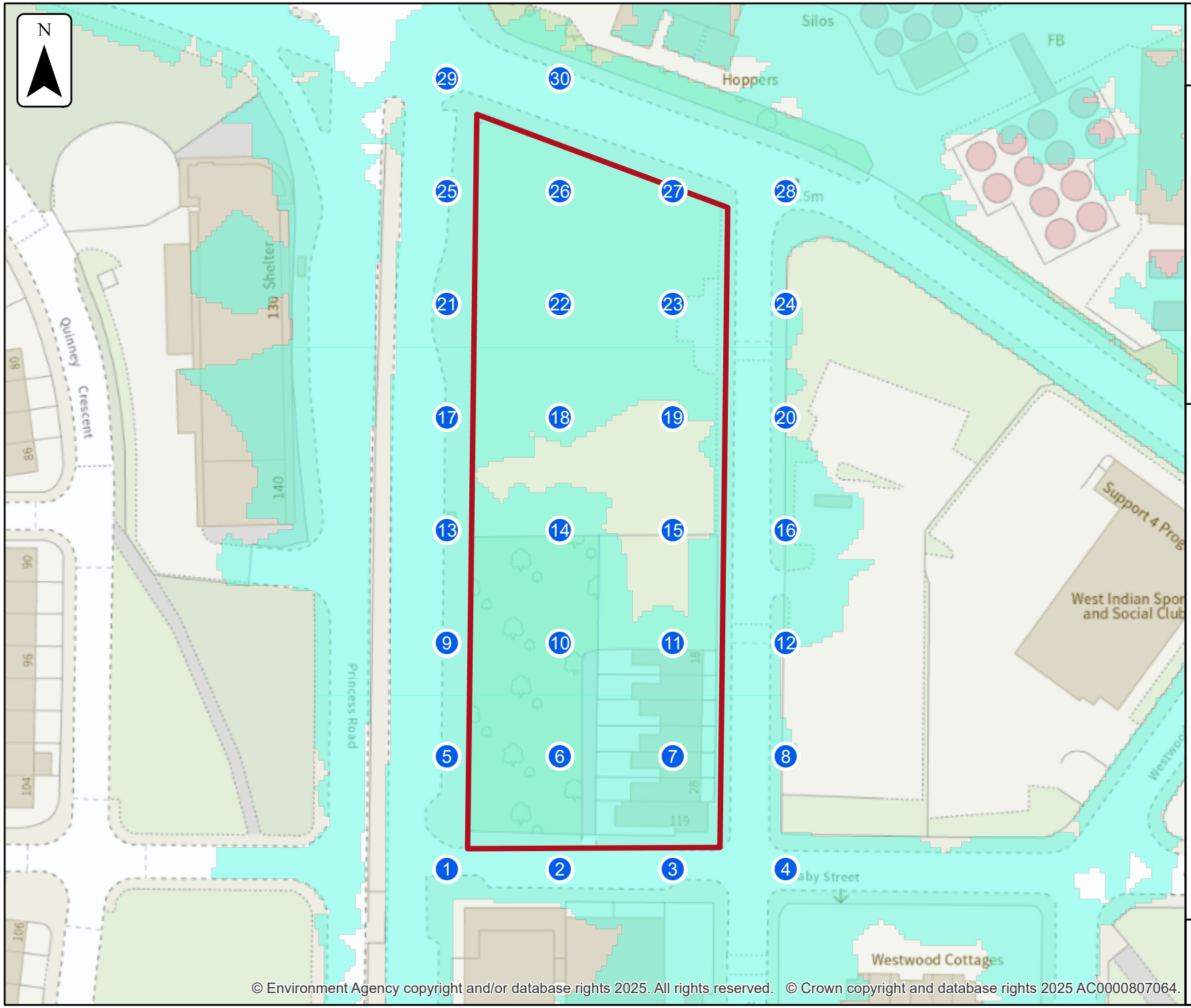
No defences exist

Label	Easting	Northing	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
			Depth	Depth	Depth	Depth	Depth
1	383835	395696	NoData	NoData	NoData	NoData	0.34
2	383857	395696	NoData	NoData	NoData	NoData	0.35
3	383879	395696	NoData	NoData	NoData	NoData	0.33
4	383901	395696	NoData	NoData	NoData	NoData	0.29
5	383835	395718	NoData	NoData	NoData	NoData	0.39
6	383857	395718	NoData	NoData	NoData	NoData	0.42
7	383879	395718	NoData	NoData	NoData	NoData	0.27
8	383901	395718	NoData	NoData	NoData	NoData	NoData
9	383835	395740	NoData	NoData	NoData	NoData	0.36
10	383857	395740	NoData	NoData	NoData	NoData	0.44
11	383879	395740	NoData	NoData	NoData	NoData	0.18
12	383901	395740	NoData	NoData	NoData	NoData	0.14

Label	Easting	Northing	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
			Depth	Depth	Depth	Depth	Depth
13	383835	395762	NoData	NoData	NoData	NoData	0.34
14	383857	395762	NoData	NoData	NoData	NoData	0.21
15	383879	395762	NoData	NoData	NoData	NoData	NoData
16	383901	395762	NoData	NoData	NoData	NoData	0.26
17	383835	395784	NoData	NoData	NoData	NoData	0.34
18	383857	395784	NoData	NoData	NoData	NoData	0.16
19	383879	395784	NoData	NoData	NoData	NoData	NoData
20	383901	395784	NoData	NoData	NoData	NoData	0.26
21	383835	395806	NoData	NoData	NoData	NoData	0.28
22	383857	395806	NoData	NoData	NoData	NoData	0.30
23	383879	395806	NoData	NoData	NoData	NoData	0.26
24	383901	395806	NoData	NoData	NoData	NoData	0.31

Label	Easting	Northing	2% AEP	1.33% AEP	1% AEP	0.5% AEP	0.1% AEP
			Depth	Depth	Depth	Depth	Depth
25	383835	395828	NoData	NoData	NoData	NoData	0.40
26	383857	395828	NoData	NoData	NoData	NoData	0.28
27	383879	395828	NoData	NoData	NoData	NoData	0.25
28	383901	395828	NoData	NoData	NoData	NoData	0.27
29	383835	395850	NoData	NoData	NoData	NoData	0.34
30	383857	395850	NoData	NoData	NoData	NoData	0.37
Max value in selected area:			NoData	NoData	NoData	NoData	0.66

Data in this table comes from the Corn Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.
Any blank cells show where a particular scenario has not been modelled for this location.
Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.
'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.



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Environment Agency

No defences exist climate change modelled fluvial extent and height

Location (easting/northing)
383864/395767

Scale
1:1,000

Created
19 Jun 2025

Model name
Corn Brook 2017

Selected area

Main river

Modelled 2D grid
Water level in mAOD

- 0 - 8.75
- 8.75 - 17.5
- 17.5 - 26.25
- 26.25 - 35.0
- 35.0 - 43.75
- 43.75 - 52.5
- 52.5 - 61.25
- 61.25 - 70.0
- 70.0 - 78.75

This map shows the
0.1% AEP +30% height data

0 10 20 30 40
metres

Sample point data

No defences exist climate change

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Height	Height	Height	Height
1	383835	395696	NoData	NoData	32.77	32.83
2	383857	395696	NoData	NoData	32.77	32.83
3	383879	395696	NoData	NoData	32.77	32.83
4	383901	395696	NoData	NoData	32.77	32.84
5	383835	395718	NoData	NoData	32.77	32.83
6	383857	395718	NoData	NoData	32.77	32.83
7	383879	395718	NoData	NoData	32.77	32.83
8	383901	395718	NoData	NoData	NoData	32.84
9	383835	395740	NoData	NoData	32.77	32.83
10	383857	395740	NoData	NoData	32.77	32.83
11	383879	395740	NoData	NoData	32.77	32.84
12	383901	395740	NoData	NoData	NoData	32.85

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Height	Height	Height	Height
13	383835	395762	NoData	NoData	32.77	32.83
14	383857	395762	NoData	NoData	32.77	32.83
15	383879	395762	NoData	NoData	NoData	NoData
16	383901	395762	NoData	NoData	32.78	32.85
17	383835	395784	NoData	NoData	32.78	32.84
18	383857	395784	NoData	NoData	32.79	32.86
19	383879	395784	NoData	NoData	NoData	NoData
20	383901	395784	NoData	NoData	NoData	32.86
21	383835	395806	NoData	NoData	32.78	32.85
22	383857	395806	NoData	NoData	32.79	32.86
23	383879	395806	NoData	NoData	32.79	32.87
24	383901	395806	NoData	NoData	32.79	32.86

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Height	Height	Height	Height
25	383835	395828	NoData	NoData	32.79	32.86
26	383857	395828	NoData	NoData	32.79	32.86
27	383879	395828	NoData	NoData	32.79	32.87
28	383901	395828	NoData	NoData	32.80	32.87
29	383835	395850	NoData	NoData	32.79	32.87
30	383857	395850	NoData	NoData	32.79	32.87
Max value in selected area:			NoData	NoData	32.79	32.88

Data in this table comes from the Corn Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.
Any blank cells show where a particular scenario has not been modelled for this location.
Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.
'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.

No defences exist climate change

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Depth	Depth	Depth	Depth
1	383835	395696	NoData	NoData	0.29	0.36
2	383857	395696	NoData	NoData	0.31	0.38
3	383879	395696	NoData	NoData	0.29	0.36
4	383901	395696	NoData	NoData	0.22	0.32
5	383835	395718	NoData	NoData	0.35	0.41
6	383857	395718	NoData	NoData	0.38	0.44
7	383879	395718	NoData	NoData	0.23	0.29
8	383901	395718	NoData	NoData	NoData	0.10
9	383835	395740	NoData	NoData	0.32	0.38
10	383857	395740	NoData	NoData	0.40	0.47
11	383879	395740	NoData	NoData	0.14	0.20
12	383901	395740	NoData	NoData	NoData	0.16

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Depth	Depth	Depth	Depth
13	383835	395762	NoData	NoData	0.31	0.37
14	383857	395762	NoData	NoData	0.17	0.23
15	383879	395762	NoData	NoData	NoData	NoData
16	383901	395762	NoData	NoData	0.21	0.30
17	383835	395784	NoData	NoData	0.30	0.39
18	383857	395784	NoData	NoData	0.12	0.19
19	383879	395784	NoData	NoData	NoData	NoData
20	383901	395784	NoData	NoData	NoData	0.29
21	383835	395806	NoData	NoData	0.23	0.30
22	383857	395806	NoData	NoData	0.25	0.33
23	383879	395806	NoData	NoData	0.21	0.30
24	383901	395806	NoData	NoData	0.26	0.34

Label	Easting	Northing	1% AEP (+30%)	1% AEP (+35%)	1% AEP (+70%)	0.1% AEP (+30%)
			Depth	Depth	Depth	Depth
25	383835	395828	NoData	NoData	0.35	0.43
26	383857	395828	NoData	NoData	0.23	0.31
27	383879	395828	NoData	NoData	0.19	0.24
28	383901	395828	NoData	NoData	0.21	0.35
29	383835	395850	NoData	NoData	0.29	0.37
30	383857	395850	NoData	NoData	0.32	0.40
Max value in selected area:			NoData	NoData	0.62	0.68

Data in this table comes from the Corn Brook 2017 model. Height values are shown in mAOD, and depth values are shown in metres.
Any blank cells show where a particular scenario has not been modelled for this location.
Cells which contain text 'NoData' for a scenario show that return period has been modelled but there is no flood risk for that return period for that location.
'Max value in selected area' is the deepest depth or highest height at any location within your drawn boundary.

Strategic flood risk assessments

We recommend that you check the relevant local authority's strategic flood risk assessment (SFRA) as part of your work to prepare a site specific flood risk assessment.

This should give you information about:

- the potential impacts of climate change in this catchment
- areas defined as functional floodplain
- flooding from other sources, such as surface water, ground water and reservoirs

Your Lead Local Flood Authority is Manchester District.

About this data

This data has been generated by strategic scale flood models and is not intended for use at the individual property scale. If you're intending to use this data as part of a flood risk assessment, please include an appropriate modelling tolerance as part of your assessment. The Environment Agency regularly updates its modelling. We recommend that you check the data provided is the most recent, before submitting your flood risk assessment.

Flood risk activity permits

Under the Environmental Permitting (England and Wales) Regulations 2016 some developments may require an environmental permit for flood risk activities from the Environment Agency. This includes any permanent or temporary works that are in, over, under, or nearby a designated main river or flood defence structure.

Find out more about flood risk activity permits

Help and advice

Contact the Greater Manchester Merseyside and Cheshire Environment Agency team at inforequests.gmmc@environment-agency.gov.uk for:

- more information about getting a product 5, 6, 7 or 8
- general help and advice about the site you're requesting data for

SGi Consulting Engineers 3rd Floor, Phoenix House, 45 Cross Street, Manchester M2 4JF Tel: 0161 837 1500

APPENDIX D I

Water for the North West

How to contact us:

United Utilities Water Limited
Property Searches
Haweswater House
Lingley Mere Business Park
Great Sankey
Warrington
WA5 3LP

Telephone: 0370 7510101

E-mail: propertysearches@uuplc.co.uk

Nikola Urbaczka

Phoenix House
Cross Street,
Manchester,
M2 4JF

FAO:

Your Ref: C1876
Our Ref: UUPS-ORD-627400
Date: 28/01/2025

Dear Sirs

Location: 24 BARNHILL STREET, MANCHESTER, M14 4SY

I acknowledge with thanks your request dated 21/01/2025 for information on the location of our services.

Please find enclosed plans showing the approximate position of United Utilities' apparatus known to be in the vicinity of this site.

The enclosed plans are being provided to you subject to the United Utilities terms and conditions for both the wastewater and water distribution plans which are shown attached.

If you are planning works anywhere in the North West, please read United Utilities' access statement before you start work to check how it will affect our network. http://www.unitedutilities.com/work-near-asset.aspx .

I trust the above meets with your requirements and look forward to hearing from you should you need anything further.

If you have any queries regarding this matter please contact us .

Yours Faithfully,

[redacted]

Karen McCormack
Property Searches Manager

United Utilities Water Limited
Registered In England & Wales No. 2366678
Registered Office Haweswater House, Lingley Mere Business Park,
Lingley Green Avenue, Great Sankey, Warrington, WA5 3LP

Water for the North West

TERMS AND CONDITIONS - WASTEWATER AND WATER DISTRIBUTION PLANS

These provisions apply to the public sewerage, water distribution and telemetry systems (including sewers which are the subject of an agreement under Section 104 of the Water Industry Act 1991 and mains installed in accordance with the agreement for the self construction of water mains) (UUWL apparatus) of United Utilities Water Limited "(UUWL)".

TERMS AND CONDITIONS:

- This Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out in this agreement or the documents referred to in it.
- This Map and any information supplied with it is provided for general guidance only and no representation, undertaking or warranty as to its accuracy, completeness or being up to date is given or implied.
- In particular, the position and depth of any UUWL apparatus shown on the Map are approximate only. UUWL strongly recommends that a comprehensive survey is undertaken in addition to reviewing this Map to determine and ensure the precise location of any UUWL apparatus. The exact location, positions and depths should be obtained by excavation trial holes.
- The location and position of private drains, private sewers and service pipes to properties are not normally shown on this Map but their presence must be anticipated and accounted for and you are strongly advised to carry out your own further enquiries and investigations in order to locate the same.
- The position and depth of UUWL apparatus is subject to change and therefore this Map is issued subject to any removal or change in location of the same. The onus is entirely upon you to confirm whether any changes to the Map have been made subsequent to issue and prior to any works being carried out.
- This Map and any information shown on it or provided with it must not be relied upon in the event of any development, construction or other works (including but not limited to any excavations) in the vicinity of UUWL apparatus or for the purpose of determining the suitability of a point of connection to the sewerage or other distribution systems.
- No person or legal entity, including any company shall be relieved from any liability howsoever and whensoever arising for any damage caused to UUWL apparatus by reason of the actual position and/or depths of UUWL apparatus being different from those shown on the Map and any information supplied with it.
- If any provision contained herein is or becomes legally invalid or unenforceable, it will be taken to be severed from the remaining provisions which shall be unaffected and continue in full force and affect.
- This agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts, save that nothing will prevent UUWL from bringing proceedings in any other competent jurisdiction, whether concurrently or otherwise.

United Utilities Water Limited
Registered In England & Wales No. 2366678
Registered Office Haweswater House, Lingley Mere Business Park,
Lingley Green Avenue, Great Sankey, Warrington, WA5 3LP



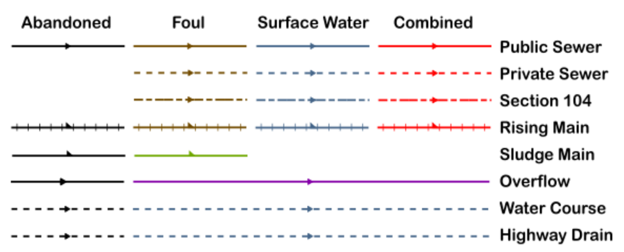
The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

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Refno	Cover	Func	Invert	Size x	Size y	Shape	Matl	Length	Grad
1904	33.75	CO	31.08	450			CO	40.0125	1 in 667
0708		CO		150			VC	3.631543	
8602	32.5	CO	29.53	450			VC	86.01688	1 in 307
7901	33.14	CO	31.3	300			CO	63.32456	
1704		CO	0	2350			BR	132.3868	
5905	31.86	CO	28.14	750			BR	27.51363	1 in 172
0701	32.67	CO	29.58	450			VC	7.615773	1 in 95
6804	32.02	CO	29.48	225			VC	40.31129	1 in 115
1702	33.86	CO	31.59	375			CO	81.59657	1 in 185
0702	32.96	CO	31.34	300			CO	32.06244	1 in 267
0002	33.39	SW	29.49	1805			BR	12.52996	
0004	33.33	CO	31.09	300			VC	23.43075	1 in 167
8504	32.26	CO	26.61	770			BR	152	1 in 724
0703	33.29	CO	29.8	750			BR	104.2945	1 in 316
9502	32.95	CO	27.18	780			BR	47.01064	1 in 392
0812		CO		150			VC	6.762316	
0502	33.19	CO	27.31	770			BR	41	1 in 342
9503	32.82	CO	30.78	150			VC	17.11724	1 in 342
1607	33.52	CO	30.02	750			BR	24.73863	1 in 112
9702	32.65	CO	24.58	2450			BR	191.4129	
0901	33.49	CO	30.54	525			CO	20.02498	1 in 54
0601	34.39	CO	0	450			VC	100.005	
7703	32.18	CO	30.29	225			VC	64.00781	1 in 123
9406	32.8	CO	29.16	300			VC	29.06888	1 in 88
6605		SW		0			UN	78.24797	
0407	33.06	CO	31.09	225			VC	22.65167	1 in 57
7701	32.3	CO	29.61	375			CO	73.1642	1 in 261
5904	31.84	CO	24.08	2300			BR	68.35203	
0006	33.69	CO	31.01	620			BR	4.123106	
5509		CO		100			VC	7.645934	
0802	33.59	CO	30.56	450			CO	15	1 in 42
9802	32.6	CO	29.02	750			BR	89.21229	
0406	33	CO	29.3	300			VC	30.12929	1 in 274
6701	32	CO	29.77	300			CO	50	1 in 294
0419		CO		150			VC	2.455992	
0824		CO		150			VC	34.08392	
8702	32.41	CO	29.22	450			VC	10.91868	1 in 364
1607	33.52	CO	0	1050			BR	9	
7602	32.25	CO	30.1	225			VC	30	1 in 88
6702	31.86	CO	29.46	450			CO	30.01666	1 in 131
1902	33.59	CO	30.59	525			CO	39	1 in 1950
7603	32.19	CO	29.67	300			CO	55.44366	1 in 163
0903	32.87	CO	29.7	640			BR	16	1 in 114
0803	33.21	CO	30.64	450			CO	36.79674	1 in 613
7502	31.98	CO	29.21	375			CO	30.14963	1 in 151
0824		CO		150			VC	10.62365	
8401	32.44	CO	28.36	300			VC	31.01612	1 in 155
6905	33.24	CO	25.95	375			CO	53.33854	1 in 184
7501	32.03	CO	29.31	375			CO	26.1725	1 in 327
1912		CO		150			VC	15.80875	
9613		CO		150			VC	5.112631	
0902	33.54	CO	30.02	675			CO	59.03389	1 in 281
6404		CO		150			VC	20.06742	
8803	33.03	CO	0	960			BR	30.06659	
9501	32.77	CO	27.02	800			BR	47.01064	1 in 672
0801	33.15	CO	31.07	450			CO	65.45992	1 in 168
6604	32	CO	26.07	750			BR	133.015	1 in 739
9512		CO		150			VC	9.126645	
1903	34.05	CO	30.98	450			CO	49	1 in 129
6904	32.04	CO	25.61	375			VC	2.236068	1 in 0
9603	32.7	CO	29.65	450			VC	8.602325	
0409	33.19	CO	29.48	300			VC	31.06445	1 in 124
8603	32.47	CO	0	770			BR	178.0112	
6801	31.97	CO	30.08	300			VC	24.35159	1 in 162
1404	33.28	CO	31.94	225			VC	18.02776	1 in 18
6504	31.75	CO	29.95	300			CO	52.23983	1 in 80
6506	31.61	CO	28.61	525			CO	29.65327	
0707		CO		150			VC	18.92075	
1501	33.44	CO	27.55	750			BR	44.01136	1 in 400
8511		SW		150			VC	11.21139	
9608		CO	0	150			VC	31.9561	
6703	32.01	CO	29.61	300			CO	31.06445	1 in 444
1804		CO		150			VC	11.75836	
1901	33.64	CO	30.9	300			CO	38.58756	1 in 148
5516		CO		100			VC	13.18901	
0501	33.16	CO	27.29	720			BR	4	1 in 200
0914		CO		150			VC	13.72601	
7803		CO	0	300			BR	29.73214	
5902	32.03	CO	29.46	375			VC	31.01612	1 in 310
6802	32	CO	29.24	375			CO	56.85947	1 in 284
0503	33.29	CO	27.44	750			BR	48	1 in 400
1906		CO		150			VC	8.924909	
9505	32.85	CO	30.16	450			VC	33.09029	1 in 174
9703	32.78	CO	29.45	750			BR	107.4151	1 in 250
6803	32.08	CO	28.99	450			CO	43.01163	1 in 860
8501	32.54	CO	26.92	760			BR	58	1 in 527
9418		CO		225			VC	17.05126	
9801	32.89	CO	0	620			BR	63.97656	
9504	32.94	CO	30.67	225			VC	3.605551	1 in 0
8503	32.63	CO	30.25	375			VC	28	1 in 140
1402	33.36	CO	31.27	225			VC	22	1 in 122
8802	32.72	CO	0	1070			BR	4.472136	
0904	33.12	CO	30.47	630			BR	65.12296	1 in 93
9506	32.8	CO	30.83	450			VC	56.00893	1 in 86
1001	33.84	CO	31.11	375			VC	8.062258	
9417		CO		225			VC	22.31138	
7702	32.23	CO	29.63	300			CO	43	
8703	32.43	CO	29.16	450			VC	40.64325	
6903	32.1	CO	23.57	3050			BR	4.123106	
6902	32.2	CO	28.34	750			BR	53.75872	1 in 489
7802	32.38	CO	28.55	750			BR	25.63201	
9602	32.79	CO	29.97	450			VC	66.00758	1 in 213
5515		CO		100			VC	5.308223	
9610		CO	0	150			VC	7.699273	
0907		CO		150			VC	12.78049	
6603	32.17	CO	26.15	750			BR	40	1 in 667
6501		SW		0			UN	63.53532	
6901	31.9	CO	28.21	750			BR	26.92582	1 in 898
0807		CO		150			VC	9.093446	
7801	32.51	CO	29.33	375			CO	69.28925	1 in 277
6808		SW		100			VC	9.059731	
9407	32.62	CO	0	300			VC	30.01666	
6911		SW		150			VC	11.82275	
0806		CO		150			VC	2.52601	
1401	33.33	CO	29.52	300			VC	30.01666	1 in 167
9509		CO		100			VC	8.559363	
0813		CO		150			VC	40.64032	
0804	32.76	CO	29.44	610			BR	23.08679	
1810		CO		150			VC	19.52302	
7503	31.92	CO	28.95	525			CO	66.01768	1 in 600
6505	31.66	CO	28.83	525			CO	78.01305	1 in 390
8802	32.72	CO	28.6	720			BR	14.86607	1 in 743
9510		CO		100			VC	3.380162	
0410	33.22	CO	30.92	225			VC	24.02082	1 in 240
7705		CO		150			VC	7.299479	
7601	32.29	CO	26.24	750			BR	51.0098	1 in 850
1816		CO		100			VC	8.205472	
6601	31.88	CO	29.23	375			CO	24.02082	1 in 96
7704	32.24	CO	30.43	225			VC	25.01999	1 in 417
7706		CO		150			VC	10.62742	
6410		CO		150			VC	5.034476	
1003	33.9	CO		150			VC	11.08438	
7613		CO		150			VC	11.16259	
6602	31.66	CO	29.72	225			VC	38.01316	1 in 112
1817		CO		100			VC	17.71666	
7709		CO		150			VC	31.52466	
7612		CO		150			VC	11.5108	

Refno	Cover	Func	Invert	Size x	Size y	Shape	Matl	Length	Grad

LEGEND



All point assets follow the standard colour convention:
red - combined blue - surface water
brown - foul purple - overflow

- ● Manhole
- ● Head of System
- ● Extent of Survey
- ● Rodding Eye
- ● Inlet
- ● Discharge Point
- ● Vortex
- ● Penstock
- ● Washout Chamber
- ● Valve
- ● Air Valve
- ● Non Return Valve
- ● Soakaway
- ● Gully
- ● Cascade
- ● Flow Meter
- ● Hatch Box
- ● Oil Interceptor
- ● Summit
- ● Drop Shaft
- ● Orifice Plate
- Side Entry Manhole
- Outfall
- Screen Chamber
- Inspection Chamber
- Bifurcation Chamber
- Lamp Hole
- T Junction / Saddle
- Catchpit
- Valve Chamber
- Vent Column
- Vortex Chamber
- Penstock Chamber
- Network Storage Tank
- Sewer Overflow
- Ww Treatment Works
- ▲ Ww Pumping Station
- Septic Tank
- Control Kiosk
- ● DNM Network Monitoring Point
- ▽ Change of Characteristic

MANHOLE FUNCTION

- FO Foul
- SW Surface Water
- CO Combined
- OV Overflow

SEWER SHAPE

- CI Circular
- EG Egg
- OV Oval
- FT Flat Top
- RE Rectangular
- SQ Square
- TR Trapezoidal
- AR Arch
- BA Barrel
- HO HorseShoe
- UN Unspecified

SEWER MATERIAL

- AC Asbestos Cement
- BR Brick
- PE Polyethylene
- RP Reinforced Plastic Matrix
- CO Concrete
- CSB Concrete Segment Bolted
- CSU Concrete Segment Unbolted
- CC Concrete Box Culverted
- PSC Plastic / Steel Composite
- GRC Glass Reinforecd Plastic
- DI Ductile Iron
- PVC Polyvinyl Chloride
- CI Cast Iron
- SI Spun Iron
- ST Steel
- VC Vitrified Clay
- PP Polypropylene
- PF Pitch Fibre
- MAC Masonry, Coursed
- MAR Masonry, Random
- U Unspecified

Address or Site Reference:

24 BARNHILL STREET,
MANCHESTER,
M14 4SY

Scale: 1:1250 **Date:** 28/01/2025

Sheet: 1 of 1

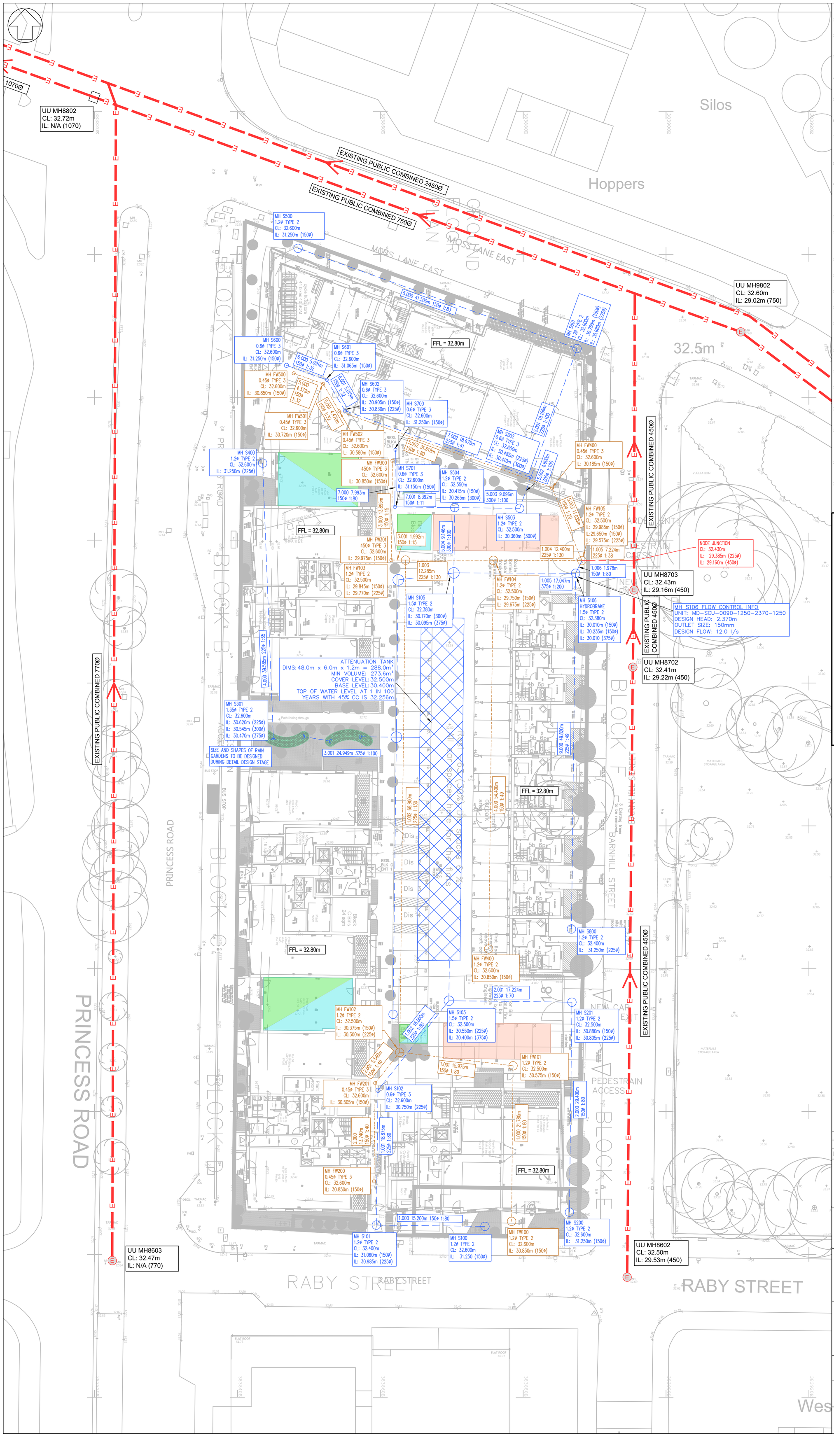
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SEWER RECORDS

United Utilities
Water for the North West

SGi Consulting Engineers 3rd Floor, Phoenix House, 45 Cross Street, Manchester M2 4JF Tel: 0161 837 1500

APPENDIX E I



Drainage notes

1. This drainage drawing is to be read in conjunction with all relevant Architect's, Engineer's drawings and specifications.
2. Do not scale this drawing. Any ambiguities, omissions and errors on the drawings shall be brought to the Engineer's attention immediately. All dimensions must be checked and verified on-site before construction commences.
3. All external underground drainage works are to be constructed in accordance with the Civil Engineering Specification for the Water Industry 7th Edition (CESWI), Sewers for Adoption 7th Edition (SFA) and any site-specific details provided on the contract drawings.
4. All internal underground drainage works are to be constructed in accordance with the Building Regulations Approved Document H (2015 Edition) and any site-specific details provided on the contract drawings.
5. The contractor must survey any retained drainage on-site and report the line, level and condition of the existing drainage to the engineer. We would recommend that the existing drainage is cleansed before any surveying and that these works are undertaken before the contractor commences on-site.
6. Any redundant manholes are to be broken out to at least 600mm below formation level and backfilled with an approved compacted granular material.
7. Any redundant pipes up to and including 300mm diameter are to be filled with a 10:1 PFA/cement mix or broken out and backfilled with an approved compacted granular material. Any redundant pipes over 300mm diameter are to be broken out and backfilled with an approved compacted granular material.
8. Adoptable Drainage Pipes:- All foul and surface water pipes up to and including 300mm diameter are to be Vitrified Clay in accordance with BS EN 295-1. All pipes greater than 300mm diameter to be Concrete Class 120 in accordance with BS EN 1916:2002.
9. Private Drainage Pipes:- All foul and surface water pipes up to and including 100mm diameter are to be Vitrified Clay in accordance with BS EN 295-1 or Solid Walled PVC-U in accordance with BS EN 1401. All foul and surface water pipes greater than 100mm diameter are to be Vitrified Clay in accordance with BS EN 295-1, Concrete Class 120 in accordance with BS EN 1916:2002 or Structural Walled PVC-U in accordance with WIS 4-35-01 and BS EN 13476.
10. All concrete manholes are to be in accordance with BS EN 1917. All plastic inspection chambers are to be in accordance with BS EN 13598.
11. All pipes laid within vehicle trafficked areas with less than 900mm of cover shall be surrounded in Class Z bedding. All pipes less than 300mm below the underside of a ground floor slab shall be surrounded in Class Z bedding. Where Class Z bedding is used as a surround a compressible material must be placed at every pipe joint to provide flexibility. All other pipes are to be laid in a Class S bedding.
12. All underground drainage must be protected during the construction phase where intermediate cover is less than 900mm.
13. Where foul and surface drains and/or sewers cross within 100mm of each other then concrete protection (Class Z bedding) may be required to prevent any potential cross-contamination.
14. All cover levels shown are approximate only. All manhole covers are to be set at the proposed finished pavement or floor level provided by the Architect.
15. For typical manhole construction details, pipe bedding/trench details and typical drainage details refer to SGi typical details drawing.
16. The internal foul and surface water pop-up positions and sizes shown are indicative only. The internal pop-up positions and pop-up sizes are to be confirmed by the architect/M&E consultant and cross referenced by the contractor before the works commence. Any errors are to be reported to the Engineer as soon as possible.
17. The external gully connections and channel drain connections are to be 150mm diameter unless otherwise stated. All gully and channel drain outlets to be trapped and roddable. All internal gullies and channel drains to be specified by others.
18. Channel drains to have a 200mm minimum concrete bed and haunch and be fitted with a heal guard cast iron grating. Gratings to be to load Class D400 specification unless otherwise agreed.
19. All foul water stacks and RWP's to have low level rodding access plates unless an alternative means of access or maintenance is agreed. The access plate size must be in accordance with Document H and sited above any connected ground floor appliance spill level.
20. All drainage connections passing through foundation bases and/or edge beams to be located within sealed sleeves. With the approval of the Engineer, drainage connections may be cast-in with flexible joints either side. Flexible joints to be no greater than 150mm from face of the concrete.
21. All manhole covers located within the road and car parking areas shall be Class D400. Covers within hard and soft landscaped areas with pedestrian traffic only shall be Class B125. Covers located within block/slab paving areas are to be recessed to suit the proposed paving and of the appropriate grade. All internal covers are to be recessed, double sealed bolt down type such as howe green 5000 series or similar approved.
22. Channels within Type 1 & 2 manholes must use pre-formed using clayware sections for pipes up to and including 300mm diameter. All manhole channels to be set at the appropriate level for the incoming and outgoing pipe gradients.
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KEYS:

- PROPOSED SURFACE WATER PIPE/ MANHOLE
- PROPOSED FOUL WATER PIPE/ MANHOLE
- EXISTING COMBINED WATER DRAIN
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- PROPOSED SURFACE WATER ATTENUATION
- PROPOSED GREEN/ BLUE ROOF
- PROPOSED PERMEABLE BLOCK PAVEMENT
- PROPOSED RAIN GARDENS

Rev.	Description	By	Date
P03	UPDATED DRAINAGE TO SUIT NEW LAYOUT	PMB	21-07-2025
P02	UPDATED DRAINAGE TO SUIT NEW LAYOUT	PMB	26-06-2025

Shepherd Gilmour Consulting Engineers
Phoenix House, 45 Cross Street, Manchester, M2 4JF
t: 0161 837 1500 w: www.sgiconsulting.co.uk

Client
CADDICK CONSTRCUTION / MOSSCARE ST VINCENT'S HOUSING GROUP LIMITED

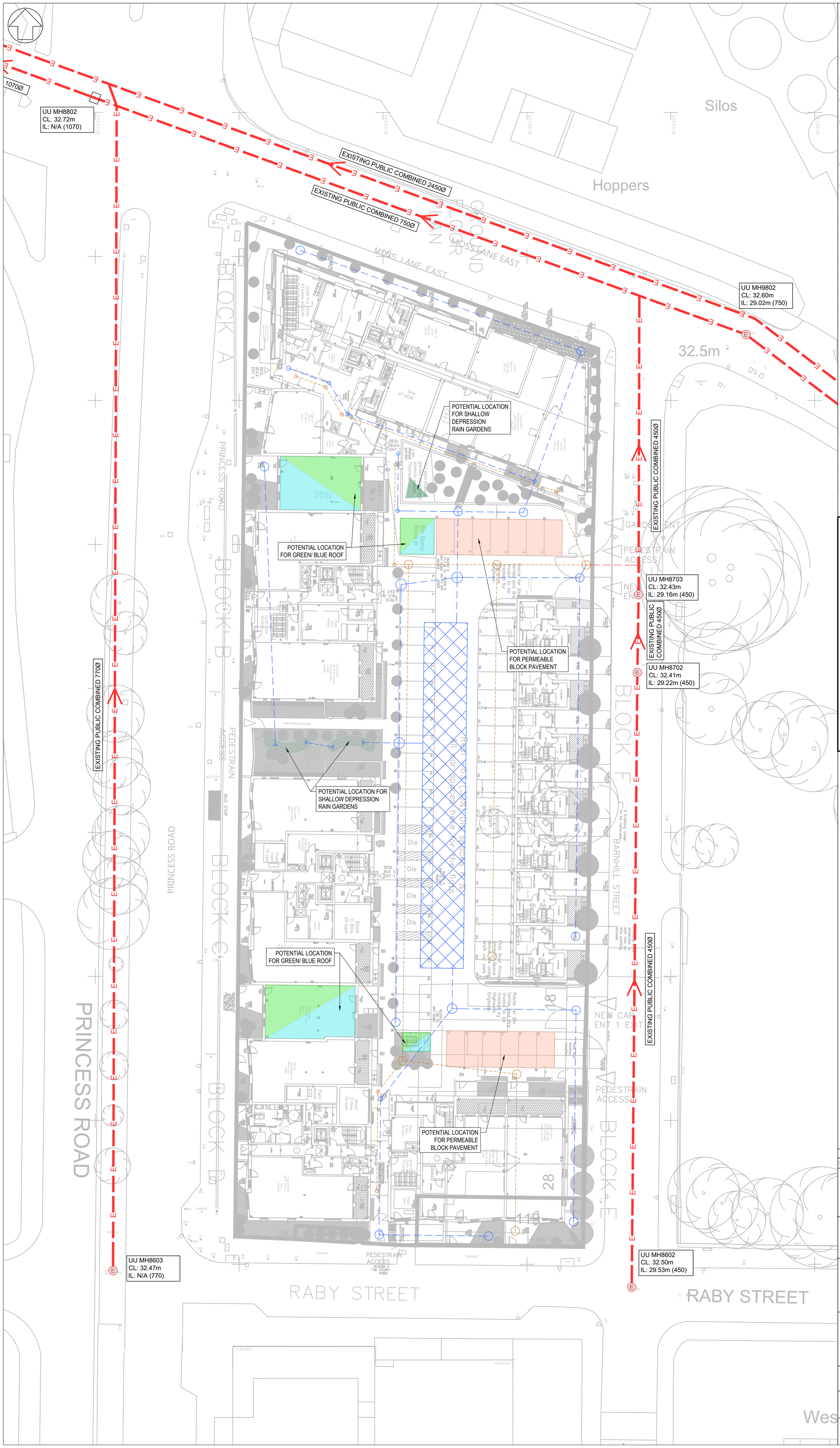
Project
LAND AT BARNHILL STREET / RABY STREET MOSS SIDE MANCHESTER

Title
DRAINAGE STRATEGY PROPOSED DRAINAGE LAYOUT

Date	20-03-2025	Drawn By	PMB
Size	A1	Checked By	RBG
Scale	1:250	Approved By	EAJ

SGi Proj No.	RIBA	Status Code	Issue Status
C1876	01	01	PRELIMINARY

Dwg No. C1876-002 | Ref. P03



Drainage notes

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- PROPOSED GREEN/ BLUE ROOF
- PROPOSED PERMEABLE BLOCK PAVEMENT
- PROPOSED RAIN GARDENS

Rev.	Description	By	Date
P02	UPDATED DRAINAGE TO SUIT NEW LAYOUT	PMB	21-07-2025

Shepherd Gilmour Consulting Engineers
Phoenix House, 45 Cross Street, Manchester, M2 4JF
t: 0161 837 1500 w: www.sgiconsulting.co.uk

Client
CADDICK CONSTRUCTION / MOSSCARE ST VINCENT'S HOUSING GROUP LTD

Project
LAND AT BARNHILL STREET/ RABY STREET MOSS SIDE, MANCHESTER

Title
PROPOSED LOCATIONS OF BLUE & GREEN INFRASTRUCTURE

Date	20-03-2025	Drawn By	PMB
Size	A1	Checked By	RBG
Scale	1:250	Approved By	EAJ

SGi Proj No.	RIBA	Status Code	Issue Status
C1876	01	01	PRELIMINARY

Dwg No. C1876-006 | Ref. P02

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	100	PIMP (%)	100
M5-60 (mm)	18.000	Add Flow / Climate Change (%)	0
Ratio R	0.360	Minimum Backdrop Height (m)	0.200
Maximum Rainfall (mm/hr)	50	Maximum Backdrop Height (m)	1.500
Maximum Time of Concentration (mins)	30	Min Design Depth for Optimisation (m)	1.200
Foul Sewage (l/s/ha)	0.000	Min Vel for Auto Design only (m/s)	1.00
Volumetric Runoff Coeff.	1.000	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.357	4-8	0.257

Total Area Contributing (ha) = 0.614

Total Pipe Volume (m³) = 349.041

Network Design Table for Storm

« - Indicates pipe capacity < flow

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000	15.200	0.190	80.0	0.008	5.00	0.0	0.600		o	150	Pipe/Conduit	
1.001	18.875	0.235	80.3	0.028	0.00	0.0	0.600		o	225	Pipe/Conduit	
1.002	16.000	0.200	80.0	0.009	0.00	0.0	0.600		o	225	Pipe/Conduit	
2.000	29.400	0.370	79.5	0.030	5.00	0.0	0.600		o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	5.23	31.250	0.008	0.0	0.0	0.0	1.12	19.9	1.4
1.001	50.00	5.44	30.985	0.036	0.0	0.0	0.0	1.46	58.1	6.5
1.002	50.00	5.62	30.750	0.045	0.0	0.0	0.0	1.46	58.2	8.1
2.000	50.00	5.43	31.250	0.030	0.0	0.0	0.0	1.13	19.9	5.4

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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
2.001	17.224	0.255	67.5	0.028	0.00	0.0	0.600		o	225	Pipe/Conduit	
1.003	35.427	0.180	196.8	0.077	0.00	0.0		0.050	→[↓]		Cellular Storage	
3.000	66.150	0.705	93.8	0.129	5.00	0.0	0.600		o	300	Pipe/Conduit	
4.000	39.585	0.630	62.8	0.101	5.00	0.0	0.600		o	225	Pipe/Conduit	
3.001	24.949	0.250	99.8	0.000	0.00	0.0	0.600		o	375	Pipe/Conduit	
1.004	24.473	0.125	195.8	0.000	0.00	0.0		0.050	→[↓]		Cellular Storage	
5.000	41.500	0.495	83.8	0.036	5.00	0.0	0.600		o	150	Pipe/Conduit	
5.001	19.166	0.195	98.3	0.010	0.00	0.0	0.600		o	225	Pipe/Conduit	
6.000	5.991	0.185	32.4	0.016	5.00	0.0	0.600		o	150	Pipe/Conduit	
6.001	5.019	0.160	31.4	0.003	0.00	0.0	0.600		o	150	Pipe/Conduit	
6.002	27.637	0.345	80.1	0.027	0.00	0.0	0.600		o	225	Pipe/Conduit	
5.002	4.600	0.050	92.0	0.021	0.00	0.0	0.600		o	300	Pipe/Conduit	
5.003	9.093	0.095	95.7	0.000	0.00	0.0	0.600		o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
2.001	50.00	5.61	30.805	0.058	0.0	0.0	0.0	1.59	63.4	10.5
1.003	50.00	6.34	30.400	0.180	0.0	0.0	0.0	0.83	3824.6	32.5
3.000	50.00	5.68	31.250	0.129	0.0	0.0	0.0	1.62	114.8	23.3
4.000	50.00	5.40	31.250	0.101	0.0	0.0	0.0	1.65	65.7	18.2
3.001	50.00	5.91	30.470	0.230	0.0	0.0	0.0	1.81	200.3	41.5
1.004	50.00	6.81	30.220	0.410	0.0	0.0	0.0	0.87	5828.2	74.0
5.000	50.00	5.63	31.250	0.036	0.0	0.0	0.0	1.10	19.4	6.5
5.001	50.00	5.87	30.680	0.046	0.0	0.0	0.0	1.32	52.4	8.3
6.000	50.00	5.06	31.250	0.016	0.0	0.0	0.0	1.78	31.4	2.9
6.001	50.00	5.10	31.065	0.019	0.0	0.0	0.0	1.80	31.9	3.4
6.002	50.00	5.42	30.830	0.046	0.0	0.0	0.0	1.46	58.1	8.3
5.002	50.00	5.92	30.410	0.113	0.0	0.0	0.0	1.64	115.9	20.4
5.003	50.00	6.01	30.360	0.113	0.0	0.0	0.0	1.61	113.6	20.4

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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
7.000	7.993	0.100	79.9	0.014	5.00	0.0	0.600		o	150	Pipe/Conduit	
7.001	8.395	0.735	11.4	0.000	0.00	0.0	0.600		o	150	Pipe/Conduit	
5.004	9.146	0.095	96.3	0.014	0.00	0.0	0.600		o	300	Pipe/Conduit	
1.005	17.047	0.085	200.6	0.000	0.00	0.0	0.600		o	375	Pipe/Conduit	
8.000	49.820	1.015	49.1	0.063	5.00	0.0	0.600		o	225	Pipe/Conduit	
1.006	1.978	0.025	79.1	0.000	0.00	0.0	0.600		o	150	Pipe/Conduit	
1.007	7.224	0.600	12.0	0.000	0.00	0.0	0.600		o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
7.000	50.00	5.12	31.250	0.014	0.0	0.0	0.0	1.13	19.9	2.5
7.001	50.00	5.17	31.150	0.014	0.0	0.0	0.0	3.00	53.0	2.5
5.004	50.00	6.11	30.265	0.141	0.0	0.0	0.0	1.60	113.3	25.5
1.005	50.00	7.03	30.095	0.551	0.0	0.0	0.0	1.28	140.9	99.5
8.000	50.00	5.44	31.250	0.063	0.0	0.0	0.0	1.87	74.4	11.4
1.006	50.00	7.06	30.010	0.614	0.0	0.0	0.0	1.13	20.0«	110.9
1.007	50.00	7.10	29.985	0.614	0.0	0.0	0.0	2.92	51.6«	110.9

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Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S100	32.600	1.350	Open Manhole	1200	1.000	31.250	150				
S101	32.400	1.415	Open Manhole	1200	1.001	30.985	225	1.000	31.060	150	
S102	32.600	1.850	Open Manhole	600	1.002	30.750	225	1.001	30.750	225	
S200	32.600	1.350	Open Manhole	1200	2.000	31.250	150				
S201	32.500	1.695	Open Manhole	1200	2.001	30.805	225	2.000	30.880	150	
S103	32.380	1.980	Open Manhole	1500	1.003	30.400		1.002	30.550	225	
								2.001	30.550	225	
S300	32.600	1.350	Open Manhole	1200	3.000	31.250	300				
S400	32.600	1.350	Open Manhole	1200	4.000	31.250	225				
S301	32.600	2.130	Open Manhole	1350	3.001	30.470	375	3.000	30.545	300	
								4.000	30.620	225	
S104	32.380	2.160	Open Manhole	1	1.004	30.220		1.003	30.220		
								3.001	30.220	375	
S500	32.600	1.350	Open Manhole	1200	5.000	31.250	150				
S501	32.600	1.920	Open Manhole	1200	5.001	30.680	225	5.000	30.755	150	
S600	32.600	1.350	Open Manhole	600	6.000	31.250	150				
S601	32.600	1.535	Open Manhole	600	6.001	31.065	150	6.000	31.065	150	
S602	32.600	1.770	Open Manhole	600	6.002	30.830	225	6.001	30.905	150	
S502	32.600	2.190	Open Manhole	600	5.002	30.410	300	5.001	30.485	225	
								6.002	30.485	225	
S503	32.500	2.140	Open Manhole	1200	5.003	30.360	300	5.002	30.360	300	
S700	32.600	1.350	Open Manhole	600	7.000	31.250	150				
S701	32.600	1.450	Open Manhole	600	7.001	31.150	150	7.000	31.150	150	
S504	32.550	2.285	Open Manhole	1200	5.004	30.265	300	5.003	30.265	300	
								7.001	30.415	150	
S105	32.380	2.285	Open Manhole	1500	1.005	30.095	375	1.004	30.095		
								5.004	30.170	300	
S800	32.400	1.150	Open Manhole	1200	8.000	31.250	225				
S106	32.380	2.370	Open Manhole	1500	1.006	30.010	150	1.005	30.010	375	
								8.000	30.235	225	300
FW105	32.380	2.395	Open Manhole	1200	1.007	29.985	150	1.006	29.985	150	
	32.430	3.045	Open Manhole	0		OUTFALL		1.007	29.385	150	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S100	383874.648	395703.920	383874.648	395703.920	Required	
S101	383859.449	395704.100	383859.449	395704.100	Required	
S102	383859.671	395722.974	383859.671	395722.974	Required	
S200	383886.478	395705.911	383886.478	395705.911	Required	
S201	383886.826	395735.309	383886.826	395735.309	Required	
S103	383869.603	395735.518	383869.603	395735.518	Required	
S300	383844.283	395705.087	383844.283	395705.087	Required	
S400	383843.529	395810.788	383843.529	395810.788	Required	
S301	383845.067	395771.233	383845.067	395771.233	Required	
S104	383870.015	395770.943	383870.015	395770.943	Required	
S500	383848.483	395840.859	383848.483	395840.859	Required	
S501	383887.539	395826.827	383887.539	395826.827	Required	
S600	383846.866	395824.475	383846.866	395824.475	Required	
S601	383852.504	395822.449	383852.504	395822.449	Required	
S602	383855.061	395818.130	383855.061	395818.130	Required	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S502	383881.070	395808.786	383881.070	395808.786	Required	
S503	383879.517	395804.456	383879.517	395804.456	Required	
S700	383862.120	395812.645	383862.120	395812.645	Required	
S701	383862.030	395804.653	383862.030	395804.653	Required	
S504	383870.425	395804.559	383870.425	395804.559	Required	
S105	383870.299	395795.414	383870.299	395795.414	Required	
S800	383886.758	395745.555	383886.758	395745.555	Required	
S106	383887.346	395795.372	383887.346	395795.372	Required	
FW105	383888.224	395797.144	383888.224	395797.144	Required	
	383895.449	395797.126			No Entry	

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	o	150	S100	32.600	31.250	1.200	Open Manhole	1200
1.001	o	225	S101	32.400	30.985	1.190	Open Manhole	1200
1.002	o	225	S102	32.600	30.750	1.625	Open Manhole	600
2.000	o	150	S200	32.600	31.250	1.200	Open Manhole	1200
2.001	o	225	S201	32.500	30.805	1.470	Open Manhole	1200
1.003	→[↓]		S103	32.380	30.400	0.779	Open Manhole	1500
3.000	o	300	S300	32.600	31.250	1.050	Open Manhole	1200
4.000	o	225	S400	32.600	31.250	1.125	Open Manhole	1200
3.001	o	375	S301	32.600	30.470	1.755	Open Manhole	1350
1.004	→[↓]		S104	32.380	30.220	0.959	Open Manhole	1
5.000	o	150	S500	32.600	31.250	1.200	Open Manhole	1200
5.001	o	225	S501	32.600	30.680	1.695	Open Manhole	1200
6.000	o	150	S600	32.600	31.250	1.200	Open Manhole	600

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	15.200	80.0	S101	32.400	31.060	1.190	Open Manhole	1200
1.001	18.875	80.3	S102	32.600	30.750	1.625	Open Manhole	600
1.002	16.000	80.0	S103	32.380	30.550	1.605	Open Manhole	1500
2.000	29.400	79.5	S201	32.500	30.880	1.470	Open Manhole	1200
2.001	17.224	67.5	S103	32.380	30.550	1.605	Open Manhole	1500
1.003	35.427	196.8	S104	32.380	30.220	0.959	Open Manhole	1
3.000	66.150	93.8	S301	32.600	30.545	1.755	Open Manhole	1350
4.000	39.585	62.8	S301	32.600	30.620	1.755	Open Manhole	1350
3.001	24.949	99.8	S104	32.380	30.220	1.785	Open Manhole	1
1.004	24.473	195.8	S105	32.380	30.095	1.084	Open Manhole	1500
5.000	41.500	83.8	S501	32.600	30.755	1.695	Open Manhole	1200
5.001	19.166	98.3	S502	32.600	30.485	1.890	Open Manhole	600
6.000	5.991	32.4	S601	32.600	31.065	1.385	Open Manhole	600

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
6.001	o	150	S601	32.600	31.065	1.385	Open Manhole	600
6.002	o	225	S602	32.600	30.830	1.545	Open Manhole	600
5.002	o	300	S502	32.600	30.410	1.890	Open Manhole	600
5.003	o	300	S503	32.500	30.360	1.840	Open Manhole	1200
7.000	o	150	S700	32.600	31.250	1.200	Open Manhole	600
7.001	o	150	S701	32.600	31.150	1.300	Open Manhole	600
5.004	o	300	S504	32.550	30.265	1.985	Open Manhole	1200
1.005	o	375	S105	32.380	30.095	1.910	Open Manhole	1500
8.000	o	225	S800	32.400	31.250	0.925	Open Manhole	1200
1.006	o	150	S106	32.380	30.010	2.220	Open Manhole	1500
1.007	o	150	FW105	32.380	29.985	2.245	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
6.001	5.019	31.4	S602	32.600	30.905	1.545	Open Manhole	600
6.002	27.637	80.1	S502	32.600	30.485	1.890	Open Manhole	600
5.002	4.600	92.0	S503	32.500	30.360	1.840	Open Manhole	1200
5.003	9.093	95.7	S504	32.550	30.265	1.985	Open Manhole	1200
7.000	7.993	79.9	S701	32.600	31.150	1.300	Open Manhole	600
7.001	8.395	11.4	S504	32.550	30.415	1.985	Open Manhole	1200
5.004	9.146	96.3	S105	32.380	30.170	1.910	Open Manhole	1500
1.005	17.047	200.6	S106	32.380	30.010	1.995	Open Manhole	1500
8.000	49.820	49.1	S106	32.380	30.235	1.920	Open Manhole	1500
1.006	1.978	79.1	FW105	32.380	29.985	2.245	Open Manhole	1200
1.007	7.224	12.0		32.430	29.385	2.895	Open Manhole	0

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Area Summary for Storm

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.008	0.008	0.008
1.001	-	-	100	0.028	0.028	0.028
1.002	-	-	100	0.009	0.009	0.009
2.000	-	-	100	0.030	0.030	0.030
2.001	-	-	100	0.028	0.028	0.028
1.003	-	-	100	0.077	0.077	0.077
3.000	-	-	100	0.129	0.129	0.129
4.000	-	-	100	0.101	0.101	0.101
3.001	-	-	100	0.000	0.000	0.000
1.004	-	-	100	0.000	0.000	0.000
5.000	-	-	100	0.036	0.036	0.036
5.001	-	-	100	0.010	0.010	0.010
6.000	-	-	100	0.016	0.016	0.016
6.001	-	-	100	0.003	0.003	0.003
6.002	-	-	100	0.027	0.027	0.027
5.002	-	-	100	0.021	0.021	0.021
5.003	-	-	100	0.000	0.000	0.000
7.000	-	-	100	0.014	0.014	0.014
7.001	-	-	100	0.000	0.000	0.000
5.004	-	-	100	0.014	0.014	0.014
1.005	-	-	100	0.000	0.000	0.000
8.000	-	-	100	0.063	0.063	0.063
1.006	-	-	100	0.000	0.000	0.000
1.007	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.614	0.614	0.614

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Network Classifications for Storm

PN	USMH Name	Pipe Dia (mm)	Min Cover Depth (m)	Max Cover Depth (m)	Pipe Type	MH Dia (mm)	MH Width (mm)	MH Ring Depth (m)	MH Type
1.000	S100	150	1.190	1.200	Unclassified	1200	0	1.200	Unclassified
1.001	S101	225	1.190	1.625	Unclassified	1200	0	1.190	Unclassified
1.002	S102	225	1.605	1.625	Unclassified	600	0	1.625	Unclassified
2.000	S200	150	1.200	1.470	Unclassified	1200	0	1.200	Unclassified
2.001	S201	225	1.470	1.605	Unclassified	1200	0	1.470	Unclassified
1.003	S103				Cellular Storage	1500	0	0.779	Unclassified
3.000	S300	300	1.050	1.755	Unclassified	1200	0	1.050	Unclassified
4.000	S400	225	1.125	1.755	Unclassified	1200	0	1.125	Unclassified
3.001	S301	375	1.755	1.785	Unclassified	1350	0	1.755	Unclassified
1.004	S104				Cellular Storage	1	0	0.959	Unclassified
5.000	S500	150	1.200	1.695	Unclassified	1200	0	1.200	Unclassified
5.001	S501	225	1.695	1.890	Unclassified	1200	0	1.695	Unclassified
6.000	S600	150	1.200	1.385	Unclassified	600	0	1.200	Unclassified
6.001	S601	150	1.385	1.545	Unclassified	600	0	1.385	Unclassified
6.002	S602	225	1.545	1.890	Unclassified	600	0	1.545	Unclassified
5.002	S502	300	1.840	1.890	Unclassified	600	0	1.890	Unclassified
5.003	S503	300	1.840	1.985	Unclassified	1200	0	1.840	Unclassified
7.000	S700	150	1.200	1.300	Unclassified	600	0	1.200	Unclassified
7.001	S701	150	1.300	1.985	Unclassified	600	0	1.300	Unclassified
5.004	S504	300	1.910	1.985	Unclassified	1200	0	1.985	Unclassified
1.005	S105	375	1.910	1.995	Unclassified	1500	0	1.910	Unclassified
8.000	S800	225	0.925	1.920	Unclassified	1200	0	0.925	Unclassified
1.006	S106	150	2.220	2.245	Unclassified	1500	0	2.220	Unclassified
1.007	FW105	150	2.245	2.895	Unclassified	1200	0	2.245	Unclassified

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.007		32.430	29.385	0.000	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	1.000	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	0.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

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Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Winter
Return Period (years)	100	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	18.000	Storm Duration (mins)	30
Ratio R	0.360		

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Online Controls for Storm

Hydro-Brake® Optimum Manhole: S106, DS/PN: 1.006, Volume (m³): 7.8

Unit Reference	MD-SCU-0090-1250-2370-1250
Design Head (m)	2.370
Design Flow (l/s)	12.5
Flush-Flo™	Calculated
Objective	Linear discharge profile
Application	Surface
Sump Available	Yes
Diameter (mm)	90
Invert Level (m)	30.010
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	2.370	12.5
Flush-Flo™	0.114	3.3
Kick-Flo®	0.134	3.3
Mean Flow over Head Range	-	8.5

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	3.1	1.200	9.0	3.000	14.0	7.000	21.0
0.200	3.9	1.400	9.7	3.500	15.1	7.500	21.7
0.300	4.7	1.600	10.4	4.000	16.1	8.000	22.4
0.400	5.4	1.800	11.0	4.500	17.0	8.500	23.1
0.500	6.0	2.000	11.5	5.000	17.9	9.000	23.7
0.600	6.5	2.200	12.1	5.500	18.7	9.500	24.4
0.800	7.5	2.400	12.6	6.000	19.5		
1.000	8.3	2.600	13.1	6.500	20.3		

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Storage Structures for Storm

Cellular Storage Pipe: 1.003

Manning's N	0.050	Infiltration Coefficient Side (m/hr)	0.00000
Invert Level (m)	30.400	Safety Factor	1.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	144.0	0.0	1.201	0.0	0.0
1.200	144.0	0.0			

Cellular Storage Pipe: 1.004

Manning's N	0.050	Infiltration Coefficient Side (m/hr)	0.00000
Invert Level (m)	30.220	Safety Factor	1.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	144.0	0.0	1.201	0.0	0.0
1.200	144.0	0.0			

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Volume Summary (Static)

Length Calculations based on Centre-Centre

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	S100	1.527	0.269	0.000	1.795
1.001	S101	1.600	0.750	0.000	2.351
1.002	S102	0.523	0.636	0.000	1.159
2.000	S200	1.527	0.520	0.000	2.046
2.001	S201	1.917	0.685	0.000	2.602
1.003	S103	3.499	164.228	0.000	167.727
3.000	S300	1.527	4.676	0.000	6.203
4.000	S400	1.527	1.574	0.000	3.101
3.001	S301	3.049	2.756	0.000	5.804
1.004	S104	0.000	164.228	0.000	164.228
5.000	S500	1.527	0.733	0.000	2.260
5.001	S501	2.171	0.762	0.000	2.934
6.000	S600	0.382	0.106	0.000	0.488
6.001	S601	0.434	0.089	0.000	0.523
6.002	S602	0.500	1.099	0.000	1.599
5.002	S502	0.619	0.325	0.000	0.944
5.003	S503	2.420	0.643	0.000	3.063
7.000	S700	0.382	0.141	0.000	0.523
7.001	S701	0.410	0.148	0.000	0.558
5.004	S504	2.584	0.646	0.000	3.231
1.005	S105	4.038	1.883	0.000	5.921
8.000	S800	1.301	1.981	0.000	3.282
1.006	S106	4.188	0.035	0.000	4.223
1.007	FW105	2.709	0.128	0.000	2.836
Total		40.361	349.041	0.000	389.402

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Volume Summary (Static)

Length Calculations based on True Length

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	S100	1.527	0.247	0.000	1.774
1.001	S101	1.600	0.715	0.000	2.315
1.002	S102	0.523	0.594	0.000	1.117
2.000	S200	1.527	0.498	0.000	2.025
2.001	S201	1.917	0.631	0.000	2.548
1.003	S103	3.499	160.749	0.000	164.248
3.000	S300	1.527	4.586	0.000	6.113
4.000	S400	1.527	1.523	0.000	3.050
3.001	S301	3.049	2.681	0.000	5.730
1.004	S104	0.000	159.192	0.000	159.192
5.000	S500	1.527	0.712	0.000	2.239
5.001	S501	2.171	0.726	0.000	2.898
6.000	S600	0.382	0.095	0.000	0.477
6.001	S601	0.434	0.078	0.000	0.512
6.002	S602	0.500	1.075	0.000	1.575
5.002	S502	0.619	0.262	0.000	0.881
5.003	S503	2.420	0.558	0.000	2.978
7.000	S700	0.382	0.131	0.000	0.512
7.001	S701	0.410	0.132	0.000	0.542
5.004	S504	2.584	0.551	0.000	3.135
1.005	S105	4.038	1.717	0.000	5.755
8.000	S800	1.301	1.927	0.000	3.228
1.006	S106	4.188	0.011	0.000	4.199
1.007	FW105	2.709	0.117	0.000	2.826
Total		40.361	339.510	0.000	379.871

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Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	240 minute 100 year Winter I+45%	32.600	32.260	0.860	0.000	0.06
1.001	S101	240 minute 100 year Winter I+45%	32.400	32.259	1.049	0.000	0.09
1.002	S102	240 minute 100 year Winter I+45%	32.600	32.258	1.283	0.000	0.11
2.000	S200	240 minute 100 year Winter I+45%	32.600	32.262	0.862	0.000	0.22
2.001	S201	240 minute 100 year Winter I+45%	32.500	32.258	1.228	0.000	0.13
1.003	S103	240 minute 100 year Winter I+45%	32.380	32.256	0.655	0.000	0.00
3.000	S300	240 minute 100 year Winter I+45%	32.600	32.264	0.714	0.000	0.16
4.000	S400	240 minute 100 year Winter I+45%	32.600	32.265	0.790	0.000	0.22
3.001	S301	240 minute 100 year Winter I+45%	32.600	32.259	1.414	0.000	0.17
1.004	S104	240 minute 100 year Winter I+45%	32.380	32.256	0.835	0.000	0.00
5.000	S500	240 minute 100 year Winter I+45%	32.600	32.267	0.867	0.000	0.26
5.001	S501	240 minute 100 year Winter I+45%	32.600	32.262	1.357	0.000	0.12
6.000	S600	240 minute 100 year Winter I+45%	32.600	32.264	0.864	0.000	0.08
6.001	S601	240 minute 100 year Winter I+45%	32.600	32.263	1.048	0.000	0.10
6.002	S602	240 minute 100 year Winter I+45%	32.600	32.262	1.207	0.000	0.11
5.002	S502	240 minute 100 year Winter I+45%	32.600	32.260	1.550	0.000	0.23
5.003	S503	240 minute 100 year Winter I+45%	32.500	32.259	1.599	0.000	0.18
7.000	S700	240 minute 100 year Winter I+45%	32.600	32.260	0.860	0.000	0.11
7.001	S701	240 minute 100 year Winter I+45%	32.600	32.259	0.959	0.000	0.04

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Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		1.1	SURCHARGED
1.001	S101		5.0	FLOOD RISK
1.002	S102		5.7	SURCHARGED
2.000	S200		4.1	SURCHARGED
2.001	S201		7.6	FLOOD RISK
1.003	S103		6.3	FLOOD RISK
3.000	S300		17.7	SURCHARGED
4.000	S400		13.9	SURCHARGED
3.001	S301		29.2	SURCHARGED
1.004	S104		17.3	FLOOD RISK
5.000	S500		5.0	SURCHARGED
5.001	S501		5.7	SURCHARGED
6.000	S600		2.2	SURCHARGED
6.001	S601		2.6	SURCHARGED
6.002	S602		6.2	SURCHARGED
5.002	S502		14.3	SURCHARGED
5.003	S503		14.0	FLOOD RISK
7.000	S700		1.9	SURCHARGED
7.001	S701		1.9	SURCHARGED

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Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	240 minute 100 year Winter I+45%	32.550	32.258	1.693	0.000	0.23
1.005	S105	240 minute 100 year Winter I+45%	32.380	32.256	1.786	0.000	0.10
8.000	S800	240 minute 100 year Winter I+45%	32.400	32.254	0.779	0.000	0.12
1.006	S106	240 minute 100 year Winter I+45%	32.380	32.250	2.090	0.000	1.11
1.007	FW105	240 minute 100 year Winter I+45%	32.380	30.038	-0.097	0.000	0.27

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		17.5	FLOOD RISK
1.005	S105		10.8	FLOOD RISK
8.000	S800		8.7	FLOOD RISK
1.006	S106		12.0	FLOOD RISK
1.007	FW105		12.0	OK

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STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	100	PIMP (%)	100
M5-60 (mm)	18.000	Add Flow / Climate Change (%)	0
Ratio R	0.360	Minimum Backdrop Height (m)	0.200
Maximum Rainfall (mm/hr)	50	Maximum Backdrop Height (m)	1.500
Maximum Time of Concentration (mins)	30	Min Design Depth for Optimisation (m)	1.200
Foul Sewage (l/s/ha)	0.000	Min Vel for Auto Design only (m/s)	1.00
Volumetric Runoff Coeff.	1.000	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.357	4-8	0.257

Total Area Contributing (ha) = 0.614

Total Pipe Volume (m³) = 349.041

Network Design Table for Storm

« - Indicates pipe capacity < flow

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000	15.200	0.190	80.0	0.008	5.00	0.0	0.600		o	150	Pipe/Conduit	
1.001	18.875	0.235	80.3	0.028	0.00	0.0	0.600		o	225	Pipe/Conduit	
1.002	16.000	0.200	80.0	0.009	0.00	0.0	0.600		o	225	Pipe/Conduit	
2.000	29.400	0.370	79.5	0.030	5.00	0.0	0.600		o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	5.23	31.250	0.008	0.0	0.0	0.0	1.12	19.9	1.4
1.001	50.00	5.44	30.985	0.036	0.0	0.0	0.0	1.46	58.1	6.5
1.002	50.00	5.62	30.750	0.045	0.0	0.0	0.0	1.46	58.2	8.1
2.000	50.00	5.43	31.250	0.030	0.0	0.0	0.0	1.13	19.9	5.4

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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
2.001	17.224	0.255	67.5	0.028	0.00	0.0	0.600		o	225	Pipe/Conduit	
1.003	35.427	0.180	196.8	0.077	0.00	0.0		0.050	→[↓]		Cellular Storage	
3.000	66.150	0.705	93.8	0.129	5.00	0.0	0.600		o	300	Pipe/Conduit	
4.000	39.585	0.630	62.8	0.101	5.00	0.0	0.600		o	225	Pipe/Conduit	
3.001	24.949	0.250	99.8	0.000	0.00	0.0	0.600		o	375	Pipe/Conduit	
1.004	24.473	0.125	195.8	0.000	0.00	0.0		0.050	→[↓]		Cellular Storage	
5.000	41.500	0.495	83.8	0.036	5.00	0.0	0.600		o	150	Pipe/Conduit	
5.001	19.166	0.195	98.3	0.010	0.00	0.0	0.600		o	225	Pipe/Conduit	
6.000	5.991	0.185	32.4	0.016	5.00	0.0	0.600		o	150	Pipe/Conduit	
6.001	5.019	0.160	31.4	0.003	0.00	0.0	0.600		o	150	Pipe/Conduit	
6.002	27.637	0.345	80.1	0.027	0.00	0.0	0.600		o	225	Pipe/Conduit	
5.002	4.600	0.050	92.0	0.021	0.00	0.0	0.600		o	300	Pipe/Conduit	
5.003	9.093	0.095	95.7	0.000	0.00	0.0	0.600		o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
2.001	50.00	5.61	30.805	0.058	0.0	0.0	0.0	1.59	63.4	10.5
1.003	50.00	6.34	30.400	0.180	0.0	0.0	0.0	0.83	3824.6	32.5
3.000	50.00	5.68	31.250	0.129	0.0	0.0	0.0	1.62	114.8	23.3
4.000	50.00	5.40	31.250	0.101	0.0	0.0	0.0	1.65	65.7	18.2
3.001	50.00	5.91	30.470	0.230	0.0	0.0	0.0	1.81	200.3	41.5
1.004	50.00	6.81	30.220	0.410	0.0	0.0	0.0	0.87	5828.2	74.0
5.000	50.00	5.63	31.250	0.036	0.0	0.0	0.0	1.10	19.4	6.5
5.001	50.00	5.87	30.680	0.046	0.0	0.0	0.0	1.32	52.4	8.3
6.000	50.00	5.06	31.250	0.016	0.0	0.0	0.0	1.78	31.4	2.9
6.001	50.00	5.10	31.065	0.019	0.0	0.0	0.0	1.80	31.9	3.4
6.002	50.00	5.42	30.830	0.046	0.0	0.0	0.0	1.46	58.1	8.3
5.002	50.00	5.92	30.410	0.113	0.0	0.0	0.0	1.64	115.9	20.4
5.003	50.00	6.01	30.360	0.113	0.0	0.0	0.0	1.61	113.6	20.4

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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	n	HYD SECT	DIA (mm)	Section Type	Auto Design
7.000	7.993	0.100	79.9	0.014	5.00	0.0	0.600		o	150	Pipe/Conduit	
7.001	8.395	0.735	11.4	0.000	0.00	0.0	0.600		o	150	Pipe/Conduit	
5.004	9.146	0.095	96.3	0.014	0.00	0.0	0.600		o	300	Pipe/Conduit	
1.005	17.047	0.085	200.6	0.000	0.00	0.0	0.600		o	375	Pipe/Conduit	
8.000	49.820	1.015	49.1	0.063	5.00	0.0	0.600		o	225	Pipe/Conduit	
1.006	1.978	0.025	79.1	0.000	0.00	0.0	0.600		o	150	Pipe/Conduit	
1.007	7.224	0.600	12.0	0.000	0.00	0.0	0.600		o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
7.000	50.00	5.12	31.250	0.014	0.0	0.0	0.0	1.13	19.9	2.5
7.001	50.00	5.17	31.150	0.014	0.0	0.0	0.0	3.00	53.0	2.5
5.004	50.00	6.11	30.265	0.141	0.0	0.0	0.0	1.60	113.3	25.5
1.005	50.00	7.03	30.095	0.551	0.0	0.0	0.0	1.28	140.9	99.5
8.000	50.00	5.44	31.250	0.063	0.0	0.0	0.0	1.87	74.4	11.4
1.006	50.00	7.06	30.010	0.614	0.0	0.0	0.0	1.13	20.0«	110.9
1.007	50.00	7.10	29.985	0.614	0.0	0.0	0.0	2.92	51.6«	110.9

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Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S100	32.600	1.350	Open Manhole	1200	1.000	31.250	150				
S101	32.400	1.415	Open Manhole	1200	1.001	30.985	225	1.000	31.060	150	
S102	32.600	1.850	Open Manhole	600	1.002	30.750	225	1.001	30.750	225	
S200	32.600	1.350	Open Manhole	1200	2.000	31.250	150				
S201	32.500	1.695	Open Manhole	1200	2.001	30.805	225	2.000	30.880	150	
S103	32.380	1.980	Open Manhole	1500	1.003	30.400		1.002	30.550	225	
								2.001	30.550	225	
S300	32.600	1.350	Open Manhole	1200	3.000	31.250	300				
S400	32.600	1.350	Open Manhole	1200	4.000	31.250	225				
S301	32.600	2.130	Open Manhole	1350	3.001	30.470	375	3.000	30.545	300	
								4.000	30.620	225	
S104	32.380	2.160	Open Manhole	1	1.004	30.220		1.003	30.220		
								3.001	30.220	375	
S500	32.600	1.350	Open Manhole	1200	5.000	31.250	150				
S501	32.600	1.920	Open Manhole	1200	5.001	30.680	225	5.000	30.755	150	
S600	32.600	1.350	Open Manhole	600	6.000	31.250	150				
S601	32.600	1.535	Open Manhole	600	6.001	31.065	150	6.000	31.065	150	
S602	32.600	1.770	Open Manhole	600	6.002	30.830	225	6.001	30.905	150	
S502	32.600	2.190	Open Manhole	600	5.002	30.410	300	5.001	30.485	225	
								6.002	30.485	225	
S503	32.500	2.140	Open Manhole	1200	5.003	30.360	300	5.002	30.360	300	
S700	32.600	1.350	Open Manhole	600	7.000	31.250	150				
S701	32.600	1.450	Open Manhole	600	7.001	31.150	150	7.000	31.150	150	
S504	32.550	2.285	Open Manhole	1200	5.004	30.265	300	5.003	30.265	300	
								7.001	30.415	150	
S105	32.380	2.285	Open Manhole	1500	1.005	30.095	375	1.004	30.095		
								5.004	30.170	300	
S800	32.400	1.150	Open Manhole	1200	8.000	31.250	225				
S106	32.380	2.370	Open Manhole	1500	1.006	30.010	150	1.005	30.010	375	
								8.000	30.235	225	300
FW105	32.380	2.395	Open Manhole	1200	1.007	29.985	150	1.006	29.985	150	
	32.430	3.045	Open Manhole	0		OUTFALL		1.007	29.385	150	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S100	383874.648	395703.920	383874.648	395703.920	Required	
S101	383859.449	395704.100	383859.449	395704.100	Required	
S102	383859.671	395722.974	383859.671	395722.974	Required	
S200	383886.478	395705.911	383886.478	395705.911	Required	
S201	383886.826	395735.309	383886.826	395735.309	Required	
S103	383869.603	395735.518	383869.603	395735.518	Required	
S300	383844.283	395705.087	383844.283	395705.087	Required	
S400	383843.529	395810.788	383843.529	395810.788	Required	
S301	383845.067	395771.233	383845.067	395771.233	Required	
S104	383870.015	395770.943	383870.015	395770.943	Required	
S500	383848.483	395840.859	383848.483	395840.859	Required	
S501	383887.539	395826.827	383887.539	395826.827	Required	
S600	383846.866	395824.475	383846.866	395824.475	Required	
S601	383852.504	395822.449	383852.504	395822.449	Required	
S602	383855.061	395818.130	383855.061	395818.130	Required	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S502	383881.070	395808.786	383881.070	395808.786	Required	
S503	383879.517	395804.456	383879.517	395804.456	Required	
S700	383862.120	395812.645	383862.120	395812.645	Required	
S701	383862.030	395804.653	383862.030	395804.653	Required	
S504	383870.425	395804.559	383870.425	395804.559	Required	
S105	383870.299	395795.414	383870.299	395795.414	Required	
S800	383886.758	395745.555	383886.758	395745.555	Required	
S106	383887.346	395795.372	383887.346	395795.372	Required	
FW105	383888.224	395797.144	383888.224	395797.144	Required	
	383895.449	395797.126			No Entry	

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	o	150	S100	32.600	31.250	1.200	Open Manhole	1200
1.001	o	225	S101	32.400	30.985	1.190	Open Manhole	1200
1.002	o	225	S102	32.600	30.750	1.625	Open Manhole	600
2.000	o	150	S200	32.600	31.250	1.200	Open Manhole	1200
2.001	o	225	S201	32.500	30.805	1.470	Open Manhole	1200
1.003	→[↓]		S103	32.380	30.400	0.779	Open Manhole	1500
3.000	o	300	S300	32.600	31.250	1.050	Open Manhole	1200
4.000	o	225	S400	32.600	31.250	1.125	Open Manhole	1200
3.001	o	375	S301	32.600	30.470	1.755	Open Manhole	1350
1.004	→[↓]		S104	32.380	30.220	0.959	Open Manhole	1
5.000	o	150	S500	32.600	31.250	1.200	Open Manhole	1200
5.001	o	225	S501	32.600	30.680	1.695	Open Manhole	1200
6.000	o	150	S600	32.600	31.250	1.200	Open Manhole	600

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	15.200	80.0	S101	32.400	31.060	1.190	Open Manhole	1200
1.001	18.875	80.3	S102	32.600	30.750	1.625	Open Manhole	600
1.002	16.000	80.0	S103	32.380	30.550	1.605	Open Manhole	1500
2.000	29.400	79.5	S201	32.500	30.880	1.470	Open Manhole	1200
2.001	17.224	67.5	S103	32.380	30.550	1.605	Open Manhole	1500
1.003	35.427	196.8	S104	32.380	30.220	0.959	Open Manhole	1
3.000	66.150	93.8	S301	32.600	30.545	1.755	Open Manhole	1350
4.000	39.585	62.8	S301	32.600	30.620	1.755	Open Manhole	1350
3.001	24.949	99.8	S104	32.380	30.220	1.785	Open Manhole	1
1.004	24.473	195.8	S105	32.380	30.095	1.084	Open Manhole	1500
5.000	41.500	83.8	S501	32.600	30.755	1.695	Open Manhole	1200
5.001	19.166	98.3	S502	32.600	30.485	1.890	Open Manhole	600
6.000	5.991	32.4	S601	32.600	31.065	1.385	Open Manhole	600

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
6.001	o	150	S601	32.600	31.065	1.385	Open Manhole	600
6.002	o	225	S602	32.600	30.830	1.545	Open Manhole	600
5.002	o	300	S502	32.600	30.410	1.890	Open Manhole	600
5.003	o	300	S503	32.500	30.360	1.840	Open Manhole	1200
7.000	o	150	S700	32.600	31.250	1.200	Open Manhole	600
7.001	o	150	S701	32.600	31.150	1.300	Open Manhole	600
5.004	o	300	S504	32.550	30.265	1.985	Open Manhole	1200
1.005	o	375	S105	32.380	30.095	1.910	Open Manhole	1500
8.000	o	225	S800	32.400	31.250	0.925	Open Manhole	1200
1.006	o	150	S106	32.380	30.010	2.220	Open Manhole	1500
1.007	o	150	FW105	32.380	29.985	2.245	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
6.001	5.019	31.4	S602	32.600	30.905	1.545	Open Manhole	600
6.002	27.637	80.1	S502	32.600	30.485	1.890	Open Manhole	600
5.002	4.600	92.0	S503	32.500	30.360	1.840	Open Manhole	1200
5.003	9.093	95.7	S504	32.550	30.265	1.985	Open Manhole	1200
7.000	7.993	79.9	S701	32.600	31.150	1.300	Open Manhole	600
7.001	8.395	11.4	S504	32.550	30.415	1.985	Open Manhole	1200
5.004	9.146	96.3	S105	32.380	30.170	1.910	Open Manhole	1500
1.005	17.047	200.6	S106	32.380	30.010	1.995	Open Manhole	1500
8.000	49.820	49.1	S106	32.380	30.235	1.920	Open Manhole	1500
1.006	1.978	79.1	FW105	32.380	29.985	2.245	Open Manhole	1200
1.007	7.224	12.0		32.430	29.385	2.895	Open Manhole	0

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Area Summary for Storm

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.008	0.008	0.008
1.001	-	-	100	0.028	0.028	0.028
1.002	-	-	100	0.009	0.009	0.009
2.000	-	-	100	0.030	0.030	0.030
2.001	-	-	100	0.028	0.028	0.028
1.003	-	-	100	0.077	0.077	0.077
3.000	-	-	100	0.129	0.129	0.129
4.000	-	-	100	0.101	0.101	0.101
3.001	-	-	100	0.000	0.000	0.000
1.004	-	-	100	0.000	0.000	0.000
5.000	-	-	100	0.036	0.036	0.036
5.001	-	-	100	0.010	0.010	0.010
6.000	-	-	100	0.016	0.016	0.016
6.001	-	-	100	0.003	0.003	0.003
6.002	-	-	100	0.027	0.027	0.027
5.002	-	-	100	0.021	0.021	0.021
5.003	-	-	100	0.000	0.000	0.000
7.000	-	-	100	0.014	0.014	0.014
7.001	-	-	100	0.000	0.000	0.000
5.004	-	-	100	0.014	0.014	0.014
1.005	-	-	100	0.000	0.000	0.000
8.000	-	-	100	0.063	0.063	0.063
1.006	-	-	100	0.000	0.000	0.000
1.007	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.614	0.614	0.614

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Network Classifications for Storm

PN	USMH Name	Pipe Dia (mm)	Min Cover Depth (m)	Max Cover Depth (m)	Pipe Type	MH Dia (mm)	MH Width (mm)	MH Ring Depth (m)	MH Type
1.000	S100	150	1.190	1.200	Unclassified	1200	0	1.200	Unclassified
1.001	S101	225	1.190	1.625	Unclassified	1200	0	1.190	Unclassified
1.002	S102	225	1.605	1.625	Unclassified	600	0	1.625	Unclassified
2.000	S200	150	1.200	1.470	Unclassified	1200	0	1.200	Unclassified
2.001	S201	225	1.470	1.605	Unclassified	1200	0	1.470	Unclassified
1.003	S103				Cellular Storage	1500	0	0.779	Unclassified
3.000	S300	300	1.050	1.755	Unclassified	1200	0	1.050	Unclassified
4.000	S400	225	1.125	1.755	Unclassified	1200	0	1.125	Unclassified
3.001	S301	375	1.755	1.785	Unclassified	1350	0	1.755	Unclassified
1.004	S104				Cellular Storage	1	0	0.959	Unclassified
5.000	S500	150	1.200	1.695	Unclassified	1200	0	1.200	Unclassified
5.001	S501	225	1.695	1.890	Unclassified	1200	0	1.695	Unclassified
6.000	S600	150	1.200	1.385	Unclassified	600	0	1.200	Unclassified
6.001	S601	150	1.385	1.545	Unclassified	600	0	1.385	Unclassified
6.002	S602	225	1.545	1.890	Unclassified	600	0	1.545	Unclassified
5.002	S502	300	1.840	1.890	Unclassified	600	0	1.890	Unclassified
5.003	S503	300	1.840	1.985	Unclassified	1200	0	1.840	Unclassified
7.000	S700	150	1.200	1.300	Unclassified	600	0	1.200	Unclassified
7.001	S701	150	1.300	1.985	Unclassified	600	0	1.300	Unclassified
5.004	S504	300	1.910	1.985	Unclassified	1200	0	1.985	Unclassified
1.005	S105	375	1.910	1.995	Unclassified	1500	0	1.910	Unclassified
8.000	S800	225	0.925	1.920	Unclassified	1200	0	0.925	Unclassified
1.006	S106	150	2.220	2.245	Unclassified	1500	0	2.220	Unclassified
1.007	FW105	150	2.245	2.895	Unclassified	1200	0	2.245	Unclassified

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.007		32.430	29.385	0.000	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	1.000	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	0.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

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Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Winter
Return Period (years)	100	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	1.000
M5-60 (mm)	18.000	Storm Duration (mins)	30
Ratio R	0.360		

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Online Controls for Storm

Hydro-Brake® Optimum Manhole: S106, DS/PN: 1.006, Volume (m³): 7.8

Unit Reference	MD-SCU-0090-1250-2370-1250
Design Head (m)	2.370
Design Flow (l/s)	12.5
Flush-Flo™	Calculated
Objective	Linear discharge profile
Application	Surface
Sump Available	Yes
Diameter (mm)	90
Invert Level (m)	30.010
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	2.370	12.5
Flush-Flo™	0.114	3.3
Kick-Flo®	0.134	3.3
Mean Flow over Head Range	-	8.5

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	3.1	1.200	9.0	3.000	14.0	7.000	21.0
0.200	3.9	1.400	9.7	3.500	15.1	7.500	21.7
0.300	4.7	1.600	10.4	4.000	16.1	8.000	22.4
0.400	5.4	1.800	11.0	4.500	17.0	8.500	23.1
0.500	6.0	2.000	11.5	5.000	17.9	9.000	23.7
0.600	6.5	2.200	12.1	5.500	18.7	9.500	24.4
0.800	7.5	2.400	12.6	6.000	19.5		
1.000	8.3	2.600	13.1	6.500	20.3		

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Storage Structures for Storm

Cellular Storage Pipe: 1.003

Manning's N	0.050	Infiltration Coefficient Side (m/hr)	0.00000
Invert Level (m)	30.400	Safety Factor	1.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	144.0	0.0	1.201	0.0	0.0
1.200	144.0	0.0			

Cellular Storage Pipe: 1.004

Manning's N	0.050	Infiltration Coefficient Side (m/hr)	0.00000
Invert Level (m)	30.220	Safety Factor	1.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	144.0	0.0	1.201	0.0	0.0
1.200	144.0	0.0			

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Volume Summary (Static)

Length Calculations based on Centre-Centre

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	S100	1.527	0.269	0.000	1.795
1.001	S101	1.600	0.750	0.000	2.351
1.002	S102	0.523	0.636	0.000	1.159
2.000	S200	1.527	0.520	0.000	2.046
2.001	S201	1.917	0.685	0.000	2.602
1.003	S103	3.499	164.228	0.000	167.727
3.000	S300	1.527	4.676	0.000	6.203
4.000	S400	1.527	1.574	0.000	3.101
3.001	S301	3.049	2.756	0.000	5.804
1.004	S104	0.000	164.228	0.000	164.228
5.000	S500	1.527	0.733	0.000	2.260
5.001	S501	2.171	0.762	0.000	2.934
6.000	S600	0.382	0.106	0.000	0.488
6.001	S601	0.434	0.089	0.000	0.523
6.002	S602	0.500	1.099	0.000	1.599
5.002	S502	0.619	0.325	0.000	0.944
5.003	S503	2.420	0.643	0.000	3.063
7.000	S700	0.382	0.141	0.000	0.523
7.001	S701	0.410	0.148	0.000	0.558
5.004	S504	2.584	0.646	0.000	3.231
1.005	S105	4.038	1.883	0.000	5.921
8.000	S800	1.301	1.981	0.000	3.282
1.006	S106	4.188	0.035	0.000	4.223
1.007	FW105	2.709	0.128	0.000	2.836
Total		40.361	349.041	0.000	389.402

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Volume Summary (Static)

Length Calculations based on True Length

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	S100	1.527	0.247	0.000	1.774
1.001	S101	1.600	0.715	0.000	2.315
1.002	S102	0.523	0.594	0.000	1.117
2.000	S200	1.527	0.498	0.000	2.025
2.001	S201	1.917	0.631	0.000	2.548
1.003	S103	3.499	160.749	0.000	164.248
3.000	S300	1.527	4.586	0.000	6.113
4.000	S400	1.527	1.523	0.000	3.050
3.001	S301	3.049	2.681	0.000	5.730
1.004	S104	0.000	159.192	0.000	159.192
5.000	S500	1.527	0.712	0.000	2.239
5.001	S501	2.171	0.726	0.000	2.898
6.000	S600	0.382	0.095	0.000	0.477
6.001	S601	0.434	0.078	0.000	0.512
6.002	S602	0.500	1.075	0.000	1.575
5.002	S502	0.619	0.262	0.000	0.881
5.003	S503	2.420	0.558	0.000	2.978
7.000	S700	0.382	0.131	0.000	0.512
7.001	S701	0.410	0.132	0.000	0.542
5.004	S504	2.584	0.551	0.000	3.135
1.005	S105	4.038	1.717	0.000	5.755
8.000	S800	1.301	1.927	0.000	3.228
1.006	S106	4.188	0.011	0.000	4.199
1.007	FW105	2.709	0.117	0.000	2.826
Total		40.361	339.510	0.000	379.871

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Summary Wizard of 15 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	15 minute 1 year Summer I+0%	32.600	31.275	-0.125	0.000	0.07	
1.001	S101	15 minute 1 year Summer I+0%	32.400	31.031	-0.179	0.000	0.09	
1.002	S102	15 minute 1 year Summer I+0%	32.600	30.801	-0.174	0.000	0.12	
2.000	S200	15 minute 1 year Summer I+0%	32.600	31.300	-0.100	0.000	0.24	
2.001	S201	15 minute 1 year Summer I+0%	32.500	30.862	-0.168	0.000	0.14	
1.003	S103	15 minute 1 year Summer I+0%	32.380	30.420	-1.181	0.000	0.01	
3.000	S300	15 minute 1 year Summer I+0%	32.600	31.336	-0.214	0.000	0.18	
4.000	S400	15 minute 1 year Summer I+0%	32.600	31.326	-0.149	0.000	0.25	
3.001	S301	15 minute 1 year Summer I+0%	32.600	30.584	-0.261	0.000	0.20	
1.004	S104	15 minute 1 year Summer I+0%	32.380	30.358	-1.063	0.000	0.01	
5.000	S500	15 minute 1 year Summer I+0%	32.600	31.306	-0.094	0.000	0.29	
5.001	S501	15 minute 1 year Summer I+0%	32.600	30.737	-0.168	0.000	0.14	
6.000	S600	15 minute 1 year Summer I+0%	32.600	31.281	-0.119	0.000	0.09	
6.001	S601	15 minute 1 year Summer I+0%	32.600	31.099	-0.116	0.000	0.11	
6.002	S602	15 minute 1 year Summer I+0%	32.600	30.881	-0.174	0.000	0.12	
5.002	S502	15 minute 1 year Summer I+0%	32.600	30.513	-0.197	0.000	0.26	
5.003	S503	15 minute 1 year Summer I+0%	32.500	30.452	-0.208	0.000	0.20	
7.000	S700	15 minute 1 year Summer I+0%	32.600	31.285	-0.115	0.000	0.12	
7.001	S701	15 minute 1 year Summer I+0%	32.600	31.171	-0.129	0.000	0.05	

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Summary Wizard of 15 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.2	OK
1.001	S101	4.8	OK
1.002	S102	6.0	OK
2.000	S200	4.6	OK
2.001	S201	8.1	OK
1.003	S103	23.4	OK
3.000	S300	19.4	OK
4.000	S400	15.3	OK
3.001	S301	34.9	OK
1.004	S104	47.1	OK
5.000	S500	5.5	OK
5.001	S501	6.8	OK
6.000	S600	2.5	OK
6.001	S601	2.8	OK
6.002	S602	6.3	OK
5.002	S502	15.7	OK
5.003	S503	15.7	OK
7.000	S700	2.1	OK
7.001	S701	2.1	OK

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Summary Wizard of 15 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	15 minute 1 year Summer I+0%	32.550	30.368	-0.197	0.000	0.25	
1.005	S105	15 minute 1 year Summer I+0%	32.380	30.359	-0.111	0.000	0.04	
8.000	S800	15 minute 1 year Summer I+0%	32.400	31.305	-0.170	0.000	0.13	
1.006	S106	15 minute 1 year Summer I+0%	32.380	30.356	0.196	0.000	0.46	
1.007	FW105	15 minute 1 year Summer I+0%	32.380	30.018	-0.117	0.000	0.11	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	19.6	OK
1.005	S105	4.9	OK
8.000	S800	9.5	OK
1.006	S106	5.0	SURCHARGED
1.007	FW105	5.0	OK

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Summary Wizard of 30 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	30 minute 1 year Summer I+0%	32.600	31.274	-0.126	0.000	0.06	
1.001	S101	30 minute 1 year Summer I+0%	32.400	31.030	-0.180	0.000	0.09	
1.002	S102	30 minute 1 year Summer I+0%	32.600	30.799	-0.176	0.000	0.11	
2.000	S200	30 minute 1 year Summer I+0%	32.600	31.297	-0.103	0.000	0.22	
2.001	S201	30 minute 1 year Summer I+0%	32.500	30.860	-0.170	0.000	0.14	
1.003	S103	30 minute 1 year Summer I+0%	32.380	30.419	-1.182	0.000	0.01	
3.000	S300	30 minute 1 year Summer I+0%	32.600	31.331	-0.219	0.000	0.16	
4.000	S400	30 minute 1 year Summer I+0%	32.600	31.322	-0.153	0.000	0.23	
3.001	S301	30 minute 1 year Summer I+0%	32.600	30.579	-0.266	0.000	0.19	
1.004	S104	30 minute 1 year Summer I+0%	32.380	30.396	-1.025	0.000	0.01	
5.000	S500	30 minute 1 year Summer I+0%	32.600	31.303	-0.097	0.000	0.27	
5.001	S501	30 minute 1 year Summer I+0%	32.600	30.734	-0.171	0.000	0.13	
6.000	S600	30 minute 1 year Summer I+0%	32.600	31.279	-0.121	0.000	0.09	
6.001	S601	30 minute 1 year Summer I+0%	32.600	31.097	-0.118	0.000	0.10	
6.002	S602	30 minute 1 year Summer I+0%	32.600	30.879	-0.176	0.000	0.11	
5.002	S502	30 minute 1 year Summer I+0%	32.600	30.509	-0.201	0.000	0.24	
5.003	S503	30 minute 1 year Summer I+0%	32.500	30.449	-0.211	0.000	0.19	
7.000	S700	30 minute 1 year Summer I+0%	32.600	31.283	-0.117	0.000	0.11	
7.001	S701	30 minute 1 year Summer I+0%	32.600	31.170	-0.130	0.000	0.04	

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Summary Wizard of 30 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.1	OK
1.001	S101	4.5	OK
1.002	S102	5.6	OK
2.000	S200	4.2	OK
2.001	S201	7.6	OK
1.003	S103	20.1	OK
3.000	S300	18.0	OK
4.000	S400	14.2	OK
3.001	S301	32.1	OK
1.004	S104	38.6	OK
5.000	S500	5.0	OK
5.001	S501	6.2	OK
6.000	S600	2.2	OK
6.001	S601	2.6	OK
6.002	S602	5.9	OK
5.002	S502	14.6	OK
5.003	S503	14.6	OK
7.000	S700	2.0	OK
7.001	S701	2.0	OK

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Summary Wizard of 30 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	30 minute 1 year Summer I+0%	32.550	30.397	-0.168	0.000	0.24	
1.005	S105	30 minute 1 year Summer I+0%	32.380	30.396	-0.074	0.000	0.04	
8.000	S800	30 minute 1 year Summer I+0%	32.400	31.302	-0.173	0.000	0.12	
1.006	S106	30 minute 1 year Summer I+0%	32.380	30.393	0.233	0.000	0.48	
1.007	FW105	30 minute 1 year Summer I+0%	32.380	30.019	-0.116	0.000	0.12	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	18.3	OK
1.005	S105	5.1	OK
8.000	S800	8.8	OK
1.006	S106	5.2	SURCHARGED
1.007	FW105	5.2	OK

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Summary Wizard of 60 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	60 minute 1 year Summer I+0%	32.600	31.271	-0.129	0.000	0.05	
1.001	S101	60 minute 1 year Summer I+0%	32.400	31.024	-0.186	0.000	0.07	
1.002	S102	60 minute 1 year Summer I+0%	32.600	30.795	-0.180	0.000	0.09	
2.000	S200	60 minute 1 year Summer I+0%	32.600	31.291	-0.109	0.000	0.17	
2.001	S201	60 minute 1 year Summer I+0%	32.500	30.854	-0.176	0.000	0.11	
1.003	S103	60 minute 1 year Summer I+0%	32.380	30.426	-1.175	0.000	0.00	
3.000	S300	60 minute 1 year Summer I+0%	32.600	31.320	-0.230	0.000	0.13	
4.000	S400	60 minute 1 year Summer I+0%	32.600	31.313	-0.162	0.000	0.17	
3.001	S301	60 minute 1 year Summer I+0%	32.600	30.564	-0.281	0.000	0.14	
1.004	S104	60 minute 1 year Summer I+0%	32.380	30.425	-0.996	0.000	0.01	
5.000	S500	60 minute 1 year Summer I+0%	32.600	31.296	-0.104	0.000	0.21	
5.001	S501	60 minute 1 year Summer I+0%	32.600	30.728	-0.177	0.000	0.10	
6.000	S600	60 minute 1 year Summer I+0%	32.600	31.275	-0.125	0.000	0.07	
6.001	S601	60 minute 1 year Summer I+0%	32.600	31.093	-0.122	0.000	0.08	
6.002	S602	60 minute 1 year Summer I+0%	32.600	30.875	-0.180	0.000	0.09	
5.002	S502	60 minute 1 year Summer I+0%	32.600	30.498	-0.212	0.000	0.19	
5.003	S503	60 minute 1 year Summer I+0%	32.500	30.437	-0.223	0.000	0.15	
7.000	S700	60 minute 1 year Summer I+0%	32.600	31.280	-0.120	0.000	0.09	
7.001	S701	60 minute 1 year Summer I+0%	32.600	31.168	-0.132	0.000	0.03	

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Summary Wizard of 60 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	0.9	OK
1.001	S101	3.6	OK
1.002	S102	4.5	OK
2.000	S200	3.2	OK
2.001	S201	6.0	OK
1.003	S103	15.0	OK
3.000	S300	13.8	OK
4.000	S400	10.8	OK
3.001	S301	24.7	OK
1.004	S104	27.9	OK
5.000	S500	3.9	OK
5.001	S501	4.8	OK
6.000	S600	1.7	OK
6.001	S601	2.0	OK
6.002	S602	4.7	OK
5.002	S502	11.6	OK
5.003	S503	11.6	OK
7.000	S700	1.5	OK
7.001	S701	1.5	OK

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Summary Wizard of 60 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	60 minute 1 year Summer I+0%	32.550	30.426	-0.139	0.000	0.19	
1.005	S105	60 minute 1 year Summer I+0%	32.380	30.425	-0.045	0.000	0.05	
8.000	S800	60 minute 1 year Summer I+0%	32.400	31.296	-0.179	0.000	0.09	
1.006	S106	60 minute 1 year Summer I+0%	32.380	30.422	0.262	0.000	0.50	
1.007	FW105	60 minute 1 year Summer I+0%	32.380	30.020	-0.115	0.000	0.12	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	14.3	OK
1.005	S105	5.3	OK
8.000	S800	6.7	OK
1.006	S106	5.4	SURCHARGED
1.007	FW105	5.4	OK

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Summary Wizard of 120 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	120 minute 1 year Summer I+0%	32.600	31.267	-0.133	0.000	0.03
1.001	S101	120 minute 1 year Summer I+0%	32.400	31.017	-0.193	0.000	0.05
1.002	S102	120 minute 1 year Summer I+0%	32.600	30.786	-0.189	0.000	0.06
2.000	S200	120 minute 1 year Summer I+0%	32.600	31.284	-0.116	0.000	0.12
2.001	S201	120 minute 1 year Summer I+0%	32.500	30.845	-0.185	0.000	0.07
1.003	S103	120 minute 1 year Summer I+0%	32.380	30.440	-1.161	0.000	0.00
3.000	S300	120 minute 1 year Summer I+0%	32.600	31.309	-0.241	0.000	0.09
4.000	S400	120 minute 1 year Summer I+0%	32.600	31.302	-0.173	0.000	0.12
3.001	S301	120 minute 1 year Summer I+0%	32.600	30.549	-0.296	0.000	0.10
1.004	S104	120 minute 1 year Summer I+0%	32.380	30.440	-0.981	0.000	0.00
5.000	S500	120 minute 1 year Summer I+0%	32.600	31.287	-0.113	0.000	0.14
5.001	S501	120 minute 1 year Summer I+0%	32.600	30.719	-0.186	0.000	0.07
6.000	S600	120 minute 1 year Summer I+0%	32.600	31.270	-0.130	0.000	0.05
6.001	S601	120 minute 1 year Summer I+0%	32.600	31.088	-0.127	0.000	0.06
6.002	S602	120 minute 1 year Summer I+0%	32.600	30.866	-0.189	0.000	0.06
5.002	S502	120 minute 1 year Summer I+0%	32.600	30.483	-0.227	0.000	0.13
5.003	S503	120 minute 1 year Summer I+0%	32.500	30.441	-0.219	0.000	0.11
7.000	S700	120 minute 1 year Summer I+0%	32.600	31.274	-0.126	0.000	0.06
7.001	S701	120 minute 1 year Summer I+0%	32.600	31.165	-0.135	0.000	0.02

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Summary Wizard of 120 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.6	OK
1.001	S101		2.6	OK
1.002	S102		3.2	OK
2.000	S200		2.2	OK
2.001	S201		4.2	OK
1.003	S103		9.7	OK
3.000	S300		9.6	OK
4.000	S400		7.5	OK
3.001	S301		17.0	OK
1.004	S104		18.5	OK
5.000	S500		2.7	OK
5.001	S501		3.4	OK
6.000	S600		1.2	OK
6.001	S601		1.4	OK
6.002	S602		3.3	OK
5.002	S502		8.2	OK
5.003	S503		8.2	OK
7.000	S700		1.0	OK
7.001	S701		1.0	OK

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Summary Wizard of 120 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	120 minute 1 year Summer I+0%	32.550	30.440	-0.125	0.000	0.13
1.005	S105	120 minute 1 year Summer I+0%	32.380	30.440	-0.030	0.000	0.05
8.000	S800	120 minute 1 year Summer I+0%	32.400	31.287	-0.188	0.000	0.07
1.006	S106	120 minute 1 year Summer I+0%	32.380	30.434	0.274	0.000	0.51
1.007	FW105	120 minute 1 year Summer I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		10.0	OK
1.005	S105		5.4	OK
8.000	S800		4.7	OK
1.006	S106		5.5	SURCHARGED
1.007	FW105		5.5	OK

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Summary Wizard of 180 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	180 minute 1 year Summer I+0%	32.600	31.266	-0.134	0.000	0.03
1.001	S101	180 minute 1 year Summer I+0%	32.400	31.014	-0.196	0.000	0.04
1.002	S102	180 minute 1 year Summer I+0%	32.600	30.782	-0.193	0.000	0.05
2.000	S200	180 minute 1 year Summer I+0%	32.600	31.280	-0.120	0.000	0.09
2.001	S201	180 minute 1 year Summer I+0%	32.500	30.840	-0.190	0.000	0.06
1.003	S103	180 minute 1 year Summer I+0%	32.380	30.442	-1.159	0.000	0.00
3.000	S300	180 minute 1 year Summer I+0%	32.600	31.301	-0.249	0.000	0.07
4.000	S400	180 minute 1 year Summer I+0%	32.600	31.296	-0.179	0.000	0.09
3.001	S301	180 minute 1 year Summer I+0%	32.600	30.539	-0.306	0.000	0.08
1.004	S104	180 minute 1 year Summer I+0%	32.380	30.442	-0.979	0.000	0.00
5.000	S500	180 minute 1 year Summer I+0%	32.600	31.283	-0.117	0.000	0.11
5.001	S501	180 minute 1 year Summer I+0%	32.600	30.714	-0.191	0.000	0.06
6.000	S600	180 minute 1 year Summer I+0%	32.600	31.268	-0.132	0.000	0.04
6.001	S601	180 minute 1 year Summer I+0%	32.600	31.085	-0.130	0.000	0.04
6.002	S602	180 minute 1 year Summer I+0%	32.600	30.862	-0.193	0.000	0.05
5.002	S502	180 minute 1 year Summer I+0%	32.600	30.475	-0.235	0.000	0.11
5.003	S503	180 minute 1 year Summer I+0%	32.500	30.444	-0.216	0.000	0.08
7.000	S700	180 minute 1 year Summer I+0%	32.600	31.271	-0.129	0.000	0.05
7.001	S701	180 minute 1 year Summer I+0%	32.600	31.163	-0.137	0.000	0.02

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Summary Wizard of 180 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.5	OK
1.001	S101		2.0	OK
1.002	S102		2.6	OK
2.000	S200		1.7	OK
2.001	S201		3.3	OK
1.003	S103		7.5	OK
3.000	S300		7.5	OK
4.000	S400		5.9	OK
3.001	S301		13.4	OK
1.004	S104		14.3	OK
5.000	S500		2.1	OK
5.001	S501		2.7	OK
6.000	S600		0.9	OK
6.001	S601		1.1	OK
6.002	S602		2.6	OK
5.002	S502		6.5	OK
5.003	S503		6.5	OK
7.000	S700		0.8	OK
7.001	S701		0.8	OK

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Summary Wizard of 180 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	180 minute 1 year Summer I+0%	32.550	30.443	-0.122	0.000	0.10
1.005	S105	180 minute 1 year Summer I+0%	32.380	30.442	-0.028	0.000	0.05
8.000	S800	180 minute 1 year Summer I+0%	32.400	31.283	-0.192	0.000	0.05
1.006	S106	180 minute 1 year Summer I+0%	32.380	30.437	0.277	0.000	0.51
1.007	FW105	180 minute 1 year Summer I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		7.9	OK
1.005	S105		5.3	OK
8.000	S800		3.7	OK
1.006	S106		5.5	SURCHARGED
1.007	FW105		5.5	OK

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Summary Wizard of 240 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	240 minute 1 year Summer I+0%	32.600	31.265	-0.135	0.000	0.02
1.001	S101	240 minute 1 year Summer I+0%	32.400	31.011	-0.199	0.000	0.03
1.002	S102	240 minute 1 year Summer I+0%	32.600	30.779	-0.196	0.000	0.04
2.000	S200	240 minute 1 year Summer I+0%	32.600	31.277	-0.123	0.000	0.08
2.001	S201	240 minute 1 year Summer I+0%	32.500	30.837	-0.193	0.000	0.05
1.003	S103	240 minute 1 year Summer I+0%	32.380	30.442	-1.159	0.000	0.00
3.000	S300	240 minute 1 year Summer I+0%	32.600	31.296	-0.254	0.000	0.06
4.000	S400	240 minute 1 year Summer I+0%	32.600	31.292	-0.183	0.000	0.08
3.001	S301	240 minute 1 year Summer I+0%	32.600	30.532	-0.313	0.000	0.06
1.004	S104	240 minute 1 year Summer I+0%	32.380	30.442	-0.979	0.000	0.00
5.000	S500	240 minute 1 year Summer I+0%	32.600	31.281	-0.119	0.000	0.09
5.001	S501	240 minute 1 year Summer I+0%	32.600	30.711	-0.194	0.000	0.05
6.000	S600	240 minute 1 year Summer I+0%	32.600	31.267	-0.133	0.000	0.03
6.001	S601	240 minute 1 year Summer I+0%	32.600	31.083	-0.132	0.000	0.04
6.002	S602	240 minute 1 year Summer I+0%	32.600	30.859	-0.196	0.000	0.04
5.002	S502	240 minute 1 year Summer I+0%	32.600	30.470	-0.240	0.000	0.09
5.003	S503	240 minute 1 year Summer I+0%	32.500	30.443	-0.217	0.000	0.07
7.000	S700	240 minute 1 year Summer I+0%	32.600	31.269	-0.131	0.000	0.04
7.001	S701	240 minute 1 year Summer I+0%	32.600	31.160	-0.140	0.000	0.01

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Summary Wizard of 240 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	OK
1.001	S101		1.7	OK
1.002	S102		2.1	OK
2.000	S200		1.5	OK
2.001	S201		2.8	OK
1.003	S103		6.4	OK
3.000	S300		6.3	OK
4.000	S400		4.9	OK
3.001	S301		11.2	OK
1.004	S104		12.1	OK
5.000	S500		1.7	OK
5.001	S501		2.2	OK
6.000	S600		0.8	OK
6.001	S601		0.9	OK
6.002	S602		2.2	OK
5.002	S502		5.4	OK
5.003	S503		5.4	OK
7.000	S700		0.7	OK
7.001	S701		0.7	OK

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Summary Wizard of 240 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	240 minute 1 year Summer I+0%	32.550	30.442	-0.123	0.000	0.09
1.005	S105	240 minute 1 year Summer I+0%	32.380	30.442	-0.028	0.000	0.05
8.000	S800	240 minute 1 year Summer I+0%	32.400	31.280	-0.195	0.000	0.04
1.006	S106	240 minute 1 year Summer I+0%	32.380	30.436	0.276	0.000	0.51
1.007	FW105	240 minute 1 year Summer I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		6.6	OK
1.005	S105		5.2	OK
8.000	S800		3.1	OK
1.006	S106		5.5	SURCHARGED
1.007	FW105		5.5	OK

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Summary Wizard of 360 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	360 minute 1 year Summer I+0%	32.600	31.262	-0.138	0.000	0.02
1.001	S101	360 minute 1 year Summer I+0%	32.400	31.009	-0.201	0.000	0.03
1.002	S102	360 minute 1 year Summer I+0%	32.600	30.776	-0.199	0.000	0.03
2.000	S200	360 minute 1 year Summer I+0%	32.600	31.273	-0.127	0.000	0.06
2.001	S201	360 minute 1 year Summer I+0%	32.500	30.833	-0.197	0.000	0.04
1.003	S103	360 minute 1 year Summer I+0%	32.380	30.436	-1.165	0.000	0.00
3.000	S300	360 minute 1 year Summer I+0%	32.600	31.290	-0.260	0.000	0.04
4.000	S400	360 minute 1 year Summer I+0%	32.600	31.286	-0.189	0.000	0.06
3.001	S301	360 minute 1 year Summer I+0%	32.600	30.523	-0.322	0.000	0.05
1.004	S104	360 minute 1 year Summer I+0%	32.380	30.436	-0.985	0.000	0.00
5.000	S500	360 minute 1 year Summer I+0%	32.600	31.276	-0.124	0.000	0.07
5.001	S501	360 minute 1 year Summer I+0%	32.600	30.708	-0.197	0.000	0.04
6.000	S600	360 minute 1 year Summer I+0%	32.600	31.265	-0.135	0.000	0.02
6.001	S601	360 minute 1 year Summer I+0%	32.600	31.082	-0.133	0.000	0.03
6.002	S602	360 minute 1 year Summer I+0%	32.600	30.856	-0.199	0.000	0.03
5.002	S502	360 minute 1 year Summer I+0%	32.600	30.461	-0.249	0.000	0.07
5.003	S503	360 minute 1 year Summer I+0%	32.500	30.437	-0.223	0.000	0.05
7.000	S700	360 minute 1 year Summer I+0%	32.600	31.267	-0.133	0.000	0.03
7.001	S701	360 minute 1 year Summer I+0%	32.600	31.158	-0.142	0.000	0.01

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Summary Wizard of 360 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.3	OK
1.002	S102		1.7	OK
2.000	S200		1.1	OK
2.001	S201		2.2	OK
1.003	S103		5.1	OK
3.000	S300		4.8	OK
4.000	S400		3.8	OK
3.001	S301		8.6	OK
1.004	S104		9.6	OK
5.000	S500		1.3	OK
5.001	S501		1.7	OK
6.000	S600		0.6	OK
6.001	S601		0.7	OK
6.002	S602		1.7	OK
5.002	S502		4.2	OK
5.003	S503		4.2	OK
7.000	S700		0.5	OK
7.001	S701		0.5	OK

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Summary Wizard of 360 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	360 minute 1 year Summer I+0%	32.550	30.437	-0.128	0.000	0.07
1.005	S105	360 minute 1 year Summer I+0%	32.380	30.436	-0.034	0.000	0.04
8.000	S800	360 minute 1 year Summer I+0%	32.400	31.276	-0.199	0.000	0.03
1.006	S106	360 minute 1 year Summer I+0%	32.380	30.431	0.271	0.000	0.50
1.007	FW105	360 minute 1 year Summer I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		5.1	OK
1.005	S105		5.1	OK
8.000	S800		2.3	OK
1.006	S106		5.5	SURCHARGED
1.007	FW105		5.5	OK

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Summary Wizard of 480 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	480 minute 1 year Summer I+0%	32.600	31.259	-0.141	0.000	0.01
1.001	S101	480 minute 1 year Summer I+0%	32.400	31.007	-0.203	0.000	0.02
1.002	S102	480 minute 1 year Summer I+0%	32.600	30.774	-0.201	0.000	0.03
2.000	S200	480 minute 1 year Summer I+0%	32.600	31.271	-0.129	0.000	0.05
2.001	S201	480 minute 1 year Summer I+0%	32.500	30.831	-0.199	0.000	0.03
1.003	S103	480 minute 1 year Summer I+0%	32.380	30.427	-1.174	0.000	0.00
3.000	S300	480 minute 1 year Summer I+0%	32.600	31.287	-0.263	0.000	0.04
4.000	S400	480 minute 1 year Summer I+0%	32.600	31.282	-0.193	0.000	0.05
3.001	S301	480 minute 1 year Summer I+0%	32.600	30.518	-0.327	0.000	0.04
1.004	S104	480 minute 1 year Summer I+0%	32.380	30.426	-0.995	0.000	0.00
5.000	S500	480 minute 1 year Summer I+0%	32.600	31.273	-0.127	0.000	0.06
5.001	S501	480 minute 1 year Summer I+0%	32.600	30.705	-0.200	0.000	0.03
6.000	S600	480 minute 1 year Summer I+0%	32.600	31.263	-0.137	0.000	0.02
6.001	S601	480 minute 1 year Summer I+0%	32.600	31.080	-0.135	0.000	0.02
6.002	S602	480 minute 1 year Summer I+0%	32.600	30.854	-0.201	0.000	0.03
5.002	S502	480 minute 1 year Summer I+0%	32.600	30.456	-0.254	0.000	0.06
5.003	S503	480 minute 1 year Summer I+0%	32.500	30.428	-0.232	0.000	0.04
7.000	S700	480 minute 1 year Summer I+0%	32.600	31.266	-0.134	0.000	0.02
7.001	S701	480 minute 1 year Summer I+0%	32.600	31.157	-0.143	0.000	0.01

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Summary Wizard of 480 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		1.1	OK
1.002	S102		1.4	OK
2.000	S200		0.9	OK
2.001	S201		1.8	OK
1.003	S103		4.4	OK
3.000	S300		3.9	OK
4.000	S400		3.1	OK
3.001	S301		7.0	OK
1.004	S104		8.3	OK
5.000	S500		1.1	OK
5.001	S501		1.4	OK
6.000	S600		0.5	OK
6.001	S601		0.6	OK
6.002	S602		1.4	OK
5.002	S502		3.4	OK
5.003	S503		3.4	OK
7.000	S700		0.4	OK
7.001	S701		0.4	OK

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Summary Wizard of 480 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	480 minute 1 year Summer I+0%	32.550	30.427	-0.138	0.000	0.05
1.005	S105	480 minute 1 year Summer I+0%	32.380	30.426	-0.044	0.000	0.04
8.000	S800	480 minute 1 year Summer I+0%	32.400	31.274	-0.201	0.000	0.03
1.006	S106	480 minute 1 year Summer I+0%	32.380	30.423	0.263	0.000	0.50
1.007	FW105	480 minute 1 year Summer I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		4.2	OK
1.005	S105		5.0	OK
8.000	S800		1.9	OK
1.006	S106		5.4	SURCHARGED
1.007	FW105		5.4	OK

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Summary Wizard of 600 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	600 minute 1 year Summer I+0%	32.600	31.258	-0.142	0.000	0.01
1.001	S101	600 minute 1 year Summer I+0%	32.400	31.004	-0.206	0.000	0.02
1.002	S102	600 minute 1 year Summer I+0%	32.600	30.773	-0.202	0.000	0.02
2.000	S200	600 minute 1 year Summer I+0%	32.600	31.269	-0.131	0.000	0.04
2.001	S201	600 minute 1 year Summer I+0%	32.500	30.829	-0.201	0.000	0.03
1.003	S103	600 minute 1 year Summer I+0%	32.380	30.417	-1.184	0.000	0.00
3.000	S300	600 minute 1 year Summer I+0%	32.600	31.284	-0.266	0.000	0.03
4.000	S400	600 minute 1 year Summer I+0%	32.600	31.280	-0.195	0.000	0.04
3.001	S301	600 minute 1 year Summer I+0%	32.600	30.515	-0.330	0.000	0.03
1.004	S104	600 minute 1 year Summer I+0%	32.380	30.416	-1.005	0.000	0.00
5.000	S500	600 minute 1 year Summer I+0%	32.600	31.271	-0.129	0.000	0.05
5.001	S501	600 minute 1 year Summer I+0%	32.600	30.704	-0.201	0.000	0.03
6.000	S600	600 minute 1 year Summer I+0%	32.600	31.261	-0.139	0.000	0.02
6.001	S601	600 minute 1 year Summer I+0%	32.600	31.079	-0.136	0.000	0.02
6.002	S602	600 minute 1 year Summer I+0%	32.600	30.853	-0.202	0.000	0.02
5.002	S502	600 minute 1 year Summer I+0%	32.600	30.452	-0.258	0.000	0.05
5.003	S503	600 minute 1 year Summer I+0%	32.500	30.418	-0.242	0.000	0.04
7.000	S700	600 minute 1 year Summer I+0%	32.600	31.265	-0.135	0.000	0.02
7.001	S701	600 minute 1 year Summer I+0%	32.600	31.156	-0.144	0.000	0.01

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Summary Wizard of 600 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.9	OK
1.002	S102		1.2	OK
2.000	S200		0.8	OK
2.001	S201		1.5	OK
1.003	S103		4.0	OK
3.000	S300		3.4	OK
4.000	S400		2.6	OK
3.001	S301		6.0	OK
1.004	S104		7.4	OK
5.000	S500		0.9	OK
5.001	S501		1.2	OK
6.000	S600		0.4	OK
6.001	S601		0.5	OK
6.002	S602		1.2	OK
5.002	S502		2.9	OK
5.003	S503		2.9	OK
7.000	S700		0.4	OK
7.001	S701		0.4	OK

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Summary Wizard of 600 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	600 minute 1 year Summer I+0%	32.550	30.417	-0.148	0.000	0.05
1.005	S105	600 minute 1 year Summer I+0%	32.380	30.416	-0.054	0.000	0.04
8.000	S800	600 minute 1 year Summer I+0%	32.400	31.273	-0.202	0.000	0.02
1.006	S106	600 minute 1 year Summer I+0%	32.380	30.413	0.253	0.000	0.49
1.007	FW105	600 minute 1 year Summer I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		3.6	OK
1.005	S105		4.9	OK
8.000	S800		1.6	OK
1.006	S106		5.4	SURCHARGED
1.007	FW105		5.4	OK

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Summary Wizard of 720 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	720 minute 1 year Summer I+0%	32.600	31.257	-0.143	0.000	0.01
1.001	S101	720 minute 1 year Summer I+0%	32.400	31.002	-0.208	0.000	0.02
1.002	S102	720 minute 1 year Summer I+0%	32.600	30.771	-0.204	0.000	0.02
2.000	S200	720 minute 1 year Summer I+0%	32.600	31.268	-0.132	0.000	0.04
2.001	S201	720 minute 1 year Summer I+0%	32.500	30.828	-0.202	0.000	0.02
1.003	S103	720 minute 1 year Summer I+0%	32.380	30.407	-1.194	0.000	0.00
3.000	S300	720 minute 1 year Summer I+0%	32.600	31.283	-0.267	0.000	0.03
4.000	S400	720 minute 1 year Summer I+0%	32.600	31.278	-0.197	0.000	0.04
3.001	S301	720 minute 1 year Summer I+0%	32.600	30.513	-0.332	0.000	0.03
1.004	S104	720 minute 1 year Summer I+0%	32.380	30.405	-1.016	0.000	0.00
5.000	S500	720 minute 1 year Summer I+0%	32.600	31.270	-0.130	0.000	0.04
5.001	S501	720 minute 1 year Summer I+0%	32.600	30.703	-0.202	0.000	0.02
6.000	S600	720 minute 1 year Summer I+0%	32.600	31.260	-0.140	0.000	0.01
6.001	S601	720 minute 1 year Summer I+0%	32.600	31.077	-0.138	0.000	0.02
6.002	S602	720 minute 1 year Summer I+0%	32.600	30.851	-0.204	0.000	0.02
5.002	S502	720 minute 1 year Summer I+0%	32.600	30.449	-0.261	0.000	0.04
5.003	S503	720 minute 1 year Summer I+0%	32.500	30.407	-0.253	0.000	0.03
7.000	S700	720 minute 1 year Summer I+0%	32.600	31.263	-0.137	0.000	0.02
7.001	S701	720 minute 1 year Summer I+0%	32.600	31.155	-0.145	0.000	0.01

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Summary Wizard of 720 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.8	OK
1.002	S102		1.0	OK
2.000	S200		0.7	OK
2.001	S201		1.3	OK
1.003	S103		3.7	OK
3.000	S300		3.0	OK
4.000	S400		2.3	OK
3.001	S301		5.3	OK
1.004	S104		6.9	OK
5.000	S500		0.8	OK
5.001	S501		1.1	OK
6.000	S600		0.4	OK
6.001	S601		0.4	OK
6.002	S602		1.1	OK
5.002	S502		2.6	OK
5.003	S503		2.6	OK
7.000	S700		0.3	OK
7.001	S701		0.3	OK

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Summary Wizard of 720 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	720 minute 1 year Summer I+0%	32.550	30.406	-0.159	0.000	0.04
1.005	S105	720 minute 1 year Summer I+0%	32.380	30.405	-0.065	0.000	0.04
8.000	S800	720 minute 1 year Summer I+0%	32.400	31.272	-0.203	0.000	0.02
1.006	S106	720 minute 1 year Summer I+0%	32.380	30.402	0.242	0.000	0.49
1.007	FW105	720 minute 1 year Summer I+0%	32.380	30.019	-0.116	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		3.2	OK
1.005	S105		4.9	OK
8.000	S800		1.4	OK
1.006	S106		5.3	SURCHARGED
1.007	FW105		5.3	OK

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Summary Wizard of 960 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	960 minute 1 year Summer I+0%	32.600	31.256	-0.144	0.000	0.01
1.001	S101	960 minute 1 year Summer I+0%	32.400	30.999	-0.211	0.000	0.01
1.002	S102	960 minute 1 year Summer I+0%	32.600	30.767	-0.208	0.000	0.02
2.000	S200	960 minute 1 year Summer I+0%	32.600	31.267	-0.133	0.000	0.03
2.001	S201	960 minute 1 year Summer I+0%	32.500	30.825	-0.205	0.000	0.02
1.003	S103	960 minute 1 year Summer I+0%	32.380	30.403	-1.198	0.000	0.00
3.000	S300	960 minute 1 year Summer I+0%	32.600	31.280	-0.270	0.000	0.02
4.000	S400	960 minute 1 year Summer I+0%	32.600	31.276	-0.199	0.000	0.03
3.001	S301	960 minute 1 year Summer I+0%	32.600	30.510	-0.335	0.000	0.02
1.004	S104	960 minute 1 year Summer I+0%	32.380	30.383	-1.038	0.000	0.00
5.000	S500	960 minute 1 year Summer I+0%	32.600	31.268	-0.132	0.000	0.04
5.001	S501	960 minute 1 year Summer I+0%	32.600	30.699	-0.206	0.000	0.02
6.000	S600	960 minute 1 year Summer I+0%	32.600	31.258	-0.142	0.000	0.01
6.001	S601	960 minute 1 year Summer I+0%	32.600	31.075	-0.140	0.000	0.01
6.002	S602	960 minute 1 year Summer I+0%	32.600	30.847	-0.208	0.000	0.02
5.002	S502	960 minute 1 year Summer I+0%	32.600	30.446	-0.264	0.000	0.03
5.003	S503	960 minute 1 year Summer I+0%	32.500	30.393	-0.267	0.000	0.03
7.000	S700	960 minute 1 year Summer I+0%	32.600	31.261	-0.139	0.000	0.02
7.001	S701	960 minute 1 year Summer I+0%	32.600	31.154	-0.146	0.000	0.01

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Summary Wizard of 960 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.7	OK
1.002	S102		0.8	OK
2.000	S200		0.6	OK
2.001	S201		1.1	OK
1.003	S103		3.3	OK
3.000	S300		2.4	OK
4.000	S400		1.9	OK
3.001	S301		4.3	OK
1.004	S104		6.1	OK
5.000	S500		0.7	OK
5.001	S501		0.9	OK
6.000	S600		0.3	OK
6.001	S601		0.4	OK
6.002	S602		0.9	OK
5.002	S502		2.1	OK
5.003	S503		2.1	OK
7.000	S700		0.3	OK
7.001	S701		0.3	OK

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Summary Wizard of 960 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	960 minute 1 year Summer I+0%	32.550	30.384	-0.181	0.000	0.03
1.005	S105	960 minute 1 year Summer I+0%	32.380	30.383	-0.087	0.000	0.04
8.000	S800	960 minute 1 year Summer I+0%	32.400	31.268	-0.207	0.000	0.02
1.006	S106	960 minute 1 year Summer I+0%	32.380	30.380	0.220	0.000	0.47
1.007	FW105	960 minute 1 year Summer I+0%	32.380	30.019	-0.116	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.6	OK
1.005	S105		4.7	OK
8.000	S800		1.2	OK
1.006	S106		5.1	SURCHARGED
1.007	FW105		5.1	OK

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Summary Wizard of 1440 minute 1 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	1440 minute 1 year Summer I+0%	32.600	31.254	-0.146	0.000	0.01
1.001	S101	1440 minute 1 year Summer I+0%	32.400	30.995	-0.215	0.000	0.01
1.002	S102	1440 minute 1 year Summer I+0%	32.600	30.763	-0.212	0.000	0.01
2.000	S200	1440 minute 1 year Summer I+0%	32.600	31.265	-0.135	0.000	0.02
2.001	S201	1440 minute 1 year Summer I+0%	32.500	30.820	-0.210	0.000	0.01
1.003	S103	1440 minute 1 year Summer I+0%	32.380	30.402	-1.199	0.000	0.00
3.000	S300	1440 minute 1 year Summer I+0%	32.600	31.274	-0.276	0.000	0.02
4.000	S400	1440 minute 1 year Summer I+0%	32.600	31.273	-0.202	0.000	0.02
3.001	S301	1440 minute 1 year Summer I+0%	32.600	30.503	-0.342	0.000	0.02
1.004	S104	1440 minute 1 year Summer I+0%	32.380	30.344	-1.077	0.000	0.00
5.000	S500	1440 minute 1 year Summer I+0%	32.600	31.266	-0.134	0.000	0.03
5.001	S501	1440 minute 1 year Summer I+0%	32.600	30.695	-0.210	0.000	0.01
6.000	S600	1440 minute 1 year Summer I+0%	32.600	31.256	-0.144	0.000	0.01
6.001	S601	1440 minute 1 year Summer I+0%	32.600	31.073	-0.142	0.000	0.01
6.002	S602	1440 minute 1 year Summer I+0%	32.600	30.843	-0.212	0.000	0.01
5.002	S502	1440 minute 1 year Summer I+0%	32.600	30.442	-0.268	0.000	0.03
5.003	S503	1440 minute 1 year Summer I+0%	32.500	30.389	-0.271	0.000	0.02
7.000	S700	1440 minute 1 year Summer I+0%	32.600	31.258	-0.142	0.000	0.01
7.001	S701	1440 minute 1 year Summer I+0%	32.600	31.153	-0.147	0.000	0.00

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Summary Wizard of 1440 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.1	OK
1.001	S101		0.5	OK
1.002	S102		0.6	OK
2.000	S200		0.4	OK
2.001	S201		0.8	OK
1.003	S103		2.5	OK
3.000	S300		1.8	OK
4.000	S400		1.4	OK
3.001	S301		3.3	OK
1.004	S104		5.0	OK
5.000	S500		0.5	OK
5.001	S501		0.7	OK
6.000	S600		0.2	OK
6.001	S601		0.3	OK
6.002	S602		0.7	OK
5.002	S502		1.6	OK
5.003	S503		1.6	OK
7.000	S700		0.2	OK
7.001	S701		0.2	OK

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Summary Wizard of 1440 minute 1 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	1440 minute 1 year Summer I+0%	32.550	30.344	-0.221	0.000	0.03
1.005	S105	1440 minute 1 year Summer I+0%	32.380	30.344	-0.126	0.000	0.04
8.000	S800	1440 minute 1 year Summer I+0%	32.400	31.263	-0.212	0.000	0.01
1.006	S106	1440 minute 1 year Summer I+0%	32.380	30.341	0.181	0.000	0.45
1.007	FW105	1440 minute 1 year Summer I+0%	32.380	30.018	-0.117	0.000	0.11

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.0	OK
1.005	S105		4.5	OK
8.000	S800		0.9	OK
1.006	S106		4.9	SURCHARGED
1.007	FW105		4.9	OK

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Summary Wizard of 15 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	15 minute 2 year Summer I+0%	32.600	31.280	-0.120	0.000	0.09	
1.001	S101	15 minute 2 year Summer I+0%	32.400	31.037	-0.173	0.000	0.12	
1.002	S102	15 minute 2 year Summer I+0%	32.600	30.808	-0.167	0.000	0.15	
2.000	S200	15 minute 2 year Summer I+0%	32.600	31.307	-0.093	0.000	0.31	
2.001	S201	15 minute 2 year Summer I+0%	32.500	30.871	-0.159	0.000	0.19	
1.003	S103	15 minute 2 year Summer I+0%	32.380	30.426	-1.175	0.000	0.01	
3.000	S300	15 minute 2 year Summer I+0%	32.600	31.348	-0.202	0.000	0.23	
4.000	S400	15 minute 2 year Summer I+0%	32.600	31.338	-0.137	0.000	0.32	
3.001	S301	15 minute 2 year Summer I+0%	32.600	30.600	-0.245	0.000	0.26	
1.004	S104	15 minute 2 year Summer I+0%	32.380	30.404	-1.017	0.000	0.01	
5.000	S500	15 minute 2 year Summer I+0%	32.600	31.314	-0.086	0.000	0.38	
5.001	S501	15 minute 2 year Summer I+0%	32.600	30.746	-0.159	0.000	0.19	
6.000	S600	15 minute 2 year Summer I+0%	32.600	31.285	-0.115	0.000	0.12	
6.001	S601	15 minute 2 year Summer I+0%	32.600	31.103	-0.112	0.000	0.15	
6.002	S602	15 minute 2 year Summer I+0%	32.600	30.889	-0.166	0.000	0.15	
5.002	S502	15 minute 2 year Summer I+0%	32.600	30.529	-0.181	0.000	0.33	
5.003	S503	15 minute 2 year Summer I+0%	32.500	30.465	-0.195	0.000	0.26	
7.000	S700	15 minute 2 year Summer I+0%	32.600	31.290	-0.110	0.000	0.16	
7.001	S701	15 minute 2 year Summer I+0%	32.600	31.174	-0.126	0.000	0.06	

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Summary Wizard of 15 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.6	OK
1.001	S101	6.3	OK
1.002	S102	7.7	OK
2.000	S200	5.9	OK
2.001	S201	10.5	OK
1.003	S103	28.4	OK
3.000	S300	25.1	OK
4.000	S400	19.8	OK
3.001	S301	45.1	OK
1.004	S104	57.2	OK
5.000	S500	7.1	OK
5.001	S501	8.8	OK
6.000	S600	3.2	OK
6.001	S601	3.7	OK
6.002	S602	8.1	OK
5.002	S502	20.3	OK
5.003	S503	20.4	OK
7.000	S700	2.8	OK
7.001	S701	2.8	OK

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Summary Wizard of 15 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	15 minute 2 year Summer I+0%	32.550	30.405	-0.160	0.000	0.33	
1.005	S105	15 minute 2 year Summer I+0%	32.380	30.404	-0.066	0.000	0.05	
8.000	S800	15 minute 2 year Summer I+0%	32.400	31.313	-0.162	0.000	0.17	
1.006	S106	15 minute 2 year Summer I+0%	32.380	30.401	0.241	0.000	0.49	
1.007	FW105	15 minute 2 year Summer I+0%	32.380	30.019	-0.116	0.000	0.12	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	25.3	OK
1.005	S105	5.2	OK
8.000	S800	12.3	OK
1.006	S106	5.3	SURCHARGED
1.007	FW105	5.3	OK

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Summary Wizard of 30 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	30 minute 2 year Summer I+0%	32.600	31.278	-0.122	0.000	0.08	
1.001	S101	30 minute 2 year Summer I+0%	32.400	31.035	-0.175	0.000	0.11	
1.002	S102	30 minute 2 year Summer I+0%	32.600	30.806	-0.169	0.000	0.14	
2.000	S200	30 minute 2 year Summer I+0%	32.600	31.304	-0.096	0.000	0.28	
2.001	S201	30 minute 2 year Summer I+0%	32.500	30.868	-0.162	0.000	0.17	
1.003	S103	30 minute 2 year Summer I+0%	32.380	30.451	-1.150	0.000	0.01	
3.000	S300	30 minute 2 year Summer I+0%	32.600	31.343	-0.207	0.000	0.21	
4.000	S400	30 minute 2 year Summer I+0%	32.600	31.333	-0.142	0.000	0.29	
3.001	S301	30 minute 2 year Summer I+0%	32.600	30.594	-0.251	0.000	0.24	
1.004	S104	30 minute 2 year Summer I+0%	32.380	30.451	-0.970	0.000	0.01	
5.000	S500	30 minute 2 year Summer I+0%	32.600	31.311	-0.089	0.000	0.35	
5.001	S501	30 minute 2 year Summer I+0%	32.600	30.742	-0.163	0.000	0.17	
6.000	S600	30 minute 2 year Summer I+0%	32.600	31.283	-0.117	0.000	0.11	
6.001	S601	30 minute 2 year Summer I+0%	32.600	31.101	-0.114	0.000	0.13	
6.002	S602	30 minute 2 year Summer I+0%	32.600	30.886	-0.169	0.000	0.14	
5.002	S502	30 minute 2 year Summer I+0%	32.600	30.524	-0.186	0.000	0.31	
5.003	S503	30 minute 2 year Summer I+0%	32.500	30.461	-0.199	0.000	0.25	
7.000	S700	30 minute 2 year Summer I+0%	32.600	31.288	-0.112	0.000	0.15	
7.001	S701	30 minute 2 year Summer I+0%	32.600	31.172	-0.128	0.000	0.05	

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Summary Wizard of 30 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.4	OK
1.001	S101	5.9	OK
1.002	S102	7.3	OK
2.000	S200	5.4	OK
2.001	S201	9.9	OK
1.003	S103	23.6	OK
3.000	S300	23.0	OK
4.000	S400	18.3	OK
3.001	S301	41.1	OK
1.004	S104	45.7	OK
5.000	S500	6.5	OK
5.001	S501	8.1	OK
6.000	S600	2.9	OK
6.001	S601	3.4	OK
6.002	S602	7.6	OK
5.002	S502	18.8	OK
5.003	S503	18.9	OK
7.000	S700	2.5	OK
7.001	S701	2.5	OK

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Summary Wizard of 30 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	30 minute 2 year Summer I+0%	32.550	30.451	-0.114	0.000	0.30	
1.005	S105	30 minute 2 year Summer I+0%	32.380	30.451	-0.019	0.000	0.05	
8.000	S800	30 minute 2 year Summer I+0%	32.400	31.310	-0.165	0.000	0.16	
1.006	S106	30 minute 2 year Summer I+0%	32.380	30.443	0.283	0.000	0.51	
1.007	FW105	30 minute 2 year Summer I+0%	32.380	30.020	-0.115	0.000	0.13	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	23.5	OK
1.005	S105	5.5	OK
8.000	S800	11.4	OK
1.006	S106	5.5	SURCHARGED
1.007	FW105	5.5	OK

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Summary Wizard of 60 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	60 minute 2 year Summer I+0%	32.600	31.274	-0.126	0.000	0.06	
1.001	S101	60 minute 2 year Summer I+0%	32.400	31.030	-0.180	0.000	0.09	
1.002	S102	60 minute 2 year Summer I+0%	32.600	30.800	-0.175	0.000	0.11	
2.000	S200	60 minute 2 year Summer I+0%	32.600	31.297	-0.103	0.000	0.21	
2.001	S201	60 minute 2 year Summer I+0%	32.500	30.860	-0.170	0.000	0.14	
1.003	S103	60 minute 2 year Summer I+0%	32.380	30.488	-1.113	0.000	0.00	
3.000	S300	60 minute 2 year Summer I+0%	32.600	31.330	-0.220	0.000	0.16	
4.000	S400	60 minute 2 year Summer I+0%	32.600	31.321	-0.154	0.000	0.22	
3.001	S301	60 minute 2 year Summer I+0%	32.600	30.577	-0.268	0.000	0.18	
1.004	S104	60 minute 2 year Summer I+0%	32.380	30.488	-0.933	0.000	0.01	
5.000	S500	60 minute 2 year Summer I+0%	32.600	31.302	-0.098	0.000	0.26	
5.001	S501	60 minute 2 year Summer I+0%	32.600	30.734	-0.171	0.000	0.13	
6.000	S600	60 minute 2 year Summer I+0%	32.600	31.279	-0.121	0.000	0.08	
6.001	S601	60 minute 2 year Summer I+0%	32.600	31.097	-0.118	0.000	0.10	
6.002	S602	60 minute 2 year Summer I+0%	32.600	30.880	-0.175	0.000	0.11	
5.002	S502	60 minute 2 year Summer I+0%	32.600	30.510	-0.200	0.000	0.24	
5.003	S503	60 minute 2 year Summer I+0%	32.500	30.489	-0.171	0.000	0.19	
7.000	S700	60 minute 2 year Summer I+0%	32.600	31.283	-0.117	0.000	0.11	
7.001	S701	60 minute 2 year Summer I+0%	32.600	31.170	-0.130	0.000	0.04	

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Summary Wizard of 60 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.1	OK
1.001	S101	4.6	OK
1.002	S102	5.8	OK
2.000	S200	4.1	OK
2.001	S201	7.7	OK
1.003	S103	15.8	OK
3.000	S300	17.6	OK
4.000	S400	13.8	OK
3.001	S301	31.4	OK
1.004	S104	28.7	OK
5.000	S500	4.9	OK
5.001	S501	6.2	OK
6.000	S600	2.2	OK
6.001	S601	2.6	OK
6.002	S602	6.0	OK
5.002	S502	14.8	OK
5.003	S503	14.8	OK
7.000	S700	1.9	OK
7.001	S701	1.9	OK

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Summary Wizard of 60 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	60 minute 2 year Summer I+0%	32.550	30.489	-0.076	0.000	0.23	
1.005	S105	60 minute 2 year Summer I+0%	32.380	30.488	0.018	0.000	0.05	
8.000	S800	60 minute 2 year Summer I+0%	32.400	31.302	-0.173	0.000	0.12	
1.006	S106	60 minute 2 year Summer I+0%	32.380	30.485	0.325	0.000	0.53	
1.007	FW105	60 minute 2 year Summer I+0%	32.380	30.021	-0.114	0.000	0.13	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	17.9	OK
1.005	S105	5.7	SURCHARGED
8.000	S800	8.6	OK
1.006	S106	5.8	SURCHARGED
1.007	FW105	5.8	OK

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Summary Wizard of 120 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	120 minute 2 year Summer I+0%	32.600	31.269	-0.131	0.000	0.04
1.001	S101	120 minute 2 year Summer I+0%	32.400	31.021	-0.189	0.000	0.06
1.002	S102	120 minute 2 year Summer I+0%	32.600	30.792	-0.183	0.000	0.08
2.000	S200	120 minute 2 year Summer I+0%	32.600	31.288	-0.112	0.000	0.15
2.001	S201	120 minute 2 year Summer I+0%	32.500	30.851	-0.179	0.000	0.09
1.003	S103	120 minute 2 year Summer I+0%	32.380	30.507	-1.094	0.000	0.00
3.000	S300	120 minute 2 year Summer I+0%	32.600	31.316	-0.234	0.000	0.11
4.000	S400	120 minute 2 year Summer I+0%	32.600	31.308	-0.167	0.000	0.15
3.001	S301	120 minute 2 year Summer I+0%	32.600	30.557	-0.288	0.000	0.12
1.004	S104	120 minute 2 year Summer I+0%	32.380	30.507	-0.914	0.000	0.00
5.000	S500	120 minute 2 year Summer I+0%	32.600	31.292	-0.108	0.000	0.18
5.001	S501	120 minute 2 year Summer I+0%	32.600	30.725	-0.180	0.000	0.09
6.000	S600	120 minute 2 year Summer I+0%	32.600	31.273	-0.127	0.000	0.06
6.001	S601	120 minute 2 year Summer I+0%	32.600	31.091	-0.124	0.000	0.07
6.002	S602	120 minute 2 year Summer I+0%	32.600	30.871	-0.184	0.000	0.08
5.002	S502	120 minute 2 year Summer I+0%	32.600	30.509	-0.201	0.000	0.17
5.003	S503	120 minute 2 year Summer I+0%	32.500	30.508	-0.152	0.000	0.13
7.000	S700	120 minute 2 year Summer I+0%	32.600	31.277	-0.123	0.000	0.08
7.001	S701	120 minute 2 year Summer I+0%	32.600	31.167	-0.133	0.000	0.03

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Summary Wizard of 120 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.7	OK
1.001	S101		3.2	OK
1.002	S102		4.0	OK
2.000	S200		2.8	OK
2.001	S201		5.3	OK
1.003	S103		9.4	OK
3.000	S300		12.0	OK
4.000	S400		9.4	OK
3.001	S301		21.4	OK
1.004	S104		17.8	OK
5.000	S500		3.3	OK
5.001	S501		4.2	OK
6.000	S600		1.5	OK
6.001	S601		1.8	OK
6.002	S602		4.2	OK
5.002	S502		10.3	OK
5.003	S503		10.3	OK
7.000	S700		1.3	OK
7.001	S701		1.3	OK

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Summary Wizard of 120 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	120 minute 2 year Summer I+0%	32.550	30.508	-0.057	0.000	0.16
1.005	S105	120 minute 2 year Summer I+0%	32.380	30.507	0.037	0.000	0.05
8.000	S800	120 minute 2 year Summer I+0%	32.400	31.293	-0.182	0.000	0.08
1.006	S106	120 minute 2 year Summer I+0%	32.380	30.504	0.344	0.000	0.54
1.007	FW105	120 minute 2 year Summer I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		12.3	OK
1.005	S105		5.8	SURCHARGED
8.000	S800		5.8	OK
1.006	S106		5.9	SURCHARGED
1.007	FW105		5.9	OK

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Summary Wizard of 180 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	180 minute 2 year Summer I+0%	32.600	31.267	-0.133	0.000	0.03
1.001	S101	180 minute 2 year Summer I+0%	32.400	31.017	-0.193	0.000	0.05
1.002	S102	180 minute 2 year Summer I+0%	32.600	30.786	-0.189	0.000	0.06
2.000	S200	180 minute 2 year Summer I+0%	32.600	31.283	-0.117	0.000	0.11
2.001	S201	180 minute 2 year Summer I+0%	32.500	30.845	-0.185	0.000	0.07
1.003	S103	180 minute 2 year Summer I+0%	32.380	30.510	-1.091	0.000	0.00
3.000	S300	180 minute 2 year Summer I+0%	32.600	31.308	-0.242	0.000	0.09
4.000	S400	180 minute 2 year Summer I+0%	32.600	31.301	-0.174	0.000	0.12
3.001	S301	180 minute 2 year Summer I+0%	32.600	30.548	-0.297	0.000	0.10
1.004	S104	180 minute 2 year Summer I+0%	32.380	30.510	-0.911	0.000	0.00
5.000	S500	180 minute 2 year Summer I+0%	32.600	31.287	-0.113	0.000	0.14
5.001	S501	180 minute 2 year Summer I+0%	32.600	30.719	-0.186	0.000	0.07
6.000	S600	180 minute 2 year Summer I+0%	32.600	31.270	-0.130	0.000	0.04
6.001	S601	180 minute 2 year Summer I+0%	32.600	31.087	-0.128	0.000	0.05
6.002	S602	180 minute 2 year Summer I+0%	32.600	30.866	-0.189	0.000	0.06
5.002	S502	180 minute 2 year Summer I+0%	32.600	30.512	-0.198	0.000	0.13
5.003	S503	180 minute 2 year Summer I+0%	32.500	30.511	-0.149	0.000	0.10
7.000	S700	180 minute 2 year Summer I+0%	32.600	31.273	-0.127	0.000	0.06
7.001	S701	180 minute 2 year Summer I+0%	32.600	31.165	-0.135	0.000	0.02

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Summary Wizard of 180 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.6	OK
1.001	S101		2.5	OK
1.002	S102		3.2	OK
2.000	S200		2.2	OK
2.001	S201		4.1	OK
1.003	S103		7.3	OK
3.000	S300		9.3	OK
4.000	S400		7.3	OK
3.001	S301		16.6	OK
1.004	S104		14.0	OK
5.000	S500		2.6	OK
5.001	S501		3.3	OK
6.000	S600		1.2	OK
6.001	S601		1.4	OK
6.002	S602		3.3	OK
5.002	S502		8.0	OK
5.003	S503		8.0	OK
7.000	S700		1.0	OK
7.001	S701		1.0	OK

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Summary Wizard of 180 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	180 minute 2 year Summer I+0%	32.550	30.511	-0.054	0.000	0.12
1.005	S105	180 minute 2 year Summer I+0%	32.380	30.510	0.040	0.000	0.05
8.000	S800	180 minute 2 year Summer I+0%	32.400	31.287	-0.188	0.000	0.06
1.006	S106	180 minute 2 year Summer I+0%	32.380	30.507	0.347	0.000	0.54
1.007	FW105	180 minute 2 year Summer I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		9.5	OK
1.005	S105		5.8	SURCHARGED
8.000	S800		4.5	OK
1.006	S106		5.9	SURCHARGED
1.007	FW105		5.9	OK

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Summary Wizard of 240 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	240 minute 2 year Summer I+0%	32.600	31.266	-0.134	0.000	0.03
1.001	S101	240 minute 2 year Summer I+0%	32.400	31.014	-0.196	0.000	0.04
1.002	S102	240 minute 2 year Summer I+0%	32.600	30.783	-0.192	0.000	0.05
2.000	S200	240 minute 2 year Summer I+0%	32.600	31.281	-0.119	0.000	0.09
2.001	S201	240 minute 2 year Summer I+0%	32.500	30.841	-0.189	0.000	0.06
1.003	S103	240 minute 2 year Summer I+0%	32.380	30.508	-1.093	0.000	0.00
3.000	S300	240 minute 2 year Summer I+0%	32.600	31.302	-0.248	0.000	0.07
4.000	S400	240 minute 2 year Summer I+0%	32.600	31.297	-0.178	0.000	0.10
3.001	S301	240 minute 2 year Summer I+0%	32.600	30.540	-0.305	0.000	0.08
1.004	S104	240 minute 2 year Summer I+0%	32.380	30.509	-0.912	0.000	0.00
5.000	S500	240 minute 2 year Summer I+0%	32.600	31.284	-0.116	0.000	0.11
5.001	S501	240 minute 2 year Summer I+0%	32.600	30.715	-0.190	0.000	0.06
6.000	S600	240 minute 2 year Summer I+0%	32.600	31.268	-0.132	0.000	0.04
6.001	S601	240 minute 2 year Summer I+0%	32.600	31.085	-0.130	0.000	0.05
6.002	S602	240 minute 2 year Summer I+0%	32.600	30.862	-0.193	0.000	0.05
5.002	S502	240 minute 2 year Summer I+0%	32.600	30.510	-0.200	0.000	0.11
5.003	S503	240 minute 2 year Summer I+0%	32.500	30.510	-0.150	0.000	0.09
7.000	S700	240 minute 2 year Summer I+0%	32.600	31.271	-0.129	0.000	0.05
7.001	S701	240 minute 2 year Summer I+0%	32.600	31.163	-0.137	0.000	0.02

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Summary Wizard of 240 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.5	OK
1.001	S101		2.1	OK
1.002	S102		2.6	OK
2.000	S200		1.8	OK
2.001	S201		3.4	OK
1.003	S103		6.2	OK
3.000	S300		7.7	OK
4.000	S400		6.1	OK
3.001	S301		13.8	OK
1.004	S104		11.9	OK
5.000	S500		2.2	OK
5.001	S501		2.7	OK
6.000	S600		1.0	OK
6.001	S601		1.1	OK
6.002	S602		2.7	OK
5.002	S502		6.7	OK
5.003	S503		6.7	OK
7.000	S700		0.8	OK
7.001	S701		0.8	OK

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Summary Wizard of 240 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	240 minute 2 year Summer I+0%	32.550	30.509	-0.056	0.000	0.10
1.005	S105	240 minute 2 year Summer I+0%	32.380	30.508	0.038	0.000	0.05
8.000	S800	240 minute 2 year Summer I+0%	32.400	31.283	-0.192	0.000	0.05
1.006	S106	240 minute 2 year Summer I+0%	32.380	30.505	0.345	0.000	0.54
1.007	FW105	240 minute 2 year Summer I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		7.9	OK
1.005	S105		5.7	SURCHARGED
8.000	S800		3.8	OK
1.006	S106		5.9	SURCHARGED
1.007	FW105		5.9	OK

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Summary Wizard of 360 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	360 minute 2 year Summer I+0%	32.600	31.264	-0.136	0.000	0.02
1.001	S101	360 minute 2 year Summer I+0%	32.400	31.011	-0.199	0.000	0.03
1.002	S102	360 minute 2 year Summer I+0%	32.600	30.779	-0.196	0.000	0.04
2.000	S200	360 minute 2 year Summer I+0%	32.600	31.276	-0.124	0.000	0.07
2.001	S201	360 minute 2 year Summer I+0%	32.500	30.836	-0.194	0.000	0.05
1.003	S103	360 minute 2 year Summer I+0%	32.380	30.500	-1.101	0.000	0.00
3.000	S300	360 minute 2 year Summer I+0%	32.600	31.294	-0.256	0.000	0.05
4.000	S400	360 minute 2 year Summer I+0%	32.600	31.290	-0.185	0.000	0.07
3.001	S301	360 minute 2 year Summer I+0%	32.600	30.529	-0.316	0.000	0.06
1.004	S104	360 minute 2 year Summer I+0%	32.380	30.500	-0.921	0.000	0.00
5.000	S500	360 minute 2 year Summer I+0%	32.600	31.280	-0.120	0.000	0.09
5.001	S501	360 minute 2 year Summer I+0%	32.600	30.710	-0.195	0.000	0.04
6.000	S600	360 minute 2 year Summer I+0%	32.600	31.266	-0.134	0.000	0.03
6.001	S601	360 minute 2 year Summer I+0%	32.600	31.083	-0.132	0.000	0.03
6.002	S602	360 minute 2 year Summer I+0%	32.600	30.858	-0.197	0.000	0.04
5.002	S502	360 minute 2 year Summer I+0%	32.600	30.502	-0.208	0.000	0.08
5.003	S503	360 minute 2 year Summer I+0%	32.500	30.502	-0.158	0.000	0.07
7.000	S700	360 minute 2 year Summer I+0%	32.600	31.269	-0.131	0.000	0.04
7.001	S701	360 minute 2 year Summer I+0%	32.600	31.160	-0.140	0.000	0.01

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Summary Wizard of 360 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	OK
1.001	S101		1.6	OK
1.002	S102		2.0	OK
2.000	S200		1.4	OK
2.001	S201		2.6	OK
1.003	S103		5.1	OK
3.000	S300		5.9	OK
4.000	S400		4.6	OK
3.001	S301		10.5	OK
1.004	S104		9.6	OK
5.000	S500		1.6	OK
5.001	S501		2.1	OK
6.000	S600		0.7	OK
6.001	S601		0.9	OK
6.002	S602		2.1	OK
5.002	S502		5.1	OK
5.003	S503		5.1	OK
7.000	S700		0.6	OK
7.001	S701		0.6	OK

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Summary Wizard of 360 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	360 minute 2 year Summer I+0%	32.550	30.501	-0.064	0.000	0.08
1.005	S105	360 minute 2 year Summer I+0%	32.380	30.500	0.030	0.000	0.05
8.000	S800	360 minute 2 year Summer I+0%	32.400	31.279	-0.196	0.000	0.04
1.006	S106	360 minute 2 year Summer I+0%	32.380	30.497	0.337	0.000	0.54
1.007	FW105	360 minute 2 year Summer I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		6.1	OK
1.005	S105		5.5	SURCHARGED
8.000	S800		2.9	OK
1.006	S106		5.8	SURCHARGED
1.007	FW105		5.8	OK

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Summary Wizard of 480 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	480 minute 2 year Summer I+0%	32.600	31.261	-0.139	0.000	0.02
1.001	S101	480 minute 2 year Summer I+0%	32.400	31.009	-0.201	0.000	0.03
1.002	S102	480 minute 2 year Summer I+0%	32.600	30.776	-0.199	0.000	0.03
2.000	S200	480 minute 2 year Summer I+0%	32.600	31.273	-0.127	0.000	0.06
2.001	S201	480 minute 2 year Summer I+0%	32.500	30.833	-0.197	0.000	0.04
1.003	S103	480 minute 2 year Summer I+0%	32.380	30.490	-1.111	0.000	0.00
3.000	S300	480 minute 2 year Summer I+0%	32.600	31.290	-0.260	0.000	0.04
4.000	S400	480 minute 2 year Summer I+0%	32.600	31.285	-0.190	0.000	0.06
3.001	S301	480 minute 2 year Summer I+0%	32.600	30.523	-0.322	0.000	0.05
1.004	S104	480 minute 2 year Summer I+0%	32.380	30.490	-0.931	0.000	0.00
5.000	S500	480 minute 2 year Summer I+0%	32.600	31.276	-0.124	0.000	0.07
5.001	S501	480 minute 2 year Summer I+0%	32.600	30.707	-0.198	0.000	0.04
6.000	S600	480 minute 2 year Summer I+0%	32.600	31.265	-0.135	0.000	0.02
6.001	S601	480 minute 2 year Summer I+0%	32.600	31.082	-0.133	0.000	0.03
6.002	S602	480 minute 2 year Summer I+0%	32.600	30.856	-0.199	0.000	0.03
5.002	S502	480 minute 2 year Summer I+0%	32.600	30.492	-0.218	0.000	0.07
5.003	S503	480 minute 2 year Summer I+0%	32.500	30.491	-0.169	0.000	0.05
7.000	S700	480 minute 2 year Summer I+0%	32.600	31.267	-0.133	0.000	0.03
7.001	S701	480 minute 2 year Summer I+0%	32.600	31.158	-0.142	0.000	0.01

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Summary Wizard of 480 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.3	OK
1.002	S102		1.7	OK
2.000	S200		1.1	OK
2.001	S201		2.1	OK
1.003	S103		4.4	OK
3.000	S300		4.8	OK
4.000	S400		3.7	OK
3.001	S301		8.5	OK
1.004	S104		8.3	OK
5.000	S500		1.3	OK
5.001	S501		1.7	OK
6.000	S600		0.6	OK
6.001	S601		0.7	OK
6.002	S602		1.7	OK
5.002	S502		4.2	OK
5.003	S503		4.1	OK
7.000	S700		0.5	OK
7.001	S701		0.5	OK

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Summary Wizard of 480 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	480 minute 2 year Summer I+0%	32.550	30.491	-0.074	0.000	0.06
1.005	S105	480 minute 2 year Summer I+0%	32.380	30.490	0.020	0.000	0.05
8.000	S800	480 minute 2 year Summer I+0%	32.400	31.276	-0.199	0.000	0.03
1.006	S106	480 minute 2 year Summer I+0%	32.380	30.487	0.327	0.000	0.53
1.007	FW105	480 minute 2 year Summer I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		5.0	OK
1.005	S105		5.4	SURCHARGED
8.000	S800		2.3	OK
1.006	S106		5.8	SURCHARGED
1.007	FW105		5.8	OK

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Summary Wizard of 600 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	600 minute 2 year Summer I+0%	32.600	31.260	-0.140	0.000	0.01
1.001	S101	600 minute 2 year Summer I+0%	32.400	31.008	-0.202	0.000	0.02
1.002	S102	600 minute 2 year Summer I+0%	32.600	30.775	-0.200	0.000	0.03
2.000	S200	600 minute 2 year Summer I+0%	32.600	31.271	-0.129	0.000	0.05
2.001	S201	600 minute 2 year Summer I+0%	32.500	30.831	-0.199	0.000	0.03
1.003	S103	600 minute 2 year Summer I+0%	32.380	30.478	-1.123	0.000	0.00
3.000	S300	600 minute 2 year Summer I+0%	32.600	31.287	-0.263	0.000	0.04
4.000	S400	600 minute 2 year Summer I+0%	32.600	31.283	-0.192	0.000	0.05
3.001	S301	600 minute 2 year Summer I+0%	32.600	30.519	-0.326	0.000	0.04
1.004	S104	600 minute 2 year Summer I+0%	32.380	30.479	-0.942	0.000	0.00
5.000	S500	600 minute 2 year Summer I+0%	32.600	31.274	-0.126	0.000	0.06
5.001	S501	600 minute 2 year Summer I+0%	32.600	30.706	-0.199	0.000	0.03
6.000	S600	600 minute 2 year Summer I+0%	32.600	31.264	-0.136	0.000	0.02
6.001	S601	600 minute 2 year Summer I+0%	32.600	31.081	-0.134	0.000	0.02
6.002	S602	600 minute 2 year Summer I+0%	32.600	30.854	-0.201	0.000	0.03
5.002	S502	600 minute 2 year Summer I+0%	32.600	30.480	-0.230	0.000	0.06
5.003	S503	600 minute 2 year Summer I+0%	32.500	30.480	-0.180	0.000	0.05
7.000	S700	600 minute 2 year Summer I+0%	32.600	31.266	-0.134	0.000	0.03
7.001	S701	600 minute 2 year Summer I+0%	32.600	31.157	-0.143	0.000	0.01

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Summary Wizard of 600 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.1	OK
1.002	S102		1.4	OK
2.000	S200		0.9	OK
2.001	S201		1.8	OK
1.003	S103		4.0	OK
3.000	S300		4.1	OK
4.000	S400		3.2	OK
3.001	S301		7.3	OK
1.004	S104		7.5	OK
5.000	S500		1.1	OK
5.001	S501		1.5	OK
6.000	S600		0.5	OK
6.001	S601		0.6	OK
6.002	S602		1.5	OK
5.002	S502		3.6	OK
5.003	S503		3.6	OK
7.000	S700		0.4	OK
7.001	S701		0.4	OK

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Summary Wizard of 600 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	600 minute 2 year Summer I+0%	32.550	30.479	-0.086	0.000	0.06
1.005	S105	600 minute 2 year Summer I+0%	32.380	30.479	0.009	0.000	0.05
8.000	S800	600 minute 2 year Summer I+0%	32.400	31.275	-0.200	0.000	0.03
1.006	S106	600 minute 2 year Summer I+0%	32.380	30.476	0.316	0.000	0.53
1.007	FW105	600 minute 2 year Summer I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		4.3	OK
1.005	S105		5.4	SURCHARGED
8.000	S800		2.0	OK
1.006	S106		5.7	SURCHARGED
1.007	FW105		5.7	OK

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Summary Wizard of 720 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	720 minute 2 year Summer I+0%	32.600	31.259	-0.141	0.000	0.01
1.001	S101	720 minute 2 year Summer I+0%	32.400	31.005	-0.205	0.000	0.02
1.002	S102	720 minute 2 year Summer I+0%	32.600	30.774	-0.201	0.000	0.02
2.000	S200	720 minute 2 year Summer I+0%	32.600	31.270	-0.130	0.000	0.04
2.001	S201	720 minute 2 year Summer I+0%	32.500	30.830	-0.200	0.000	0.03
1.003	S103	720 minute 2 year Summer I+0%	32.380	30.467	-1.134	0.000	0.00
3.000	S300	720 minute 2 year Summer I+0%	32.600	31.285	-0.265	0.000	0.03
4.000	S400	720 minute 2 year Summer I+0%	32.600	31.280	-0.195	0.000	0.04
3.001	S301	720 minute 2 year Summer I+0%	32.600	30.516	-0.329	0.000	0.04
1.004	S104	720 minute 2 year Summer I+0%	32.380	30.467	-0.954	0.000	0.00
5.000	S500	720 minute 2 year Summer I+0%	32.600	31.272	-0.128	0.000	0.05
5.001	S501	720 minute 2 year Summer I+0%	32.600	30.704	-0.201	0.000	0.03
6.000	S600	720 minute 2 year Summer I+0%	32.600	31.262	-0.138	0.000	0.02
6.001	S601	720 minute 2 year Summer I+0%	32.600	31.080	-0.135	0.000	0.02
6.002	S602	720 minute 2 year Summer I+0%	32.600	30.853	-0.202	0.000	0.02
5.002	S502	720 minute 2 year Summer I+0%	32.600	30.469	-0.241	0.000	0.05
5.003	S503	720 minute 2 year Summer I+0%	32.500	30.469	-0.191	0.000	0.04
7.000	S700	720 minute 2 year Summer I+0%	32.600	31.265	-0.135	0.000	0.02
7.001	S701	720 minute 2 year Summer I+0%	32.600	31.156	-0.144	0.000	0.01

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Summary Wizard of 720 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		1.0	OK
1.002	S102		1.2	OK
2.000	S200		0.8	OK
2.001	S201		1.6	OK
1.003	S103		3.7	OK
3.000	S300		3.6	OK
4.000	S400		2.8	OK
3.001	S301		6.4	OK
1.004	S104		7.0	OK
5.000	S500		1.0	OK
5.001	S501		1.3	OK
6.000	S600		0.4	OK
6.001	S601		0.5	OK
6.002	S602		1.3	OK
5.002	S502		3.1	OK
5.003	S503		3.1	OK
7.000	S700		0.4	OK
7.001	S701		0.4	OK

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Summary Wizard of 720 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	720 minute 2 year Summer I+0%	32.550	30.468	-0.097	0.000	0.05
1.005	S105	720 minute 2 year Summer I+0%	32.380	30.467	-0.003	0.000	0.05
8.000	S800	720 minute 2 year Summer I+0%	32.400	31.274	-0.201	0.000	0.02
1.006	S106	720 minute 2 year Summer I+0%	32.380	30.455	0.295	0.000	0.52
1.007	FW105	720 minute 2 year Summer I+0%	32.380	30.020	-0.115	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		3.8	OK
1.005	S105		5.2	OK
8.000	S800		1.7	OK
1.006	S106		5.6	SURCHARGED
1.007	FW105		5.6	OK

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Summary Wizard of 960 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	960 minute 2 year Summer I+0%	32.600	31.257	-0.143	0.000	0.01
1.001	S101	960 minute 2 year Summer I+0%	32.400	31.002	-0.208	0.000	0.02
1.002	S102	960 minute 2 year Summer I+0%	32.600	30.771	-0.204	0.000	0.02
2.000	S200	960 minute 2 year Summer I+0%	32.600	31.268	-0.132	0.000	0.04
2.001	S201	960 minute 2 year Summer I+0%	32.500	30.828	-0.202	0.000	0.02
1.003	S103	960 minute 2 year Summer I+0%	32.380	30.444	-1.157	0.000	0.00
3.000	S300	960 minute 2 year Summer I+0%	32.600	31.282	-0.268	0.000	0.03
4.000	S400	960 minute 2 year Summer I+0%	32.600	31.278	-0.197	0.000	0.04
3.001	S301	960 minute 2 year Summer I+0%	32.600	30.512	-0.333	0.000	0.03
1.004	S104	960 minute 2 year Summer I+0%	32.380	30.444	-0.977	0.000	0.00
5.000	S500	960 minute 2 year Summer I+0%	32.600	31.270	-0.130	0.000	0.04
5.001	S501	960 minute 2 year Summer I+0%	32.600	30.703	-0.202	0.000	0.02
6.000	S600	960 minute 2 year Summer I+0%	32.600	31.260	-0.140	0.000	0.01
6.001	S601	960 minute 2 year Summer I+0%	32.600	31.077	-0.138	0.000	0.02
6.002	S602	960 minute 2 year Summer I+0%	32.600	30.850	-0.205	0.000	0.02
5.002	S502	960 minute 2 year Summer I+0%	32.600	30.449	-0.261	0.000	0.04
5.003	S503	960 minute 2 year Summer I+0%	32.500	30.446	-0.214	0.000	0.03
7.000	S700	960 minute 2 year Summer I+0%	32.600	31.263	-0.137	0.000	0.02
7.001	S701	960 minute 2 year Summer I+0%	32.600	31.155	-0.145	0.000	0.01

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Summary Wizard of 960 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.8	OK
1.002	S102		1.0	OK
2.000	S200		0.7	OK
2.001	S201		1.3	OK
1.003	S103		3.3	OK
3.000	S300		2.9	OK
4.000	S400		2.3	OK
3.001	S301		5.2	OK
1.004	S104		6.2	OK
5.000	S500		0.8	OK
5.001	S501		1.0	OK
6.000	S600		0.4	OK
6.001	S601		0.4	OK
6.002	S602		1.0	OK
5.002	S502		2.5	OK
5.003	S503		2.5	OK
7.000	S700		0.3	OK
7.001	S701		0.3	OK

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Summary Wizard of 960 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	960 minute 2 year Summer I+0%	32.550	30.445	-0.120	0.000	0.04
1.005	S105	960 minute 2 year Summer I+0%	32.380	30.444	-0.026	0.000	0.04
8.000	S800	960 minute 2 year Summer I+0%	32.400	31.271	-0.204	0.000	0.02
1.006	S106	960 minute 2 year Summer I+0%	32.380	30.438	0.278	0.000	0.51
1.007	FW105	960 minute 2 year Summer I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		3.1	OK
1.005	S105		5.1	OK
8.000	S800		1.4	OK
1.006	S106		5.5	SURCHARGED
1.007	FW105		5.5	OK

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Summary Wizard of 1440 minute 2 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	1440 minute 2 year Summer I+0%	32.600	31.255	-0.145	0.000	0.01
1.001	S101	1440 minute 2 year Summer I+0%	32.400	30.997	-0.213	0.000	0.01
1.002	S102	1440 minute 2 year Summer I+0%	32.600	30.766	-0.209	0.000	0.01
2.000	S200	1440 minute 2 year Summer I+0%	32.600	31.266	-0.134	0.000	0.03
2.001	S201	1440 minute 2 year Summer I+0%	32.500	30.823	-0.207	0.000	0.02
1.003	S103	1440 minute 2 year Summer I+0%	32.380	30.405	-1.196	0.000	0.00
3.000	S300	1440 minute 2 year Summer I+0%	32.600	31.278	-0.272	0.000	0.02
4.000	S400	1440 minute 2 year Summer I+0%	32.600	31.275	-0.200	0.000	0.03
3.001	S301	1440 minute 2 year Summer I+0%	32.600	30.508	-0.337	0.000	0.02
1.004	S104	1440 minute 2 year Summer I+0%	32.380	30.401	-1.020	0.000	0.00
5.000	S500	1440 minute 2 year Summer I+0%	32.600	31.267	-0.133	0.000	0.03
5.001	S501	1440 minute 2 year Summer I+0%	32.600	30.697	-0.208	0.000	0.02
6.000	S600	1440 minute 2 year Summer I+0%	32.600	31.257	-0.143	0.000	0.01
6.001	S601	1440 minute 2 year Summer I+0%	32.600	31.074	-0.141	0.000	0.01
6.002	S602	1440 minute 2 year Summer I+0%	32.600	30.845	-0.210	0.000	0.01
5.002	S502	1440 minute 2 year Summer I+0%	32.600	30.444	-0.266	0.000	0.03
5.003	S503	1440 minute 2 year Summer I+0%	32.500	30.404	-0.256	0.000	0.02
7.000	S700	1440 minute 2 year Summer I+0%	32.600	31.260	-0.140	0.000	0.01
7.001	S701	1440 minute 2 year Summer I+0%	32.600	31.154	-0.146	0.000	0.01

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Summary Wizard of 1440 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.1	OK
1.001	S101		0.6	OK
1.002	S102		0.8	OK
2.000	S200		0.5	OK
2.001	S201		1.0	OK
1.003	S103		2.8	OK
3.000	S300		2.2	OK
4.000	S400		1.7	OK
3.001	S301		3.9	OK
1.004	S104		5.4	OK
5.000	S500		0.6	OK
5.001	S501		0.8	OK
6.000	S600		0.3	OK
6.001	S601		0.3	OK
6.002	S602		0.8	OK
5.002	S502		1.9	OK
5.003	S503		1.9	OK
7.000	S700		0.2	OK
7.001	S701		0.2	OK

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Summary Wizard of 1440 minute 2 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	1440 minute 2 year Summer I+0%	32.550	30.402	-0.163	0.000	0.03
1.005	S105	1440 minute 2 year Summer I+0%	32.380	30.401	-0.069	0.000	0.04
8.000	S800	1440 minute 2 year Summer I+0%	32.400	31.266	-0.209	0.000	0.01
1.006	S106	1440 minute 2 year Summer I+0%	32.380	30.399	0.239	0.000	0.49
1.007	FW105	1440 minute 2 year Summer I+0%	32.380	30.019	-0.116	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.3	OK
1.005	S105		4.8	OK
8.000	S800		1.1	OK
1.006	S106		5.3	SURCHARGED
1.007	FW105		5.3	OK

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Summary Wizard of 15 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	15 minute 5 year Summer I+0%	32.600	31.283	-0.117	0.000	0.11	
1.001	S101	15 minute 5 year Summer I+0%	32.400	31.044	-0.166	0.000	0.16	
1.002	S102	15 minute 5 year Summer I+0%	32.600	30.818	-0.157	0.000	0.19	
2.000	S200	15 minute 5 year Summer I+0%	32.600	31.316	-0.084	0.000	0.40	
2.001	S201	15 minute 5 year Summer I+0%	32.500	30.880	-0.150	0.000	0.24	
1.003	S103	15 minute 5 year Summer I+0%	32.380	30.458	-1.143	0.000	0.01	
3.000	S300	15 minute 5 year Summer I+0%	32.600	31.363	-0.187	0.000	0.30	
4.000	S400	15 minute 5 year Summer I+0%	32.600	31.351	-0.124	0.000	0.41	
3.001	S301	15 minute 5 year Summer I+0%	32.600	30.621	-0.224	0.000	0.34	
1.004	S104	15 minute 5 year Summer I+0%	32.380	30.458	-0.963	0.000	0.01	
5.000	S500	15 minute 5 year Summer I+0%	32.600	31.325	-0.075	0.000	0.49	
5.001	S501	15 minute 5 year Summer I+0%	32.600	30.755	-0.150	0.000	0.24	
6.000	S600	15 minute 5 year Summer I+0%	32.600	31.290	-0.110	0.000	0.16	
6.001	S601	15 minute 5 year Summer I+0%	32.600	31.109	-0.106	0.000	0.19	
6.002	S602	15 minute 5 year Summer I+0%	32.600	30.898	-0.157	0.000	0.19	
5.002	S502	15 minute 5 year Summer I+0%	32.600	30.547	-0.163	0.000	0.43	
5.003	S503	15 minute 5 year Summer I+0%	32.500	30.481	-0.179	0.000	0.34	
7.000	S700	15 minute 5 year Summer I+0%	32.600	31.296	-0.104	0.000	0.21	
7.001	S701	15 minute 5 year Summer I+0%	32.600	31.178	-0.122	0.000	0.08	

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Summary Wizard of 15 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	2.0	OK
1.001	S101	8.1	OK
1.002	S102	10.0	OK
2.000	S200	7.6	OK
2.001	S201	13.6	OK
1.003	S103	33.9	OK
3.000	S300	32.4	OK
4.000	S400	25.6	OK
3.001	S301	58.2	OK
1.004	S104	65.5	OK
5.000	S500	9.2	OK
5.001	S501	11.4	OK
6.000	S600	4.1	OK
6.001	S601	4.7	OK
6.002	S602	10.5	OK
5.002	S502	26.3	OK
5.003	S503	26.3	OK
7.000	S700	3.6	OK
7.001	S701	3.6	OK

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Summary Wizard of 15 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	15 minute 5 year Summer I+0%	32.550	30.459	-0.106	0.000	0.42	
1.005	S105	15 minute 5 year Summer I+0%	32.380	30.458	-0.012	0.000	0.05	
8.000	S800	15 minute 5 year Summer I+0%	32.400	31.323	-0.152	0.000	0.22	
1.006	S106	15 minute 5 year Summer I+0%	32.380	30.449	0.289	0.000	0.51	
1.007	FW105	15 minute 5 year Summer I+0%	32.380	30.020	-0.115	0.000	0.13	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	32.8	OK
1.005	S105	5.5	OK
8.000	S800	16.0	OK
1.006	S106	5.6	SURCHARGED
1.007	FW105	5.6	OK

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Summary Wizard of 30 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	30 minute 5 year Summer I+0%	32.600	31.282	-0.118	0.000	0.10	
1.001	S101	30 minute 5 year Summer I+0%	32.400	31.042	-0.168	0.000	0.14	
1.002	S102	30 minute 5 year Summer I+0%	32.600	30.814	-0.161	0.000	0.18	
2.000	S200	30 minute 5 year Summer I+0%	32.600	31.312	-0.088	0.000	0.36	
2.001	S201	30 minute 5 year Summer I+0%	32.500	30.877	-0.153	0.000	0.22	
1.003	S103	30 minute 5 year Summer I+0%	32.380	30.516	-1.085	0.000	0.01	
3.000	S300	30 minute 5 year Summer I+0%	32.600	31.356	-0.194	0.000	0.27	
4.000	S400	30 minute 5 year Summer I+0%	32.600	31.345	-0.130	0.000	0.38	
3.001	S301	30 minute 5 year Summer I+0%	32.600	30.612	-0.233	0.000	0.30	
1.004	S104	30 minute 5 year Summer I+0%	32.380	30.517	-0.904	0.000	0.01	
5.000	S500	30 minute 5 year Summer I+0%	32.600	31.320	-0.080	0.000	0.44	
5.001	S501	30 minute 5 year Summer I+0%	32.600	30.751	-0.154	0.000	0.22	
6.000	S600	30 minute 5 year Summer I+0%	32.600	31.287	-0.113	0.000	0.14	
6.001	S601	30 minute 5 year Summer I+0%	32.600	31.107	-0.108	0.000	0.17	
6.002	S602	30 minute 5 year Summer I+0%	32.600	30.894	-0.161	0.000	0.18	
5.002	S502	30 minute 5 year Summer I+0%	32.600	30.541	-0.169	0.000	0.39	
5.003	S503	30 minute 5 year Summer I+0%	32.500	30.518	-0.142	0.000	0.31	
7.000	S700	30 minute 5 year Summer I+0%	32.600	31.294	-0.106	0.000	0.19	
7.001	S701	30 minute 5 year Summer I+0%	32.600	31.176	-0.124	0.000	0.07	

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Summary Wizard of 30 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.9	OK
1.001	S101	7.5	OK
1.002	S102	9.3	OK
2.000	S200	7.0	OK
2.001	S201	12.6	OK
1.003	S103	26.0	OK
3.000	S300	29.4	OK
4.000	S400	23.4	OK
3.001	S301	52.7	OK
1.004	S104	49.5	OK
5.000	S500	8.4	OK
5.001	S501	10.4	OK
6.000	S600	3.7	OK
6.001	S601	4.3	OK
6.002	S602	9.8	OK
5.002	S502	24.2	OK
5.003	S503	24.3	OK
7.000	S700	3.2	OK
7.001	S701	3.2	OK

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Summary Wizard of 30 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	30 minute 5 year Summer I+0%	32.550	30.517	-0.048	0.000	0.38	
1.005	S105	30 minute 5 year Summer I+0%	32.380	30.517	0.047	0.000	0.05	
8.000	S800	30 minute 5 year Summer I+0%	32.400	31.319	-0.156	0.000	0.20	
1.006	S106	30 minute 5 year Summer I+0%	32.380	30.514	0.354	0.000	0.55	
1.007	FW105	30 minute 5 year Summer I+0%	32.380	30.021	-0.114	0.000	0.13	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	29.5	OK
1.005	S105	5.9	SURCHARGED
8.000	S800	14.6	OK
1.006	S106	5.9	SURCHARGED
1.007	FW105	5.9	OK

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Summary Wizard of 60 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	60 minute 5 year Summer I+0%	32.600	31.277	-0.123	0.000	0.08	
1.001	S101	60 minute 5 year Summer I+0%	32.400	31.035	-0.175	0.000	0.11	
1.002	S102	60 minute 5 year Summer I+0%	32.600	30.806	-0.169	0.000	0.14	
2.000	S200	60 minute 5 year Summer I+0%	32.600	31.303	-0.097	0.000	0.27	
2.001	S201	60 minute 5 year Summer I+0%	32.500	30.867	-0.163	0.000	0.17	
1.003	S103	60 minute 5 year Summer I+0%	32.380	30.567	-1.034	0.000	0.00	
3.000	S300	60 minute 5 year Summer I+0%	32.600	31.342	-0.208	0.000	0.20	
4.000	S400	60 minute 5 year Summer I+0%	32.600	31.331	-0.144	0.000	0.28	
3.001	S301	60 minute 5 year Summer I+0%	32.600	30.591	-0.254	0.000	0.23	
1.004	S104	60 minute 5 year Summer I+0%	32.380	30.567	-0.854	0.000	0.01	
5.000	S500	60 minute 5 year Summer I+0%	32.600	31.309	-0.091	0.000	0.33	
5.001	S501	60 minute 5 year Summer I+0%	32.600	30.741	-0.164	0.000	0.17	
6.000	S600	60 minute 5 year Summer I+0%	32.600	31.282	-0.118	0.000	0.11	
6.001	S601	60 minute 5 year Summer I+0%	32.600	31.101	-0.114	0.000	0.13	
6.002	S602	60 minute 5 year Summer I+0%	32.600	30.886	-0.169	0.000	0.14	
5.002	S502	60 minute 5 year Summer I+0%	32.600	30.569	-0.141	0.000	0.31	
5.003	S503	60 minute 5 year Summer I+0%	32.500	30.568	-0.092	0.000	0.24	
7.000	S700	60 minute 5 year Summer I+0%	32.600	31.287	-0.113	0.000	0.14	
7.001	S701	60 minute 5 year Summer I+0%	32.600	31.172	-0.128	0.000	0.05	

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Summary Wizard of 60 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.4	OK
1.001	S101	5.9	OK
1.002	S102	7.4	OK
2.000	S200	5.2	OK
2.001	S201	9.7	OK
1.003	S103	15.6	OK
3.000	S300	22.2	OK
4.000	S400	17.6	OK
3.001	S301	39.7	OK
1.004	S104	27.8	OK
5.000	S500	6.3	OK
5.001	S501	7.9	OK
6.000	S600	2.8	OK
6.001	S601	3.3	OK
6.002	S602	7.6	OK
5.002	S502	18.8	OK
5.003	S503	18.8	OK
7.000	S700	2.4	OK
7.001	S701	2.4	OK

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Summary Wizard of 60 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	60 minute 5 year Summer I+0%	32.550	30.567	0.002	0.000	0.29	
1.005	S105	60 minute 5 year Summer I+0%	32.380	30.566	0.096	0.000	0.05	
8.000	S800	60 minute 5 year Summer I+0%	32.400	31.309	-0.166	0.000	0.15	
1.006	S106	60 minute 5 year Summer I+0%	32.380	30.563	0.403	0.000	0.57	
1.007	FW105	60 minute 5 year Summer I+0%	32.380	30.022	-0.113	0.000	0.14	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	22.2	SURCHARGED
1.005	S105	6.1	SURCHARGED
8.000	S800	10.9	OK
1.006	S106	6.2	SURCHARGED
1.007	FW105	6.2	OK

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Summary Wizard of 120 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	120 minute 5 year Summer I+0%	32.600	31.272	-0.128	0.000	0.05
1.001	S101	120 minute 5 year Summer I+0%	32.400	31.027	-0.183	0.000	0.08
1.002	S102	120 minute 5 year Summer I+0%	32.600	30.797	-0.178	0.000	0.10
2.000	S200	120 minute 5 year Summer I+0%	32.600	31.293	-0.107	0.000	0.18
2.001	S201	120 minute 5 year Summer I+0%	32.500	30.856	-0.174	0.000	0.12
1.003	S103	120 minute 5 year Summer I+0%	32.380	30.595	-1.006	0.000	0.00
3.000	S300	120 minute 5 year Summer I+0%	32.600	31.324	-0.226	0.000	0.14
4.000	S400	120 minute 5 year Summer I+0%	32.600	31.316	-0.159	0.000	0.19
3.001	S301	120 minute 5 year Summer I+0%	32.600	30.597	-0.248	0.000	0.16
1.004	S104	120 minute 5 year Summer I+0%	32.380	30.596	-0.825	0.000	0.00
5.000	S500	120 minute 5 year Summer I+0%	32.600	31.298	-0.102	0.000	0.22
5.001	S501	120 minute 5 year Summer I+0%	32.600	30.730	-0.175	0.000	0.11
6.000	S600	120 minute 5 year Summer I+0%	32.600	31.276	-0.124	0.000	0.07
6.001	S601	120 minute 5 year Summer I+0%	32.600	31.095	-0.120	0.000	0.09
6.002	S602	120 minute 5 year Summer I+0%	32.600	30.877	-0.178	0.000	0.10
5.002	S502	120 minute 5 year Summer I+0%	32.600	30.597	-0.113	0.000	0.21
5.003	S503	120 minute 5 year Summer I+0%	32.500	30.597	-0.063	0.000	0.16
7.000	S700	120 minute 5 year Summer I+0%	32.600	31.281	-0.119	0.000	0.09
7.001	S701	120 minute 5 year Summer I+0%	32.600	31.168	-0.132	0.000	0.04

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Summary Wizard of 120 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.9	OK
1.001	S101		4.1	OK
1.002	S102		5.1	OK
2.000	S200		3.5	OK
2.001	S201		6.7	OK
1.003	S103		10.7	OK
3.000	S300		15.1	OK
4.000	S400		11.8	OK
3.001	S301		26.9	OK
1.004	S104		18.6	OK
5.000	S500		4.2	OK
5.001	S501		5.3	OK
6.000	S600		1.9	OK
6.001	S601		2.2	OK
6.002	S602		5.2	OK
5.002	S502		12.9	OK
5.003	S503		12.7	OK
7.000	S700		1.6	OK
7.001	S701		1.6	OK

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Summary Wizard of 120 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	120 minute 5 year Summer I+0%	32.550	30.596	0.031	0.000	0.20
1.005	S105	120 minute 5 year Summer I+0%	32.380	30.595	0.125	0.000	0.05
8.000	S800	120 minute 5 year Summer I+0%	32.400	31.298	-0.177	0.000	0.10
1.006	S106	120 minute 5 year Summer I+0%	32.380	30.592	0.432	0.000	0.59
1.007	FW105	120 minute 5 year Summer I+0%	32.380	30.023	-0.112	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		15.2	SURCHARGED
1.005	S105		6.3	SURCHARGED
8.000	S800		7.4	OK
1.006	S106		6.4	SURCHARGED
1.007	FW105		6.4	OK

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Summary Wizard of 180 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	180 minute 5 year Summer I+0%	32.600	31.269	-0.131	0.000	0.04
1.001	S101	180 minute 5 year Summer I+0%	32.400	31.021	-0.189	0.000	0.06
1.002	S102	180 minute 5 year Summer I+0%	32.600	30.791	-0.184	0.000	0.08
2.000	S200	180 minute 5 year Summer I+0%	32.600	31.287	-0.113	0.000	0.14
2.001	S201	180 minute 5 year Summer I+0%	32.500	30.851	-0.179	0.000	0.09
1.003	S103	180 minute 5 year Summer I+0%	32.380	30.599	-1.002	0.000	0.00
3.000	S300	180 minute 5 year Summer I+0%	32.600	31.315	-0.235	0.000	0.11
4.000	S400	180 minute 5 year Summer I+0%	32.600	31.307	-0.168	0.000	0.15
3.001	S301	180 minute 5 year Summer I+0%	32.600	30.601	-0.244	0.000	0.12
1.004	S104	180 minute 5 year Summer I+0%	32.380	30.599	-0.822	0.000	0.00
5.000	S500	180 minute 5 year Summer I+0%	32.600	31.292	-0.108	0.000	0.17
5.001	S501	180 minute 5 year Summer I+0%	32.600	30.725	-0.180	0.000	0.09
6.000	S600	180 minute 5 year Summer I+0%	32.600	31.273	-0.127	0.000	0.06
6.001	S601	180 minute 5 year Summer I+0%	32.600	31.090	-0.125	0.000	0.07
6.002	S602	180 minute 5 year Summer I+0%	32.600	30.871	-0.184	0.000	0.08
5.002	S502	180 minute 5 year Summer I+0%	32.600	30.601	-0.109	0.000	0.16
5.003	S503	180 minute 5 year Summer I+0%	32.500	30.601	-0.059	0.000	0.13
7.000	S700	180 minute 5 year Summer I+0%	32.600	31.277	-0.123	0.000	0.07
7.001	S701	180 minute 5 year Summer I+0%	32.600	31.166	-0.134	0.000	0.03

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Summary Wizard of 180 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.7	OK
1.001	S101		3.2	OK
1.002	S102		4.0	OK
2.000	S200		2.7	OK
2.001	S201		5.2	OK
1.003	S103		8.3	OK
3.000	S300		11.7	OK
4.000	S400		9.1	OK
3.001	S301		20.8	OK
1.004	S104		14.7	OK
5.000	S500		3.3	OK
5.001	S501		4.1	OK
6.000	S600		1.4	OK
6.001	S601		1.7	OK
6.002	S602		4.1	OK
5.002	S502		10.0	OK
5.003	S503		9.9	OK
7.000	S700		1.3	OK
7.001	S701		1.3	OK

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Summary Wizard of 180 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	180 minute 5 year Summer I+0%	32.550	30.600	0.035	0.000	0.15
1.005	S105	180 minute 5 year Summer I+0%	32.380	30.599	0.129	0.000	0.05
8.000	S800	180 minute 5 year Summer I+0%	32.400	31.292	-0.183	0.000	0.08
1.006	S106	180 minute 5 year Summer I+0%	32.380	30.596	0.436	0.000	0.59
1.007	FW105	180 minute 5 year Summer I+0%	32.380	30.023	-0.112	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		11.8	SURCHARGED
1.005	S105		6.2	SURCHARGED
8.000	S800		5.7	OK
1.006	S106		6.4	SURCHARGED
1.007	FW105		6.4	OK

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Summary Wizard of 240 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	240 minute 5 year Summer I+0%	32.600	31.268	-0.132	0.000	0.03
1.001	S101	240 minute 5 year Summer I+0%	32.400	31.017	-0.193	0.000	0.05
1.002	S102	240 minute 5 year Summer I+0%	32.600	30.787	-0.188	0.000	0.06
2.000	S200	240 minute 5 year Summer I+0%	32.600	31.284	-0.116	0.000	0.12
2.001	S201	240 minute 5 year Summer I+0%	32.500	30.846	-0.184	0.000	0.08
1.003	S103	240 minute 5 year Summer I+0%	32.380	30.598	-1.003	0.000	0.00
3.000	S300	240 minute 5 year Summer I+0%	32.600	31.310	-0.240	0.000	0.09
4.000	S400	240 minute 5 year Summer I+0%	32.600	31.302	-0.173	0.000	0.12
3.001	S301	240 minute 5 year Summer I+0%	32.600	30.600	-0.245	0.000	0.10
1.004	S104	240 minute 5 year Summer I+0%	32.380	30.598	-0.823	0.000	0.00
5.000	S500	240 minute 5 year Summer I+0%	32.600	31.287	-0.113	0.000	0.14
5.001	S501	240 minute 5 year Summer I+0%	32.600	30.720	-0.185	0.000	0.07
6.000	S600	240 minute 5 year Summer I+0%	32.600	31.270	-0.130	0.000	0.05
6.001	S601	240 minute 5 year Summer I+0%	32.600	31.088	-0.127	0.000	0.06
6.002	S602	240 minute 5 year Summer I+0%	32.600	30.866	-0.189	0.000	0.06
5.002	S502	240 minute 5 year Summer I+0%	32.600	30.600	-0.110	0.000	0.14
5.003	S503	240 minute 5 year Summer I+0%	32.500	30.599	-0.061	0.000	0.11
7.000	S700	240 minute 5 year Summer I+0%	32.600	31.274	-0.126	0.000	0.06
7.001	S701	240 minute 5 year Summer I+0%	32.600	31.165	-0.135	0.000	0.02

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Summary Wizard of 240 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.6	OK
1.001	S101		2.6	OK
1.002	S102		3.3	OK
2.000	S200		2.2	OK
2.001	S201		4.3	OK
1.003	S103		6.9	OK
3.000	S300		9.6	OK
4.000	S400		7.5	OK
3.001	S301		17.1	OK
1.004	S104		12.4	OK
5.000	S500		2.7	OK
5.001	S501		3.4	OK
6.000	S600		1.2	OK
6.001	S601		1.4	OK
6.002	S602		3.4	OK
5.002	S502		8.3	OK
5.003	S503		8.2	OK
7.000	S700		1.0	OK
7.001	S701		1.0	OK

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Summary Wizard of 240 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	240 minute 5 year Summer I+0%	32.550	30.599	0.034	0.000	0.13
1.005	S105	240 minute 5 year Summer I+0%	32.380	30.598	0.128	0.000	0.05
8.000	S800	240 minute 5 year Summer I+0%	32.400	31.287	-0.188	0.000	0.07
1.006	S106	240 minute 5 year Summer I+0%	32.380	30.595	0.435	0.000	0.59
1.007	FW105	240 minute 5 year Summer I+0%	32.380	30.023	-0.112	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		9.8	SURCHARGED
1.005	S105		6.2	SURCHARGED
8.000	S800		4.7	OK
1.006	S106		6.4	SURCHARGED
1.007	FW105		6.4	OK

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Summary Wizard of 360 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	360 minute 5 year Summer I+0%	32.600	31.266	-0.134	0.000	0.02
1.001	S101	360 minute 5 year Summer I+0%	32.400	31.013	-0.197	0.000	0.04
1.002	S102	360 minute 5 year Summer I+0%	32.600	30.782	-0.193	0.000	0.05
2.000	S200	360 minute 5 year Summer I+0%	32.600	31.280	-0.120	0.000	0.09
2.001	S201	360 minute 5 year Summer I+0%	32.500	30.840	-0.190	0.000	0.06
1.003	S103	360 minute 5 year Summer I+0%	32.380	30.588	-1.013	0.000	0.00
3.000	S300	360 minute 5 year Summer I+0%	32.600	31.300	-0.250	0.000	0.07
4.000	S400	360 minute 5 year Summer I+0%	32.600	31.296	-0.179	0.000	0.09
3.001	S301	360 minute 5 year Summer I+0%	32.600	30.590	-0.255	0.000	0.07
1.004	S104	360 minute 5 year Summer I+0%	32.380	30.588	-0.833	0.000	0.00
5.000	S500	360 minute 5 year Summer I+0%	32.600	31.283	-0.117	0.000	0.11
5.001	S501	360 minute 5 year Summer I+0%	32.600	30.714	-0.191	0.000	0.05
6.000	S600	360 minute 5 year Summer I+0%	32.600	31.268	-0.132	0.000	0.03
6.001	S601	360 minute 5 year Summer I+0%	32.600	31.085	-0.130	0.000	0.04
6.002	S602	360 minute 5 year Summer I+0%	32.600	30.861	-0.194	0.000	0.05
5.002	S502	360 minute 5 year Summer I+0%	32.600	30.590	-0.120	0.000	0.10
5.003	S503	360 minute 5 year Summer I+0%	32.500	30.590	-0.070	0.000	0.08
7.000	S700	360 minute 5 year Summer I+0%	32.600	31.270	-0.130	0.000	0.05
7.001	S701	360 minute 5 year Summer I+0%	32.600	31.162	-0.138	0.000	0.02

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Summary Wizard of 360 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	OK
1.001	S101		2.0	OK
1.002	S102		2.5	OK
2.000	S200		1.7	OK
2.001	S201		3.2	OK
1.003	S103		5.5	OK
3.000	S300		7.2	OK
4.000	S400		5.7	OK
3.001	S301		12.9	OK
1.004	S104		10.2	OK
5.000	S500		2.0	OK
5.001	S501		2.6	OK
6.000	S600		0.9	OK
6.001	S601		1.1	OK
6.002	S602		2.6	OK
5.002	S502		6.3	OK
5.003	S503		6.2	OK
7.000	S700		0.8	OK
7.001	S701		0.8	OK

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Summary Wizard of 360 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	360 minute 5 year Summer I+0%	32.550	30.589	0.024	0.000	0.10
1.005	S105	360 minute 5 year Summer I+0%	32.380	30.588	0.118	0.000	0.05
8.000	S800	360 minute 5 year Summer I+0%	32.400	31.282	-0.193	0.000	0.05
1.006	S106	360 minute 5 year Summer I+0%	32.380	30.585	0.425	0.000	0.58
1.007	FW105	360 minute 5 year Summer I+0%	32.380	30.023	-0.112	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		7.4	SURCHARGED
1.005	S105		5.9	SURCHARGED
8.000	S800		3.5	OK
1.006	S106		6.3	SURCHARGED
1.007	FW105		6.3	OK

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Summary Wizard of 480 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	480 minute 5 year Summer I+0%	32.600	31.264	-0.136	0.000	0.02
1.001	S101	480 minute 5 year Summer I+0%	32.400	31.011	-0.199	0.000	0.03
1.002	S102	480 minute 5 year Summer I+0%	32.600	30.779	-0.196	0.000	0.04
2.000	S200	480 minute 5 year Summer I+0%	32.600	31.276	-0.124	0.000	0.07
2.001	S201	480 minute 5 year Summer I+0%	32.500	30.836	-0.194	0.000	0.05
1.003	S103	480 minute 5 year Summer I+0%	32.380	30.576	-1.025	0.000	0.00
3.000	S300	480 minute 5 year Summer I+0%	32.600	31.294	-0.256	0.000	0.05
4.000	S400	480 minute 5 year Summer I+0%	32.600	31.290	-0.185	0.000	0.07
3.001	S301	480 minute 5 year Summer I+0%	32.600	30.577	-0.268	0.000	0.06
1.004	S104	480 minute 5 year Summer I+0%	32.380	30.576	-0.845	0.000	0.00
5.000	S500	480 minute 5 year Summer I+0%	32.600	31.280	-0.120	0.000	0.09
5.001	S501	480 minute 5 year Summer I+0%	32.600	30.710	-0.195	0.000	0.04
6.000	S600	480 minute 5 year Summer I+0%	32.600	31.266	-0.134	0.000	0.03
6.001	S601	480 minute 5 year Summer I+0%	32.600	31.083	-0.132	0.000	0.03
6.002	S602	480 minute 5 year Summer I+0%	32.600	30.858	-0.197	0.000	0.04
5.002	S502	480 minute 5 year Summer I+0%	32.600	30.578	-0.132	0.000	0.08
5.003	S503	480 minute 5 year Summer I+0%	32.500	30.577	-0.083	0.000	0.07
7.000	S700	480 minute 5 year Summer I+0%	32.600	31.269	-0.131	0.000	0.04
7.001	S701	480 minute 5 year Summer I+0%	32.600	31.160	-0.140	0.000	0.01

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Summary Wizard of 480 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	OK
1.001	S101		1.6	OK
1.002	S102		2.0	OK
2.000	S200		1.4	OK
2.001	S201		2.6	OK
1.003	S103		4.8	OK
3.000	S300		5.9	OK
4.000	S400		4.6	OK
3.001	S301		10.5	OK
1.004	S104		8.8	OK
5.000	S500		1.6	OK
5.001	S501		2.1	OK
6.000	S600		0.7	OK
6.001	S601		0.9	OK
6.002	S602		2.1	OK
5.002	S502		5.1	OK
5.003	S503		5.0	OK
7.000	S700		0.6	OK
7.001	S701		0.6	OK

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Summary Wizard of 480 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	480 minute 5 year Summer I+0%	32.550	30.576	0.011	0.000	0.08
1.005	S105	480 minute 5 year Summer I+0%	32.380	30.576	0.106	0.000	0.05
8.000	S800	480 minute 5 year Summer I+0%	32.400	31.279	-0.196	0.000	0.04
1.006	S106	480 minute 5 year Summer I+0%	32.380	30.572	0.412	0.000	0.58
1.007	FW105	480 minute 5 year Summer I+0%	32.380	30.022	-0.113	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		6.1	SURCHARGED
1.005	S105		5.8	SURCHARGED
8.000	S800		2.9	OK
1.006	S106		6.3	SURCHARGED
1.007	FW105		6.3	OK

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Summary Wizard of 600 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	600 minute 5 year Summer I+0%	32.600	31.262	-0.138	0.000	0.02
1.001	S101	600 minute 5 year Summer I+0%	32.400	31.009	-0.201	0.000	0.03
1.002	S102	600 minute 5 year Summer I+0%	32.600	30.777	-0.198	0.000	0.03
2.000	S200	600 minute 5 year Summer I+0%	32.600	31.274	-0.126	0.000	0.06
2.001	S201	600 minute 5 year Summer I+0%	32.500	30.834	-0.196	0.000	0.04
1.003	S103	600 minute 5 year Summer I+0%	32.380	30.563	-1.038	0.000	0.00
3.000	S300	600 minute 5 year Summer I+0%	32.600	31.291	-0.259	0.000	0.05
4.000	S400	600 minute 5 year Summer I+0%	32.600	31.286	-0.189	0.000	0.06
3.001	S301	600 minute 5 year Summer I+0%	32.600	30.564	-0.281	0.000	0.05
1.004	S104	600 minute 5 year Summer I+0%	32.380	30.563	-0.858	0.000	0.00
5.000	S500	600 minute 5 year Summer I+0%	32.600	31.277	-0.123	0.000	0.07
5.001	S501	600 minute 5 year Summer I+0%	32.600	30.708	-0.197	0.000	0.04
6.000	S600	600 minute 5 year Summer I+0%	32.600	31.266	-0.134	0.000	0.02
6.001	S601	600 minute 5 year Summer I+0%	32.600	31.082	-0.133	0.000	0.03
6.002	S602	600 minute 5 year Summer I+0%	32.600	30.856	-0.199	0.000	0.03
5.002	S502	600 minute 5 year Summer I+0%	32.600	30.566	-0.144	0.000	0.07
5.003	S503	600 minute 5 year Summer I+0%	32.500	30.566	-0.094	0.000	0.06
7.000	S700	600 minute 5 year Summer I+0%	32.600	31.267	-0.133	0.000	0.03
7.001	S701	600 minute 5 year Summer I+0%	32.600	31.158	-0.142	0.000	0.01

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Summary Wizard of 600 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.4	OK
1.002	S102		1.7	OK
2.000	S200		1.2	OK
2.001	S201		2.2	OK
1.003	S103		4.2	OK
3.000	S300		5.0	OK
4.000	S400		3.9	OK
3.001	S301		8.9	OK
1.004	S104		8.0	OK
5.000	S500		1.4	OK
5.001	S501		1.8	OK
6.000	S600		0.6	OK
6.001	S601		0.7	OK
6.002	S602		1.8	OK
5.002	S502		4.4	OK
5.003	S503		4.3	OK
7.000	S700		0.5	OK
7.001	S701		0.5	OK

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Summary Wizard of 600 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	600 minute 5 year Summer I+0%	32.550	30.565	0.000	0.000	0.07
1.005	S105	600 minute 5 year Summer I+0%	32.380	30.563	0.093	0.000	0.05
8.000	S800	600 minute 5 year Summer I+0%	32.400	31.277	-0.198	0.000	0.03
1.006	S106	600 minute 5 year Summer I+0%	32.380	30.560	0.400	0.000	0.57
1.007	FW105	600 minute 5 year Summer I+0%	32.380	30.022	-0.113	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		5.2	OK
1.005	S105		5.7	SURCHARGED
8.000	S800		2.4	OK
1.006	S106		6.2	SURCHARGED
1.007	FW105		6.2	OK

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Summary Wizard of 720 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	720 minute 5 year Summer I+0%	32.600	31.260	-0.140	0.000	0.01
1.001	S101	720 minute 5 year Summer I+0%	32.400	31.008	-0.202	0.000	0.02
1.002	S102	720 minute 5 year Summer I+0%	32.600	30.775	-0.200	0.000	0.03
2.000	S200	720 minute 5 year Summer I+0%	32.600	31.272	-0.128	0.000	0.05
2.001	S201	720 minute 5 year Summer I+0%	32.500	30.832	-0.198	0.000	0.03
1.003	S103	720 minute 5 year Summer I+0%	32.380	30.550	-1.051	0.000	0.00
3.000	S300	720 minute 5 year Summer I+0%	32.600	31.288	-0.262	0.000	0.04
4.000	S400	720 minute 5 year Summer I+0%	32.600	31.284	-0.191	0.000	0.05
3.001	S301	720 minute 5 year Summer I+0%	32.600	30.551	-0.294	0.000	0.05
1.004	S104	720 minute 5 year Summer I+0%	32.380	30.550	-0.871	0.000	0.00
5.000	S500	720 minute 5 year Summer I+0%	32.600	31.275	-0.125	0.000	0.06
5.001	S501	720 minute 5 year Summer I+0%	32.600	30.706	-0.199	0.000	0.03
6.000	S600	720 minute 5 year Summer I+0%	32.600	31.265	-0.135	0.000	0.02
6.001	S601	720 minute 5 year Summer I+0%	32.600	31.081	-0.134	0.000	0.03
6.002	S602	720 minute 5 year Summer I+0%	32.600	30.855	-0.200	0.000	0.03
5.002	S502	720 minute 5 year Summer I+0%	32.600	30.552	-0.158	0.000	0.06
5.003	S503	720 minute 5 year Summer I+0%	32.500	30.551	-0.109	0.000	0.05
7.000	S700	720 minute 5 year Summer I+0%	32.600	31.266	-0.134	0.000	0.03
7.001	S701	720 minute 5 year Summer I+0%	32.600	31.157	-0.143	0.000	0.01

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Summary Wizard of 720 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.2	OK
1.002	S102		1.5	OK
2.000	S200		1.0	OK
2.001	S201		2.0	OK
1.003	S103		3.9	OK
3.000	S300		4.4	OK
4.000	S400		3.4	OK
3.001	S301		7.8	OK
1.004	S104		7.3	OK
5.000	S500		1.2	OK
5.001	S501		1.6	OK
6.000	S600		0.5	OK
6.001	S601		0.6	OK
6.002	S602		1.6	OK
5.002	S502		3.8	OK
5.003	S503		3.8	OK
7.000	S700		0.5	OK
7.001	S701		0.5	OK

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Summary Wizard of 720 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	720 minute 5 year Summer I+0%	32.550	30.551	-0.014	0.000	0.06
1.005	S105	720 minute 5 year Summer I+0%	32.380	30.550	0.080	0.000	0.05
8.000	S800	720 minute 5 year Summer I+0%	32.400	31.275	-0.200	0.000	0.03
1.006	S106	720 minute 5 year Summer I+0%	32.380	30.547	0.387	0.000	0.56
1.007	FW105	720 minute 5 year Summer I+0%	32.380	30.022	-0.113	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		4.5	OK
1.005	S105		5.6	SURCHARGED
8.000	S800		2.1	OK
1.006	S106		6.1	SURCHARGED
1.007	FW105		6.1	OK

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Summary Wizard of 960 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	960 minute 5 year Summer I+0%	32.600	31.258	-0.142	0.000	0.01
1.001	S101	960 minute 5 year Summer I+0%	32.400	31.005	-0.205	0.000	0.02
1.002	S102	960 minute 5 year Summer I+0%	32.600	30.773	-0.202	0.000	0.02
2.000	S200	960 minute 5 year Summer I+0%	32.600	31.270	-0.130	0.000	0.04
2.001	S201	960 minute 5 year Summer I+0%	32.500	30.830	-0.200	0.000	0.03
1.003	S103	960 minute 5 year Summer I+0%	32.380	30.525	-1.076	0.000	0.00
3.000	S300	960 minute 5 year Summer I+0%	32.600	31.285	-0.265	0.000	0.03
4.000	S400	960 minute 5 year Summer I+0%	32.600	31.280	-0.195	0.000	0.04
3.001	S301	960 minute 5 year Summer I+0%	32.600	30.529	-0.316	0.000	0.04
1.004	S104	960 minute 5 year Summer I+0%	32.380	30.525	-0.896	0.000	0.00
5.000	S500	960 minute 5 year Summer I+0%	32.600	31.272	-0.128	0.000	0.05
5.001	S501	960 minute 5 year Summer I+0%	32.600	30.704	-0.201	0.000	0.03
6.000	S600	960 minute 5 year Summer I+0%	32.600	31.262	-0.138	0.000	0.02
6.001	S601	960 minute 5 year Summer I+0%	32.600	31.080	-0.135	0.000	0.02
6.002	S602	960 minute 5 year Summer I+0%	32.600	30.853	-0.202	0.000	0.02
5.002	S502	960 minute 5 year Summer I+0%	32.600	30.526	-0.184	0.000	0.05
5.003	S503	960 minute 5 year Summer I+0%	32.500	30.526	-0.134	0.000	0.04
7.000	S700	960 minute 5 year Summer I+0%	32.600	31.265	-0.135	0.000	0.02
7.001	S701	960 minute 5 year Summer I+0%	32.600	31.156	-0.144	0.000	0.01

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Summary Wizard of 960 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		1.0	OK
1.002	S102		1.2	OK
2.000	S200		0.8	OK
2.001	S201		1.6	OK
1.003	S103		3.4	OK
3.000	S300		3.5	OK
4.000	S400		2.8	OK
3.001	S301		6.3	OK
1.004	S104		6.4	OK
5.000	S500		1.0	OK
5.001	S501		1.3	OK
6.000	S600		0.4	OK
6.001	S601		0.5	OK
6.002	S602		1.3	OK
5.002	S502		3.1	OK
5.003	S503		3.1	OK
7.000	S700		0.4	OK
7.001	S701		0.4	OK

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Summary Wizard of 960 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	960 minute 5 year Summer I+0%	32.550	30.525	-0.040	0.000	0.05
1.005	S105	960 minute 5 year Summer I+0%	32.380	30.524	0.054	0.000	0.05
8.000	S800	960 minute 5 year Summer I+0%	32.400	31.274	-0.201	0.000	0.02
1.006	S106	960 minute 5 year Summer I+0%	32.380	30.521	0.361	0.000	0.55
1.007	FW105	960 minute 5 year Summer I+0%	32.380	30.021	-0.114	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		3.7	OK
1.005	S105		5.5	SURCHARGED
8.000	S800		1.7	OK
1.006	S106		6.0	SURCHARGED
1.007	FW105		6.0	OK

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Summary Wizard of 1440 minute 5 year Summer I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	1440 minute 5 year Summer I+0%	32.600	31.256	-0.144	0.000	0.01
1.001	S101	1440 minute 5 year Summer I+0%	32.400	31.000	-0.210	0.000	0.01
1.002	S102	1440 minute 5 year Summer I+0%	32.600	30.769	-0.206	0.000	0.02
2.000	S200	1440 minute 5 year Summer I+0%	32.600	31.267	-0.133	0.000	0.03
2.001	S201	1440 minute 5 year Summer I+0%	32.500	30.827	-0.203	0.000	0.02
1.003	S103	1440 minute 5 year Summer I+0%	32.380	30.476	-1.125	0.000	0.00
3.000	S300	1440 minute 5 year Summer I+0%	32.600	31.281	-0.269	0.000	0.02
4.000	S400	1440 minute 5 year Summer I+0%	32.600	31.276	-0.199	0.000	0.03
3.001	S301	1440 minute 5 year Summer I+0%	32.600	30.511	-0.334	0.000	0.03
1.004	S104	1440 minute 5 year Summer I+0%	32.380	30.476	-0.945	0.000	0.00
5.000	S500	1440 minute 5 year Summer I+0%	32.600	31.269	-0.131	0.000	0.04
5.001	S501	1440 minute 5 year Summer I+0%	32.600	30.701	-0.204	0.000	0.02
6.000	S600	1440 minute 5 year Summer I+0%	32.600	31.259	-0.141	0.000	0.01
6.001	S601	1440 minute 5 year Summer I+0%	32.600	31.076	-0.139	0.000	0.02
6.002	S602	1440 minute 5 year Summer I+0%	32.600	30.848	-0.207	0.000	0.02
5.002	S502	1440 minute 5 year Summer I+0%	32.600	30.478	-0.232	0.000	0.04
5.003	S503	1440 minute 5 year Summer I+0%	32.500	30.477	-0.183	0.000	0.03
7.000	S700	1440 minute 5 year Summer I+0%	32.600	31.262	-0.138	0.000	0.02
7.001	S701	1440 minute 5 year Summer I+0%	32.600	31.154	-0.146	0.000	0.01

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Summary Wizard of 1440 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.7	OK
1.002	S102		0.9	OK
2.000	S200		0.6	OK
2.001	S201		1.2	OK
1.003	S103		2.8	OK
3.000	S300		2.6	OK
4.000	S400		2.1	OK
3.001	S301		4.7	OK
1.004	S104		5.4	OK
5.000	S500		0.7	OK
5.001	S501		0.9	OK
6.000	S600		0.3	OK
6.001	S601		0.4	OK
6.002	S602		0.9	OK
5.002	S502		2.3	OK
5.003	S503		2.3	OK
7.000	S700		0.3	OK
7.001	S701		0.3	OK

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Summary Wizard of 1440 minute 5 year Summer I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	1440 minute 5 year Summer I+0%	32.550	30.477	-0.088	0.000	0.04
1.005	S105	1440 minute 5 year Summer I+0%	32.380	30.476	0.006	0.000	0.05
8.000	S800	1440 minute 5 year Summer I+0%	32.400	31.269	-0.206	0.000	0.02
1.006	S106	1440 minute 5 year Summer I+0%	32.380	30.473	0.313	0.000	0.53
1.007	FW105	1440 minute 5 year Summer I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.8	OK
1.005	S105		5.6	SURCHARGED
8.000	S800		1.3	OK
1.006	S106		5.7	SURCHARGED
1.007	FW105		5.7	OK

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Summary Wizard of 15 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	15 minute 30 year Summer I+40%	32.600	31.299	-0.101	0.000	0.23
1.001	S101	15 minute 30 year Summer I+40%	32.400	31.083	-0.127	0.000	0.40
1.002	S102	15 minute 30 year Summer I+40%	32.600	30.863	-0.112	0.000	0.50
2.000	S200	15 minute 30 year Summer I+40%	32.600	31.355	-0.045	0.000	0.81
2.001	S201	15 minute 30 year Summer I+40%	32.500	30.927	-0.103	0.000	0.56
1.003	S103	15 minute 30 year Summer I+40%	32.380	30.701	-0.900	0.000	0.02
3.000	S300	15 minute 30 year Summer I+40%	32.600	31.422	-0.128	0.000	0.60
4.000	S400	15 minute 30 year Summer I+40%	32.600	31.411	-0.064	0.000	0.84
3.001	S301	15 minute 30 year Summer I+40%	32.600	30.703	-0.142	0.000	0.69
1.004	S104	15 minute 30 year Summer I+40%	32.380	30.702	-0.719	0.000	0.02
5.000	S500	15 minute 30 year Summer I+40%	32.600	31.381	-0.019	0.000	0.99
5.001	S501	15 minute 30 year Summer I+40%	32.600	30.843	-0.062	0.000	0.50
6.000	S600	15 minute 30 year Summer I+40%	32.600	31.309	-0.091	0.000	0.32
6.001	S601	15 minute 30 year Summer I+40%	32.600	31.132	-0.083	0.000	0.40
6.002	S602	15 minute 30 year Summer I+40%	32.600	30.940	-0.115	0.000	0.48
5.002	S502	15 minute 30 year Summer I+40%	32.600	30.823	0.113	0.000	0.99
5.003	S503	15 minute 30 year Summer I+40%	32.500	30.782	0.122	0.000	0.77
7.000	S700	15 minute 30 year Summer I+40%	32.600	31.319	-0.081	0.000	0.43
7.001	S701	15 minute 30 year Summer I+40%	32.600	31.190	-0.110	0.000	0.16

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Summary Wizard of 15 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		4.2	OK
1.001	S101		20.7	OK
1.002	S102		25.9	OK
2.000	S200		15.5	OK
2.001	S201		31.7	OK
1.003	S103		65.0	OK
3.000	S300		66.2	OK
4.000	S400		52.3	OK
3.001	S301		119.0	OK
1.004	S104		90.7	OK
5.000	S500		18.6	OK
5.001	S501		23.7	OK
6.000	S600		8.4	OK
6.001	S601		10.1	OK
6.002	S602		25.8	OK
5.002	S502		60.5	SURCHARGED
5.003	S503		59.3	SURCHARGED
7.000	S700		7.4	OK
7.001	S701		7.3	OK

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Summary Wizard of 15 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	15 minute 30 year Summer I+40%	32.550	30.729	0.164	0.000	0.93
1.005	S105	15 minute 30 year Summer I+40%	32.380	30.701	0.231	0.000	0.06
8.000	S800	15 minute 30 year Summer I+40%	32.400	31.358	-0.117	0.000	0.46
1.006	S106	15 minute 30 year Summer I+40%	32.380	30.698	0.538	0.000	0.63
1.007	FW105	15 minute 30 year Summer I+40%	32.380	30.024	-0.111	0.000	0.16

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		71.7	SURCHARGED
1.005	S105		6.8	SURCHARGED
8.000	S800		32.5	OK
1.006	S106		6.9	SURCHARGED
1.007	FW105		6.9	OK

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Summary Wizard of 30 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	30 minute 30 year Summer I+40%	32.600	31.296	-0.104	0.000	0.21
1.001	S101	30 minute 30 year Summer I+40%	32.400	31.077	-0.133	0.000	0.35
1.002	S102	30 minute 30 year Summer I+40%	32.600	30.856	-0.119	0.000	0.44
2.000	S200	30 minute 30 year Summer I+40%	32.600	31.348	-0.052	0.000	0.75
2.001	S201	30 minute 30 year Summer I+40%	32.500	30.919	-0.111	0.000	0.50
1.003	S103	30 minute 30 year Summer I+40%	32.380	30.838	-0.763	0.000	0.01
3.000	S300	30 minute 30 year Summer I+40%	32.600	31.412	-0.138	0.000	0.56
4.000	S400	30 minute 30 year Summer I+40%	32.600	31.400	-0.075	0.000	0.78
3.001	S301	30 minute 30 year Summer I+40%	32.600	30.845	0.000	0.000	0.63
1.004	S104	30 minute 30 year Summer I+40%	32.380	30.838	-0.583	0.000	0.01
5.000	S500	30 minute 30 year Summer I+40%	32.600	31.363	-0.037	0.000	0.91
5.001	S501	30 minute 30 year Summer I+40%	32.600	30.967	0.062	0.000	0.44
6.000	S600	30 minute 30 year Summer I+40%	32.600	31.305	-0.095	0.000	0.29
6.001	S601	30 minute 30 year Summer I+40%	32.600	31.128	-0.087	0.000	0.37
6.002	S602	30 minute 30 year Summer I+40%	32.600	30.972	-0.083	0.000	0.42
5.002	S502	30 minute 30 year Summer I+40%	32.600	30.948	0.238	0.000	0.85
5.003	S503	30 minute 30 year Summer I+40%	32.500	30.880	0.220	0.000	0.63
7.000	S700	30 minute 30 year Summer I+40%	32.600	31.315	-0.085	0.000	0.39
7.001	S701	30 minute 30 year Summer I+40%	32.600	31.188	-0.112	0.000	0.15

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Summary Wizard of 30 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		3.9	OK
1.001	S101		18.1	OK
1.002	S102		22.5	OK
2.000	S200		14.4	OK
2.001	S201		28.3	OK
1.003	S103		36.4	OK
3.000	S300		61.1	OK
4.000	S400		48.6	OK
3.001	S301		109.0	OK
1.004	S104		59.8	OK
5.000	S500		17.1	OK
5.001	S501		20.8	SURCHARGED
6.000	S600		7.7	OK
6.001	S601		9.2	OK
6.002	S602		22.7	OK
5.002	S502		51.9	SURCHARGED
5.003	S503		48.6	SURCHARGED
7.000	S700		6.8	OK
7.001	S701		6.8	OK

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Summary Wizard of 30 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	30 minute 30 year Summer I+40%	32.550	30.838	0.273	0.000	0.74
1.005	S105	30 minute 30 year Summer I+40%	32.380	30.837	0.367	0.000	0.06
8.000	S800	30 minute 30 year Summer I+40%	32.400	31.352	-0.123	0.000	0.42
1.006	S106	30 minute 30 year Summer I+40%	32.380	30.834	0.674	0.000	0.69
1.007	FW105	30 minute 30 year Summer I+40%	32.380	30.026	-0.109	0.000	0.17

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		57.0	SURCHARGED
1.005	S105		7.4	SURCHARGED
8.000	S800		30.3	OK
1.006	S106		7.5	SURCHARGED
1.007	FW105		7.5	OK

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Summary Wizard of 60 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	60 minute 30 year Summer I+40%	32.600	31.290	-0.110	0.000	0.16
1.001	S101	60 minute 30 year Summer I+40%	32.400	31.062	-0.148	0.000	0.26
1.002	S102	60 minute 30 year Summer I+40%	32.600	30.971	-0.004	0.000	0.32
2.000	S200	60 minute 30 year Summer I+40%	32.600	31.331	-0.069	0.000	0.57
2.001	S201	60 minute 30 year Summer I+40%	32.500	30.972	-0.058	0.000	0.38
1.003	S103	60 minute 30 year Summer I+40%	32.380	30.970	-0.631	0.000	0.01
3.000	S300	60 minute 30 year Summer I+40%	32.600	31.387	-0.163	0.000	0.43
4.000	S400	60 minute 30 year Summer I+40%	32.600	31.375	-0.100	0.000	0.59
3.001	S301	60 minute 30 year Summer I+40%	32.600	30.972	0.127	0.000	0.47
1.004	S104	60 minute 30 year Summer I+40%	32.380	30.970	-0.451	0.000	0.01
5.000	S500	60 minute 30 year Summer I+40%	32.600	31.343	-0.057	0.000	0.69
5.001	S501	60 minute 30 year Summer I+40%	32.600	31.036	0.131	0.000	0.32
6.000	S600	60 minute 30 year Summer I+40%	32.600	31.298	-0.102	0.000	0.22
6.001	S601	60 minute 30 year Summer I+40%	32.600	31.119	-0.096	0.000	0.28
6.002	S602	60 minute 30 year Summer I+40%	32.600	31.040	-0.015	0.000	0.31
5.002	S502	60 minute 30 year Summer I+40%	32.600	31.016	0.306	0.000	0.61
5.003	S503	60 minute 30 year Summer I+40%	32.500	30.971	0.311	0.000	0.48
7.000	S700	60 minute 30 year Summer I+40%	32.600	31.306	-0.094	0.000	0.30
7.001	S701	60 minute 30 year Summer I+40%	32.600	31.183	-0.117	0.000	0.11

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Summary Wizard of 60 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		2.9	OK
1.001	S101		13.4	OK
1.002	S102		16.7	OK
2.000	S200		10.9	OK
2.001	S201		21.3	OK
1.003	S103		19.5	OK
3.000	S300		46.6	OK
4.000	S400		36.8	OK
3.001	S301		82.0	SURCHARGED
1.004	S104		45.6	OK
5.000	S500		13.1	OK
5.001	S501		15.3	SURCHARGED
6.000	S600		5.8	OK
6.001	S601		7.0	OK
6.002	S602		16.9	OK
5.002	S502		37.6	SURCHARGED
5.003	S503		37.0	SURCHARGED
7.000	S700		5.1	OK
7.001	S701		5.1	OK

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Summary Wizard of 60 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	60 minute 30 year Summer I+40%	32.550	30.970	0.405	0.000	0.59
1.005	S105	60 minute 30 year Summer I+40%	32.380	30.969	0.499	0.000	0.07
8.000	S800	60 minute 30 year Summer I+40%	32.400	31.338	-0.137	0.000	0.32
1.006	S106	60 minute 30 year Summer I+40%	32.380	30.965	0.805	0.000	0.74
1.007	FW105	60 minute 30 year Summer I+40%	32.380	30.028	-0.107	0.000	0.18

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		45.6	SURCHARGED
1.005	S105		7.9	SURCHARGED
8.000	S800		23.0	OK
1.006	S106		8.0	SURCHARGED
1.007	FW105		8.0	OK

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Summary Wizard of 120 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	120 minute 30 year Summer I+40%	32.600	31.283	-0.117	0.000	0.11
1.001	S101	120 minute 30 year Summer I+40%	32.400	31.083	-0.127	0.000	0.17
1.002	S102	120 minute 30 year Summer I+40%	32.600	31.081	0.106	0.000	0.22
2.000	S200	120 minute 30 year Summer I+40%	32.600	31.315	-0.085	0.000	0.39
2.001	S201	120 minute 30 year Summer I+40%	32.500	31.082	0.052	0.000	0.25
1.003	S103	120 minute 30 year Summer I+40%	32.380	31.080	-0.521	0.000	0.00
3.000	S300	120 minute 30 year Summer I+40%	32.600	31.360	-0.190	0.000	0.29
4.000	S400	120 minute 30 year Summer I+40%	32.600	31.348	-0.127	0.000	0.40
3.001	S301	120 minute 30 year Summer I+40%	32.600	31.082	0.237	0.000	0.30
1.004	S104	120 minute 30 year Summer I+40%	32.380	31.080	-0.341	0.000	0.01
5.000	S500	120 minute 30 year Summer I+40%	32.600	31.322	-0.078	0.000	0.47
5.001	S501	120 minute 30 year Summer I+40%	32.600	31.084	0.179	0.000	0.21
6.000	S600	120 minute 30 year Summer I+40%	32.600	31.289	-0.111	0.000	0.15
6.001	S601	120 minute 30 year Summer I+40%	32.600	31.109	-0.106	0.000	0.19
6.002	S602	120 minute 30 year Summer I+40%	32.600	31.084	0.029	0.000	0.21
5.002	S502	120 minute 30 year Summer I+40%	32.600	31.082	0.372	0.000	0.37
5.003	S503	120 minute 30 year Summer I+40%	32.500	31.081	0.421	0.000	0.29
7.000	S700	120 minute 30 year Summer I+40%	32.600	31.295	-0.105	0.000	0.20
7.001	S701	120 minute 30 year Summer I+40%	32.600	31.177	-0.123	0.000	0.07

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Summary Wizard of 120 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		2.0	OK
1.001	S101		9.0	OK
1.002	S102		11.2	SURCHARGED
2.000	S200		7.4	OK
2.001	S201		14.3	SURCHARGED
1.003	S103		11.4	OK
3.000	S300		31.6	OK
4.000	S400		24.9	OK
3.001	S301		52.4	SURCHARGED
1.004	S104		28.8	OK
5.000	S500		8.8	OK
5.001	S501		10.0	SURCHARGED
6.000	S600		3.9	OK
6.001	S601		4.7	OK
6.002	S602		11.4	SURCHARGED
5.002	S502		22.6	SURCHARGED
5.003	S503		22.0	SURCHARGED
7.000	S700		3.4	OK
7.001	S701		3.4	OK

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Summary Wizard of 120 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	120 minute 30 year Summer I+40%	32.550	31.080	0.515	0.000	0.36
1.005	S105	120 minute 30 year Summer I+40%	32.380	31.079	0.609	0.000	0.07
8.000	S800	120 minute 30 year Summer I+40%	32.400	31.321	-0.154	0.000	0.22
1.006	S106	120 minute 30 year Summer I+40%	32.380	31.075	0.915	0.000	0.78
1.007	FW105	120 minute 30 year Summer I+40%	32.380	30.029	-0.106	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		28.1	SURCHARGED
1.005	S105		8.3	SURCHARGED
8.000	S800		15.5	OK
1.006	S106		8.5	SURCHARGED
1.007	FW105		8.5	OK

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Summary Wizard of 180 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	180 minute 30 year Summer I+40%	32.600	31.279	-0.121	0.000	0.08
1.001	S101	180 minute 30 year Summer I+40%	32.400	31.122	-0.088	0.000	0.13
1.002	S102	180 minute 30 year Summer I+40%	32.600	31.121	0.146	0.000	0.17
2.000	S200	180 minute 30 year Summer I+40%	32.600	31.306	-0.094	0.000	0.30
2.001	S201	180 minute 30 year Summer I+40%	32.500	31.121	0.091	0.000	0.19
1.003	S103	180 minute 30 year Summer I+40%	32.380	31.120	-0.481	0.000	0.00
3.000	S300	180 minute 30 year Summer I+40%	32.600	31.346	-0.204	0.000	0.22
4.000	S400	180 minute 30 year Summer I+40%	32.600	31.335	-0.140	0.000	0.31
3.001	S301	180 minute 30 year Summer I+40%	32.600	31.122	0.277	0.000	0.23
1.004	S104	180 minute 30 year Summer I+40%	32.380	31.119	-0.302	0.000	0.00
5.000	S500	180 minute 30 year Summer I+40%	32.600	31.312	-0.088	0.000	0.36
5.001	S501	180 minute 30 year Summer I+40%	32.600	31.122	0.217	0.000	0.17
6.000	S600	180 minute 30 year Summer I+40%	32.600	31.284	-0.116	0.000	0.12
6.001	S601	180 minute 30 year Summer I+40%	32.600	31.123	-0.092	0.000	0.14
6.002	S602	180 minute 30 year Summer I+40%	32.600	31.123	0.068	0.000	0.16
5.002	S502	180 minute 30 year Summer I+40%	32.600	31.121	0.411	0.000	0.30
5.003	S503	180 minute 30 year Summer I+40%	32.500	31.120	0.460	0.000	0.23
7.000	S700	180 minute 30 year Summer I+40%	32.600	31.289	-0.111	0.000	0.15
7.001	S701	180 minute 30 year Summer I+40%	32.600	31.173	-0.127	0.000	0.06

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Summary Wizard of 180 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		1.5	OK
1.001	S101		6.9	OK
1.002	S102		8.6	SURCHARGED
2.000	S200		5.7	OK
2.001	S201		11.0	SURCHARGED
1.003	S103		9.1	OK
3.000	S300		24.4	OK
4.000	S400		19.2	OK
3.001	S301		39.5	SURCHARGED
1.004	S104		22.6	OK
5.000	S500		6.8	OK
5.001	S501		8.2	SURCHARGED
6.000	S600		3.0	OK
6.001	S601		3.6	OK
6.002	S602		8.8	SURCHARGED
5.002	S502		18.5	SURCHARGED
5.003	S503		18.1	SURCHARGED
7.000	S700		2.7	OK
7.001	S701		2.7	OK

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Summary Wizard of 180 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	180 minute 30 year Summer I+40%	32.550	31.119	0.554	0.000	0.29
1.005	S105	180 minute 30 year Summer I+40%	32.380	31.118	0.648	0.000	0.07
8.000	S800	180 minute 30 year Summer I+40%	32.400	31.311	-0.164	0.000	0.17
1.006	S106	180 minute 30 year Summer I+40%	32.380	31.114	0.954	0.000	0.79
1.007	FW105	180 minute 30 year Summer I+40%	32.380	30.030	-0.105	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		22.6	SURCHARGED
1.005	S105		8.5	SURCHARGED
8.000	S800		11.9	OK
1.006	S106		8.6	SURCHARGED
1.007	FW105		8.6	OK

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Summary Wizard of 240 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	240 minute 30 year Summer I+40%	32.600	31.275	-0.125	0.000	0.07
1.001	S101	240 minute 30 year Summer I+40%	32.400	31.131	-0.079	0.000	0.11
1.002	S102	240 minute 30 year Summer I+40%	32.600	31.130	0.155	0.000	0.14
2.000	S200	240 minute 30 year Summer I+40%	32.600	31.300	-0.100	0.000	0.24
2.001	S201	240 minute 30 year Summer I+40%	32.500	31.131	0.101	0.000	0.16
1.003	S103	240 minute 30 year Summer I+40%	32.380	31.129	-0.472	0.000	0.00
3.000	S300	240 minute 30 year Summer I+40%	32.600	31.336	-0.214	0.000	0.18
4.000	S400	240 minute 30 year Summer I+40%	32.600	31.326	-0.149	0.000	0.25
3.001	S301	240 minute 30 year Summer I+40%	32.600	31.131	0.286	0.000	0.19
1.004	S104	240 minute 30 year Summer I+40%	32.380	31.129	-0.292	0.000	0.00
5.000	S500	240 minute 30 year Summer I+40%	32.600	31.306	-0.094	0.000	0.30
5.001	S501	240 minute 30 year Summer I+40%	32.600	31.132	0.227	0.000	0.15
6.000	S600	240 minute 30 year Summer I+40%	32.600	31.281	-0.119	0.000	0.10
6.001	S601	240 minute 30 year Summer I+40%	32.600	31.132	-0.083	0.000	0.12
6.002	S602	240 minute 30 year Summer I+40%	32.600	31.132	0.077	0.000	0.13
5.002	S502	240 minute 30 year Summer I+40%	32.600	31.130	0.420	0.000	0.26
5.003	S503	240 minute 30 year Summer I+40%	32.500	31.130	0.470	0.000	0.20
7.000	S700	240 minute 30 year Summer I+40%	32.600	31.285	-0.115	0.000	0.13
7.001	S701	240 minute 30 year Summer I+40%	32.600	31.171	-0.129	0.000	0.05

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Summary Wizard of 240 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		1.2	OK
1.001	S101		5.6	OK
1.002	S102		7.0	SURCHARGED
2.000	S200		4.7	OK
2.001	S201		9.0	SURCHARGED
1.003	S103		7.4	OK
3.000	S300		20.0	OK
4.000	S400		15.7	OK
3.001	S301		32.4	SURCHARGED
1.004	S104		18.2	OK
5.000	S500		5.6	OK
5.001	S501		6.9	SURCHARGED
6.000	S600		2.5	OK
6.001	S601		3.0	OK
6.002	S602		7.2	SURCHARGED
5.002	S502		15.9	SURCHARGED
5.003	S503		15.6	SURCHARGED
7.000	S700		2.2	OK
7.001	S701		2.2	OK

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Summary Wizard of 240 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	240 minute 30 year Summer I+40%	32.550	31.129	0.564	0.000	0.26
1.005	S105	240 minute 30 year Summer I+40%	32.380	31.127	0.657	0.000	0.07
8.000	S800	240 minute 30 year Summer I+40%	32.400	31.305	-0.170	0.000	0.14
1.006	S106	240 minute 30 year Summer I+40%	32.380	31.123	0.963	0.000	0.80
1.007	FW105	240 minute 30 year Summer I+40%	32.380	30.030	-0.105	0.000	0.20

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		19.7	SURCHARGED
1.005	S105		8.5	SURCHARGED
8.000	S800		9.8	OK
1.006	S106		8.6	SURCHARGED
1.007	FW105		8.6	OK

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Summary Wizard of 360 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	360 minute 30 year Summer I+40%	32.600	31.272	-0.128	0.000	0.05
1.001	S101	360 minute 30 year Summer I+40%	32.400	31.128	-0.082	0.000	0.08
1.002	S102	360 minute 30 year Summer I+40%	32.600	31.127	0.152	0.000	0.10
2.000	S200	360 minute 30 year Summer I+40%	32.600	31.293	-0.107	0.000	0.18
2.001	S201	360 minute 30 year Summer I+40%	32.500	31.127	0.097	0.000	0.12
1.003	S103	360 minute 30 year Summer I+40%	32.380	31.125	-0.476	0.000	0.00
3.000	S300	360 minute 30 year Summer I+40%	32.600	31.323	-0.227	0.000	0.14
4.000	S400	360 minute 30 year Summer I+40%	32.600	31.316	-0.159	0.000	0.19
3.001	S301	360 minute 30 year Summer I+40%	32.600	31.127	0.282	0.000	0.14
1.004	S104	360 minute 30 year Summer I+40%	32.380	31.125	-0.296	0.000	0.00
5.000	S500	360 minute 30 year Summer I+40%	32.600	31.298	-0.102	0.000	0.22
5.001	S501	360 minute 30 year Summer I+40%	32.600	31.128	0.223	0.000	0.11
6.000	S600	360 minute 30 year Summer I+40%	32.600	31.276	-0.124	0.000	0.07
6.001	S601	360 minute 30 year Summer I+40%	32.600	31.129	-0.086	0.000	0.09
6.002	S602	360 minute 30 year Summer I+40%	32.600	31.128	0.073	0.000	0.10
5.002	S502	360 minute 30 year Summer I+40%	32.600	31.127	0.417	0.000	0.20
5.003	S503	360 minute 30 year Summer I+40%	32.500	31.126	0.466	0.000	0.15
7.000	S700	360 minute 30 year Summer I+40%	32.600	31.281	-0.119	0.000	0.09
7.001	S701	360 minute 30 year Summer I+40%	32.600	31.168	-0.132	0.000	0.04

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Summary Wizard of 360 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.9	OK
1.001	S101		4.2	OK
1.002	S102		5.2	SURCHARGED
2.000	S200		3.5	OK
2.001	S201		6.7	SURCHARGED
1.003	S103		5.6	OK
3.000	S300		15.0	OK
4.000	S400		11.7	OK
3.001	S301		25.1	SURCHARGED
1.004	S104		15.3	OK
5.000	S500		4.2	OK
5.001	S501		5.1	SURCHARGED
6.000	S600		1.9	OK
6.001	S601		2.2	OK
6.002	S602		5.3	SURCHARGED
5.002	S502		12.1	SURCHARGED
5.003	S503		11.8	SURCHARGED
7.000	S700		1.6	OK
7.001	S701		1.6	OK

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Summary Wizard of 360 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	360 minute 30 year Summer I+40%	32.550	31.125	0.560	0.000	0.19
1.005	S105	360 minute 30 year Summer I+40%	32.380	31.124	0.654	0.000	0.07
8.000	S800	360 minute 30 year Summer I+40%	32.400	31.298	-0.177	0.000	0.10
1.006	S106	360 minute 30 year Summer I+40%	32.380	31.119	0.959	0.000	0.80
1.007	FW105	360 minute 30 year Summer I+40%	32.380	30.030	-0.105	0.000	0.20

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		14.4	SURCHARGED
1.005	S105		8.4	SURCHARGED
8.000	S800		7.3	OK
1.006	S106		8.6	SURCHARGED
1.007	FW105		8.6	OK

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Summary Wizard of 480 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	480 minute 30 year Summer I+40%	32.600	31.269	-0.131	0.000	0.04
1.001	S101	480 minute 30 year Summer I+40%	32.400	31.116	-0.094	0.000	0.06
1.002	S102	480 minute 30 year Summer I+40%	32.600	31.115	0.140	0.000	0.08
2.000	S200	480 minute 30 year Summer I+40%	32.600	31.288	-0.112	0.000	0.15
2.001	S201	480 minute 30 year Summer I+40%	32.500	31.115	0.085	0.000	0.10
1.003	S103	480 minute 30 year Summer I+40%	32.380	31.113	-0.488	0.000	0.00
3.000	S300	480 minute 30 year Summer I+40%	32.600	31.316	-0.234	0.000	0.11
4.000	S400	480 minute 30 year Summer I+40%	32.600	31.308	-0.167	0.000	0.15
3.001	S301	480 minute 30 year Summer I+40%	32.600	31.115	0.270	0.000	0.12
1.004	S104	480 minute 30 year Summer I+40%	32.380	31.113	-0.308	0.000	0.00
5.000	S500	480 minute 30 year Summer I+40%	32.600	31.293	-0.107	0.000	0.18
5.001	S501	480 minute 30 year Summer I+40%	32.600	31.116	0.211	0.000	0.09
6.000	S600	480 minute 30 year Summer I+40%	32.600	31.273	-0.127	0.000	0.06
6.001	S601	480 minute 30 year Summer I+40%	32.600	31.117	-0.098	0.000	0.07
6.002	S602	480 minute 30 year Summer I+40%	32.600	31.116	0.061	0.000	0.08
5.002	S502	480 minute 30 year Summer I+40%	32.600	31.115	0.405	0.000	0.16
5.003	S503	480 minute 30 year Summer I+40%	32.500	31.114	0.454	0.000	0.12
7.000	S700	480 minute 30 year Summer I+40%	32.600	31.277	-0.123	0.000	0.08
7.001	S701	480 minute 30 year Summer I+40%	32.600	31.167	-0.133	0.000	0.03

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Summary Wizard of 480 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.7	OK
1.001	S101		3.4	OK
1.002	S102		4.2	SURCHARGED
2.000	S200		2.8	OK
2.001	S201		5.4	SURCHARGED
1.003	S103		4.9	OK
3.000	S300		12.1	OK
4.000	S400		9.5	OK
3.001	S301		20.2	SURCHARGED
1.004	S104		12.9	OK
5.000	S500		3.4	OK
5.001	S501		4.2	SURCHARGED
6.000	S600		1.5	OK
6.001	S601		1.8	OK
6.002	S602		4.3	SURCHARGED
5.002	S502		9.7	SURCHARGED
5.003	S503		9.3	SURCHARGED
7.000	S700		1.3	OK
7.001	S701		1.3	OK

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Summary Wizard of 480 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	480 minute 30 year Summer I+40%	32.550	31.113	0.548	0.000	0.15
1.005	S105	480 minute 30 year Summer I+40%	32.380	31.112	0.642	0.000	0.07
8.000	S800	480 minute 30 year Summer I+40%	32.400	31.293	-0.182	0.000	0.08
1.006	S106	480 minute 30 year Summer I+40%	32.380	31.108	0.948	0.000	0.79
1.007	FW105	480 minute 30 year Summer I+40%	32.380	30.030	-0.105	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		11.8	SURCHARGED
1.005	S105		8.2	SURCHARGED
8.000	S800		5.9	OK
1.006	S106		8.6	SURCHARGED
1.007	FW105		8.6	OK

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Summary Wizard of 600 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	600 minute 30 year Summer I+40%	32.600	31.268	-0.132	0.000	0.03
1.001	S101	600 minute 30 year Summer I+40%	32.400	31.099	-0.111	0.000	0.05
1.002	S102	600 minute 30 year Summer I+40%	32.600	31.098	0.123	0.000	0.07
2.000	S200	600 minute 30 year Summer I+40%	32.600	31.285	-0.115	0.000	0.12
2.001	S201	600 minute 30 year Summer I+40%	32.500	31.098	0.068	0.000	0.08
1.003	S103	600 minute 30 year Summer I+40%	32.380	31.096	-0.505	0.000	0.00
3.000	S300	600 minute 30 year Summer I+40%	32.600	31.311	-0.239	0.000	0.09
4.000	S400	600 minute 30 year Summer I+40%	32.600	31.303	-0.172	0.000	0.13
3.001	S301	600 minute 30 year Summer I+40%	32.600	31.098	0.253	0.000	0.10
1.004	S104	600 minute 30 year Summer I+40%	32.380	31.096	-0.325	0.000	0.00
5.000	S500	600 minute 30 year Summer I+40%	32.600	31.289	-0.111	0.000	0.15
5.001	S501	600 minute 30 year Summer I+40%	32.600	31.099	0.194	0.000	0.08
6.000	S600	600 minute 30 year Summer I+40%	32.600	31.271	-0.129	0.000	0.05
6.001	S601	600 minute 30 year Summer I+40%	32.600	31.100	-0.115	0.000	0.06
6.002	S602	600 minute 30 year Summer I+40%	32.600	31.099	0.044	0.000	0.07
5.002	S502	600 minute 30 year Summer I+40%	32.600	31.098	0.388	0.000	0.14
5.003	S503	600 minute 30 year Summer I+40%	32.500	31.097	0.437	0.000	0.11
7.000	S700	600 minute 30 year Summer I+40%	32.600	31.275	-0.125	0.000	0.06
7.001	S701	600 minute 30 year Summer I+40%	32.600	31.166	-0.134	0.000	0.02

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Summary Wizard of 600 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.6	OK
1.001	S101		2.9	OK
1.002	S102		3.6	SURCHARGED
2.000	S200		2.4	OK
2.001	S201		4.6	SURCHARGED
1.003	S103		4.5	OK
3.000	S300		10.2	OK
4.000	S400		8.0	OK
3.001	S301		17.2	SURCHARGED
1.004	S104		11.5	OK
5.000	S500		2.9	OK
5.001	S501		3.6	SURCHARGED
6.000	S600		1.3	OK
6.001	S601		1.5	OK
6.002	S602		3.6	SURCHARGED
5.002	S502		8.4	SURCHARGED
5.003	S503		8.1	SURCHARGED
7.000	S700		1.1	OK
7.001	S701		1.1	OK

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Summary Wizard of 600 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	600 minute 30 year Summer I+40%	32.550	31.096	0.531	0.000	0.13
1.005	S105	600 minute 30 year Summer I+40%	32.380	31.095	0.625	0.000	0.07
8.000	S800	600 minute 30 year Summer I+40%	32.400	31.289	-0.186	0.000	0.07
1.006	S106	600 minute 30 year Summer I+40%	32.380	31.091	0.931	0.000	0.79
1.007	FW105	600 minute 30 year Summer I+40%	32.380	30.029	-0.106	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		10.3	SURCHARGED
1.005	S105		8.0	SURCHARGED
8.000	S800		5.0	OK
1.006	S106		8.5	SURCHARGED
1.007	FW105		8.5	OK

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Summary Wizard of 720 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	720 minute 30 year Summer I+40%	32.600	31.267	-0.133	0.000	0.03
1.001	S101	720 minute 30 year Summer I+40%	32.400	31.079	-0.131	0.000	0.05
1.002	S102	720 minute 30 year Summer I+40%	32.600	31.078	0.103	0.000	0.06
2.000	S200	720 minute 30 year Summer I+40%	32.600	31.283	-0.117	0.000	0.11
2.001	S201	720 minute 30 year Summer I+40%	32.500	31.078	0.048	0.000	0.07
1.003	S103	720 minute 30 year Summer I+40%	32.380	31.077	-0.524	0.000	0.00
3.000	S300	720 minute 30 year Summer I+40%	32.600	31.307	-0.243	0.000	0.08
4.000	S400	720 minute 30 year Summer I+40%	32.600	31.300	-0.175	0.000	0.11
3.001	S301	720 minute 30 year Summer I+40%	32.600	31.079	0.234	0.000	0.09
1.004	S104	720 minute 30 year Summer I+40%	32.380	31.077	-0.344	0.000	0.00
5.000	S500	720 minute 30 year Summer I+40%	32.600	31.286	-0.114	0.000	0.13
5.001	S501	720 minute 30 year Summer I+40%	32.600	31.079	0.174	0.000	0.07
6.000	S600	720 minute 30 year Summer I+40%	32.600	31.270	-0.130	0.000	0.04
6.001	S601	720 minute 30 year Summer I+40%	32.600	31.087	-0.128	0.000	0.05
6.002	S602	720 minute 30 year Summer I+40%	32.600	31.080	0.025	0.000	0.06
5.002	S502	720 minute 30 year Summer I+40%	32.600	31.078	0.368	0.000	0.12
5.003	S503	720 minute 30 year Summer I+40%	32.500	31.078	0.418	0.000	0.10
7.000	S700	720 minute 30 year Summer I+40%	32.600	31.273	-0.127	0.000	0.06
7.001	S701	720 minute 30 year Summer I+40%	32.600	31.165	-0.135	0.000	0.02

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Summary Wizard of 720 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.6	OK
1.001	S101		2.5	OK
1.002	S102		3.1	SURCHARGED
2.000	S200		2.1	OK
2.001	S201		4.0	SURCHARGED
1.003	S103		4.1	OK
3.000	S300		8.9	OK
4.000	S400		7.0	OK
3.001	S301		15.1	SURCHARGED
1.004	S104		10.5	OK
5.000	S500		2.5	OK
5.001	S501		3.2	SURCHARGED
6.000	S600		1.1	OK
6.001	S601		1.3	OK
6.002	S602		3.2	SURCHARGED
5.002	S502		7.6	SURCHARGED
5.003	S503		7.4	SURCHARGED
7.000	S700		1.0	OK
7.001	S701		1.0	OK

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Summary Wizard of 720 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	720 minute 30 year Summer I+40%	32.550	31.077	0.512	0.000	0.12
1.005	S105	720 minute 30 year Summer I+40%	32.380	31.075	0.605	0.000	0.07
8.000	S800	720 minute 30 year Summer I+40%	32.400	31.286	-0.189	0.000	0.06
1.006	S106	720 minute 30 year Summer I+40%	32.380	31.071	0.911	0.000	0.78
1.007	FW105	720 minute 30 year Summer I+40%	32.380	30.029	-0.106	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		9.1	SURCHARGED
1.005	S105		7.8	SURCHARGED
8.000	S800		4.3	OK
1.006	S106		8.4	SURCHARGED
1.007	FW105		8.4	OK

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Summary Wizard of 960 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	960 minute 30 year Summer I+40%	32.600	31.266	-0.134	0.000	0.02
1.001	S101	960 minute 30 year Summer I+40%	32.400	31.038	-0.172	0.000	0.04
1.002	S102	960 minute 30 year Summer I+40%	32.600	31.037	0.062	0.000	0.05
2.000	S200	960 minute 30 year Summer I+40%	32.600	31.280	-0.120	0.000	0.09
2.001	S201	960 minute 30 year Summer I+40%	32.500	31.038	0.008	0.000	0.06
1.003	S103	960 minute 30 year Summer I+40%	32.380	31.036	-0.565	0.000	0.00
3.000	S300	960 minute 30 year Summer I+40%	32.600	31.300	-0.250	0.000	0.07
4.000	S400	960 minute 30 year Summer I+40%	32.600	31.295	-0.180	0.000	0.09
3.001	S301	960 minute 30 year Summer I+40%	32.600	31.038	0.193	0.000	0.07
1.004	S104	960 minute 30 year Summer I+40%	32.380	31.036	-0.385	0.000	0.00
5.000	S500	960 minute 30 year Summer I+40%	32.600	31.282	-0.118	0.000	0.11
5.001	S501	960 minute 30 year Summer I+40%	32.600	31.039	0.134	0.000	0.05
6.000	S600	960 minute 30 year Summer I+40%	32.600	31.268	-0.132	0.000	0.03
6.001	S601	960 minute 30 year Summer I+40%	32.600	31.085	-0.130	0.000	0.04
6.002	S602	960 minute 30 year Summer I+40%	32.600	31.039	-0.016	0.000	0.05
5.002	S502	960 minute 30 year Summer I+40%	32.600	31.038	0.328	0.000	0.10
5.003	S503	960 minute 30 year Summer I+40%	32.500	31.037	0.377	0.000	0.08
7.000	S700	960 minute 30 year Summer I+40%	32.600	31.270	-0.130	0.000	0.05
7.001	S701	960 minute 30 year Summer I+40%	32.600	31.162	-0.138	0.000	0.02

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Summary Wizard of 960 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	OK
1.001	S101		2.0	OK
1.002	S102		2.5	SURCHARGED
2.000	S200		1.7	OK
2.001	S201		3.2	SURCHARGED
1.003	S103		3.6	OK
3.000	S300		7.2	OK
4.000	S400		5.6	OK
3.001	S301		12.4	SURCHARGED
1.004	S104		9.2	OK
5.000	S500		2.0	OK
5.001	S501		2.5	SURCHARGED
6.000	S600		0.9	OK
6.001	S601		1.1	OK
6.002	S602		2.6	OK
5.002	S502		6.1	SURCHARGED
5.003	S503		6.0	SURCHARGED
7.000	S700		0.8	OK
7.001	S701		0.8	OK

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Summary Wizard of 960 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	960 minute 30 year Summer I+40%	32.550	31.036	0.471	0.000	0.10
1.005	S105	960 minute 30 year Summer I+40%	32.380	31.035	0.565	0.000	0.07
8.000	S800	960 minute 30 year Summer I+40%	32.400	31.282	-0.193	0.000	0.05
1.006	S106	960 minute 30 year Summer I+40%	32.380	31.031	0.871	0.000	0.77
1.007	FW105	960 minute 30 year Summer I+40%	32.380	30.029	-0.106	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		7.5	SURCHARGED
1.005	S105		7.6	SURCHARGED
8.000	S800		3.5	OK
1.006	S106		8.3	SURCHARGED
1.007	FW105		8.3	OK

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Summary Wizard of 1440 minute 30 year Summer I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	1440 minute 30 year Summer I+40%	32.600	31.263	-0.137	0.000	0.02
1.001	S101	1440 minute 30 year Summer I+40%	32.400	31.010	-0.200	0.000	0.03
1.002	S102	1440 minute 30 year Summer I+40%	32.600	30.961	-0.014	0.000	0.04
2.000	S200	1440 minute 30 year Summer I+40%	32.600	31.275	-0.125	0.000	0.06
2.001	S201	1440 minute 30 year Summer I+40%	32.500	30.962	-0.068	0.000	0.04
1.003	S103	1440 minute 30 year Summer I+40%	32.380	30.960	-0.641	0.000	0.00
3.000	S300	1440 minute 30 year Summer I+40%	32.600	31.292	-0.258	0.000	0.05
4.000	S400	1440 minute 30 year Summer I+40%	32.600	31.288	-0.187	0.000	0.07
3.001	S301	1440 minute 30 year Summer I+40%	32.600	30.962	0.117	0.000	0.05
1.004	S104	1440 minute 30 year Summer I+40%	32.380	30.960	-0.461	0.000	0.00
5.000	S500	1440 minute 30 year Summer I+40%	32.600	31.278	-0.122	0.000	0.08
5.001	S501	1440 minute 30 year Summer I+40%	32.600	30.963	0.058	0.000	0.04
6.000	S600	1440 minute 30 year Summer I+40%	32.600	31.266	-0.134	0.000	0.02
6.001	S601	1440 minute 30 year Summer I+40%	32.600	31.082	-0.133	0.000	0.03
6.002	S602	1440 minute 30 year Summer I+40%	32.600	30.963	-0.092	0.000	0.03
5.002	S502	1440 minute 30 year Summer I+40%	32.600	30.962	0.252	0.000	0.07
5.003	S503	1440 minute 30 year Summer I+40%	32.500	30.961	0.301	0.000	0.06
7.000	S700	1440 minute 30 year Summer I+40%	32.600	31.268	-0.132	0.000	0.03
7.001	S701	1440 minute 30 year Summer I+40%	32.600	31.159	-0.141	0.000	0.01

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Summary Wizard of 1440 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.5	OK
1.002	S102		1.8	OK
2.000	S200		1.2	OK
2.001	S201		2.4	OK
1.003	S103		3.1	OK
3.000	S300		5.3	OK
4.000	S400		4.1	OK
3.001	S301		9.2	SURCHARGED
1.004	S104		7.7	OK
5.000	S500		1.5	OK
5.001	S501		1.9	SURCHARGED
6.000	S600		0.7	OK
6.001	S601		0.8	OK
6.002	S602		1.9	OK
5.002	S502		4.6	SURCHARGED
5.003	S503		4.5	SURCHARGED
7.000	S700		0.6	OK
7.001	S701		0.6	OK

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Summary Wizard of 1440 minute 30 year Summer I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	1440 minute 30 year Summer I+40%	32.550	30.961	0.396	0.000	0.07
1.005	S105	1440 minute 30 year Summer I+40%	32.380	30.959	0.489	0.000	0.06
8.000	S800	1440 minute 30 year Summer I+40%	32.400	31.277	-0.198	0.000	0.04
1.006	S106	1440 minute 30 year Summer I+40%	32.380	30.955	0.795	0.000	0.74
1.007	FW105	1440 minute 30 year Summer I+40%	32.380	30.028	-0.107	0.000	0.18

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		5.5	SURCHARGED
1.005	S105		7.4	SURCHARGED
8.000	S800		2.6	OK
1.006	S106		8.0	SURCHARGED
1.007	FW105		8.0	OK

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Summary Wizard of 15 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	15 minute 100 year Summer I+45%	32.600	31.307	-0.093	0.000	0.31
1.001	S101	15 minute 100 year Summer I+45%	32.400	31.102	-0.108	0.000	0.53
1.002	S102	15 minute 100 year Summer I+45%	32.600	30.886	-0.089	0.000	0.67
2.000	S200	15 minute 100 year Summer I+45%	32.600	31.461	0.061	0.000	1.08
2.001	S201	15 minute 100 year Summer I+45%	32.500	30.951	-0.079	0.000	0.73
1.003	S103	15 minute 100 year Summer I+45%	32.380	30.859	-0.742	0.000	0.02
3.000	S300	15 minute 100 year Summer I+45%	32.600	31.460	-0.090	0.000	0.81
4.000	S400	15 minute 100 year Summer I+45%	32.600	31.650	0.175	0.000	1.12
3.001	S301	15 minute 100 year Summer I+45%	32.600	30.915	0.070	0.000	0.89
1.004	S104	15 minute 100 year Summer I+45%	32.380	30.859	-0.562	0.000	0.02
5.000	S500	15 minute 100 year Summer I+45%	32.600	31.736	0.336	0.000	1.23
5.001	S501	15 minute 100 year Summer I+45%	32.600	31.038	0.133	0.000	0.56
6.000	S600	15 minute 100 year Summer I+45%	32.600	31.319	-0.081	0.000	0.43
6.001	S601	15 minute 100 year Summer I+45%	32.600	31.144	-0.071	0.000	0.54
6.002	S602	15 minute 100 year Summer I+45%	32.600	31.038	-0.017	0.000	0.64
5.002	S502	15 minute 100 year Summer I+45%	32.600	31.017	0.307	0.000	1.14
5.003	S503	15 minute 100 year Summer I+45%	32.500	30.948	0.288	0.000	0.88
7.000	S700	15 minute 100 year Summer I+45%	32.600	31.332	-0.068	0.000	0.57
7.001	S701	15 minute 100 year Summer I+45%	32.600	31.197	-0.103	0.000	0.21

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Summary Wizard of 15 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		5.6	OK
1.001	S101		27.6	OK
1.002	S102		34.7	OK
2.000	S200		20.6	SURCHARGED
2.001	S201		41.5	OK
1.003	S103		76.1	OK
3.000	S300		88.6	OK
4.000	S400		69.9	SURCHARGED
3.001	S301		154.7	SURCHARGED
1.004	S104		98.0	OK
5.000	S500		23.2	SURCHARGED
5.001	S501		26.7	SURCHARGED
6.000	S600		11.3	OK
6.001	S601		13.5	OK
6.002	S602		34.5	OK
5.002	S502		70.1	SURCHARGED
5.003	S503		67.6	SURCHARGED
7.000	S700		9.8	OK
7.001	S701		9.8	OK

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Summary Wizard of 15 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	15 minute 100 year Summer I+45%	32.550	30.894	0.329	0.000	1.10
1.005	S105	15 minute 100 year Summer I+45%	32.380	30.858	0.388	0.000	0.07
8.000	S800	15 minute 100 year Summer I+45%	32.400	31.379	-0.096	0.000	0.61
1.006	S106	15 minute 100 year Summer I+45%	32.380	30.856	0.696	0.000	0.70
1.007	FW105	15 minute 100 year Summer I+45%	32.380	30.026	-0.109	0.000	0.17

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		84.9	SURCHARGED
1.005	S105		7.5	SURCHARGED
8.000	S800		43.4	OK
1.006	S106		7.6	SURCHARGED
1.007	FW105		7.6	OK

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Summary Wizard of 30 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	30 minute 100 year Summer I+45%	32.600	31.304	-0.096	0.000	0.28
1.001	S101	30 minute 100 year Summer I+45%	32.400	31.094	-0.116	0.000	0.47
1.002	S102	30 minute 100 year Summer I+45%	32.600	31.054	0.079	0.000	0.59
2.000	S200	30 minute 100 year Summer I+45%	32.600	31.404	0.004	0.000	1.00
2.001	S201	30 minute 100 year Summer I+45%	32.500	31.056	0.026	0.000	0.67
1.003	S103	30 minute 100 year Summer I+45%	32.380	31.054	-0.547	0.000	0.01
3.000	S300	30 minute 100 year Summer I+45%	32.600	31.448	-0.102	0.000	0.75
4.000	S400	30 minute 100 year Summer I+45%	32.600	31.533	0.058	0.000	1.04
3.001	S301	30 minute 100 year Summer I+45%	32.600	31.067	0.222	0.000	0.79
1.004	S104	30 minute 100 year Summer I+45%	32.380	31.054	-0.367	0.000	0.01
5.000	S500	30 minute 100 year Summer I+45%	32.600	31.698	0.298	0.000	1.13
5.001	S501	30 minute 100 year Summer I+45%	32.600	31.181	0.276	0.000	0.54
6.000	S600	30 minute 100 year Summer I+45%	32.600	31.316	-0.084	0.000	0.40
6.001	S601	30 minute 100 year Summer I+45%	32.600	31.191	-0.024	0.000	0.50
6.002	S602	30 minute 100 year Summer I+45%	32.600	31.183	0.128	0.000	0.56
5.002	S502	30 minute 100 year Summer I+45%	32.600	31.160	0.450	0.000	1.05
5.003	S503	30 minute 100 year Summer I+45%	32.500	31.090	0.430	0.000	0.83
7.000	S700	30 minute 100 year Summer I+45%	32.600	31.327	-0.073	0.000	0.53
7.001	S701	30 minute 100 year Summer I+45%	32.600	31.195	-0.105	0.000	0.20

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Summary Wizard of 30 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		5.2	OK
1.001	S101		24.5	OK
1.002	S102		30.4	SURCHARGED
2.000	S200		19.1	SURCHARGED
2.001	S201		37.8	SURCHARGED
1.003	S103		36.7	OK
3.000	S300		82.5	OK
4.000	S400		64.8	SURCHARGED
3.001	S301		136.3	SURCHARGED
1.004	S104		72.9	OK
5.000	S500		21.2	SURCHARGED
5.001	S501		25.7	SURCHARGED
6.000	S600		10.4	OK
6.001	S601		12.4	OK
6.002	S602		30.0	SURCHARGED
5.002	S502		64.7	SURCHARGED
5.003	S503		64.4	SURCHARGED
7.000	S700		9.1	OK
7.001	S701		9.1	OK

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Summary Wizard of 30 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	30 minute 100 year Summer I+45%	32.550	31.053	0.488	0.000	1.04
1.005	S105	30 minute 100 year Summer I+45%	32.380	31.053	0.583	0.000	0.07
8.000	S800	30 minute 100 year Summer I+45%	32.400	31.372	-0.103	0.000	0.57
1.006	S106	30 minute 100 year Summer I+45%	32.380	31.049	0.889	0.000	0.77
1.007	FW105	30 minute 100 year Summer I+45%	32.380	30.029	-0.106	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		80.2	SURCHARGED
1.005	S105		8.2	SURCHARGED
8.000	S800		40.9	OK
1.006	S106		8.4	SURCHARGED
1.007	FW105		8.4	OK

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Summary Wizard of 60 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	60 minute 100 year Summer I+45%	32.600	31.297	-0.103	0.000	0.22
1.001	S101	60 minute 100 year Summer I+45%	32.400	31.253	0.043	0.000	0.35
1.002	S102	60 minute 100 year Summer I+45%	32.600	31.252	0.277	0.000	0.44
2.000	S200	60 minute 100 year Summer I+45%	32.600	31.350	-0.050	0.000	0.78
2.001	S201	60 minute 100 year Summer I+45%	32.500	31.253	0.223	0.000	0.51
1.003	S103	60 minute 100 year Summer I+45%	32.380	31.251	-0.350	0.000	0.01
3.000	S300	60 minute 100 year Summer I+45%	32.600	31.415	-0.135	0.000	0.58
4.000	S400	60 minute 100 year Summer I+45%	32.600	31.403	-0.072	0.000	0.80
3.001	S301	60 minute 100 year Summer I+45%	32.600	31.253	0.408	0.000	0.58
1.004	S104	60 minute 100 year Summer I+45%	32.380	31.250	-0.171	0.000	0.01
5.000	S500	60 minute 100 year Summer I+45%	32.600	31.510	0.110	0.000	0.89
5.001	S501	60 minute 100 year Summer I+45%	32.600	31.299	0.394	0.000	0.43
6.000	S600	60 minute 100 year Summer I+45%	32.600	31.318	-0.082	0.000	0.30
6.001	S601	60 minute 100 year Summer I+45%	32.600	31.309	0.094	0.000	0.38
6.002	S602	60 minute 100 year Summer I+45%	32.600	31.301	0.246	0.000	0.42
5.002	S502	60 minute 100 year Summer I+45%	32.600	31.279	0.569	0.000	0.86
5.003	S503	60 minute 100 year Summer I+45%	32.500	31.249	0.589	0.000	0.67
7.000	S700	60 minute 100 year Summer I+45%	32.600	31.316	-0.084	0.000	0.40
7.001	S701	60 minute 100 year Summer I+45%	32.600	31.248	-0.052	0.000	0.15

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Summary Wizard of 60 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		4.0	OK
1.001	S101		18.3	SURCHARGED
1.002	S102		22.7	SURCHARGED
2.000	S200		14.9	OK
2.001	S201		28.9	SURCHARGED
1.003	S103		22.1	OK
3.000	S300		63.4	OK
4.000	S400		50.1	OK
3.001	S301		100.9	SURCHARGED
1.004	S104		49.4	OK
5.000	S500		16.8	SURCHARGED
5.001	S501		20.3	SURCHARGED
6.000	S600		7.9	OK
6.001	S601		9.5	SURCHARGED
6.002	S602		22.6	SURCHARGED
5.002	S502		52.7	SURCHARGED
5.003	S503		51.7	SURCHARGED
7.000	S700		7.0	OK
7.001	S701		7.0	OK

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Summary Wizard of 60 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	60 minute 100 year Summer I+45%	32.550	31.248	0.683	0.000	0.84
1.005	S105	60 minute 100 year Summer I+45%	32.380	31.247	0.777	0.000	0.08
8.000	S800	60 minute 100 year Summer I+45%	32.400	31.354	-0.121	0.000	0.44
1.006	S106	60 minute 100 year Summer I+45%	32.380	31.242	1.082	0.000	0.84
1.007	FW105	60 minute 100 year Summer I+45%	32.380	30.031	-0.104	0.000	0.21

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		64.7	SURCHARGED
1.005	S105		9.0	SURCHARGED
8.000	S800		31.2	OK
1.006	S106		9.1	SURCHARGED
1.007	FW105		9.1	OK

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Summary Wizard of 120 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	120 minute 100 year Summer I+45%	32.600	31.490	0.090	0.000	0.15
1.001	S101	120 minute 100 year Summer I+45%	32.400	31.489	0.279	0.000	0.23
1.002	S102	120 minute 100 year Summer I+45%	32.600	31.489	0.514	0.000	0.29
2.000	S200	120 minute 100 year Summer I+45%	32.600	31.493	0.093	0.000	0.53
2.001	S201	120 minute 100 year Summer I+45%	32.500	31.489	0.459	0.000	0.34
1.003	S103	120 minute 100 year Summer I+45%	32.380	31.487	-0.114	0.000	0.00
3.000	S300	120 minute 100 year Summer I+45%	32.600	31.493	-0.057	0.000	0.39
4.000	S400	120 minute 100 year Summer I+45%	32.600	31.495	0.020	0.000	0.54
3.001	S301	120 minute 100 year Summer I+45%	32.600	31.488	0.643	0.000	0.41
1.004	S104	120 minute 100 year Summer I+45%	32.380	31.486	0.065	0.000	0.01
5.000	S500	120 minute 100 year Summer I+45%	32.600	31.498	0.098	0.000	0.63
5.001	S501	120 minute 100 year Summer I+45%	32.600	31.491	0.586	0.000	0.30
6.000	S600	120 minute 100 year Summer I+45%	32.600	31.493	0.093	0.000	0.21
6.001	S601	120 minute 100 year Summer I+45%	32.600	31.493	0.278	0.000	0.25
6.002	S602	120 minute 100 year Summer I+45%	32.600	31.492	0.437	0.000	0.28
5.002	S502	120 minute 100 year Summer I+45%	32.600	31.489	0.779	0.000	0.59
5.003	S503	120 minute 100 year Summer I+45%	32.500	31.488	0.828	0.000	0.46
7.000	S700	120 minute 100 year Summer I+45%	32.600	31.489	0.089	0.000	0.27
7.001	S701	120 minute 100 year Summer I+45%	32.600	31.488	0.188	0.000	0.10

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Summary Wizard of 120 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		2.7	SURCHARGED
1.001	S101		12.2	SURCHARGED
1.002	S102		14.9	SURCHARGED
2.000	S200		10.1	SURCHARGED
2.001	S201		19.5	SURCHARGED
1.003	S103		15.0	OK
3.000	S300		43.1	OK
4.000	S400		33.9	SURCHARGED
3.001	S301		70.9	SURCHARGED
1.004	S104		35.8	SURCHARGED
5.000	S500		11.9	SURCHARGED
5.001	S501		14.4	SURCHARGED
6.000	S600		5.4	SURCHARGED
6.001	S601		6.2	SURCHARGED
6.002	S602		15.1	SURCHARGED
5.002	S502		36.3	SURCHARGED
5.003	S503		35.8	SURCHARGED
7.000	S700		4.7	SURCHARGED
7.001	S701		4.7	SURCHARGED

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Summary Wizard of 120 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	120 minute 100 year Summer I+45%	32.550	31.487	0.922	0.000	0.58
1.005	S105	120 minute 100 year Summer I+45%	32.380	31.486	1.016	0.000	0.08
8.000	S800	120 minute 100 year Summer I+45%	32.400	31.485	0.010	0.000	0.30
1.006	S106	120 minute 100 year Summer I+45%	32.380	31.482	1.322	0.000	0.91
1.007	FW105	120 minute 100 year Summer I+45%	32.380	30.033	-0.102	0.000	0.22

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		44.6	SURCHARGED
1.005	S105		9.6	SURCHARGED
8.000	S800		21.1	SURCHARGED
1.006	S106		9.9	SURCHARGED
1.007	FW105		9.9	OK

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Summary Wizard of 180 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	180 minute 100 year Summer I+45%	32.600	31.948	0.548	0.000	0.11
1.001	S101	180 minute 100 year Summer I+45%	32.400	31.947	0.737	0.000	0.18
1.002	S102	180 minute 100 year Summer I+45%	32.600	31.946	0.971	0.000	0.21
2.000	S200	180 minute 100 year Summer I+45%	32.600	31.950	0.550	0.000	0.40
2.001	S201	180 minute 100 year Summer I+45%	32.500	31.946	0.916	0.000	0.26
1.003	S103	180 minute 100 year Summer I+45%	32.380	31.944	0.343	0.000	0.00
3.000	S300	180 minute 100 year Summer I+45%	32.600	31.951	0.401	0.000	0.30
4.000	S400	180 minute 100 year Summer I+45%	32.600	31.952	0.477	0.000	0.42
3.001	S301	180 minute 100 year Summer I+45%	32.600	31.947	1.102	0.000	0.31
1.004	S104	180 minute 100 year Summer I+45%	32.380	31.944	0.523	0.000	0.01
5.000	S500	180 minute 100 year Summer I+45%	32.600	31.955	0.555	0.000	0.49
5.001	S501	180 minute 100 year Summer I+45%	32.600	31.950	1.045	0.000	0.22
6.000	S600	180 minute 100 year Summer I+45%	32.600	31.951	0.551	0.000	0.16
6.001	S601	180 minute 100 year Summer I+45%	32.600	31.951	0.736	0.000	0.19
6.002	S602	180 minute 100 year Summer I+45%	32.600	31.950	0.895	0.000	0.20
5.002	S502	180 minute 100 year Summer I+45%	32.600	31.948	1.238	0.000	0.43
5.003	S503	180 minute 100 year Summer I+45%	32.500	31.947	1.287	0.000	0.34
7.000	S700	180 minute 100 year Summer I+45%	32.600	31.948	0.548	0.000	0.21
7.001	S701	180 minute 100 year Summer I+45%	32.600	31.947	0.647	0.000	0.08

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Summary Wizard of 180 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		2.1	SURCHARGED
1.001	S101		9.4	SURCHARGED
1.002	S102		10.7	SURCHARGED
2.000	S200		7.7	SURCHARGED
2.001	S201		14.5	SURCHARGED
1.003	S103		10.7	SURCHARGED
3.000	S300		33.2	SURCHARGED
4.000	S400		26.1	SURCHARGED
3.001	S301		54.3	SURCHARGED
1.004	S104		30.2	SURCHARGED
5.000	S500		9.3	SURCHARGED
5.001	S501		10.5	SURCHARGED
6.000	S600		4.1	SURCHARGED
6.001	S601		4.8	SURCHARGED
6.002	S602		11.0	SURCHARGED
5.002	S502		26.7	SURCHARGED
5.003	S503		26.1	SURCHARGED
7.000	S700		3.6	SURCHARGED
7.001	S701		3.6	SURCHARGED

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Summary Wizard of 180 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	180 minute 100 year Summer I+45%	32.550	31.946	1.381	0.000	0.42
1.005	S105	180 minute 100 year Summer I+45%	32.380	31.944	1.474	0.000	0.09
8.000	S800	180 minute 100 year Summer I+45%	32.400	31.943	0.468	0.000	0.23
1.006	S106	180 minute 100 year Summer I+45%	32.380	31.939	1.779	0.000	1.03
1.007	FW105	180 minute 100 year Summer I+45%	32.380	30.036	-0.099	0.000	0.25

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		32.5	SURCHARGED
1.005	S105		10.1	SURCHARGED
8.000	S800		16.3	SURCHARGED
1.006	S106		11.2	SURCHARGED
1.007	FW105		11.2	OK

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Summary Wizard of 240 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	240 minute 100 year Summer I+45%	32.600	32.106	0.706	0.000	0.09
1.001	S101	240 minute 100 year Summer I+45%	32.400	32.105	0.895	0.000	0.15
1.002	S102	240 minute 100 year Summer I+45%	32.600	32.104	1.129	0.000	0.17
2.000	S200	240 minute 100 year Summer I+45%	32.600	32.108	0.708	0.000	0.33
2.001	S201	240 minute 100 year Summer I+45%	32.500	32.105	1.075	0.000	0.20
1.003	S103	240 minute 100 year Summer I+45%	32.380	32.102	0.501	0.000	0.00
3.000	S300	240 minute 100 year Summer I+45%	32.600	32.110	0.560	0.000	0.25
4.000	S400	240 minute 100 year Summer I+45%	32.600	32.111	0.636	0.000	0.34
3.001	S301	240 minute 100 year Summer I+45%	32.600	32.105	1.260	0.000	0.26
1.004	S104	240 minute 100 year Summer I+45%	32.380	32.103	0.682	0.000	0.00
5.000	S500	240 minute 100 year Summer I+45%	32.600	32.113	0.713	0.000	0.40
5.001	S501	240 minute 100 year Summer I+45%	32.600	32.108	1.203	0.000	0.18
6.000	S600	240 minute 100 year Summer I+45%	32.600	32.110	0.710	0.000	0.13
6.001	S601	240 minute 100 year Summer I+45%	32.600	32.109	0.894	0.000	0.16
6.002	S602	240 minute 100 year Summer I+45%	32.600	32.108	1.053	0.000	0.17
5.002	S502	240 minute 100 year Summer I+45%	32.600	32.106	1.396	0.000	0.34
5.003	S503	240 minute 100 year Summer I+45%	32.500	32.106	1.446	0.000	0.27
7.000	S700	240 minute 100 year Summer I+45%	32.600	32.106	0.706	0.000	0.17
7.001	S701	240 minute 100 year Summer I+45%	32.600	32.105	0.805	0.000	0.06

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Summary Wizard of 240 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		1.7	SURCHARGED
1.001	S101		7.6	FLOOD RISK
1.002	S102		8.5	SURCHARGED
2.000	S200		6.3	SURCHARGED
2.001	S201		11.5	SURCHARGED
1.003	S103		8.9	FLOOD RISK
3.000	S300		27.2	SURCHARGED
4.000	S400		21.3	SURCHARGED
3.001	S301		44.4	SURCHARGED
1.004	S104		24.7	FLOOD RISK
5.000	S500		7.6	SURCHARGED
5.001	S501		8.7	SURCHARGED
6.000	S600		3.4	SURCHARGED
6.001	S601		4.0	SURCHARGED
6.002	S602		9.3	SURCHARGED
5.002	S502		21.1	SURCHARGED
5.003	S503		20.7	SURCHARGED
7.000	S700		3.0	SURCHARGED
7.001	S701		3.0	SURCHARGED

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Summary Wizard of 240 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	240 minute 100 year Summer I+45%	32.550	32.104	1.539	0.000	0.34
1.005	S105	240 minute 100 year Summer I+45%	32.380	32.103	1.633	0.000	0.09
8.000	S800	240 minute 100 year Summer I+45%	32.400	32.100	0.625	0.000	0.19
1.006	S106	240 minute 100 year Summer I+45%	32.380	32.097	1.937	0.000	1.07
1.007	FW105	240 minute 100 year Summer I+45%	32.380	30.037	-0.098	0.000	0.26

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		26.0	SURCHARGED
1.005	S105		10.5	FLOOD RISK
8.000	S800		13.3	FLOOD RISK
1.006	S106		11.7	FLOOD RISK
1.007	FW105		11.7	OK

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Summary Wizard of 360 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	360 minute 100 year Summer I+45%	32.600	32.083	0.683	0.000	0.07
1.001	S101	360 minute 100 year Summer I+45%	32.400	32.082	0.872	0.000	0.11
1.002	S102	360 minute 100 year Summer I+45%	32.600	32.081	1.106	0.000	0.12
2.000	S200	360 minute 100 year Summer I+45%	32.600	32.085	0.685	0.000	0.25
2.001	S201	360 minute 100 year Summer I+45%	32.500	32.081	1.051	0.000	0.15
1.003	S103	360 minute 100 year Summer I+45%	32.380	32.079	0.478	0.000	0.00
3.000	S300	360 minute 100 year Summer I+45%	32.600	32.086	0.536	0.000	0.18
4.000	S400	360 minute 100 year Summer I+45%	32.600	32.088	0.613	0.000	0.25
3.001	S301	360 minute 100 year Summer I+45%	32.600	32.082	1.237	0.000	0.19
1.004	S104	360 minute 100 year Summer I+45%	32.380	32.079	0.658	0.000	0.00
5.000	S500	360 minute 100 year Summer I+45%	32.600	32.090	0.690	0.000	0.30
5.001	S501	360 minute 100 year Summer I+45%	32.600	32.085	1.180	0.000	0.14
6.000	S600	360 minute 100 year Summer I+45%	32.600	32.087	0.687	0.000	0.10
6.001	S601	360 minute 100 year Summer I+45%	32.600	32.086	0.871	0.000	0.12
6.002	S602	360 minute 100 year Summer I+45%	32.600	32.085	1.030	0.000	0.13
5.002	S502	360 minute 100 year Summer I+45%	32.600	32.083	1.373	0.000	0.27
5.003	S503	360 minute 100 year Summer I+45%	32.500	32.082	1.422	0.000	0.21
7.000	S700	360 minute 100 year Summer I+45%	32.600	32.083	0.683	0.000	0.13
7.001	S701	360 minute 100 year Summer I+45%	32.600	32.082	0.782	0.000	0.05

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Summary Wizard of 360 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		1.3	SURCHARGED
1.001	S101		5.6	SURCHARGED
1.002	S102		6.3	SURCHARGED
2.000	S200		4.7	SURCHARGED
2.001	S201		8.5	SURCHARGED
1.003	S103		7.1	SURCHARGED
3.000	S300		20.2	SURCHARGED
4.000	S400		15.8	SURCHARGED
3.001	S301		32.8	SURCHARGED
1.004	S104		18.9	SURCHARGED
5.000	S500		5.6	SURCHARGED
5.001	S501		6.4	SURCHARGED
6.000	S600		2.5	SURCHARGED
6.001	S601		3.0	SURCHARGED
6.002	S602		7.0	SURCHARGED
5.002	S502		16.3	SURCHARGED
5.003	S503		15.9	SURCHARGED
7.000	S700		2.2	SURCHARGED
7.001	S701		2.2	SURCHARGED

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Summary Wizard of 360 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	360 minute 100 year Summer I+45%	32.550	32.081	1.516	0.000	0.26
1.005	S105	360 minute 100 year Summer I+45%	32.380	32.079	1.609	0.000	0.09
8.000	S800	360 minute 100 year Summer I+45%	32.400	32.077	0.602	0.000	0.14
1.006	S106	360 minute 100 year Summer I+45%	32.380	32.073	1.913	0.000	1.07
1.007	FW105	360 minute 100 year Summer I+45%	32.380	30.037	-0.098	0.000	0.26

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		19.9	SURCHARGED
1.005	S105		10.4	SURCHARGED
8.000	S800		9.9	SURCHARGED
1.006	S106		11.6	SURCHARGED
1.007	FW105		11.6	OK

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Summary Wizard of 480 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	480 minute 100 year Summer I+45%	32.600	31.982	0.582	0.000	0.05
1.001	S101	480 minute 100 year Summer I+45%	32.400	31.982	0.772	0.000	0.09
1.002	S102	480 minute 100 year Summer I+45%	32.600	31.980	1.005	0.000	0.10
2.000	S200	480 minute 100 year Summer I+45%	32.600	31.984	0.584	0.000	0.20
2.001	S201	480 minute 100 year Summer I+45%	32.500	31.981	0.951	0.000	0.12
1.003	S103	480 minute 100 year Summer I+45%	32.380	31.979	0.378	0.000	0.00
3.000	S300	480 minute 100 year Summer I+45%	32.600	31.986	0.436	0.000	0.15
4.000	S400	480 minute 100 year Summer I+45%	32.600	31.987	0.512	0.000	0.20
3.001	S301	480 minute 100 year Summer I+45%	32.600	31.982	1.137	0.000	0.15
1.004	S104	480 minute 100 year Summer I+45%	32.380	31.979	0.558	0.000	0.00
5.000	S500	480 minute 100 year Summer I+45%	32.600	31.989	0.589	0.000	0.24
5.001	S501	480 minute 100 year Summer I+45%	32.600	31.984	1.079	0.000	0.11
6.000	S600	480 minute 100 year Summer I+45%	32.600	31.986	0.586	0.000	0.08
6.001	S601	480 minute 100 year Summer I+45%	32.600	31.985	0.770	0.000	0.10
6.002	S602	480 minute 100 year Summer I+45%	32.600	31.984	0.929	0.000	0.10
5.002	S502	480 minute 100 year Summer I+45%	32.600	31.982	1.272	0.000	0.21
5.003	S503	480 minute 100 year Summer I+45%	32.500	31.982	1.322	0.000	0.17
7.000	S700	480 minute 100 year Summer I+45%	32.600	31.982	0.582	0.000	0.10
7.001	S701	480 minute 100 year Summer I+45%	32.600	31.981	0.681	0.000	0.04

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Summary Wizard of 480 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		1.0	SURCHARGED
1.001	S101		4.5	SURCHARGED
1.002	S102		5.1	SURCHARGED
2.000	S200		3.8	SURCHARGED
2.001	S201		6.8	SURCHARGED
1.003	S103		5.6	SURCHARGED
3.000	S300		16.2	SURCHARGED
4.000	S400		12.7	SURCHARGED
3.001	S301		26.5	SURCHARGED
1.004	S104		16.0	SURCHARGED
5.000	S500		4.5	SURCHARGED
5.001	S501		5.2	SURCHARGED
6.000	S600		2.0	SURCHARGED
6.001	S601		2.4	SURCHARGED
6.002	S602		5.6	SURCHARGED
5.002	S502		13.1	SURCHARGED
5.003	S503		12.9	SURCHARGED
7.000	S700		1.8	SURCHARGED
7.001	S701		1.8	SURCHARGED

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Summary Wizard of 480 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	480 minute 100 year Summer I+45%	32.550	31.980	1.415	0.000	0.21
1.005	S105	480 minute 100 year Summer I+45%	32.380	31.979	1.509	0.000	0.09
8.000	S800	480 minute 100 year Summer I+45%	32.400	31.977	0.502	0.000	0.11
1.006	S106	480 minute 100 year Summer I+45%	32.380	31.973	1.813	0.000	1.04
1.007	FW105	480 minute 100 year Summer I+45%	32.380	30.036	-0.099	0.000	0.26

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		16.1	SURCHARGED
1.005	S105		10.2	SURCHARGED
8.000	S800		7.9	SURCHARGED
1.006	S106		11.3	SURCHARGED
1.007	FW105		11.3	OK

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Summary Wizard of 600 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	600 minute 100 year Summer I+45%	32.600	31.807	0.407	0.000	0.05
1.001	S101	600 minute 100 year Summer I+45%	32.400	31.807	0.597	0.000	0.07
1.002	S102	600 minute 100 year Summer I+45%	32.600	31.806	0.831	0.000	0.08
2.000	S200	600 minute 100 year Summer I+45%	32.600	31.809	0.409	0.000	0.17
2.001	S201	600 minute 100 year Summer I+45%	32.500	31.806	0.776	0.000	0.10
1.003	S103	600 minute 100 year Summer I+45%	32.380	31.804	0.203	0.000	0.00
3.000	S300	600 minute 100 year Summer I+45%	32.600	31.811	0.261	0.000	0.12
4.000	S400	600 minute 100 year Summer I+45%	32.600	31.812	0.337	0.000	0.17
3.001	S301	600 minute 100 year Summer I+45%	32.600	31.807	0.962	0.000	0.13
1.004	S104	600 minute 100 year Summer I+45%	32.380	31.804	0.383	0.000	0.00
5.000	S500	600 minute 100 year Summer I+45%	32.600	31.814	0.414	0.000	0.20
5.001	S501	600 minute 100 year Summer I+45%	32.600	31.809	0.904	0.000	0.09
6.000	S600	600 minute 100 year Summer I+45%	32.600	31.811	0.411	0.000	0.06
6.001	S601	600 minute 100 year Summer I+45%	32.600	31.810	0.595	0.000	0.08
6.002	S602	600 minute 100 year Summer I+45%	32.600	31.810	0.755	0.000	0.09
5.002	S502	600 minute 100 year Summer I+45%	32.600	31.808	1.098	0.000	0.18
5.003	S503	600 minute 100 year Summer I+45%	32.500	31.807	1.147	0.000	0.14
7.000	S700	600 minute 100 year Summer I+45%	32.600	31.807	0.407	0.000	0.09
7.001	S701	600 minute 100 year Summer I+45%	32.600	31.806	0.506	0.000	0.03

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Summary Wizard of 600 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.8	SURCHARGED
1.001	S101		3.8	SURCHARGED
1.002	S102		4.3	SURCHARGED
2.000	S200		3.2	SURCHARGED
2.001	S201		5.8	SURCHARGED
1.003	S103		5.0	SURCHARGED
3.000	S300		13.7	SURCHARGED
4.000	S400		10.7	SURCHARGED
3.001	S301		22.4	SURCHARGED
1.004	S104		14.1	SURCHARGED
5.000	S500		3.8	SURCHARGED
5.001	S501		4.4	SURCHARGED
6.000	S600		1.7	SURCHARGED
6.001	S601		2.0	SURCHARGED
6.002	S602		4.8	SURCHARGED
5.002	S502		11.1	SURCHARGED
5.003	S503		10.9	SURCHARGED
7.000	S700		1.5	SURCHARGED
7.001	S701		1.5	SURCHARGED

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Summary Wizard of 600 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	600 minute 100 year Summer I+45%	32.550	31.806	1.241	0.000	0.18
1.005	S105	600 minute 100 year Summer I+45%	32.380	31.804	1.334	0.000	0.09
8.000	S800	600 minute 100 year Summer I+45%	32.400	31.802	0.327	0.000	0.09
1.006	S106	600 minute 100 year Summer I+45%	32.380	31.799	1.639	0.000	1.00
1.007	FW105	600 minute 100 year Summer I+45%	32.380	30.035	-0.100	0.000	0.25

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		13.6	SURCHARGED
1.005	S105		9.7	SURCHARGED
8.000	S800		6.7	SURCHARGED
1.006	S106		10.8	SURCHARGED
1.007	FW105		10.8	OK

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Summary Wizard of 720 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	720 minute 100 year Summer I+45%	32.600	31.630	0.230	0.000	0.04
1.001	S101	720 minute 100 year Summer I+45%	32.400	31.629	0.419	0.000	0.06
1.002	S102	720 minute 100 year Summer I+45%	32.600	31.628	0.653	0.000	0.07
2.000	S200	720 minute 100 year Summer I+45%	32.600	31.632	0.232	0.000	0.14
2.001	S201	720 minute 100 year Summer I+45%	32.500	31.629	0.599	0.000	0.09
1.003	S103	720 minute 100 year Summer I+45%	32.380	31.627	0.026	0.000	0.00
3.000	S300	720 minute 100 year Summer I+45%	32.600	31.633	0.083	0.000	0.11
4.000	S400	720 minute 100 year Summer I+45%	32.600	31.634	0.159	0.000	0.15
3.001	S301	720 minute 100 year Summer I+45%	32.600	31.629	0.784	0.000	0.11
1.004	S104	720 minute 100 year Summer I+45%	32.380	31.627	0.206	0.000	0.00
5.000	S500	720 minute 100 year Summer I+45%	32.600	31.636	0.236	0.000	0.18
5.001	S501	720 minute 100 year Summer I+45%	32.600	31.632	0.727	0.000	0.08
6.000	S600	720 minute 100 year Summer I+45%	32.600	31.633	0.233	0.000	0.06
6.001	S601	720 minute 100 year Summer I+45%	32.600	31.633	0.418	0.000	0.07
6.002	S602	720 minute 100 year Summer I+45%	32.600	31.632	0.577	0.000	0.08
5.002	S502	720 minute 100 year Summer I+45%	32.600	31.630	0.920	0.000	0.16
5.003	S503	720 minute 100 year Summer I+45%	32.500	31.629	0.969	0.000	0.12
7.000	S700	720 minute 100 year Summer I+45%	32.600	31.630	0.230	0.000	0.07
7.001	S701	720 minute 100 year Summer I+45%	32.600	31.629	0.329	0.000	0.03

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Summary Wizard of 720 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.7	SURCHARGED
1.001	S101		3.3	SURCHARGED
1.002	S102		3.7	SURCHARGED
2.000	S200		2.8	SURCHARGED
2.001	S201		5.1	SURCHARGED
1.003	S103		4.6	SURCHARGED
3.000	S300		11.9	SURCHARGED
4.000	S400		9.3	SURCHARGED
3.001	S301		19.5	SURCHARGED
1.004	S104		12.8	SURCHARGED
5.000	S500		3.3	SURCHARGED
5.001	S501		3.8	SURCHARGED
6.000	S600		1.5	SURCHARGED
6.001	S601		1.7	SURCHARGED
6.002	S602		4.2	SURCHARGED
5.002	S502		9.6	SURCHARGED
5.003	S503		9.5	SURCHARGED
7.000	S700		1.3	SURCHARGED
7.001	S701		1.3	SURCHARGED

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Summary Wizard of 720 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	720 minute 100 year Summer I+45%	32.550	31.628	1.063	0.000	0.15
1.005	S105	720 minute 100 year Summer I+45%	32.380	31.627	1.157	0.000	0.08
8.000	S800	720 minute 100 year Summer I+45%	32.400	31.625	0.150	0.000	0.08
1.006	S106	720 minute 100 year Summer I+45%	32.380	31.622	1.462	0.000	0.95
1.007	FW105	720 minute 100 year Summer I+45%	32.380	30.034	-0.101	0.000	0.23

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		11.8	SURCHARGED
1.005	S105		9.3	SURCHARGED
8.000	S800		5.8	SURCHARGED
1.006	S106		10.3	SURCHARGED
1.007	FW105		10.3	OK

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Summary Wizard of 960 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	960 minute 100 year Summer I+45%	32.600	31.459	0.059	0.000	0.03
1.001	S101	960 minute 100 year Summer I+45%	32.400	31.458	0.248	0.000	0.05
1.002	S102	960 minute 100 year Summer I+45%	32.600	31.457	0.482	0.000	0.06
2.000	S200	960 minute 100 year Summer I+45%	32.600	31.461	0.061	0.000	0.12
2.001	S201	960 minute 100 year Summer I+45%	32.500	31.458	0.428	0.000	0.07
1.003	S103	960 minute 100 year Summer I+45%	32.380	31.456	-0.145	0.000	0.00
3.000	S300	960 minute 100 year Summer I+45%	32.600	31.461	-0.089	0.000	0.09
4.000	S400	960 minute 100 year Summer I+45%	32.600	31.462	-0.013	0.000	0.12
3.001	S301	960 minute 100 year Summer I+45%	32.600	31.457	0.612	0.000	0.09
1.004	S104	960 minute 100 year Summer I+45%	32.380	31.455	0.034	0.000	0.00
5.000	S500	960 minute 100 year Summer I+45%	32.600	31.464	0.064	0.000	0.14
5.001	S501	960 minute 100 year Summer I+45%	32.600	31.459	0.554	0.000	0.07
6.000	S600	960 minute 100 year Summer I+45%	32.600	31.461	0.061	0.000	0.05
6.001	S601	960 minute 100 year Summer I+45%	32.600	31.460	0.245	0.000	0.06
6.002	S602	960 minute 100 year Summer I+45%	32.600	31.460	0.405	0.000	0.06
5.002	S502	960 minute 100 year Summer I+45%	32.600	31.458	0.748	0.000	0.13
5.003	S503	960 minute 100 year Summer I+45%	32.500	31.457	0.797	0.000	0.10
7.000	S700	960 minute 100 year Summer I+45%	32.600	31.458	0.058	0.000	0.06
7.001	S701	960 minute 100 year Summer I+45%	32.600	31.457	0.157	0.000	0.02

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Summary Wizard of 960 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.6	SURCHARGED
1.001	S101		2.7	SURCHARGED
1.002	S102		3.0	SURCHARGED
2.000	S200		2.2	SURCHARGED
2.001	S201		4.1	SURCHARGED
1.003	S103		4.3	OK
3.000	S300		9.5	OK
4.000	S400		7.4	OK
3.001	S301		15.6	SURCHARGED
1.004	S104		11.1	SURCHARGED
5.000	S500		2.7	SURCHARGED
5.001	S501		3.1	SURCHARGED
6.000	S600		1.2	SURCHARGED
6.001	S601		1.4	SURCHARGED
6.002	S602		3.3	SURCHARGED
5.002	S502		7.7	SURCHARGED
5.003	S503		7.6	SURCHARGED
7.000	S700		1.0	SURCHARGED
7.001	S701		1.0	SURCHARGED

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Summary Wizard of 960 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	960 minute 100 year Summer I+45%	32.550	31.456	0.891	0.000	0.12
1.005	S105	960 minute 100 year Summer I+45%	32.380	31.455	0.985	0.000	0.08
8.000	S800	960 minute 100 year Summer I+45%	32.400	31.456	-0.019	0.000	0.07
1.006	S106	960 minute 100 year Summer I+45%	32.380	31.455	1.295	0.000	0.90
1.007	FW105	960 minute 100 year Summer I+45%	32.380	30.033	-0.102	0.000	0.22

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		9.5	SURCHARGED
1.005	S105		9.4	SURCHARGED
8.000	S800		4.6	OK
1.006	S106		9.8	SURCHARGED
1.007	FW105		9.8	OK

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Summary Wizard of 1440 minute 100 year Summer I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	1440 minute 100 year Summer I+45%	32.600	31.310	-0.090	0.000	0.02
1.001	S101	1440 minute 100 year Summer I+45%	32.400	31.310	0.100	0.000	0.04
1.002	S102	1440 minute 100 year Summer I+45%	32.600	31.309	0.334	0.000	0.05
2.000	S200	1440 minute 100 year Summer I+45%	32.600	31.312	-0.088	0.000	0.08
2.001	S201	1440 minute 100 year Summer I+45%	32.500	31.309	0.279	0.000	0.05
1.003	S103	1440 minute 100 year Summer I+45%	32.380	31.307	-0.294	0.000	0.00
3.000	S300	1440 minute 100 year Summer I+45%	32.600	31.313	-0.237	0.000	0.06
4.000	S400	1440 minute 100 year Summer I+45%	32.600	31.314	-0.161	0.000	0.09
3.001	S301	1440 minute 100 year Summer I+45%	32.600	31.309	0.464	0.000	0.07
1.004	S104	1440 minute 100 year Summer I+45%	32.380	31.307	-0.114	0.000	0.00
5.000	S500	1440 minute 100 year Summer I+45%	32.600	31.312	-0.088	0.000	0.10
5.001	S501	1440 minute 100 year Summer I+45%	32.600	31.307	0.402	0.000	0.05
6.000	S600	1440 minute 100 year Summer I+45%	32.600	31.309	-0.091	0.000	0.03
6.001	S601	1440 minute 100 year Summer I+45%	32.600	31.308	0.093	0.000	0.04
6.002	S602	1440 minute 100 year Summer I+45%	32.600	31.308	0.253	0.000	0.05
5.002	S502	1440 minute 100 year Summer I+45%	32.600	31.306	0.596	0.000	0.09
5.003	S503	1440 minute 100 year Summer I+45%	32.500	31.305	0.645	0.000	0.07
7.000	S700	1440 minute 100 year Summer I+45%	32.600	31.306	-0.094	0.000	0.04
7.001	S701	1440 minute 100 year Summer I+45%	32.600	31.305	0.005	0.000	0.02

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Summary Wizard of 1440 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	OK
1.001	S101		1.9	SURCHARGED
1.002	S102		2.3	SURCHARGED
2.000	S200		1.6	OK
2.001	S201		3.1	SURCHARGED
1.003	S103		3.6	OK
3.000	S300		6.9	OK
4.000	S400		5.4	OK
3.001	S301		12.4	SURCHARGED
1.004	S104		9.5	OK
5.000	S500		1.9	OK
5.001	S501		2.3	SURCHARGED
6.000	S600		0.9	OK
6.001	S601		1.0	SURCHARGED
6.002	S602		2.5	SURCHARGED
5.002	S502		5.7	SURCHARGED
5.003	S503		5.6	SURCHARGED
7.000	S700		0.8	OK
7.001	S701		0.8	SURCHARGED

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Summary Wizard of 1440 minute 100 year Summer I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	1440 minute 100 year Summer I+45%	32.550	31.304	0.739	0.000	0.09
1.005	S105	1440 minute 100 year Summer I+45%	32.380	31.303	0.833	0.000	0.07
8.000	S800	1440 minute 100 year Summer I+45%	32.400	31.301	-0.174	0.000	0.05
1.006	S106	1440 minute 100 year Summer I+45%	32.380	31.298	1.138	0.000	0.85
1.007	FW105	1440 minute 100 year Summer I+45%	32.380	30.031	-0.104	0.000	0.21

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		7.0	SURCHARGED
1.005	S105		8.5	SURCHARGED
8.000	S800		3.4	OK
1.006	S106		9.3	SURCHARGED
1.007	FW105		9.3	OK

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Summary Wizard of 15 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	15 minute 1 year Winter I+0%	32.600	31.274	-0.126	0.000	0.06	
1.001	S101	15 minute 1 year Winter I+0%	32.400	31.030	-0.180	0.000	0.09	
1.002	S102	15 minute 1 year Winter I+0%	32.600	30.800	-0.175	0.000	0.11	
2.000	S200	15 minute 1 year Winter I+0%	32.600	31.298	-0.102	0.000	0.22	
2.001	S201	15 minute 1 year Winter I+0%	32.500	30.860	-0.170	0.000	0.14	
1.003	S103	15 minute 1 year Winter I+0%	32.380	30.419	-1.182	0.000	0.01	
3.000	S300	15 minute 1 year Winter I+0%	32.600	31.333	-0.217	0.000	0.17	
4.000	S400	15 minute 1 year Winter I+0%	32.600	31.324	-0.151	0.000	0.23	
3.001	S301	15 minute 1 year Winter I+0%	32.600	30.581	-0.264	0.000	0.19	
1.004	S104	15 minute 1 year Winter I+0%	32.380	30.359	-1.062	0.000	0.01	
5.000	S500	15 minute 1 year Winter I+0%	32.600	31.304	-0.096	0.000	0.27	
5.001	S501	15 minute 1 year Winter I+0%	32.600	30.735	-0.170	0.000	0.14	
6.000	S600	15 minute 1 year Winter I+0%	32.600	31.280	-0.120	0.000	0.09	
6.001	S601	15 minute 1 year Winter I+0%	32.600	31.098	-0.117	0.000	0.11	
6.002	S602	15 minute 1 year Winter I+0%	32.600	30.880	-0.175	0.000	0.11	
5.002	S502	15 minute 1 year Winter I+0%	32.600	30.510	-0.200	0.000	0.24	
5.003	S503	15 minute 1 year Winter I+0%	32.500	30.449	-0.211	0.000	0.19	
7.000	S700	15 minute 1 year Winter I+0%	32.600	31.284	-0.116	0.000	0.12	
7.001	S701	15 minute 1 year Winter I+0%	32.600	31.170	-0.130	0.000	0.04	

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Summary Wizard of 15 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.1	OK
1.001	S101	4.5	OK
1.002	S102	5.6	OK
2.000	S200	4.2	OK
2.001	S201	7.7	OK
1.003	S103	21.9	OK
3.000	S300	18.2	OK
4.000	S400	14.3	OK
3.001	S301	32.7	OK
1.004	S104	43.8	OK
5.000	S500	5.2	OK
5.001	S501	6.4	OK
6.000	S600	2.3	OK
6.001	S601	2.6	OK
6.002	S602	5.9	OK
5.002	S502	14.8	OK
5.003	S503	14.8	OK
7.000	S700	2.0	OK
7.001	S701	2.0	OK

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Summary Wizard of 15 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	15 minute 1 year Winter I+0%	32.550	30.364	-0.201	0.000	0.24	
1.005	S105	15 minute 1 year Winter I+0%	32.380	30.359	-0.111	0.000	0.04	
8.000	S800	15 minute 1 year Winter I+0%	32.400	31.303	-0.172	0.000	0.12	
1.006	S106	15 minute 1 year Winter I+0%	32.380	30.356	0.196	0.000	0.46	
1.007	FW105	15 minute 1 year Winter I+0%	32.380	30.018	-0.117	0.000	0.11	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	18.4	OK
1.005	S105	4.9	OK
8.000	S800	8.9	OK
1.006	S106	5.0	SURCHARGED
1.007	FW105	5.0	OK

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Summary Wizard of 30 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	30 minute 1 year Winter I+0%	32.600	31.271	-0.129	0.000	0.05	
1.001	S101	30 minute 1 year Winter I+0%	32.400	31.025	-0.185	0.000	0.07	
1.002	S102	30 minute 1 year Winter I+0%	32.600	30.796	-0.179	0.000	0.09	
2.000	S200	30 minute 1 year Winter I+0%	32.600	31.292	-0.108	0.000	0.18	
2.001	S201	30 minute 1 year Winter I+0%	32.500	30.855	-0.175	0.000	0.11	
1.003	S103	30 minute 1 year Winter I+0%	32.380	30.416	-1.185	0.000	0.00	
3.000	S300	30 minute 1 year Winter I+0%	32.600	31.322	-0.228	0.000	0.13	
4.000	S400	30 minute 1 year Winter I+0%	32.600	31.315	-0.160	0.000	0.18	
3.001	S301	30 minute 1 year Winter I+0%	32.600	30.567	-0.278	0.000	0.15	
1.004	S104	30 minute 1 year Winter I+0%	32.380	30.397	-1.024	0.000	0.01	
5.000	S500	30 minute 1 year Winter I+0%	32.600	31.297	-0.103	0.000	0.22	
5.001	S501	30 minute 1 year Winter I+0%	32.600	30.729	-0.176	0.000	0.11	
6.000	S600	30 minute 1 year Winter I+0%	32.600	31.276	-0.124	0.000	0.07	
6.001	S601	30 minute 1 year Winter I+0%	32.600	31.094	-0.121	0.000	0.08	
6.002	S602	30 minute 1 year Winter I+0%	32.600	30.876	-0.179	0.000	0.09	
5.002	S502	30 minute 1 year Winter I+0%	32.600	30.501	-0.209	0.000	0.20	
5.003	S503	30 minute 1 year Winter I+0%	32.500	30.440	-0.220	0.000	0.16	
7.000	S700	30 minute 1 year Winter I+0%	32.600	31.280	-0.120	0.000	0.09	
7.001	S701	30 minute 1 year Winter I+0%	32.600	31.168	-0.132	0.000	0.03	

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Summary Wizard of 30 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	0.9	OK
1.001	S101	3.8	OK
1.002	S102	4.8	OK
2.000	S200	3.4	OK
2.001	S201	6.3	OK
1.003	S103	17.0	OK
3.000	S300	14.6	OK
4.000	S400	11.4	OK
3.001	S301	26.0	OK
1.004	S104	31.5	OK
5.000	S500	4.1	OK
5.001	S501	5.1	OK
6.000	S600	1.8	OK
6.001	S601	2.1	OK
6.002	S602	4.9	OK
5.002	S502	12.2	OK
5.003	S503	12.3	OK
7.000	S700	1.6	OK
7.001	S701	1.6	OK

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Summary Wizard of 30 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	30 minute 1 year Winter I+0%	32.550	30.397	-0.168	0.000	0.20	
1.005	S105	30 minute 1 year Winter I+0%	32.380	30.397	-0.073	0.000	0.04	
8.000	S800	30 minute 1 year Winter I+0%	32.400	31.297	-0.178	0.000	0.10	
1.006	S106	30 minute 1 year Winter I+0%	32.380	30.394	0.234	0.000	0.48	
1.007	FW105	30 minute 1 year Winter I+0%	32.380	30.019	-0.116	0.000	0.12	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	15.3	OK
1.005	S105	5.1	OK
8.000	S800	7.1	OK
1.006	S106	5.2	SURCHARGED
1.007	FW105	5.2	OK

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Summary Wizard of 60 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	60 minute 1 year Winter I+0%	32.600	31.268	-0.132	0.000	0.03	
1.001	S101	60 minute 1 year Winter I+0%	32.400	31.018	-0.192	0.000	0.05	
1.002	S102	60 minute 1 year Winter I+0%	32.600	30.788	-0.187	0.000	0.07	
2.000	S200	60 minute 1 year Winter I+0%	32.600	31.285	-0.115	0.000	0.12	
2.001	S201	60 minute 1 year Winter I+0%	32.500	30.847	-0.183	0.000	0.08	
1.003	S103	60 minute 1 year Winter I+0%	32.380	30.427	-1.174	0.000	0.00	
3.000	S300	60 minute 1 year Winter I+0%	32.600	31.311	-0.239	0.000	0.09	
4.000	S400	60 minute 1 year Winter I+0%	32.600	31.303	-0.172	0.000	0.13	
3.001	S301	60 minute 1 year Winter I+0%	32.600	30.550	-0.295	0.000	0.10	
1.004	S104	60 minute 1 year Winter I+0%	32.380	30.427	-0.994	0.000	0.00	
5.000	S500	60 minute 1 year Winter I+0%	32.600	31.288	-0.112	0.000	0.15	
5.001	S501	60 minute 1 year Winter I+0%	32.600	30.720	-0.185	0.000	0.07	
6.000	S600	60 minute 1 year Winter I+0%	32.600	31.271	-0.129	0.000	0.05	
6.001	S601	60 minute 1 year Winter I+0%	32.600	31.088	-0.127	0.000	0.06	
6.002	S602	60 minute 1 year Winter I+0%	32.600	30.867	-0.188	0.000	0.06	
5.002	S502	60 minute 1 year Winter I+0%	32.600	30.484	-0.226	0.000	0.14	
5.003	S503	60 minute 1 year Winter I+0%	32.500	30.428	-0.232	0.000	0.11	
7.000	S700	60 minute 1 year Winter I+0%	32.600	31.274	-0.126	0.000	0.06	
7.001	S701	60 minute 1 year Winter I+0%	32.600	31.166	-0.134	0.000	0.02	

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Summary Wizard of 60 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	0.6	OK
1.001	S101	2.7	OK
1.002	S102	3.4	OK
2.000	S200	2.3	OK
2.001	S201	4.4	OK
1.003	S103	11.5	OK
3.000	S300	10.0	OK
4.000	S400	7.8	OK
3.001	S301	17.8	OK
1.004	S104	20.9	OK
5.000	S500	2.8	OK
5.001	S501	3.5	OK
6.000	S600	1.2	OK
6.001	S601	1.5	OK
6.002	S602	3.5	OK
5.002	S502	8.6	OK
5.003	S503	8.6	OK
7.000	S700	1.1	OK
7.001	S701	1.1	OK

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Summary Wizard of 60 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	60 minute 1 year Winter I+0%	32.550	30.428	-0.137	0.000	0.14	
1.005	S105	60 minute 1 year Winter I+0%	32.380	30.427	-0.043	0.000	0.05	
8.000	S800	60 minute 1 year Winter I+0%	32.400	31.288	-0.187	0.000	0.07	
1.006	S106	60 minute 1 year Winter I+0%	32.380	30.423	0.263	0.000	0.50	
1.007	FW105	60 minute 1 year Winter I+0%	32.380	30.020	-0.115	0.000	0.12	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	10.6	OK
1.005	S105	5.3	OK
8.000	S800	4.9	OK
1.006	S106	5.4	SURCHARGED
1.007	FW105	5.4	OK

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Summary Wizard of 120 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	120 minute 1 year Winter I+0%	32.600	31.265	-0.135	0.000	0.02
1.001	S101	120 minute 1 year Winter I+0%	32.400	31.012	-0.198	0.000	0.03
1.002	S102	120 minute 1 year Winter I+0%	32.600	30.780	-0.195	0.000	0.04
2.000	S200	120 minute 1 year Winter I+0%	32.600	31.278	-0.122	0.000	0.08
2.001	S201	120 minute 1 year Winter I+0%	32.500	30.838	-0.192	0.000	0.05
1.003	S103	120 minute 1 year Winter I+0%	32.380	30.440	-1.161	0.000	0.00
3.000	S300	120 minute 1 year Winter I+0%	32.600	31.297	-0.253	0.000	0.06
4.000	S400	120 minute 1 year Winter I+0%	32.600	31.293	-0.182	0.000	0.08
3.001	S301	120 minute 1 year Winter I+0%	32.600	30.533	-0.312	0.000	0.07
1.004	S104	120 minute 1 year Winter I+0%	32.380	30.440	-0.981	0.000	0.00
5.000	S500	120 minute 1 year Winter I+0%	32.600	31.281	-0.119	0.000	0.10
5.001	S501	120 minute 1 year Winter I+0%	32.600	30.712	-0.193	0.000	0.05
6.000	S600	120 minute 1 year Winter I+0%	32.600	31.267	-0.133	0.000	0.03
6.001	S601	120 minute 1 year Winter I+0%	32.600	31.084	-0.131	0.000	0.04
6.002	S602	120 minute 1 year Winter I+0%	32.600	30.860	-0.195	0.000	0.04
5.002	S502	120 minute 1 year Winter I+0%	32.600	30.471	-0.239	0.000	0.09
5.003	S503	120 minute 1 year Winter I+0%	32.500	30.442	-0.218	0.000	0.07
7.000	S700	120 minute 1 year Winter I+0%	32.600	31.269	-0.131	0.000	0.04
7.001	S701	120 minute 1 year Winter I+0%	32.600	31.161	-0.139	0.000	0.02

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Summary Wizard of 120 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	OK
1.001	S101		1.8	OK
1.002	S102		2.2	OK
2.000	S200		1.5	OK
2.001	S201		2.9	OK
1.003	S103		7.3	OK
3.000	S300		6.5	OK
4.000	S400		5.1	OK
3.001	S301		11.5	OK
1.004	S104		13.3	OK
5.000	S500		1.8	OK
5.001	S501		2.3	OK
6.000	S600		0.8	OK
6.001	S601		0.9	OK
6.002	S602		2.3	OK
5.002	S502		5.6	OK
5.003	S503		5.6	OK
7.000	S700		0.7	OK
7.001	S701		0.7	OK

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Summary Wizard of 120 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	120 minute 1 year Winter I+0%	32.550	30.441	-0.124	0.000	0.09
1.005	S105	120 minute 1 year Winter I+0%	32.380	30.440	-0.030	0.000	0.05
8.000	S800	120 minute 1 year Winter I+0%	32.400	31.280	-0.195	0.000	0.04
1.006	S106	120 minute 1 year Winter I+0%	32.380	30.435	0.275	0.000	0.51
1.007	FW105	120 minute 1 year Winter I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		6.9	OK
1.005	S105		5.4	OK
8.000	S800		3.2	OK
1.006	S106		5.5	SURCHARGED
1.007	FW105		5.5	OK

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Summary Wizard of 180 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	180 minute 1 year Winter I+0%	32.600	31.262	-0.138	0.000	0.02
1.001	S101	180 minute 1 year Winter I+0%	32.400	31.009	-0.201	0.000	0.03
1.002	S102	180 minute 1 year Winter I+0%	32.600	30.777	-0.198	0.000	0.03
2.000	S200	180 minute 1 year Winter I+0%	32.600	31.274	-0.126	0.000	0.06
2.001	S201	180 minute 1 year Winter I+0%	32.500	30.834	-0.196	0.000	0.04
1.003	S103	180 minute 1 year Winter I+0%	32.380	30.441	-1.160	0.000	0.00
3.000	S300	180 minute 1 year Winter I+0%	32.600	31.291	-0.259	0.000	0.05
4.000	S400	180 minute 1 year Winter I+0%	32.600	31.286	-0.189	0.000	0.06
3.001	S301	180 minute 1 year Winter I+0%	32.600	30.524	-0.321	0.000	0.05
1.004	S104	180 minute 1 year Winter I+0%	32.380	30.441	-0.980	0.000	0.00
5.000	S500	180 minute 1 year Winter I+0%	32.600	31.277	-0.123	0.000	0.07
5.001	S501	180 minute 1 year Winter I+0%	32.600	30.708	-0.197	0.000	0.04
6.000	S600	180 minute 1 year Winter I+0%	32.600	31.266	-0.134	0.000	0.02
6.001	S601	180 minute 1 year Winter I+0%	32.600	31.082	-0.133	0.000	0.03
6.002	S602	180 minute 1 year Winter I+0%	32.600	30.856	-0.199	0.000	0.03
5.002	S502	180 minute 1 year Winter I+0%	32.600	30.462	-0.248	0.000	0.07
5.003	S503	180 minute 1 year Winter I+0%	32.500	30.443	-0.217	0.000	0.06
7.000	S700	180 minute 1 year Winter I+0%	32.600	31.267	-0.133	0.000	0.03
7.001	S701	180 minute 1 year Winter I+0%	32.600	31.158	-0.142	0.000	0.01

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Summary Wizard of 180 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.4	OK
1.002	S102		1.7	OK
2.000	S200		1.1	OK
2.001	S201		2.2	OK
1.003	S103		5.7	OK
3.000	S300		4.9	OK
4.000	S400		3.9	OK
3.001	S301		8.8	OK
1.004	S104		10.4	OK
5.000	S500		1.4	OK
5.001	S501		1.8	OK
6.000	S600		0.6	OK
6.001	S601		0.7	OK
6.002	S602		1.8	OK
5.002	S502		4.3	OK
5.003	S503		4.3	OK
7.000	S700		0.5	OK
7.001	S701		0.5	OK

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Summary Wizard of 180 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	180 minute 1 year Winter I+0%	32.550	30.442	-0.123	0.000	0.07
1.005	S105	180 minute 1 year Winter I+0%	32.380	30.441	-0.029	0.000	0.05
8.000	S800	180 minute 1 year Winter I+0%	32.400	31.277	-0.198	0.000	0.03
1.006	S106	180 minute 1 year Winter I+0%	32.380	30.436	0.276	0.000	0.51
1.007	FW105	180 minute 1 year Winter I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		5.3	OK
1.005	S105		5.3	OK
8.000	S800		2.4	OK
1.006	S106		5.5	SURCHARGED
1.007	FW105		5.5	OK

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Summary Wizard of 240 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	240 minute 1 year Winter I+0%	32.600	31.260	-0.140	0.000	0.01
1.001	S101	240 minute 1 year Winter I+0%	32.400	31.008	-0.202	0.000	0.02
1.002	S102	240 minute 1 year Winter I+0%	32.600	30.775	-0.200	0.000	0.03
2.000	S200	240 minute 1 year Winter I+0%	32.600	31.271	-0.129	0.000	0.05
2.001	S201	240 minute 1 year Winter I+0%	32.500	30.831	-0.199	0.000	0.03
1.003	S103	240 minute 1 year Winter I+0%	32.380	30.438	-1.163	0.000	0.00
3.000	S300	240 minute 1 year Winter I+0%	32.600	31.287	-0.263	0.000	0.04
4.000	S400	240 minute 1 year Winter I+0%	32.600	31.283	-0.192	0.000	0.05
3.001	S301	240 minute 1 year Winter I+0%	32.600	30.519	-0.326	0.000	0.04
1.004	S104	240 minute 1 year Winter I+0%	32.380	30.438	-0.983	0.000	0.00
5.000	S500	240 minute 1 year Winter I+0%	32.600	31.274	-0.126	0.000	0.06
5.001	S501	240 minute 1 year Winter I+0%	32.600	30.706	-0.199	0.000	0.03
6.000	S600	240 minute 1 year Winter I+0%	32.600	31.264	-0.136	0.000	0.02
6.001	S601	240 minute 1 year Winter I+0%	32.600	31.081	-0.134	0.000	0.02
6.002	S602	240 minute 1 year Winter I+0%	32.600	30.854	-0.201	0.000	0.03
5.002	S502	240 minute 1 year Winter I+0%	32.600	30.456	-0.254	0.000	0.06
5.003	S503	240 minute 1 year Winter I+0%	32.500	30.439	-0.221	0.000	0.05
7.000	S700	240 minute 1 year Winter I+0%	32.600	31.266	-0.134	0.000	0.03
7.001	S701	240 minute 1 year Winter I+0%	32.600	31.157	-0.143	0.000	0.01

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Summary Wizard of 240 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.1	OK
1.002	S102		1.4	OK
2.000	S200		0.9	OK
2.001	S201		1.8	OK
1.003	S103		4.8	OK
3.000	S300		4.1	OK
4.000	S400		3.2	OK
3.001	S301		7.3	OK
1.004	S104		8.9	OK
5.000	S500		1.1	OK
5.001	S501		1.5	OK
6.000	S600		0.5	OK
6.001	S601		0.6	OK
6.002	S602		1.5	OK
5.002	S502		3.6	OK
5.003	S503		3.6	OK
7.000	S700		0.4	OK
7.001	S701		0.4	OK

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Summary Wizard of 240 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	240 minute 1 year Winter I+0%	32.550	30.438	-0.127	0.000	0.06
1.005	S105	240 minute 1 year Winter I+0%	32.380	30.438	-0.032	0.000	0.05
8.000	S800	240 minute 1 year Winter I+0%	32.400	31.275	-0.200	0.000	0.03
1.006	S106	240 minute 1 year Winter I+0%	32.380	30.433	0.273	0.000	0.51
1.007	FW105	240 minute 1 year Winter I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		4.4	OK
1.005	S105		5.2	OK
8.000	S800		2.0	OK
1.006	S106		5.5	SURCHARGED
1.007	FW105		5.5	OK

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Summary Wizard of 360 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	360 minute 1 year Winter I+0%	32.600	31.257	-0.143	0.000	0.01
1.001	S101	360 minute 1 year Winter I+0%	32.400	31.003	-0.207	0.000	0.02
1.002	S102	360 minute 1 year Winter I+0%	32.600	30.772	-0.203	0.000	0.02
2.000	S200	360 minute 1 year Winter I+0%	32.600	31.269	-0.131	0.000	0.04
2.001	S201	360 minute 1 year Winter I+0%	32.500	30.829	-0.201	0.000	0.02
1.003	S103	360 minute 1 year Winter I+0%	32.380	30.426	-1.175	0.000	0.00
3.000	S300	360 minute 1 year Winter I+0%	32.600	31.283	-0.267	0.000	0.03
4.000	S400	360 minute 1 year Winter I+0%	32.600	31.278	-0.197	0.000	0.04
3.001	S301	360 minute 1 year Winter I+0%	32.600	30.514	-0.331	0.000	0.03
1.004	S104	360 minute 1 year Winter I+0%	32.380	30.425	-0.996	0.000	0.00
5.000	S500	360 minute 1 year Winter I+0%	32.600	31.271	-0.129	0.000	0.05
5.001	S501	360 minute 1 year Winter I+0%	32.600	30.703	-0.202	0.000	0.02
6.000	S600	360 minute 1 year Winter I+0%	32.600	31.260	-0.140	0.000	0.01
6.001	S601	360 minute 1 year Winter I+0%	32.600	31.078	-0.137	0.000	0.02
6.002	S602	360 minute 1 year Winter I+0%	32.600	30.852	-0.203	0.000	0.02
5.002	S502	360 minute 1 year Winter I+0%	32.600	30.450	-0.260	0.000	0.04
5.003	S503	360 minute 1 year Winter I+0%	32.500	30.427	-0.233	0.000	0.04
7.000	S700	360 minute 1 year Winter I+0%	32.600	31.264	-0.136	0.000	0.02
7.001	S701	360 minute 1 year Winter I+0%	32.600	31.155	-0.145	0.000	0.01

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Summary Wizard of 360 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.9	OK
1.002	S102		1.1	OK
2.000	S200		0.7	OK
2.001	S201		1.4	OK
1.003	S103		3.9	OK
3.000	S300		3.1	OK
4.000	S400		2.4	OK
3.001	S301		5.5	OK
1.004	S104		7.1	OK
5.000	S500		0.9	OK
5.001	S501		1.1	OK
6.000	S600		0.4	OK
6.001	S601		0.5	OK
6.002	S602		1.1	OK
5.002	S502		2.7	OK
5.003	S503		2.7	OK
7.000	S700		0.3	OK
7.001	S701		0.3	OK

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Summary Wizard of 360 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	360 minute 1 year Winter I+0%	32.550	30.426	-0.139	0.000	0.04
1.005	S105	360 minute 1 year Winter I+0%	32.380	30.425	-0.045	0.000	0.04
8.000	S800	360 minute 1 year Winter I+0%	32.400	31.273	-0.202	0.000	0.02
1.006	S106	360 minute 1 year Winter I+0%	32.380	30.422	0.262	0.000	0.50
1.007	FW105	360 minute 1 year Winter I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		3.3	OK
1.005	S105		5.0	OK
8.000	S800		1.5	OK
1.006	S106		5.4	SURCHARGED
1.007	FW105		5.4	OK

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Summary Wizard of 480 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	480 minute 1 year Winter I+0%	32.600	31.256	-0.144	0.000	0.01
1.001	S101	480 minute 1 year Winter I+0%	32.400	30.999	-0.211	0.000	0.01
1.002	S102	480 minute 1 year Winter I+0%	32.600	30.768	-0.207	0.000	0.02
2.000	S200	480 minute 1 year Winter I+0%	32.600	31.267	-0.133	0.000	0.03
2.001	S201	480 minute 1 year Winter I+0%	32.500	30.826	-0.204	0.000	0.02
1.003	S103	480 minute 1 year Winter I+0%	32.380	30.409	-1.192	0.000	0.00
3.000	S300	480 minute 1 year Winter I+0%	32.600	31.281	-0.269	0.000	0.02
4.000	S400	480 minute 1 year Winter I+0%	32.600	31.276	-0.199	0.000	0.03
3.001	S301	480 minute 1 year Winter I+0%	32.600	30.510	-0.335	0.000	0.03
1.004	S104	480 minute 1 year Winter I+0%	32.380	30.408	-1.013	0.000	0.00
5.000	S500	480 minute 1 year Winter I+0%	32.600	31.269	-0.131	0.000	0.04
5.001	S501	480 minute 1 year Winter I+0%	32.600	30.700	-0.205	0.000	0.02
6.000	S600	480 minute 1 year Winter I+0%	32.600	31.259	-0.141	0.000	0.01
6.001	S601	480 minute 1 year Winter I+0%	32.600	31.076	-0.139	0.000	0.01
6.002	S602	480 minute 1 year Winter I+0%	32.600	30.848	-0.207	0.000	0.02
5.002	S502	480 minute 1 year Winter I+0%	32.600	30.447	-0.263	0.000	0.04
5.003	S503	480 minute 1 year Winter I+0%	32.500	30.410	-0.250	0.000	0.03
7.000	S700	480 minute 1 year Winter I+0%	32.600	31.261	-0.139	0.000	0.02
7.001	S701	480 minute 1 year Winter I+0%	32.600	31.154	-0.146	0.000	0.01

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Summary Wizard of 480 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.7	OK
1.002	S102		0.9	OK
2.000	S200		0.6	OK
2.001	S201		1.1	OK
1.003	S103		3.4	OK
3.000	S300		2.5	OK
4.000	S400		2.0	OK
3.001	S301		4.5	OK
1.004	S104		6.2	OK
5.000	S500		0.7	OK
5.001	S501		0.9	OK
6.000	S600		0.3	OK
6.001	S601		0.4	OK
6.002	S602		0.9	OK
5.002	S502		2.2	OK
5.003	S503		2.2	OK
7.000	S700		0.3	OK
7.001	S701		0.3	OK

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Summary Wizard of 480 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	480 minute 1 year Winter I+0%	32.550	30.409	-0.156	0.000	0.04
1.005	S105	480 minute 1 year Winter I+0%	32.380	30.408	-0.062	0.000	0.04
8.000	S800	480 minute 1 year Winter I+0%	32.400	31.268	-0.207	0.000	0.02
1.006	S106	480 minute 1 year Winter I+0%	32.380	30.405	0.245	0.000	0.49
1.007	FW105	480 minute 1 year Winter I+0%	32.380	30.019	-0.116	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.7	OK
1.005	S105		4.9	OK
8.000	S800		1.2	OK
1.006	S106		5.3	SURCHARGED
1.007	FW105		5.3	OK

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Summary Wizard of 600 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	600 minute 1 year Winter I+0%	32.600	31.255	-0.145	0.000	0.01
1.001	S101	600 minute 1 year Winter I+0%	32.400	30.997	-0.213	0.000	0.01
1.002	S102	600 minute 1 year Winter I+0%	32.600	30.766	-0.209	0.000	0.01
2.000	S200	600 minute 1 year Winter I+0%	32.600	31.266	-0.134	0.000	0.03
2.001	S201	600 minute 1 year Winter I+0%	32.500	30.823	-0.207	0.000	0.02
1.003	S103	600 minute 1 year Winter I+0%	32.380	30.403	-1.198	0.000	0.00
3.000	S300	600 minute 1 year Winter I+0%	32.600	31.278	-0.272	0.000	0.02
4.000	S400	600 minute 1 year Winter I+0%	32.600	31.275	-0.200	0.000	0.03
3.001	S301	600 minute 1 year Winter I+0%	32.600	30.508	-0.337	0.000	0.02
1.004	S104	600 minute 1 year Winter I+0%	32.380	30.389	-1.032	0.000	0.00
5.000	S500	600 minute 1 year Winter I+0%	32.600	31.267	-0.133	0.000	0.03
5.001	S501	600 minute 1 year Winter I+0%	32.600	30.697	-0.208	0.000	0.02
6.000	S600	600 minute 1 year Winter I+0%	32.600	31.257	-0.143	0.000	0.01
6.001	S601	600 minute 1 year Winter I+0%	32.600	31.074	-0.141	0.000	0.01
6.002	S602	600 minute 1 year Winter I+0%	32.600	30.845	-0.210	0.000	0.01
5.002	S502	600 minute 1 year Winter I+0%	32.600	30.444	-0.266	0.000	0.03
5.003	S503	600 minute 1 year Winter I+0%	32.500	30.395	-0.265	0.000	0.02
7.000	S700	600 minute 1 year Winter I+0%	32.600	31.260	-0.140	0.000	0.01
7.001	S701	600 minute 1 year Winter I+0%	32.600	31.154	-0.146	0.000	0.01

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Summary Wizard of 600 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.1	OK
1.001	S101		0.6	OK
1.002	S102		0.8	OK
2.000	S200		0.5	OK
2.001	S201		1.0	OK
1.003	S103		3.0	OK
3.000	S300		2.2	OK
4.000	S400		1.7	OK
3.001	S301		3.9	OK
1.004	S104		5.6	OK
5.000	S500		0.6	OK
5.001	S501		0.8	OK
6.000	S600		0.3	OK
6.001	S601		0.3	OK
6.002	S602		0.8	OK
5.002	S502		1.9	OK
5.003	S503		1.9	OK
7.000	S700		0.2	OK
7.001	S701		0.2	OK

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Summary Wizard of 600 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	600 minute 1 year Winter I+0%	32.550	30.390	-0.175	0.000	0.03
1.005	S105	600 minute 1 year Winter I+0%	32.380	30.390	-0.080	0.000	0.04
8.000	S800	600 minute 1 year Winter I+0%	32.400	31.266	-0.209	0.000	0.01
1.006	S106	600 minute 1 year Winter I+0%	32.380	30.387	0.227	0.000	0.48
1.007	FW105	600 minute 1 year Winter I+0%	32.380	30.019	-0.116	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.3	OK
1.005	S105		4.8	OK
8.000	S800		1.1	OK
1.006	S106		5.2	SURCHARGED
1.007	FW105		5.2	OK

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Summary Wizard of 720 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	720 minute 1 year Winter I+0%	32.600	31.255	-0.145	0.000	0.01
1.001	S101	720 minute 1 year Winter I+0%	32.400	30.996	-0.214	0.000	0.01
1.002	S102	720 minute 1 year Winter I+0%	32.600	30.764	-0.211	0.000	0.01
2.000	S200	720 minute 1 year Winter I+0%	32.600	31.265	-0.135	0.000	0.02
2.001	S201	720 minute 1 year Winter I+0%	32.500	30.821	-0.209	0.000	0.02
1.003	S103	720 minute 1 year Winter I+0%	32.380	30.402	-1.199	0.000	0.00
3.000	S300	720 minute 1 year Winter I+0%	32.600	31.275	-0.275	0.000	0.02
4.000	S400	720 minute 1 year Winter I+0%	32.600	31.273	-0.202	0.000	0.02
3.001	S301	720 minute 1 year Winter I+0%	32.600	30.505	-0.340	0.000	0.02
1.004	S104	720 minute 1 year Winter I+0%	32.380	30.372	-1.049	0.000	0.00
5.000	S500	720 minute 1 year Winter I+0%	32.600	31.267	-0.133	0.000	0.03
5.001	S501	720 minute 1 year Winter I+0%	32.600	30.695	-0.210	0.000	0.01
6.000	S600	720 minute 1 year Winter I+0%	32.600	31.256	-0.144	0.000	0.01
6.001	S601	720 minute 1 year Winter I+0%	32.600	31.073	-0.142	0.000	0.01
6.002	S602	720 minute 1 year Winter I+0%	32.600	30.843	-0.212	0.000	0.01
5.002	S502	720 minute 1 year Winter I+0%	32.600	30.443	-0.267	0.000	0.03
5.003	S503	720 minute 1 year Winter I+0%	32.500	30.390	-0.270	0.000	0.02
7.000	S700	720 minute 1 year Winter I+0%	32.600	31.259	-0.141	0.000	0.01
7.001	S701	720 minute 1 year Winter I+0%	32.600	31.153	-0.147	0.000	0.00

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Summary Wizard of 720 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.1	OK
1.001	S101		0.5	OK
1.002	S102		0.7	OK
2.000	S200		0.4	OK
2.001	S201		0.9	OK
1.003	S103		2.7	OK
3.000	S300		1.9	OK
4.000	S400		1.5	OK
3.001	S301		3.4	OK
1.004	S104		5.1	OK
5.000	S500		0.5	OK
5.001	S501		0.7	OK
6.000	S600		0.2	OK
6.001	S601		0.3	OK
6.002	S602		0.7	OK
5.002	S502		1.7	OK
5.003	S503		1.7	OK
7.000	S700		0.2	OK
7.001	S701		0.2	OK

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Summary Wizard of 720 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	720 minute 1 year Winter I+0%	32.550	30.372	-0.193	0.000	0.03
1.005	S105	720 minute 1 year Winter I+0%	32.380	30.372	-0.098	0.000	0.04
8.000	S800	720 minute 1 year Winter I+0%	32.400	31.264	-0.211	0.000	0.01
1.006	S106	720 minute 1 year Winter I+0%	32.380	30.369	0.209	0.000	0.47
1.007	FW105	720 minute 1 year Winter I+0%	32.380	30.019	-0.116	0.000	0.11

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.1	OK
1.005	S105		4.6	OK
8.000	S800		0.9	OK
1.006	S106		5.1	SURCHARGED
1.007	FW105		5.1	OK

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Summary Wizard of 960 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	960 minute 1 year Winter I+0%	32.600	31.254	-0.146	0.000	0.01
1.001	S101	960 minute 1 year Winter I+0%	32.400	30.994	-0.216	0.000	0.01
1.002	S102	960 minute 1 year Winter I+0%	32.600	30.761	-0.214	0.000	0.01
2.000	S200	960 minute 1 year Winter I+0%	32.600	31.263	-0.137	0.000	0.02
2.001	S201	960 minute 1 year Winter I+0%	32.500	30.818	-0.212	0.000	0.01
1.003	S103	960 minute 1 year Winter I+0%	32.380	30.402	-1.199	0.000	0.00
3.000	S300	960 minute 1 year Winter I+0%	32.600	31.270	-0.280	0.000	0.01
4.000	S400	960 minute 1 year Winter I+0%	32.600	31.271	-0.204	0.000	0.02
3.001	S301	960 minute 1 year Winter I+0%	32.600	30.499	-0.346	0.000	0.02
1.004	S104	960 minute 1 year Winter I+0%	32.380	30.339	-1.082	0.000	0.00
5.000	S500	960 minute 1 year Winter I+0%	32.600	31.265	-0.135	0.000	0.02
5.001	S501	960 minute 1 year Winter I+0%	32.600	30.693	-0.212	0.000	0.01
6.000	S600	960 minute 1 year Winter I+0%	32.600	31.255	-0.145	0.000	0.01
6.001	S601	960 minute 1 year Winter I+0%	32.600	31.072	-0.143	0.000	0.01
6.002	S602	960 minute 1 year Winter I+0%	32.600	30.841	-0.214	0.000	0.01
5.002	S502	960 minute 1 year Winter I+0%	32.600	30.441	-0.269	0.000	0.02
5.003	S503	960 minute 1 year Winter I+0%	32.500	30.385	-0.275	0.000	0.02
7.000	S700	960 minute 1 year Winter I+0%	32.600	31.257	-0.143	0.000	0.01
7.001	S701	960 minute 1 year Winter I+0%	32.600	31.153	-0.147	0.000	0.00

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Summary Wizard of 960 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.1	OK
1.001	S101		0.4	OK
1.002	S102		0.5	OK
2.000	S200		0.4	OK
2.001	S201		0.7	OK
1.003	S103		2.2	OK
3.000	S300		1.6	OK
4.000	S400		1.2	OK
3.001	S301		2.8	OK
1.004	S104		4.4	OK
5.000	S500		0.4	OK
5.001	S501		0.6	OK
6.000	S600		0.2	OK
6.001	S601		0.2	OK
6.002	S602		0.6	OK
5.002	S502		1.4	OK
5.003	S503		1.4	OK
7.000	S700		0.2	OK
7.001	S701		0.2	OK

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Summary Wizard of 960 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	960 minute 1 year Winter I+0%	32.550	30.340	-0.225	0.000	0.02
1.005	S105	960 minute 1 year Winter I+0%	32.380	30.340	-0.130	0.000	0.04
8.000	S800	960 minute 1 year Winter I+0%	32.400	31.261	-0.214	0.000	0.01
1.006	S106	960 minute 1 year Winter I+0%	32.380	30.337	0.177	0.000	0.45
1.007	FW105	960 minute 1 year Winter I+0%	32.380	30.018	-0.117	0.000	0.11

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		1.7	OK
1.005	S105		4.4	OK
8.000	S800		0.8	OK
1.006	S106		4.9	SURCHARGED
1.007	FW105		4.9	OK

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Summary Wizard of 1440 minute 1 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	1440 minute 1 year Winter I+0%	32.600	31.253	-0.147	0.000	0.00
1.001	S101	1440 minute 1 year Winter I+0%	32.400	30.992	-0.218	0.000	0.01
1.002	S102	1440 minute 1 year Winter I+0%	32.600	30.758	-0.217	0.000	0.01
2.000	S200	1440 minute 1 year Winter I+0%	32.600	31.260	-0.140	0.000	0.01
2.001	S201	1440 minute 1 year Winter I+0%	32.500	30.815	-0.215	0.000	0.01
1.003	S103	1440 minute 1 year Winter I+0%	32.380	30.401	-1.200	0.000	0.00
3.000	S300	1440 minute 1 year Winter I+0%	32.600	31.265	-0.285	0.000	0.01
4.000	S400	1440 minute 1 year Winter I+0%	32.600	31.266	-0.209	0.000	0.01
3.001	S301	1440 minute 1 year Winter I+0%	32.600	30.491	-0.354	0.000	0.01
1.004	S104	1440 minute 1 year Winter I+0%	32.380	30.279	-1.142	0.000	0.00
5.000	S500	1440 minute 1 year Winter I+0%	32.600	31.262	-0.138	0.000	0.02
5.001	S501	1440 minute 1 year Winter I+0%	32.600	30.689	-0.216	0.000	0.01
6.000	S600	1440 minute 1 year Winter I+0%	32.600	31.254	-0.146	0.000	0.01
6.001	S601	1440 minute 1 year Winter I+0%	32.600	31.070	-0.145	0.000	0.01
6.002	S602	1440 minute 1 year Winter I+0%	32.600	30.838	-0.217	0.000	0.01
5.002	S502	1440 minute 1 year Winter I+0%	32.600	30.434	-0.276	0.000	0.02
5.003	S503	1440 minute 1 year Winter I+0%	32.500	30.379	-0.281	0.000	0.01
7.000	S700	1440 minute 1 year Winter I+0%	32.600	31.255	-0.145	0.000	0.01
7.001	S701	1440 minute 1 year Winter I+0%	32.600	31.152	-0.148	0.000	0.00

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Summary Wizard of 1440 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.1	OK
1.001	S101		0.3	OK
1.002	S102		0.4	OK
2.000	S200		0.3	OK
2.001	S201		0.5	OK
1.003	S103		1.6	OK
3.000	S300		1.2	OK
4.000	S400		0.9	OK
3.001	S301		2.1	OK
1.004	S104		3.4	OK
5.000	S500		0.3	OK
5.001	S501		0.4	OK
6.000	S600		0.1	OK
6.001	S601		0.2	OK
6.002	S602		0.4	OK
5.002	S502		1.0	OK
5.003	S503		1.0	OK
7.000	S700		0.1	OK
7.001	S701		0.1	OK

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Summary Wizard of 1440 minute 1 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	1440 minute 1 year Winter I+0%	32.550	30.293	-0.272	0.000	0.02
1.005	S105	1440 minute 1 year Winter I+0%	32.380	30.279	-0.191	0.000	0.03
8.000	S800	1440 minute 1 year Winter I+0%	32.400	31.259	-0.216	0.000	0.01
1.006	S106	1440 minute 1 year Winter I+0%	32.380	30.277	0.117	0.000	0.41
1.007	FW105	1440 minute 1 year Winter I+0%	32.380	30.017	-0.118	0.000	0.10

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		1.3	OK
1.005	S105		4.0	OK
8.000	S800		0.6	OK
1.006	S106		4.4	SURCHARGED
1.007	FW105		4.4	OK

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Summary Wizard of 15 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	15 minute 2 year Winter I+0%	32.600	31.279	-0.121	0.000	0.08	
1.001	S101	15 minute 2 year Winter I+0%	32.400	31.035	-0.175	0.000	0.11	
1.002	S102	15 minute 2 year Winter I+0%	32.600	30.807	-0.168	0.000	0.14	
2.000	S200	15 minute 2 year Winter I+0%	32.600	31.305	-0.095	0.000	0.29	
2.001	S201	15 minute 2 year Winter I+0%	32.500	30.869	-0.161	0.000	0.18	
1.003	S103	15 minute 2 year Winter I+0%	32.380	30.424	-1.177	0.000	0.01	
3.000	S300	15 minute 2 year Winter I+0%	32.600	31.345	-0.205	0.000	0.21	
4.000	S400	15 minute 2 year Winter I+0%	32.600	31.335	-0.140	0.000	0.30	
3.001	S301	15 minute 2 year Winter I+0%	32.600	30.596	-0.249	0.000	0.24	
1.004	S104	15 minute 2 year Winter I+0%	32.380	30.405	-1.016	0.000	0.01	
5.000	S500	15 minute 2 year Winter I+0%	32.600	31.312	-0.088	0.000	0.35	
5.001	S501	15 minute 2 year Winter I+0%	32.600	30.743	-0.162	0.000	0.18	
6.000	S600	15 minute 2 year Winter I+0%	32.600	31.284	-0.116	0.000	0.11	
6.001	S601	15 minute 2 year Winter I+0%	32.600	31.102	-0.113	0.000	0.14	
6.002	S602	15 minute 2 year Winter I+0%	32.600	30.887	-0.168	0.000	0.14	
5.002	S502	15 minute 2 year Winter I+0%	32.600	30.525	-0.185	0.000	0.31	
5.003	S503	15 minute 2 year Winter I+0%	32.500	30.461	-0.199	0.000	0.25	
7.000	S700	15 minute 2 year Winter I+0%	32.600	31.289	-0.111	0.000	0.15	
7.001	S701	15 minute 2 year Winter I+0%	32.600	31.173	-0.127	0.000	0.06	

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Summary Wizard of 15 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.5	OK
1.001	S101	5.9	OK
1.002	S102	7.3	OK
2.000	S200	5.5	OK
2.001	S201	9.9	OK
1.003	S103	26.5	OK
3.000	S300	23.4	OK
4.000	S400	18.5	OK
3.001	S301	42.2	OK
1.004	S104	52.7	OK
5.000	S500	6.7	OK
5.001	S501	8.3	OK
6.000	S600	3.0	OK
6.001	S601	3.4	OK
6.002	S602	7.6	OK
5.002	S502	19.2	OK
5.003	S503	19.2	OK
7.000	S700	2.6	OK
7.001	S701	2.6	OK

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Summary Wizard of 15 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	15 minute 2 year Winter I+0%	32.550	30.405	-0.160	0.000	0.31	
1.005	S105	15 minute 2 year Winter I+0%	32.380	30.405	-0.065	0.000	0.05	
8.000	S800	15 minute 2 year Winter I+0%	32.400	31.311	-0.164	0.000	0.16	
1.006	S106	15 minute 2 year Winter I+0%	32.380	30.401	0.241	0.000	0.49	
1.007	FW105	15 minute 2 year Winter I+0%	32.380	30.019	-0.116	0.000	0.12	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	23.8	OK
1.005	S105	5.2	OK
8.000	S800	11.5	OK
1.006	S106	5.3	SURCHARGED
1.007	FW105	5.3	OK

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Summary Wizard of 30 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	30 minute 2 year Winter I+0%	32.600	31.274	-0.126	0.000	0.06	
1.001	S101	30 minute 2 year Winter I+0%	32.400	31.031	-0.179	0.000	0.09	
1.002	S102	30 minute 2 year Winter I+0%	32.600	30.802	-0.173	0.000	0.12	
2.000	S200	30 minute 2 year Winter I+0%	32.600	31.298	-0.102	0.000	0.23	
2.001	S201	30 minute 2 year Winter I+0%	32.500	30.862	-0.168	0.000	0.14	
1.003	S103	30 minute 2 year Winter I+0%	32.380	30.451	-1.150	0.000	0.01	
3.000	S300	30 minute 2 year Winter I+0%	32.600	31.333	-0.217	0.000	0.17	
4.000	S400	30 minute 2 year Winter I+0%	32.600	31.324	-0.151	0.000	0.24	
3.001	S301	30 minute 2 year Winter I+0%	32.600	30.581	-0.264	0.000	0.19	
1.004	S104	30 minute 2 year Winter I+0%	32.380	30.451	-0.970	0.000	0.01	
5.000	S500	30 minute 2 year Winter I+0%	32.600	31.304	-0.096	0.000	0.28	
5.001	S501	30 minute 2 year Winter I+0%	32.600	30.736	-0.169	0.000	0.14	
6.000	S600	30 minute 2 year Winter I+0%	32.600	31.280	-0.120	0.000	0.09	
6.001	S601	30 minute 2 year Winter I+0%	32.600	31.098	-0.117	0.000	0.11	
6.002	S602	30 minute 2 year Winter I+0%	32.600	30.881	-0.174	0.000	0.12	
5.002	S502	30 minute 2 year Winter I+0%	32.600	30.513	-0.197	0.000	0.26	
5.003	S503	30 minute 2 year Winter I+0%	32.500	30.453	-0.207	0.000	0.20	
7.000	S700	30 minute 2 year Winter I+0%	32.600	31.284	-0.116	0.000	0.12	
7.001	S701	30 minute 2 year Winter I+0%	32.600	31.170	-0.130	0.000	0.04	

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Summary Wizard of 30 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.2	OK
1.001	S101	5.0	OK
1.002	S102	6.1	OK
2.000	S200	4.4	OK
2.001	S201	8.2	OK
1.003	S103	19.6	OK
3.000	S300	18.7	OK
4.000	S400	14.8	OK
3.001	S301	33.4	OK
1.004	S104	37.4	OK
5.000	S500	5.3	OK
5.001	S501	6.6	OK
6.000	S600	2.3	OK
6.001	S601	2.7	OK
6.002	S602	6.4	OK
5.002	S502	15.8	OK
5.003	S503	15.8	OK
7.000	S700	2.0	OK
7.001	S701	2.0	OK

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Summary Wizard of 30 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	30 minute 2 year Winter I+0%	32.550	30.452	-0.113	0.000	0.25	
1.005	S105	30 minute 2 year Winter I+0%	32.380	30.451	-0.019	0.000	0.05	
8.000	S800	30 minute 2 year Winter I+0%	32.400	31.303	-0.172	0.000	0.13	
1.006	S106	30 minute 2 year Winter I+0%	32.380	30.444	0.284	0.000	0.51	
1.007	FW105	30 minute 2 year Winter I+0%	32.380	30.020	-0.115	0.000	0.13	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	19.5	OK
1.005	S105	5.5	OK
8.000	S800	9.2	OK
1.006	S106	5.5	SURCHARGED
1.007	FW105	5.5	OK

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Summary Wizard of 60 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	60 minute 2 year Winter I+0%	32.600	31.270	-0.130	0.000	0.04	
1.001	S101	60 minute 2 year Winter I+0%	32.400	31.023	-0.187	0.000	0.07	
1.002	S102	60 minute 2 year Winter I+0%	32.600	30.794	-0.181	0.000	0.08	
2.000	S200	60 minute 2 year Winter I+0%	32.600	31.289	-0.111	0.000	0.16	
2.001	S201	60 minute 2 year Winter I+0%	32.500	30.852	-0.178	0.000	0.10	
1.003	S103	60 minute 2 year Winter I+0%	32.380	30.489	-1.112	0.000	0.00	
3.000	S300	60 minute 2 year Winter I+0%	32.600	31.318	-0.232	0.000	0.12	
4.000	S400	60 minute 2 year Winter I+0%	32.600	31.310	-0.165	0.000	0.16	
3.001	S301	60 minute 2 year Winter I+0%	32.600	30.560	-0.285	0.000	0.13	
1.004	S104	60 minute 2 year Winter I+0%	32.380	30.489	-0.932	0.000	0.00	
5.000	S500	60 minute 2 year Winter I+0%	32.600	31.294	-0.106	0.000	0.19	
5.001	S501	60 minute 2 year Winter I+0%	32.600	30.726	-0.179	0.000	0.10	
6.000	S600	60 minute 2 year Winter I+0%	32.600	31.274	-0.126	0.000	0.06	
6.001	S601	60 minute 2 year Winter I+0%	32.600	31.092	-0.123	0.000	0.07	
6.002	S602	60 minute 2 year Winter I+0%	32.600	30.873	-0.182	0.000	0.08	
5.002	S502	60 minute 2 year Winter I+0%	32.600	30.495	-0.215	0.000	0.18	
5.003	S503	60 minute 2 year Winter I+0%	32.500	30.491	-0.169	0.000	0.14	
7.000	S700	60 minute 2 year Winter I+0%	32.600	31.278	-0.122	0.000	0.08	
7.001	S701	60 minute 2 year Winter I+0%	32.600	31.167	-0.133	0.000	0.03	

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Summary Wizard of 60 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	0.8	OK
1.001	S101	3.5	OK
1.002	S102	4.3	OK
2.000	S200	3.0	OK
2.001	S201	5.7	OK
1.003	S103	12.5	OK
3.000	S300	12.8	OK
4.000	S400	10.0	OK
3.001	S301	22.7	OK
1.004	S104	23.2	OK
5.000	S500	3.6	OK
5.001	S501	4.5	OK
6.000	S600	1.6	OK
6.001	S601	1.9	OK
6.002	S602	4.5	OK
5.002	S502	11.0	OK
5.003	S503	11.0	OK
7.000	S700	1.4	OK
7.001	S701	1.4	OK

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Summary Wizard of 60 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	60 minute 2 year Winter I+0%	32.550	30.490	-0.075	0.000	0.17	
1.005	S105	60 minute 2 year Winter I+0%	32.380	30.489	0.019	0.000	0.05	
8.000	S800	60 minute 2 year Winter I+0%	32.400	31.295	-0.180	0.000	0.09	
1.006	S106	60 minute 2 year Winter I+0%	32.380	30.486	0.326	0.000	0.53	
1.007	FW105	60 minute 2 year Winter I+0%	32.380	30.021	-0.114	0.000	0.13	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	13.3	OK
1.005	S105	5.7	SURCHARGED
8.000	S800	6.2	OK
1.006	S106	5.8	SURCHARGED
1.007	FW105	5.8	OK

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Summary Wizard of 120 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	120 minute 2 year Winter I+0%	32.600	31.266	-0.134	0.000	0.03
1.001	S101	120 minute 2 year Winter I+0%	32.400	31.015	-0.195	0.000	0.04
1.002	S102	120 minute 2 year Winter I+0%	32.600	30.784	-0.191	0.000	0.05
2.000	S200	120 minute 2 year Winter I+0%	32.600	31.281	-0.119	0.000	0.10
2.001	S201	120 minute 2 year Winter I+0%	32.500	30.842	-0.188	0.000	0.06
1.003	S103	120 minute 2 year Winter I+0%	32.380	30.510	-1.091	0.000	0.00
3.000	S300	120 minute 2 year Winter I+0%	32.600	31.304	-0.246	0.000	0.07
4.000	S400	120 minute 2 year Winter I+0%	32.600	31.298	-0.177	0.000	0.10
3.001	S301	120 minute 2 year Winter I+0%	32.600	30.542	-0.303	0.000	0.08
1.004	S104	120 minute 2 year Winter I+0%	32.380	30.510	-0.911	0.000	0.00
5.000	S500	120 minute 2 year Winter I+0%	32.600	31.284	-0.116	0.000	0.12
5.001	S501	120 minute 2 year Winter I+0%	32.600	30.716	-0.189	0.000	0.06
6.000	S600	120 minute 2 year Winter I+0%	32.600	31.269	-0.131	0.000	0.04
6.001	S601	120 minute 2 year Winter I+0%	32.600	31.086	-0.129	0.000	0.05
6.002	S602	120 minute 2 year Winter I+0%	32.600	30.863	-0.192	0.000	0.05
5.002	S502	120 minute 2 year Winter I+0%	32.600	30.511	-0.199	0.000	0.12
5.003	S503	120 minute 2 year Winter I+0%	32.500	30.511	-0.149	0.000	0.09
7.000	S700	120 minute 2 year Winter I+0%	32.600	31.272	-0.128	0.000	0.05
7.001	S701	120 minute 2 year Winter I+0%	32.600	31.164	-0.136	0.000	0.02

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Summary Wizard of 120 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.5	OK
1.001	S101		2.2	OK
1.002	S102		2.8	OK
2.000	S200		1.9	OK
2.001	S201		3.6	OK
1.003	S103		7.7	OK
3.000	S300		8.1	OK
4.000	S400		6.3	OK
3.001	S301		14.4	OK
1.004	S104		14.4	OK
5.000	S500		2.3	OK
5.001	S501		2.9	OK
6.000	S600		1.0	OK
6.001	S601		1.2	OK
6.002	S602		2.9	OK
5.002	S502		7.1	OK
5.003	S503		7.1	OK
7.000	S700		0.9	OK
7.001	S701		0.9	OK

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Summary Wizard of 120 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	120 minute 2 year Winter I+0%	32.550	30.510	-0.055	0.000	0.11
1.005	S105	120 minute 2 year Winter I+0%	32.380	30.510	0.040	0.000	0.05
8.000	S800	120 minute 2 year Winter I+0%	32.400	31.284	-0.191	0.000	0.06
1.006	S106	120 minute 2 year Winter I+0%	32.380	30.507	0.347	0.000	0.54
1.007	FW105	120 minute 2 year Winter I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		8.4	OK
1.005	S105		5.8	SURCHARGED
8.000	S800		4.0	OK
1.006	S106		5.9	SURCHARGED
1.007	FW105		5.9	OK

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Summary Wizard of 180 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	180 minute 2 year Winter I+0%	32.600	31.265	-0.135	0.000	0.02
1.001	S101	180 minute 2 year Winter I+0%	32.400	31.011	-0.199	0.000	0.03
1.002	S102	180 minute 2 year Winter I+0%	32.600	30.779	-0.196	0.000	0.04
2.000	S200	180 minute 2 year Winter I+0%	32.600	31.277	-0.123	0.000	0.07
2.001	S201	180 minute 2 year Winter I+0%	32.500	30.837	-0.193	0.000	0.05
1.003	S103	180 minute 2 year Winter I+0%	32.380	30.510	-1.091	0.000	0.00
3.000	S300	180 minute 2 year Winter I+0%	32.600	31.296	-0.254	0.000	0.06
4.000	S400	180 minute 2 year Winter I+0%	32.600	31.291	-0.184	0.000	0.08
3.001	S301	180 minute 2 year Winter I+0%	32.600	30.531	-0.314	0.000	0.06
1.004	S104	180 minute 2 year Winter I+0%	32.380	30.510	-0.911	0.000	0.00
5.000	S500	180 minute 2 year Winter I+0%	32.600	31.280	-0.120	0.000	0.09
5.001	S501	180 minute 2 year Winter I+0%	32.600	30.711	-0.194	0.000	0.05
6.000	S600	180 minute 2 year Winter I+0%	32.600	31.267	-0.133	0.000	0.03
6.001	S601	180 minute 2 year Winter I+0%	32.600	31.083	-0.132	0.000	0.04
6.002	S602	180 minute 2 year Winter I+0%	32.600	30.859	-0.196	0.000	0.04
5.002	S502	180 minute 2 year Winter I+0%	32.600	30.512	-0.198	0.000	0.09
5.003	S503	180 minute 2 year Winter I+0%	32.500	30.512	-0.148	0.000	0.07
7.000	S700	180 minute 2 year Winter I+0%	32.600	31.269	-0.131	0.000	0.04
7.001	S701	180 minute 2 year Winter I+0%	32.600	31.160	-0.140	0.000	0.01

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Summary Wizard of 180 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	OK
1.001	S101		1.7	OK
1.002	S102		2.1	OK
2.000	S200		1.4	OK
2.001	S201		2.8	OK
1.003	S103		6.0	OK
3.000	S300		6.1	OK
4.000	S400		4.8	OK
3.001	S301		11.0	OK
1.004	S104		11.1	OK
5.000	S500		1.7	OK
5.001	S501		2.2	OK
6.000	S600		0.8	OK
6.001	S601		0.9	OK
6.002	S602		2.2	OK
5.002	S502		5.4	OK
5.003	S503		5.3	OK
7.000	S700		0.7	OK
7.001	S701		0.7	OK

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Summary Wizard of 180 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	180 minute 2 year Winter I+0%	32.550	30.511	-0.054	0.000	0.08
1.005	S105	180 minute 2 year Winter I+0%	32.380	30.510	0.040	0.000	0.05
8.000	S800	180 minute 2 year Winter I+0%	32.400	31.279	-0.196	0.000	0.04
1.006	S106	180 minute 2 year Winter I+0%	32.380	30.507	0.347	0.000	0.54
1.007	FW105	180 minute 2 year Winter I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		6.4	OK
1.005	S105		5.7	SURCHARGED
8.000	S800		3.0	OK
1.006	S106		5.9	SURCHARGED
1.007	FW105		5.9	OK

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Summary Wizard of 240 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	240 minute 2 year Winter I+0%	32.600	31.262	-0.138	0.000	0.02
1.001	S101	240 minute 2 year Winter I+0%	32.400	31.009	-0.201	0.000	0.03
1.002	S102	240 minute 2 year Winter I+0%	32.600	30.777	-0.198	0.000	0.03
2.000	S200	240 minute 2 year Winter I+0%	32.600	31.274	-0.126	0.000	0.06
2.001	S201	240 minute 2 year Winter I+0%	32.500	30.834	-0.196	0.000	0.04
1.003	S103	240 minute 2 year Winter I+0%	32.380	30.506	-1.095	0.000	0.00
3.000	S300	240 minute 2 year Winter I+0%	32.600	31.291	-0.259	0.000	0.05
4.000	S400	240 minute 2 year Winter I+0%	32.600	31.287	-0.188	0.000	0.06
3.001	S301	240 minute 2 year Winter I+0%	32.600	30.525	-0.320	0.000	0.05
1.004	S104	240 minute 2 year Winter I+0%	32.380	30.507	-0.914	0.000	0.00
5.000	S500	240 minute 2 year Winter I+0%	32.600	31.277	-0.123	0.000	0.07
5.001	S501	240 minute 2 year Winter I+0%	32.600	30.708	-0.197	0.000	0.04
6.000	S600	240 minute 2 year Winter I+0%	32.600	31.266	-0.134	0.000	0.02
6.001	S601	240 minute 2 year Winter I+0%	32.600	31.082	-0.133	0.000	0.03
6.002	S602	240 minute 2 year Winter I+0%	32.600	30.857	-0.198	0.000	0.03
5.002	S502	240 minute 2 year Winter I+0%	32.600	30.508	-0.202	0.000	0.07
5.003	S503	240 minute 2 year Winter I+0%	32.500	30.508	-0.152	0.000	0.06
7.000	S700	240 minute 2 year Winter I+0%	32.600	31.267	-0.133	0.000	0.03
7.001	S701	240 minute 2 year Winter I+0%	32.600	31.158	-0.142	0.000	0.01

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Summary Wizard of 240 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.4	OK
1.002	S102		1.8	OK
2.000	S200		1.2	OK
2.001	S201		2.3	OK
1.003	S103		5.1	OK
3.000	S300		5.0	OK
4.000	S400		3.9	OK
3.001	S301		9.0	OK
1.004	S104		9.5	OK
5.000	S500		1.4	OK
5.001	S501		1.8	OK
6.000	S600		0.6	OK
6.001	S601		0.7	OK
6.002	S602		1.8	OK
5.002	S502		4.4	OK
5.003	S503		4.4	OK
7.000	S700		0.5	OK
7.001	S701		0.5	OK

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Summary Wizard of 240 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	240 minute 2 year Winter I+0%	32.550	30.507	-0.058	0.000	0.07
1.005	S105	240 minute 2 year Winter I+0%	32.380	30.507	0.037	0.000	0.05
8.000	S800	240 minute 2 year Winter I+0%	32.400	31.277	-0.198	0.000	0.03
1.006	S106	240 minute 2 year Winter I+0%	32.380	30.504	0.344	0.000	0.54
1.007	FW105	240 minute 2 year Winter I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		5.3	OK
1.005	S105		5.7	SURCHARGED
8.000	S800		2.5	OK
1.006	S106		5.9	SURCHARGED
1.007	FW105		5.9	OK

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Summary Wizard of 360 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	360 minute 2 year Winter I+0%	32.600	31.259	-0.141	0.000	0.01
1.001	S101	360 minute 2 year Winter I+0%	32.400	31.006	-0.204	0.000	0.02
1.002	S102	360 minute 2 year Winter I+0%	32.600	30.774	-0.201	0.000	0.03
2.000	S200	360 minute 2 year Winter I+0%	32.600	31.271	-0.129	0.000	0.05
2.001	S201	360 minute 2 year Winter I+0%	32.500	30.830	-0.200	0.000	0.03
1.003	S103	360 minute 2 year Winter I+0%	32.380	30.492	-1.109	0.000	0.00
3.000	S300	360 minute 2 year Winter I+0%	32.600	31.286	-0.264	0.000	0.03
4.000	S400	360 minute 2 year Winter I+0%	32.600	31.281	-0.194	0.000	0.05
3.001	S301	360 minute 2 year Winter I+0%	32.600	30.517	-0.328	0.000	0.04
1.004	S104	360 minute 2 year Winter I+0%	32.380	30.492	-0.929	0.000	0.00
5.000	S500	360 minute 2 year Winter I+0%	32.600	31.273	-0.127	0.000	0.06
5.001	S501	360 minute 2 year Winter I+0%	32.600	30.705	-0.200	0.000	0.03
6.000	S600	360 minute 2 year Winter I+0%	32.600	31.263	-0.137	0.000	0.02
6.001	S601	360 minute 2 year Winter I+0%	32.600	31.080	-0.135	0.000	0.02
6.002	S602	360 minute 2 year Winter I+0%	32.600	30.854	-0.201	0.000	0.02
5.002	S502	360 minute 2 year Winter I+0%	32.600	30.494	-0.216	0.000	0.05
5.003	S503	360 minute 2 year Winter I+0%	32.500	30.493	-0.167	0.000	0.04
7.000	S700	360 minute 2 year Winter I+0%	32.600	31.266	-0.134	0.000	0.02
7.001	S701	360 minute 2 year Winter I+0%	32.600	31.156	-0.144	0.000	0.01

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Summary Wizard of 360 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		1.1	OK
1.002	S102		1.3	OK
2.000	S200		0.9	OK
2.001	S201		1.7	OK
1.003	S103		4.2	OK
3.000	S300		3.8	OK
4.000	S400		3.0	OK
3.001	S301		6.8	OK
1.004	S104		7.7	OK
5.000	S500		1.1	OK
5.001	S501		1.4	OK
6.000	S600		0.5	OK
6.001	S601		0.6	OK
6.002	S602		1.3	OK
5.002	S502		3.3	OK
5.003	S503		3.3	OK
7.000	S700		0.4	OK
7.001	S701		0.4	OK

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Summary Wizard of 360 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	360 minute 2 year Winter I+0%	32.550	30.493	-0.072	0.000	0.05
1.005	S105	360 minute 2 year Winter I+0%	32.380	30.492	0.022	0.000	0.05
8.000	S800	360 minute 2 year Winter I+0%	32.400	31.274	-0.201	0.000	0.03
1.006	S106	360 minute 2 year Winter I+0%	32.380	30.489	0.329	0.000	0.53
1.007	FW105	360 minute 2 year Winter I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		4.0	OK
1.005	S105		5.4	SURCHARGED
8.000	S800		1.8	OK
1.006	S106		5.8	SURCHARGED
1.007	FW105		5.8	OK

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Summary Wizard of 480 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	480 minute 2 year Winter I+0%	32.600	31.257	-0.143	0.000	0.01
1.001	S101	480 minute 2 year Winter I+0%	32.400	31.003	-0.207	0.000	0.02
1.002	S102	480 minute 2 year Winter I+0%	32.600	30.772	-0.203	0.000	0.02
2.000	S200	480 minute 2 year Winter I+0%	32.600	31.269	-0.131	0.000	0.04
2.001	S201	480 minute 2 year Winter I+0%	32.500	30.829	-0.201	0.000	0.02
1.003	S103	480 minute 2 year Winter I+0%	32.380	30.474	-1.127	0.000	0.00
3.000	S300	480 minute 2 year Winter I+0%	32.600	31.283	-0.267	0.000	0.03
4.000	S400	480 minute 2 year Winter I+0%	32.600	31.278	-0.197	0.000	0.04
3.001	S301	480 minute 2 year Winter I+0%	32.600	30.513	-0.332	0.000	0.03
1.004	S104	480 minute 2 year Winter I+0%	32.380	30.474	-0.947	0.000	0.00
5.000	S500	480 minute 2 year Winter I+0%	32.600	31.270	-0.130	0.000	0.05
5.001	S501	480 minute 2 year Winter I+0%	32.600	30.703	-0.202	0.000	0.02
6.000	S600	480 minute 2 year Winter I+0%	32.600	31.260	-0.140	0.000	0.01
6.001	S601	480 minute 2 year Winter I+0%	32.600	31.078	-0.137	0.000	0.02
6.002	S602	480 minute 2 year Winter I+0%	32.600	30.852	-0.203	0.000	0.02
5.002	S502	480 minute 2 year Winter I+0%	32.600	30.476	-0.234	0.000	0.04
5.003	S503	480 minute 2 year Winter I+0%	32.500	30.475	-0.185	0.000	0.03
7.000	S700	480 minute 2 year Winter I+0%	32.600	31.264	-0.136	0.000	0.02
7.001	S701	480 minute 2 year Winter I+0%	32.600	31.155	-0.145	0.000	0.01

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Summary Wizard of 480 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.9	OK
1.002	S102		1.1	OK
2.000	S200		0.7	OK
2.001	S201		1.4	OK
1.003	S103		3.6	OK
3.000	S300		3.1	OK
4.000	S400		2.4	OK
3.001	S301		5.5	OK
1.004	S104		6.6	OK
5.000	S500		0.9	OK
5.001	S501		1.1	OK
6.000	S600		0.4	OK
6.001	S601		0.5	OK
6.002	S602		1.1	OK
5.002	S502		2.7	OK
5.003	S503		2.7	OK
7.000	S700		0.3	OK
7.001	S701		0.3	OK

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Summary Wizard of 480 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	480 minute 2 year Winter I+0%	32.550	30.475	-0.090	0.000	0.04
1.005	S105	480 minute 2 year Winter I+0%	32.380	30.474	0.004	0.000	0.05
8.000	S800	480 minute 2 year Winter I+0%	32.400	31.272	-0.203	0.000	0.02
1.006	S106	480 minute 2 year Winter I+0%	32.380	30.471	0.311	0.000	0.53
1.007	FW105	480 minute 2 year Winter I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		3.3	OK
1.005	S105		5.6	SURCHARGED
8.000	S800		1.5	OK
1.006	S106		5.7	SURCHARGED
1.007	FW105		5.7	OK

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Summary Wizard of 600 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	600 minute 2 year Winter I+0%	32.600	31.256	-0.144	0.000	0.01
1.001	S101	600 minute 2 year Winter I+0%	32.400	31.000	-0.210	0.000	0.01
1.002	S102	600 minute 2 year Winter I+0%	32.600	30.769	-0.206	0.000	0.02
2.000	S200	600 minute 2 year Winter I+0%	32.600	31.267	-0.133	0.000	0.03
2.001	S201	600 minute 2 year Winter I+0%	32.500	30.827	-0.203	0.000	0.02
1.003	S103	600 minute 2 year Winter I+0%	32.380	30.456	-1.145	0.000	0.00
3.000	S300	600 minute 2 year Winter I+0%	32.600	31.281	-0.269	0.000	0.02
4.000	S400	600 minute 2 year Winter I+0%	32.600	31.276	-0.199	0.000	0.03
3.001	S301	600 minute 2 year Winter I+0%	32.600	30.511	-0.334	0.000	0.03
1.004	S104	600 minute 2 year Winter I+0%	32.380	30.456	-0.965	0.000	0.00
5.000	S500	600 minute 2 year Winter I+0%	32.600	31.269	-0.131	0.000	0.04
5.001	S501	600 minute 2 year Winter I+0%	32.600	30.701	-0.204	0.000	0.02
6.000	S600	600 minute 2 year Winter I+0%	32.600	31.259	-0.141	0.000	0.01
6.001	S601	600 minute 2 year Winter I+0%	32.600	31.076	-0.139	0.000	0.02
6.002	S602	600 minute 2 year Winter I+0%	32.600	30.848	-0.207	0.000	0.02
5.002	S502	600 minute 2 year Winter I+0%	32.600	30.458	-0.252	0.000	0.04
5.003	S503	600 minute 2 year Winter I+0%	32.500	30.457	-0.203	0.000	0.03
7.000	S700	600 minute 2 year Winter I+0%	32.600	31.262	-0.138	0.000	0.02
7.001	S701	600 minute 2 year Winter I+0%	32.600	31.154	-0.146	0.000	0.01

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Summary Wizard of 600 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.7	OK
1.002	S102		0.9	OK
2.000	S200		0.6	OK
2.001	S201		1.2	OK
1.003	S103		3.2	OK
3.000	S300		2.6	OK
4.000	S400		2.1	OK
3.001	S301		4.7	OK
1.004	S104		6.0	OK
5.000	S500		0.7	OK
5.001	S501		0.9	OK
6.000	S600		0.3	OK
6.001	S601		0.4	OK
6.002	S602		0.9	OK
5.002	S502		2.3	OK
5.003	S503		2.3	OK
7.000	S700		0.3	OK
7.001	S701		0.3	OK

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Summary Wizard of 600 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	600 minute 2 year Winter I+0%	32.550	30.456	-0.109	0.000	0.04
1.005	S105	600 minute 2 year Winter I+0%	32.380	30.456	-0.014	0.000	0.05
8.000	S800	600 minute 2 year Winter I+0%	32.400	31.269	-0.206	0.000	0.02
1.006	S106	600 minute 2 year Winter I+0%	32.380	30.447	0.287	0.000	0.51
1.007	FW105	600 minute 2 year Winter I+0%	32.380	30.020	-0.115	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.8	OK
1.005	S105		5.2	OK
8.000	S800		1.3	OK
1.006	S106		5.6	SURCHARGED
1.007	FW105		5.6	OK

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Summary Wizard of 720 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	720 minute 2 year Winter I+0%	32.600	31.256	-0.144	0.000	0.01
1.001	S101	720 minute 2 year Winter I+0%	32.400	30.998	-0.212	0.000	0.01
1.002	S102	720 minute 2 year Winter I+0%	32.600	30.767	-0.208	0.000	0.02
2.000	S200	720 minute 2 year Winter I+0%	32.600	31.267	-0.133	0.000	0.03
2.001	S201	720 minute 2 year Winter I+0%	32.500	30.825	-0.205	0.000	0.02
1.003	S103	720 minute 2 year Winter I+0%	32.380	30.437	-1.164	0.000	0.00
3.000	S300	720 minute 2 year Winter I+0%	32.600	31.280	-0.270	0.000	0.02
4.000	S400	720 minute 2 year Winter I+0%	32.600	31.275	-0.200	0.000	0.03
3.001	S301	720 minute 2 year Winter I+0%	32.600	30.509	-0.336	0.000	0.02
1.004	S104	720 minute 2 year Winter I+0%	32.380	30.437	-0.984	0.000	0.00
5.000	S500	720 minute 2 year Winter I+0%	32.600	31.268	-0.132	0.000	0.03
5.001	S501	720 minute 2 year Winter I+0%	32.600	30.699	-0.206	0.000	0.02
6.000	S600	720 minute 2 year Winter I+0%	32.600	31.258	-0.142	0.000	0.01
6.001	S601	720 minute 2 year Winter I+0%	32.600	31.075	-0.140	0.000	0.01
6.002	S602	720 minute 2 year Winter I+0%	32.600	30.846	-0.209	0.000	0.02
5.002	S502	720 minute 2 year Winter I+0%	32.600	30.445	-0.265	0.000	0.03
5.003	S503	720 minute 2 year Winter I+0%	32.500	30.438	-0.222	0.000	0.03
7.000	S700	720 minute 2 year Winter I+0%	32.600	31.260	-0.140	0.000	0.01
7.001	S701	720 minute 2 year Winter I+0%	32.600	31.154	-0.146	0.000	0.01

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Summary Wizard of 720 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.1	OK
1.001	S101		0.6	OK
1.002	S102		0.8	OK
2.000	S200		0.5	OK
2.001	S201		1.0	OK
1.003	S103		2.9	OK
3.000	S300		2.3	OK
4.000	S400		1.8	OK
3.001	S301		4.1	OK
1.004	S104		5.6	OK
5.000	S500		0.6	OK
5.001	S501		0.8	OK
6.000	S600		0.3	OK
6.001	S601		0.3	OK
6.002	S602		0.8	OK
5.002	S502		2.0	OK
5.003	S503		2.0	OK
7.000	S700		0.3	OK
7.001	S701		0.3	OK

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Summary Wizard of 720 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	720 minute 2 year Winter I+0%	32.550	30.438	-0.127	0.000	0.03
1.005	S105	720 minute 2 year Winter I+0%	32.380	30.437	-0.033	0.000	0.04
8.000	S800	720 minute 2 year Winter I+0%	32.400	31.267	-0.208	0.000	0.02
1.006	S106	720 minute 2 year Winter I+0%	32.380	30.432	0.272	0.000	0.51
1.007	FW105	720 minute 2 year Winter I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.5	OK
1.005	S105		5.1	OK
8.000	S800		1.1	OK
1.006	S106		5.5	SURCHARGED
1.007	FW105		5.5	OK

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Summary Wizard of 960 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	960 minute 2 year Winter I+0%	32.600	31.254	-0.146	0.000	0.01
1.001	S101	960 minute 2 year Winter I+0%	32.400	30.996	-0.214	0.000	0.01
1.002	S102	960 minute 2 year Winter I+0%	32.600	30.764	-0.211	0.000	0.01
2.000	S200	960 minute 2 year Winter I+0%	32.600	31.265	-0.135	0.000	0.02
2.001	S201	960 minute 2 year Winter I+0%	32.500	30.821	-0.209	0.000	0.01
1.003	S103	960 minute 2 year Winter I+0%	32.380	30.405	-1.196	0.000	0.00
3.000	S300	960 minute 2 year Winter I+0%	32.600	31.274	-0.276	0.000	0.02
4.000	S400	960 minute 2 year Winter I+0%	32.600	31.273	-0.202	0.000	0.02
3.001	S301	960 minute 2 year Winter I+0%	32.600	30.504	-0.341	0.000	0.02
1.004	S104	960 minute 2 year Winter I+0%	32.380	30.402	-1.019	0.000	0.00
5.000	S500	960 minute 2 year Winter I+0%	32.600	31.266	-0.134	0.000	0.03
5.001	S501	960 minute 2 year Winter I+0%	32.600	30.695	-0.210	0.000	0.01
6.000	S600	960 minute 2 year Winter I+0%	32.600	31.256	-0.144	0.000	0.01
6.001	S601	960 minute 2 year Winter I+0%	32.600	31.073	-0.142	0.000	0.01
6.002	S602	960 minute 2 year Winter I+0%	32.600	30.843	-0.212	0.000	0.01
5.002	S502	960 minute 2 year Winter I+0%	32.600	30.443	-0.267	0.000	0.03
5.003	S503	960 minute 2 year Winter I+0%	32.500	30.404	-0.256	0.000	0.02
7.000	S700	960 minute 2 year Winter I+0%	32.600	31.258	-0.142	0.000	0.01
7.001	S701	960 minute 2 year Winter I+0%	32.600	31.153	-0.147	0.000	0.00

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Summary Wizard of 960 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.1	OK
1.001	S101		0.5	OK
1.002	S102		0.7	OK
2.000	S200		0.4	OK
2.001	S201		0.8	OK
1.003	S103		2.5	OK
3.000	S300		1.9	OK
4.000	S400		1.5	OK
3.001	S301		3.3	OK
1.004	S104		5.0	OK
5.000	S500		0.5	OK
5.001	S501		0.7	OK
6.000	S600		0.2	OK
6.001	S601		0.3	OK
6.002	S602		0.7	OK
5.002	S502		1.6	OK
5.003	S503		1.6	OK
7.000	S700		0.2	OK
7.001	S701		0.2	OK

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Summary Wizard of 960 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	960 minute 2 year Winter I+0%	32.550	30.403	-0.162	0.000	0.03
1.005	S105	960 minute 2 year Winter I+0%	32.380	30.402	-0.068	0.000	0.04
8.000	S800	960 minute 2 year Winter I+0%	32.400	31.264	-0.211	0.000	0.01
1.006	S106	960 minute 2 year Winter I+0%	32.380	30.399	0.239	0.000	0.49
1.007	FW105	960 minute 2 year Winter I+0%	32.380	30.019	-0.116	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.0	OK
1.005	S105		4.8	OK
8.000	S800		0.9	OK
1.006	S106		5.3	SURCHARGED
1.007	FW105		5.3	OK

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Summary Wizard of 1440 minute 2 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	1440 minute 2 year Winter I+0%	32.600	31.253	-0.147	0.000	0.00
1.001	S101	1440 minute 2 year Winter I+0%	32.400	30.993	-0.217	0.000	0.01
1.002	S102	1440 minute 2 year Winter I+0%	32.600	30.760	-0.215	0.000	0.01
2.000	S200	1440 minute 2 year Winter I+0%	32.600	31.262	-0.138	0.000	0.02
2.001	S201	1440 minute 2 year Winter I+0%	32.500	30.817	-0.213	0.000	0.01
1.003	S103	1440 minute 2 year Winter I+0%	32.380	30.402	-1.199	0.000	0.00
3.000	S300	1440 minute 2 year Winter I+0%	32.600	31.268	-0.282	0.000	0.01
4.000	S400	1440 minute 2 year Winter I+0%	32.600	31.269	-0.206	0.000	0.02
3.001	S301	1440 minute 2 year Winter I+0%	32.600	30.496	-0.349	0.000	0.01
1.004	S104	1440 minute 2 year Winter I+0%	32.380	30.339	-1.082	0.000	0.00
5.000	S500	1440 minute 2 year Winter I+0%	32.600	31.265	-0.135	0.000	0.02
5.001	S501	1440 minute 2 year Winter I+0%	32.600	30.691	-0.214	0.000	0.01
6.000	S600	1440 minute 2 year Winter I+0%	32.600	31.255	-0.145	0.000	0.01
6.001	S601	1440 minute 2 year Winter I+0%	32.600	31.071	-0.144	0.000	0.01
6.002	S602	1440 minute 2 year Winter I+0%	32.600	30.840	-0.215	0.000	0.01
5.002	S502	1440 minute 2 year Winter I+0%	32.600	30.438	-0.272	0.000	0.02
5.003	S503	1440 minute 2 year Winter I+0%	32.500	30.383	-0.277	0.000	0.02
7.000	S700	1440 minute 2 year Winter I+0%	32.600	31.256	-0.144	0.000	0.01
7.001	S701	1440 minute 2 year Winter I+0%	32.600	31.152	-0.148	0.000	0.00

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Summary Wizard of 1440 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.1	OK
1.001	S101		0.4	OK
1.002	S102		0.5	OK
2.000	S200		0.3	OK
2.001	S201		0.6	OK
1.003	S103		2.0	OK
3.000	S300		1.4	OK
4.000	S400		1.1	OK
3.001	S301		2.5	OK
1.004	S104		4.0	OK
5.000	S500		0.4	OK
5.001	S501		0.5	OK
6.000	S600		0.2	OK
6.001	S601		0.2	OK
6.002	S602		0.5	OK
5.002	S502		1.2	OK
5.003	S503		1.2	OK
7.000	S700		0.2	OK
7.001	S701		0.2	OK

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Summary Wizard of 1440 minute 2 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	1440 minute 2 year Winter I+0%	32.550	30.340	-0.225	0.000	0.02
1.005	S105	1440 minute 2 year Winter I+0%	32.380	30.340	-0.130	0.000	0.04
8.000	S800	1440 minute 2 year Winter I+0%	32.400	31.260	-0.215	0.000	0.01
1.006	S106	1440 minute 2 year Winter I+0%	32.380	30.337	0.177	0.000	0.45
1.007	FW105	1440 minute 2 year Winter I+0%	32.380	30.018	-0.117	0.000	0.11

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		1.5	OK
1.005	S105		4.4	OK
8.000	S800		0.7	OK
1.006	S106		4.9	SURCHARGED
1.007	FW105		4.9	OK

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Summary Wizard of 15 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	15 minute 5 year Winter I+0%	32.600	31.282	-0.118	0.000	0.10	
1.001	S101	15 minute 5 year Winter I+0%	32.400	31.042	-0.168	0.000	0.15	
1.002	S102	15 minute 5 year Winter I+0%	32.600	30.815	-0.160	0.000	0.18	
2.000	S200	15 minute 5 year Winter I+0%	32.600	31.314	-0.086	0.000	0.37	
2.001	S201	15 minute 5 year Winter I+0%	32.500	30.878	-0.152	0.000	0.23	
1.003	S103	15 minute 5 year Winter I+0%	32.380	30.458	-1.143	0.000	0.01	
3.000	S300	15 minute 5 year Winter I+0%	32.600	31.359	-0.191	0.000	0.28	
4.000	S400	15 minute 5 year Winter I+0%	32.600	31.348	-0.127	0.000	0.38	
3.001	S301	15 minute 5 year Winter I+0%	32.600	30.615	-0.230	0.000	0.31	
1.004	S104	15 minute 5 year Winter I+0%	32.380	30.458	-0.963	0.000	0.01	
5.000	S500	15 minute 5 year Winter I+0%	32.600	31.322	-0.078	0.000	0.46	
5.001	S501	15 minute 5 year Winter I+0%	32.600	30.753	-0.152	0.000	0.23	
6.000	S600	15 minute 5 year Winter I+0%	32.600	31.288	-0.112	0.000	0.15	
6.001	S601	15 minute 5 year Winter I+0%	32.600	31.108	-0.107	0.000	0.18	
6.002	S602	15 minute 5 year Winter I+0%	32.600	30.895	-0.160	0.000	0.18	
5.002	S502	15 minute 5 year Winter I+0%	32.600	30.542	-0.168	0.000	0.40	
5.003	S503	15 minute 5 year Winter I+0%	32.500	30.476	-0.184	0.000	0.32	
7.000	S700	15 minute 5 year Winter I+0%	32.600	31.295	-0.105	0.000	0.19	
7.001	S701	15 minute 5 year Winter I+0%	32.600	31.177	-0.123	0.000	0.07	

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Summary Wizard of 15 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.9	OK
1.001	S101	7.6	OK
1.002	S102	9.4	OK
2.000	S200	7.1	OK
2.001	S201	12.8	OK
1.003	S103	31.3	OK
3.000	S300	30.2	OK
4.000	S400	23.9	OK
3.001	S301	54.4	OK
1.004	S104	61.1	OK
5.000	S500	8.6	OK
5.001	S501	10.7	OK
6.000	S600	3.8	OK
6.001	S601	4.4	OK
6.002	S602	9.9	OK
5.002	S502	24.8	OK
5.003	S503	24.8	OK
7.000	S700	3.4	OK
7.001	S701	3.3	OK

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Summary Wizard of 15 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	15 minute 5 year Winter I+0%	32.550	30.459	-0.106	0.000	0.40	
1.005	S105	15 minute 5 year Winter I+0%	32.380	30.458	-0.012	0.000	0.05	
8.000	S800	15 minute 5 year Winter I+0%	32.400	31.320	-0.155	0.000	0.21	
1.006	S106	15 minute 5 year Winter I+0%	32.380	30.449	0.289	0.000	0.51	
1.007	FW105	15 minute 5 year Winter I+0%	32.380	30.020	-0.115	0.000	0.13	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	30.8	OK
1.005	S105	5.5	OK
8.000	S800	14.9	OK
1.006	S106	5.6	SURCHARGED
1.007	FW105	5.6	OK

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Summary Wizard of 30 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	30 minute 5 year Winter I+0%	32.600	31.279	-0.121	0.000	0.08	
1.001	S101	30 minute 5 year Winter I+0%	32.400	31.037	-0.173	0.000	0.12	
1.002	S102	30 minute 5 year Winter I+0%	32.600	30.809	-0.166	0.000	0.15	
2.000	S200	30 minute 5 year Winter I+0%	32.600	31.305	-0.095	0.000	0.29	
2.001	S201	30 minute 5 year Winter I+0%	32.500	30.870	-0.160	0.000	0.19	
1.003	S103	30 minute 5 year Winter I+0%	32.380	30.517	-1.084	0.000	0.01	
3.000	S300	30 minute 5 year Winter I+0%	32.600	31.345	-0.205	0.000	0.22	
4.000	S400	30 minute 5 year Winter I+0%	32.600	31.335	-0.140	0.000	0.30	
3.001	S301	30 minute 5 year Winter I+0%	32.600	30.596	-0.249	0.000	0.25	
1.004	S104	30 minute 5 year Winter I+0%	32.380	30.517	-0.904	0.000	0.01	
5.000	S500	30 minute 5 year Winter I+0%	32.600	31.312	-0.088	0.000	0.36	
5.001	S501	30 minute 5 year Winter I+0%	32.600	30.744	-0.161	0.000	0.18	
6.000	S600	30 minute 5 year Winter I+0%	32.600	31.284	-0.116	0.000	0.11	
6.001	S601	30 minute 5 year Winter I+0%	32.600	31.102	-0.113	0.000	0.14	
6.002	S602	30 minute 5 year Winter I+0%	32.600	30.888	-0.167	0.000	0.15	
5.002	S502	30 minute 5 year Winter I+0%	32.600	30.529	-0.181	0.000	0.33	
5.003	S503	30 minute 5 year Winter I+0%	32.500	30.519	-0.141	0.000	0.26	
7.000	S700	30 minute 5 year Winter I+0%	32.600	31.289	-0.111	0.000	0.15	
7.001	S701	30 minute 5 year Winter I+0%	32.600	31.173	-0.127	0.000	0.06	

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Summary Wizard of 30 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.5	OK
1.001	S101	6.4	OK
1.002	S102	7.9	OK
2.000	S200	5.6	OK
2.001	S201	10.5	OK
1.003	S103	22.1	OK
3.000	S300	23.9	OK
4.000	S400	18.9	OK
3.001	S301	42.8	OK
1.004	S104	40.2	OK
5.000	S500	6.7	OK
5.001	S501	8.5	OK
6.000	S600	3.0	OK
6.001	S601	3.5	OK
6.002	S602	8.2	OK
5.002	S502	20.3	OK
5.003	S503	20.3	OK
7.000	S700	2.6	OK
7.001	S701	2.6	OK

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Summary Wizard of 30 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	30 minute 5 year Winter I+0%	32.550	30.518	-0.047	0.000	0.32	
1.005	S105	30 minute 5 year Winter I+0%	32.380	30.517	0.047	0.000	0.05	
8.000	S800	30 minute 5 year Winter I+0%	32.400	31.311	-0.164	0.000	0.17	
1.006	S106	30 minute 5 year Winter I+0%	32.380	30.514	0.354	0.000	0.55	
1.007	FW105	30 minute 5 year Winter I+0%	32.380	30.021	-0.114	0.000	0.13	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	24.4	OK
1.005	S105	5.9	SURCHARGED
8.000	S800	11.8	OK
1.006	S106	5.9	SURCHARGED
1.007	FW105	5.9	OK

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Summary Wizard of 60 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)
1.000	S100	60 minute 5 year Winter I+0%	32.600	31.273	-0.127	0.000	0.05	
1.001	S101	60 minute 5 year Winter I+0%	32.400	31.029	-0.181	0.000	0.08	
1.002	S102	60 minute 5 year Winter I+0%	32.600	30.799	-0.176	0.000	0.11	
2.000	S200	60 minute 5 year Winter I+0%	32.600	31.295	-0.105	0.000	0.20	
2.001	S201	60 minute 5 year Winter I+0%	32.500	30.858	-0.172	0.000	0.13	
1.003	S103	60 minute 5 year Winter I+0%	32.380	30.568	-1.033	0.000	0.00	
3.000	S300	60 minute 5 year Winter I+0%	32.600	31.326	-0.224	0.000	0.15	
4.000	S400	60 minute 5 year Winter I+0%	32.600	31.319	-0.156	0.000	0.20	
3.001	S301	60 minute 5 year Winter I+0%	32.600	30.572	-0.273	0.000	0.17	
1.004	S104	60 minute 5 year Winter I+0%	32.380	30.568	-0.853	0.000	0.00	
5.000	S500	60 minute 5 year Winter I+0%	32.600	31.300	-0.100	0.000	0.24	
5.001	S501	60 minute 5 year Winter I+0%	32.600	30.732	-0.173	0.000	0.12	
6.000	S600	60 minute 5 year Winter I+0%	32.600	31.277	-0.123	0.000	0.08	
6.001	S601	60 minute 5 year Winter I+0%	32.600	31.096	-0.119	0.000	0.09	
6.002	S602	60 minute 5 year Winter I+0%	32.600	30.878	-0.177	0.000	0.11	
5.002	S502	60 minute 5 year Winter I+0%	32.600	30.571	-0.139	0.000	0.23	
5.003	S503	60 minute 5 year Winter I+0%	32.500	30.570	-0.090	0.000	0.18	
7.000	S700	60 minute 5 year Winter I+0%	32.600	31.282	-0.118	0.000	0.10	
7.001	S701	60 minute 5 year Winter I+0%	32.600	31.169	-0.131	0.000	0.04	

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Summary Wizard of 60 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Pipe Flow (l/s)	Status
1.000	S100	1.0	OK
1.001	S101	4.4	OK
1.002	S102	5.5	OK
2.000	S200	3.8	OK
2.001	S201	7.2	OK
1.003	S103	13.1	OK
3.000	S300	16.2	OK
4.000	S400	12.7	OK
3.001	S301	28.9	OK
1.004	S104	24.9	OK
5.000	S500	4.5	OK
5.001	S501	5.7	OK
6.000	S600	2.0	OK
6.001	S601	2.4	OK
6.002	S602	5.7	OK
5.002	S502	14.0	OK
5.003	S503	13.9	OK
7.000	S700	1.8	OK
7.001	S701	1.8	OK

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Summary Wizard of 60 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)
5.004	S504	60 minute 5 year Winter I+0%	32.550	30.569	0.004	0.000	0.21	
1.005	S105	60 minute 5 year Winter I+0%	32.380	30.568	0.098	0.000	0.05	
8.000	S800	60 minute 5 year Winter I+0%	32.400	31.300	-0.175	0.000	0.11	
1.006	S106	60 minute 5 year Winter I+0%	32.380	30.565	0.405	0.000	0.57	
1.007	FW105	60 minute 5 year Winter I+0%	32.380	30.022	-0.113	0.000	0.14	

PN	US/MH Name	Pipe Flow (l/s)	Status
5.004	S504	16.4	SURCHARGED
1.005	S105	6.1	SURCHARGED
8.000	S800	7.9	OK
1.006	S106	6.2	SURCHARGED
1.007	FW105	6.2	OK

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Summary Wizard of 120 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	120 minute 5 year Winter I+0%	32.600	31.268	-0.132	0.000	0.03
1.001	S101	120 minute 5 year Winter I+0%	32.400	31.019	-0.191	0.000	0.05
1.002	S102	120 minute 5 year Winter I+0%	32.600	30.788	-0.187	0.000	0.07
2.000	S200	120 minute 5 year Winter I+0%	32.600	31.285	-0.115	0.000	0.12
2.001	S201	120 minute 5 year Winter I+0%	32.500	30.847	-0.183	0.000	0.08
1.003	S103	120 minute 5 year Winter I+0%	32.380	30.599	-1.002	0.000	0.00
3.000	S300	120 minute 5 year Winter I+0%	32.600	31.311	-0.239	0.000	0.09
4.000	S400	120 minute 5 year Winter I+0%	32.600	31.303	-0.172	0.000	0.13
3.001	S301	120 minute 5 year Winter I+0%	32.600	30.601	-0.244	0.000	0.11
1.004	S104	120 minute 5 year Winter I+0%	32.380	30.599	-0.822	0.000	0.00
5.000	S500	120 minute 5 year Winter I+0%	32.600	31.289	-0.111	0.000	0.15
5.001	S501	120 minute 5 year Winter I+0%	32.600	30.721	-0.184	0.000	0.08
6.000	S600	120 minute 5 year Winter I+0%	32.600	31.271	-0.129	0.000	0.05
6.001	S601	120 minute 5 year Winter I+0%	32.600	31.089	-0.126	0.000	0.06
6.002	S602	120 minute 5 year Winter I+0%	32.600	30.868	-0.187	0.000	0.07
5.002	S502	120 minute 5 year Winter I+0%	32.600	30.601	-0.109	0.000	0.14
5.003	S503	120 minute 5 year Winter I+0%	32.500	30.601	-0.059	0.000	0.11
7.000	S700	120 minute 5 year Winter I+0%	32.600	31.275	-0.125	0.000	0.06
7.001	S701	120 minute 5 year Winter I+0%	32.600	31.166	-0.134	0.000	0.02

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Summary Wizard of 120 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.6	OK
1.001	S101		2.8	OK
1.002	S102		3.5	OK
2.000	S200		2.4	OK
2.001	S201		4.6	OK
1.003	S103		7.9	OK
3.000	S300		10.2	OK
4.000	S400		8.0	OK
3.001	S301		18.2	OK
1.004	S104		15.0	OK
5.000	S500		2.8	OK
5.001	S501		3.6	OK
6.000	S600		1.3	OK
6.001	S601		1.5	OK
6.002	S602		3.6	OK
5.002	S502		8.9	OK
5.003	S503		8.7	OK
7.000	S700		1.1	OK
7.001	S701		1.1	OK

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Summary Wizard of 120 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	120 minute 5 year Winter I+0%	32.550	30.600	0.035	0.000	0.14
1.005	S105	120 minute 5 year Winter I+0%	32.380	30.599	0.129	0.000	0.05
8.000	S800	120 minute 5 year Winter I+0%	32.400	31.289	-0.186	0.000	0.07
1.006	S106	120 minute 5 year Winter I+0%	32.380	30.596	0.436	0.000	0.59
1.007	FW105	120 minute 5 year Winter I+0%	32.380	30.023	-0.112	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		10.4	SURCHARGED
1.005	S105		6.3	SURCHARGED
8.000	S800		5.0	OK
1.006	S106		6.4	SURCHARGED
1.007	FW105		6.4	OK

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Summary Wizard of 180 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	180 minute 5 year Winter I+0%	32.600	31.266	-0.134	0.000	0.03
1.001	S101	180 minute 5 year Winter I+0%	32.400	31.014	-0.196	0.000	0.04
1.002	S102	180 minute 5 year Winter I+0%	32.600	30.783	-0.192	0.000	0.05
2.000	S200	180 minute 5 year Winter I+0%	32.600	31.281	-0.119	0.000	0.09
2.001	S201	180 minute 5 year Winter I+0%	32.500	30.841	-0.189	0.000	0.06
1.003	S103	180 minute 5 year Winter I+0%	32.380	30.601	-1.000	0.000	0.00
3.000	S300	180 minute 5 year Winter I+0%	32.600	31.302	-0.248	0.000	0.07
4.000	S400	180 minute 5 year Winter I+0%	32.600	31.297	-0.178	0.000	0.10
3.001	S301	180 minute 5 year Winter I+0%	32.600	30.603	-0.242	0.000	0.08
1.004	S104	180 minute 5 year Winter I+0%	32.380	30.601	-0.820	0.000	0.00
5.000	S500	180 minute 5 year Winter I+0%	32.600	31.284	-0.116	0.000	0.11
5.001	S501	180 minute 5 year Winter I+0%	32.600	30.715	-0.190	0.000	0.06
6.000	S600	180 minute 5 year Winter I+0%	32.600	31.268	-0.132	0.000	0.04
6.001	S601	180 minute 5 year Winter I+0%	32.600	31.085	-0.130	0.000	0.05
6.002	S602	180 minute 5 year Winter I+0%	32.600	30.862	-0.193	0.000	0.05
5.002	S502	180 minute 5 year Winter I+0%	32.600	30.603	-0.107	0.000	0.11
5.003	S503	180 minute 5 year Winter I+0%	32.500	30.603	-0.057	0.000	0.09
7.000	S700	180 minute 5 year Winter I+0%	32.600	31.271	-0.129	0.000	0.05
7.001	S701	180 minute 5 year Winter I+0%	32.600	31.163	-0.137	0.000	0.02

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Summary Wizard of 180 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.5	OK
1.001	S101		2.1	OK
1.002	S102		2.7	OK
2.000	S200		1.8	OK
2.001	S201		3.4	OK
1.003	S103		6.1	OK
3.000	S300		7.7	OK
4.000	S400		6.0	OK
3.001	S301		13.7	OK
1.004	S104		11.5	OK
5.000	S500		2.1	OK
5.001	S501		2.7	OK
6.000	S600		1.0	OK
6.001	S601		1.1	OK
6.002	S602		2.7	OK
5.002	S502		6.7	OK
5.003	S503		6.6	OK
7.000	S700		0.8	OK
7.001	S701		0.8	OK

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Summary Wizard of 180 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	180 minute 5 year Winter I+0%	32.550	30.602	0.037	0.000	0.10
1.005	S105	180 minute 5 year Winter I+0%	32.380	30.601	0.131	0.000	0.05
8.000	S800	180 minute 5 year Winter I+0%	32.400	31.283	-0.192	0.000	0.05
1.006	S106	180 minute 5 year Winter I+0%	32.380	30.598	0.438	0.000	0.59
1.007	FW105	180 minute 5 year Winter I+0%	32.380	30.023	-0.112	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		7.9	SURCHARGED
1.005	S105		6.3	SURCHARGED
8.000	S800		3.8	OK
1.006	S106		6.4	SURCHARGED
1.007	FW105		6.4	OK

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Summary Wizard of 240 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	240 minute 5 year Winter I+0%	32.600	31.265	-0.135	0.000	0.02
1.001	S101	240 minute 5 year Winter I+0%	32.400	31.012	-0.198	0.000	0.03
1.002	S102	240 minute 5 year Winter I+0%	32.600	30.780	-0.195	0.000	0.04
2.000	S200	240 minute 5 year Winter I+0%	32.600	31.277	-0.123	0.000	0.08
2.001	S201	240 minute 5 year Winter I+0%	32.500	30.837	-0.193	0.000	0.05
1.003	S103	240 minute 5 year Winter I+0%	32.380	30.598	-1.003	0.000	0.00
3.000	S300	240 minute 5 year Winter I+0%	32.600	31.296	-0.254	0.000	0.06
4.000	S400	240 minute 5 year Winter I+0%	32.600	31.292	-0.183	0.000	0.08
3.001	S301	240 minute 5 year Winter I+0%	32.600	30.600	-0.245	0.000	0.06
1.004	S104	240 minute 5 year Winter I+0%	32.380	30.598	-0.823	0.000	0.00
5.000	S500	240 minute 5 year Winter I+0%	32.600	31.281	-0.119	0.000	0.09
5.001	S501	240 minute 5 year Winter I+0%	32.600	30.711	-0.194	0.000	0.05
6.000	S600	240 minute 5 year Winter I+0%	32.600	31.267	-0.133	0.000	0.03
6.001	S601	240 minute 5 year Winter I+0%	32.600	31.083	-0.132	0.000	0.04
6.002	S602	240 minute 5 year Winter I+0%	32.600	30.859	-0.196	0.000	0.04
5.002	S502	240 minute 5 year Winter I+0%	32.600	30.600	-0.110	0.000	0.09
5.003	S503	240 minute 5 year Winter I+0%	32.500	30.600	-0.060	0.000	0.07
7.000	S700	240 minute 5 year Winter I+0%	32.600	31.269	-0.131	0.000	0.04
7.001	S701	240 minute 5 year Winter I+0%	32.600	31.160	-0.140	0.000	0.01

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Summary Wizard of 240 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	OK
1.001	S101		1.7	OK
1.002	S102		2.2	OK
2.000	S200		1.5	OK
2.001	S201		2.8	OK
1.003	S103		5.2	OK
3.000	S300		6.3	OK
4.000	S400		4.9	OK
3.001	S301		11.2	OK
1.004	S104		9.7	OK
5.000	S500		1.7	OK
5.001	S501		2.2	OK
6.000	S600		0.8	OK
6.001	S601		0.9	OK
6.002	S602		2.2	OK
5.002	S502		5.5	OK
5.003	S503		5.4	OK
7.000	S700		0.7	OK
7.001	S701		0.7	OK

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Summary Wizard of 240 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	240 minute 5 year Winter I+0%	32.550	30.599	0.034	0.000	0.08
1.005	S105	240 minute 5 year Winter I+0%	32.380	30.598	0.128	0.000	0.05
8.000	S800	240 minute 5 year Winter I+0%	32.400	31.280	-0.195	0.000	0.04
1.006	S106	240 minute 5 year Winter I+0%	32.380	30.595	0.435	0.000	0.59
1.007	FW105	240 minute 5 year Winter I+0%	32.380	30.023	-0.112	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		6.4	SURCHARGED
1.005	S105		6.2	SURCHARGED
8.000	S800		3.1	OK
1.006	S106		6.4	SURCHARGED
1.007	FW105		6.4	OK

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Summary Wizard of 360 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	360 minute 5 year Winter I+0%	32.600	31.261	-0.139	0.000	0.02
1.001	S101	360 minute 5 year Winter I+0%	32.400	31.009	-0.201	0.000	0.02
1.002	S102	360 minute 5 year Winter I+0%	32.600	30.776	-0.199	0.000	0.03
2.000	S200	360 minute 5 year Winter I+0%	32.600	31.273	-0.127	0.000	0.06
2.001	S201	360 minute 5 year Winter I+0%	32.500	30.833	-0.197	0.000	0.04
1.003	S103	360 minute 5 year Winter I+0%	32.380	30.582	-1.019	0.000	0.00
3.000	S300	360 minute 5 year Winter I+0%	32.600	31.290	-0.260	0.000	0.04
4.000	S400	360 minute 5 year Winter I+0%	32.600	31.285	-0.190	0.000	0.06
3.001	S301	360 minute 5 year Winter I+0%	32.600	30.584	-0.261	0.000	0.05
1.004	S104	360 minute 5 year Winter I+0%	32.380	30.583	-0.838	0.000	0.00
5.000	S500	360 minute 5 year Winter I+0%	32.600	31.276	-0.124	0.000	0.07
5.001	S501	360 minute 5 year Winter I+0%	32.600	30.707	-0.198	0.000	0.04
6.000	S600	360 minute 5 year Winter I+0%	32.600	31.265	-0.135	0.000	0.02
6.001	S601	360 minute 5 year Winter I+0%	32.600	31.081	-0.134	0.000	0.03
6.002	S602	360 minute 5 year Winter I+0%	32.600	30.856	-0.199	0.000	0.03
5.002	S502	360 minute 5 year Winter I+0%	32.600	30.584	-0.126	0.000	0.07
5.003	S503	360 minute 5 year Winter I+0%	32.500	30.584	-0.076	0.000	0.05
7.000	S700	360 minute 5 year Winter I+0%	32.600	31.267	-0.133	0.000	0.03
7.001	S701	360 minute 5 year Winter I+0%	32.600	31.158	-0.142	0.000	0.01

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Summary Wizard of 360 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.3	OK
1.002	S102		1.6	OK
2.000	S200		1.1	OK
2.001	S201		2.1	OK
1.003	S103		4.3	OK
3.000	S300		4.7	OK
4.000	S400		3.7	OK
3.001	S301		8.3	OK
1.004	S104		7.9	OK
5.000	S500		1.3	OK
5.001	S501		1.7	OK
6.000	S600		0.6	OK
6.001	S601		0.7	OK
6.002	S602		1.7	OK
5.002	S502		4.1	OK
5.003	S503		4.0	OK
7.000	S700		0.5	OK
7.001	S701		0.5	OK

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Summary Wizard of 360 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	360 minute 5 year Winter I+0%	32.550	30.583	0.018	0.000	0.06
1.005	S105	360 minute 5 year Winter I+0%	32.380	30.582	0.112	0.000	0.05
8.000	S800	360 minute 5 year Winter I+0%	32.400	31.276	-0.199	0.000	0.03
1.006	S106	360 minute 5 year Winter I+0%	32.380	30.579	0.419	0.000	0.58
1.007	FW105	360 minute 5 year Winter I+0%	32.380	30.022	-0.113	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		4.8	SURCHARGED
1.005	S105		5.9	SURCHARGED
8.000	S800		2.3	OK
1.006	S106		6.3	SURCHARGED
1.007	FW105		6.3	OK

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Summary Wizard of 480 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	480 minute 5 year Winter I+0%	32.600	31.259	-0.141	0.000	0.01
1.001	S101	480 minute 5 year Winter I+0%	32.400	31.007	-0.203	0.000	0.02
1.002	S102	480 minute 5 year Winter I+0%	32.600	30.774	-0.201	0.000	0.03
2.000	S200	480 minute 5 year Winter I+0%	32.600	31.271	-0.129	0.000	0.05
2.001	S201	480 minute 5 year Winter I+0%	32.500	30.831	-0.199	0.000	0.03
1.003	S103	480 minute 5 year Winter I+0%	32.380	30.562	-1.039	0.000	0.00
3.000	S300	480 minute 5 year Winter I+0%	32.600	31.286	-0.264	0.000	0.03
4.000	S400	480 minute 5 year Winter I+0%	32.600	31.281	-0.194	0.000	0.05
3.001	S301	480 minute 5 year Winter I+0%	32.600	30.563	-0.282	0.000	0.04
1.004	S104	480 minute 5 year Winter I+0%	32.380	30.562	-0.859	0.000	0.00
5.000	S500	480 minute 5 year Winter I+0%	32.600	31.273	-0.127	0.000	0.06
5.001	S501	480 minute 5 year Winter I+0%	32.600	30.705	-0.200	0.000	0.03
6.000	S600	480 minute 5 year Winter I+0%	32.600	31.263	-0.137	0.000	0.02
6.001	S601	480 minute 5 year Winter I+0%	32.600	31.080	-0.135	0.000	0.02
6.002	S602	480 minute 5 year Winter I+0%	32.600	30.854	-0.201	0.000	0.03
5.002	S502	480 minute 5 year Winter I+0%	32.600	30.565	-0.145	0.000	0.05
5.003	S503	480 minute 5 year Winter I+0%	32.500	30.565	-0.095	0.000	0.04
7.000	S700	480 minute 5 year Winter I+0%	32.600	31.266	-0.134	0.000	0.02
7.001	S701	480 minute 5 year Winter I+0%	32.600	31.156	-0.144	0.000	0.01

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Summary Wizard of 480 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		1.1	OK
1.002	S102		1.3	OK
2.000	S200		0.9	OK
2.001	S201		1.7	OK
1.003	S103		3.8	OK
3.000	S300		3.8	OK
4.000	S400		3.0	OK
3.001	S301		6.8	OK
1.004	S104		7.0	OK
5.000	S500		1.1	OK
5.001	S501		1.4	OK
6.000	S600		0.5	OK
6.001	S601		0.6	OK
6.002	S602		1.4	OK
5.002	S502		3.3	OK
5.003	S503		3.3	OK
7.000	S700		0.4	OK
7.001	S701		0.4	OK

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Summary Wizard of 480 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	480 minute 5 year Winter I+0%	32.550	30.564	-0.001	0.000	0.05
1.005	S105	480 minute 5 year Winter I+0%	32.380	30.562	0.092	0.000	0.05
8.000	S800	480 minute 5 year Winter I+0%	32.400	31.274	-0.201	0.000	0.03
1.006	S106	480 minute 5 year Winter I+0%	32.380	30.559	0.399	0.000	0.57
1.007	FW105	480 minute 5 year Winter I+0%	32.380	30.022	-0.113	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		3.9	OK
1.005	S105		5.7	SURCHARGED
8.000	S800		1.9	OK
1.006	S106		6.2	SURCHARGED
1.007	FW105		6.2	OK

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Summary Wizard of 600 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	600 minute 5 year Winter I+0%	32.600	31.258	-0.142	0.000	0.01
1.001	S101	600 minute 5 year Winter I+0%	32.400	31.003	-0.207	0.000	0.02
1.002	S102	600 minute 5 year Winter I+0%	32.600	30.773	-0.202	0.000	0.02
2.000	S200	600 minute 5 year Winter I+0%	32.600	31.269	-0.131	0.000	0.04
2.001	S201	600 minute 5 year Winter I+0%	32.500	30.829	-0.201	0.000	0.03
1.003	S103	600 minute 5 year Winter I+0%	32.380	30.542	-1.059	0.000	0.00
3.000	S300	600 minute 5 year Winter I+0%	32.600	31.284	-0.266	0.000	0.03
4.000	S400	600 minute 5 year Winter I+0%	32.600	31.279	-0.196	0.000	0.04
3.001	S301	600 minute 5 year Winter I+0%	32.600	30.544	-0.301	0.000	0.03
1.004	S104	600 minute 5 year Winter I+0%	32.380	30.542	-0.879	0.000	0.00
5.000	S500	600 minute 5 year Winter I+0%	32.600	31.271	-0.129	0.000	0.05
5.001	S501	600 minute 5 year Winter I+0%	32.600	30.704	-0.201	0.000	0.02
6.000	S600	600 minute 5 year Winter I+0%	32.600	31.261	-0.139	0.000	0.02
6.001	S601	600 minute 5 year Winter I+0%	32.600	31.078	-0.137	0.000	0.02
6.002	S602	600 minute 5 year Winter I+0%	32.600	30.853	-0.202	0.000	0.02
5.002	S502	600 minute 5 year Winter I+0%	32.600	30.544	-0.166	0.000	0.05
5.003	S503	600 minute 5 year Winter I+0%	32.500	30.543	-0.117	0.000	0.04
7.000	S700	600 minute 5 year Winter I+0%	32.600	31.264	-0.136	0.000	0.02
7.001	S701	600 minute 5 year Winter I+0%	32.600	31.155	-0.145	0.000	0.01

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Summary Wizard of 600 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.9	OK
1.002	S102		1.1	OK
2.000	S200		0.7	OK
2.001	S201		1.4	OK
1.003	S103		3.4	OK
3.000	S300		3.2	OK
4.000	S400		2.5	OK
3.001	S301		5.7	OK
1.004	S104		6.3	OK
5.000	S500		0.9	OK
5.001	S501		1.1	OK
6.000	S600		0.4	OK
6.001	S601		0.5	OK
6.002	S602		1.1	OK
5.002	S502		2.8	OK
5.003	S503		2.8	OK
7.000	S700		0.3	OK
7.001	S701		0.3	OK

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Summary Wizard of 600 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	600 minute 5 year Winter I+0%	32.550	30.543	-0.022	0.000	0.04
1.005	S105	600 minute 5 year Winter I+0%	32.380	30.542	0.072	0.000	0.05
8.000	S800	600 minute 5 year Winter I+0%	32.400	31.273	-0.202	0.000	0.02
1.006	S106	600 minute 5 year Winter I+0%	32.380	30.539	0.379	0.000	0.56
1.007	FW105	600 minute 5 year Winter I+0%	32.380	30.022	-0.113	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		3.4	OK
1.005	S105		5.6	SURCHARGED
8.000	S800		1.6	OK
1.006	S106		6.1	SURCHARGED
1.007	FW105		6.1	OK

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Summary Wizard of 720 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	720 minute 5 year Winter I+0%	32.600	31.257	-0.143	0.000	0.01
1.001	S101	720 minute 5 year Winter I+0%	32.400	31.001	-0.209	0.000	0.02
1.002	S102	720 minute 5 year Winter I+0%	32.600	30.770	-0.205	0.000	0.02
2.000	S200	720 minute 5 year Winter I+0%	32.600	31.268	-0.132	0.000	0.03
2.001	S201	720 minute 5 year Winter I+0%	32.500	30.828	-0.202	0.000	0.02
1.003	S103	720 minute 5 year Winter I+0%	32.380	30.522	-1.079	0.000	0.00
3.000	S300	720 minute 5 year Winter I+0%	32.600	31.282	-0.268	0.000	0.03
4.000	S400	720 minute 5 year Winter I+0%	32.600	31.277	-0.198	0.000	0.04
3.001	S301	720 minute 5 year Winter I+0%	32.600	30.526	-0.319	0.000	0.03
1.004	S104	720 minute 5 year Winter I+0%	32.380	30.522	-0.899	0.000	0.00
5.000	S500	720 minute 5 year Winter I+0%	32.600	31.270	-0.130	0.000	0.04
5.001	S501	720 minute 5 year Winter I+0%	32.600	30.703	-0.202	0.000	0.02
6.000	S600	720 minute 5 year Winter I+0%	32.600	31.259	-0.141	0.000	0.01
6.001	S601	720 minute 5 year Winter I+0%	32.600	31.077	-0.138	0.000	0.02
6.002	S602	720 minute 5 year Winter I+0%	32.600	30.850	-0.205	0.000	0.02
5.002	S502	720 minute 5 year Winter I+0%	32.600	30.524	-0.186	0.000	0.04
5.003	S503	720 minute 5 year Winter I+0%	32.500	30.523	-0.137	0.000	0.03
7.000	S700	720 minute 5 year Winter I+0%	32.600	31.263	-0.137	0.000	0.02
7.001	S701	720 minute 5 year Winter I+0%	32.600	31.155	-0.145	0.000	0.01

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Summary Wizard of 720 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.8	OK
1.002	S102		1.0	OK
2.000	S200		0.7	OK
2.001	S201		1.3	OK
1.003	S103		3.2	OK
3.000	S300		2.8	OK
4.000	S400		2.2	OK
3.001	S301		5.0	OK
1.004	S104		5.9	OK
5.000	S500		0.8	OK
5.001	S501		1.0	OK
6.000	S600		0.3	OK
6.001	S601		0.4	OK
6.002	S602		1.0	OK
5.002	S502		2.5	OK
5.003	S503		2.4	OK
7.000	S700		0.3	OK
7.001	S701		0.3	OK

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Summary Wizard of 720 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	720 minute 5 year Winter I+0%	32.550	30.523	-0.042	0.000	0.04
1.005	S105	720 minute 5 year Winter I+0%	32.380	30.522	0.052	0.000	0.05
8.000	S800	720 minute 5 year Winter I+0%	32.400	31.271	-0.204	0.000	0.02
1.006	S106	720 minute 5 year Winter I+0%	32.380	30.519	0.359	0.000	0.55
1.007	FW105	720 minute 5 year Winter I+0%	32.380	30.021	-0.114	0.000	0.14

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.9	OK
1.005	S105		5.5	SURCHARGED
8.000	S800		1.4	OK
1.006	S106		6.0	SURCHARGED
1.007	FW105		6.0	OK

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Summary Wizard of 960 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	960 minute 5 year Winter I+0%	32.600	31.255	-0.145	0.000	0.01
1.001	S101	960 minute 5 year Winter I+0%	32.400	30.998	-0.212	0.000	0.01
1.002	S102	960 minute 5 year Winter I+0%	32.600	30.766	-0.209	0.000	0.02
2.000	S200	960 minute 5 year Winter I+0%	32.600	31.266	-0.134	0.000	0.03
2.001	S201	960 minute 5 year Winter I+0%	32.500	30.824	-0.206	0.000	0.02
1.003	S103	960 minute 5 year Winter I+0%	32.380	30.483	-1.118	0.000	0.00
3.000	S300	960 minute 5 year Winter I+0%	32.600	31.280	-0.270	0.000	0.02
4.000	S400	960 minute 5 year Winter I+0%	32.600	31.275	-0.200	0.000	0.03
3.001	S301	960 minute 5 year Winter I+0%	32.600	30.510	-0.335	0.000	0.02
1.004	S104	960 minute 5 year Winter I+0%	32.380	30.483	-0.938	0.000	0.00
5.000	S500	960 minute 5 year Winter I+0%	32.600	31.268	-0.132	0.000	0.03
5.001	S501	960 minute 5 year Winter I+0%	32.600	30.698	-0.207	0.000	0.02
6.000	S600	960 minute 5 year Winter I+0%	32.600	31.258	-0.142	0.000	0.01
6.001	S601	960 minute 5 year Winter I+0%	32.600	31.075	-0.140	0.000	0.01
6.002	S602	960 minute 5 year Winter I+0%	32.600	30.846	-0.209	0.000	0.02
5.002	S502	960 minute 5 year Winter I+0%	32.600	30.485	-0.225	0.000	0.03
5.003	S503	960 minute 5 year Winter I+0%	32.500	30.484	-0.176	0.000	0.03
7.000	S700	960 minute 5 year Winter I+0%	32.600	31.260	-0.140	0.000	0.01
7.001	S701	960 minute 5 year Winter I+0%	32.600	31.154	-0.146	0.000	0.01

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Summary Wizard of 960 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.1	OK
1.001	S101		0.6	OK
1.002	S102		0.8	OK
2.000	S200		0.5	OK
2.001	S201		1.0	OK
1.003	S103		2.7	OK
3.000	S300		2.3	OK
4.000	S400		1.8	OK
3.001	S301		4.1	OK
1.004	S104		5.2	OK
5.000	S500		0.6	OK
5.001	S501		0.8	OK
6.000	S600		0.3	OK
6.001	S601		0.3	OK
6.002	S602		0.8	OK
5.002	S502		2.0	OK
5.003	S503		2.0	OK
7.000	S700		0.2	OK
7.001	S701		0.2	OK

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Summary Wizard of 960 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	960 minute 5 year Winter I+0%	32.550	30.484	-0.081	0.000	0.03
1.005	S105	960 minute 5 year Winter I+0%	32.380	30.483	0.013	0.000	0.05
8.000	S800	960 minute 5 year Winter I+0%	32.400	31.267	-0.208	0.000	0.02
1.006	S106	960 minute 5 year Winter I+0%	32.380	30.480	0.320	0.000	0.53
1.007	FW105	960 minute 5 year Winter I+0%	32.380	30.021	-0.114	0.000	0.13

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		2.4	OK
1.005	S105		5.3	SURCHARGED
8.000	S800		1.1	OK
1.006	S106		5.7	SURCHARGED
1.007	FW105		5.7	OK

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Summary Wizard of 1440 minute 5 year Winter I+0% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	1440 minute 5 year Winter I+0%	32.600	31.254	-0.146	0.000	0.01
1.001	S101	1440 minute 5 year Winter I+0%	32.400	30.995	-0.215	0.000	0.01
1.002	S102	1440 minute 5 year Winter I+0%	32.600	30.762	-0.213	0.000	0.01
2.000	S200	1440 minute 5 year Winter I+0%	32.600	31.265	-0.135	0.000	0.02
2.001	S201	1440 minute 5 year Winter I+0%	32.500	30.819	-0.211	0.000	0.01
1.003	S103	1440 minute 5 year Winter I+0%	32.380	30.415	-1.186	0.000	0.00
3.000	S300	1440 minute 5 year Winter I+0%	32.600	31.272	-0.278	0.000	0.02
4.000	S400	1440 minute 5 year Winter I+0%	32.600	31.273	-0.202	0.000	0.02
3.001	S301	1440 minute 5 year Winter I+0%	32.600	30.501	-0.344	0.000	0.02
1.004	S104	1440 minute 5 year Winter I+0%	32.380	30.415	-1.006	0.000	0.00
5.000	S500	1440 minute 5 year Winter I+0%	32.600	31.266	-0.134	0.000	0.03
5.001	S501	1440 minute 5 year Winter I+0%	32.600	30.694	-0.211	0.000	0.01
6.000	S600	1440 minute 5 year Winter I+0%	32.600	31.256	-0.144	0.000	0.01
6.001	S601	1440 minute 5 year Winter I+0%	32.600	31.072	-0.143	0.000	0.01
6.002	S602	1440 minute 5 year Winter I+0%	32.600	30.842	-0.213	0.000	0.01
5.002	S502	1440 minute 5 year Winter I+0%	32.600	30.441	-0.269	0.000	0.02
5.003	S503	1440 minute 5 year Winter I+0%	32.500	30.416	-0.244	0.000	0.02
7.000	S700	1440 minute 5 year Winter I+0%	32.600	31.258	-0.142	0.000	0.01
7.001	S701	1440 minute 5 year Winter I+0%	32.600	31.153	-0.147	0.000	0.00

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Summary Wizard of 1440 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.1	OK
1.001	S101		0.5	OK
1.002	S102		0.6	OK
2.000	S200		0.4	OK
2.001	S201		0.8	OK
1.003	S103		2.2	OK
3.000	S300		1.7	OK
4.000	S400		1.3	OK
3.001	S301		3.0	OK
1.004	S104		4.5	OK
5.000	S500		0.5	OK
5.001	S501		0.6	OK
6.000	S600		0.2	OK
6.001	S601		0.3	OK
6.002	S602		0.6	OK
5.002	S502		1.5	OK
5.003	S503		1.5	OK
7.000	S700		0.2	OK
7.001	S701		0.2	OK

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Summary Wizard of 1440 minute 5 year Winter I+0% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	1440 minute 5 year Winter I+0%	32.550	30.416	-0.149	0.000	0.02
1.005	S105	1440 minute 5 year Winter I+0%	32.380	30.415	-0.055	0.000	0.04
8.000	S800	1440 minute 5 year Winter I+0%	32.400	31.262	-0.213	0.000	0.01
1.006	S106	1440 minute 5 year Winter I+0%	32.380	30.412	0.252	0.000	0.49
1.007	FW105	1440 minute 5 year Winter I+0%	32.380	30.020	-0.115	0.000	0.12

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		1.8	OK
1.005	S105		4.9	OK
8.000	S800		0.8	OK
1.006	S106		5.4	SURCHARGED
1.007	FW105		5.4	OK

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Summary Wizard of 15 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	15 minute 30 year Winter I+40%	32.600	31.297	-0.103	0.000	0.21
1.001	S101	15 minute 30 year Winter I+40%	32.400	31.078	-0.132	0.000	0.36
1.002	S102	15 minute 30 year Winter I+40%	32.600	30.856	-0.119	0.000	0.45
2.000	S200	15 minute 30 year Winter I+40%	32.600	31.350	-0.050	0.000	0.76
2.001	S201	15 minute 30 year Winter I+40%	32.500	30.921	-0.109	0.000	0.51
1.003	S103	15 minute 30 year Winter I+40%	32.380	30.702	-0.899	0.000	0.02
3.000	S300	15 minute 30 year Winter I+40%	32.600	31.415	-0.135	0.000	0.56
4.000	S400	15 minute 30 year Winter I+40%	32.600	31.404	-0.071	0.000	0.78
3.001	S301	15 minute 30 year Winter I+40%	32.600	30.711	-0.134	0.000	0.64
1.004	S104	15 minute 30 year Winter I+40%	32.380	30.702	-0.719	0.000	0.02
5.000	S500	15 minute 30 year Winter I+40%	32.600	31.366	-0.034	0.000	0.92
5.001	S501	15 minute 30 year Winter I+40%	32.600	30.868	-0.037	0.000	0.47
6.000	S600	15 minute 30 year Winter I+40%	32.600	31.306	-0.094	0.000	0.30
6.001	S601	15 minute 30 year Winter I+40%	32.600	31.129	-0.086	0.000	0.37
6.002	S602	15 minute 30 year Winter I+40%	32.600	30.934	-0.121	0.000	0.43
5.002	S502	15 minute 30 year Winter I+40%	32.600	30.850	0.140	0.000	0.90
5.003	S503	15 minute 30 year Winter I+40%	32.500	30.790	0.130	0.000	0.70
7.000	S700	15 minute 30 year Winter I+40%	32.600	31.316	-0.084	0.000	0.40
7.001	S701	15 minute 30 year Winter I+40%	32.600	31.189	-0.111	0.000	0.15

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Summary Wizard of 15 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		3.9	OK
1.001	S101		18.6	OK
1.002	S102		23.3	OK
2.000	S200		14.4	OK
2.001	S201		28.9	OK
1.003	S103		60.7	OK
3.000	S300		61.8	OK
4.000	S400		48.8	OK
3.001	S301		111.2	OK
1.004	S104		85.8	OK
5.000	S500		17.3	OK
5.001	S501		22.0	OK
6.000	S600		7.9	OK
6.001	S601		9.4	OK
6.002	S602		23.4	OK
5.002	S502		55.2	SURCHARGED
5.003	S503		54.3	SURCHARGED
7.000	S700		6.9	OK
7.001	S701		6.8	OK

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Summary Wizard of 15 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	15 minute 30 year Winter I+40%	32.550	30.742	0.177	0.000	0.85
1.005	S105	15 minute 30 year Winter I+40%	32.380	30.702	0.232	0.000	0.06
8.000	S800	15 minute 30 year Winter I+40%	32.400	31.354	-0.121	0.000	0.43
1.006	S106	15 minute 30 year Winter I+40%	32.380	30.699	0.539	0.000	0.63
1.007	FW105	15 minute 30 year Winter I+40%	32.380	30.024	-0.111	0.000	0.16

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		65.3	SURCHARGED
1.005	S105		6.8	SURCHARGED
8.000	S800		30.3	OK
1.006	S106		6.9	SURCHARGED
1.007	FW105		6.9	OK

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Summary Wizard of 30 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	30 minute 30 year Winter I+40%	32.600	31.291	-0.109	0.000	0.17
1.001	S101	30 minute 30 year Winter I+40%	32.400	31.065	-0.145	0.000	0.27
1.002	S102	30 minute 30 year Winter I+40%	32.600	30.842	-0.133	0.000	0.34
2.000	S200	30 minute 30 year Winter I+40%	32.600	31.335	-0.065	0.000	0.61
2.001	S201	30 minute 30 year Winter I+40%	32.500	30.904	-0.126	0.000	0.40
1.003	S103	30 minute 30 year Winter I+40%	32.380	30.838	-0.763	0.000	0.01
3.000	S300	30 minute 30 year Winter I+40%	32.600	31.392	-0.158	0.000	0.45
4.000	S400	30 minute 30 year Winter I+40%	32.600	31.380	-0.095	0.000	0.63
3.001	S301	30 minute 30 year Winter I+40%	32.600	30.860	0.015	0.000	0.51
1.004	S104	30 minute 30 year Winter I+40%	32.380	30.839	-0.582	0.000	0.01
5.000	S500	30 minute 30 year Winter I+40%	32.600	31.347	-0.053	0.000	0.74
5.001	S501	30 minute 30 year Winter I+40%	32.600	30.977	0.072	0.000	0.36
6.000	S600	30 minute 30 year Winter I+40%	32.600	31.299	-0.101	0.000	0.24
6.001	S601	30 minute 30 year Winter I+40%	32.600	31.121	-0.094	0.000	0.30
6.002	S602	30 minute 30 year Winter I+40%	32.600	30.980	-0.075	0.000	0.33
5.002	S502	30 minute 30 year Winter I+40%	32.600	30.956	0.246	0.000	0.66
5.003	S503	30 minute 30 year Winter I+40%	32.500	30.885	0.225	0.000	0.50
7.000	S700	30 minute 30 year Winter I+40%	32.600	31.308	-0.092	0.000	0.32
7.001	S701	30 minute 30 year Winter I+40%	32.600	31.184	-0.116	0.000	0.12

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Summary Wizard of 30 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		3.1	OK
1.001	S101		14.2	OK
1.002	S102		17.7	OK
2.000	S200		11.7	OK
2.001	S201		22.6	OK
1.003	S103		33.3	OK
3.000	S300		49.7	OK
4.000	S400		39.3	OK
3.001	S301		88.8	SURCHARGED
1.004	S104		49.8	OK
5.000	S500		13.9	OK
5.001	S501		17.2	SURCHARGED
6.000	S600		6.2	OK
6.001	S601		7.4	OK
6.002	S602		18.1	OK
5.002	S502		40.7	SURCHARGED
5.003	S503		38.5	SURCHARGED
7.000	S700		5.5	OK
7.001	S701		5.5	OK

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Summary Wizard of 30 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	30 minute 30 year Winter I+40%	32.550	30.839	0.274	0.000	0.59
1.005	S105	30 minute 30 year Winter I+40%	32.380	30.838	0.368	0.000	0.06
8.000	S800	30 minute 30 year Winter I+40%	32.400	31.341	-0.134	0.000	0.34
1.006	S106	30 minute 30 year Winter I+40%	32.380	30.835	0.675	0.000	0.69
1.007	FW105	30 minute 30 year Winter I+40%	32.380	30.026	-0.109	0.000	0.17

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		45.3	SURCHARGED
1.005	S105		7.4	SURCHARGED
8.000	S800		24.5	OK
1.006	S106		7.5	SURCHARGED
1.007	FW105		7.5	OK

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Summary Wizard of 60 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	60 minute 30 year Winter I+40%	32.600	31.284	-0.116	0.000	0.11
1.001	S101	60 minute 30 year Winter I+40%	32.400	31.050	-0.160	0.000	0.18
1.002	S102	60 minute 30 year Winter I+40%	32.600	30.973	-0.002	0.000	0.23
2.000	S200	60 minute 30 year Winter I+40%	32.600	31.317	-0.083	0.000	0.41
2.001	S201	60 minute 30 year Winter I+40%	32.500	30.974	-0.056	0.000	0.27
1.003	S103	60 minute 30 year Winter I+40%	32.380	30.972	-0.629	0.000	0.00
3.000	S300	60 minute 30 year Winter I+40%	32.600	31.364	-0.186	0.000	0.31
4.000	S400	60 minute 30 year Winter I+40%	32.600	31.352	-0.123	0.000	0.43
3.001	S301	60 minute 30 year Winter I+40%	32.600	30.974	0.129	0.000	0.34
1.004	S104	60 minute 30 year Winter I+40%	32.380	30.972	-0.449	0.000	0.01
5.000	S500	60 minute 30 year Winter I+40%	32.600	31.325	-0.075	0.000	0.50
5.001	S501	60 minute 30 year Winter I+40%	32.600	31.002	0.097	0.000	0.24
6.000	S600	60 minute 30 year Winter I+40%	32.600	31.290	-0.110	0.000	0.16
6.001	S601	60 minute 30 year Winter I+40%	32.600	31.110	-0.105	0.000	0.20
6.002	S602	60 minute 30 year Winter I+40%	32.600	31.006	-0.049	0.000	0.23
5.002	S502	60 minute 30 year Winter I+40%	32.600	30.984	0.274	0.000	0.41
5.003	S503	60 minute 30 year Winter I+40%	32.500	30.973	0.313	0.000	0.32
7.000	S700	60 minute 30 year Winter I+40%	32.600	31.297	-0.103	0.000	0.21
7.001	S701	60 minute 30 year Winter I+40%	32.600	31.178	-0.122	0.000	0.08

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Summary Wizard of 60 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		2.1	OK
1.001	S101		9.5	OK
1.002	S102		11.9	OK
2.000	S200		7.9	OK
2.001	S201		15.3	OK
1.003	S103		16.4	OK
3.000	S300		33.9	OK
4.000	S400		26.6	OK
3.001	S301		59.0	SURCHARGED
1.004	S104		32.5	OK
5.000	S500		9.5	OK
5.001	S501		11.4	SURCHARGED
6.000	S600		4.2	OK
6.001	S601		5.0	OK
6.002	S602		12.2	OK
5.002	S502		25.3	SURCHARGED
5.003	S503		24.9	SURCHARGED
7.000	S700		3.7	OK
7.001	S701		3.7	OK

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Summary Wizard of 60 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	60 minute 30 year Winter I+40%	32.550	30.972	0.407	0.000	0.40
1.005	S105	60 minute 30 year Winter I+40%	32.380	30.972	0.502	0.000	0.07
8.000	S800	60 minute 30 year Winter I+40%	32.400	31.323	-0.152	0.000	0.23
1.006	S106	60 minute 30 year Winter I+40%	32.380	30.968	0.808	0.000	0.74
1.007	FW105	60 minute 30 year Winter I+40%	32.380	30.028	-0.107	0.000	0.18

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		30.9	SURCHARGED
1.005	S105		7.9	SURCHARGED
8.000	S800		16.6	OK
1.006	S106		8.0	SURCHARGED
1.007	FW105		8.0	OK

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Summary Wizard of 120 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	120 minute 30 year Winter I+40%	32.600	31.276	-0.124	0.000	0.07
1.001	S101	120 minute 30 year Winter I+40%	32.400	31.087	-0.123	0.000	0.11
1.002	S102	120 minute 30 year Winter I+40%	32.600	31.086	0.111	0.000	0.15
2.000	S200	120 minute 30 year Winter I+40%	32.600	31.302	-0.098	0.000	0.26
2.001	S201	120 minute 30 year Winter I+40%	32.500	31.086	0.056	0.000	0.17
1.003	S103	120 minute 30 year Winter I+40%	32.380	31.085	-0.516	0.000	0.00
3.000	S300	120 minute 30 year Winter I+40%	32.600	31.340	-0.210	0.000	0.20
4.000	S400	120 minute 30 year Winter I+40%	32.600	31.329	-0.146	0.000	0.27
3.001	S301	120 minute 30 year Winter I+40%	32.600	31.087	0.242	0.000	0.21
1.004	S104	120 minute 30 year Winter I+40%	32.380	31.085	-0.336	0.000	0.00
5.000	S500	120 minute 30 year Winter I+40%	32.600	31.308	-0.092	0.000	0.32
5.001	S501	120 minute 30 year Winter I+40%	32.600	31.088	0.183	0.000	0.16
6.000	S600	120 minute 30 year Winter I+40%	32.600	31.282	-0.118	0.000	0.10
6.001	S601	120 minute 30 year Winter I+40%	32.600	31.100	-0.115	0.000	0.13
6.002	S602	120 minute 30 year Winter I+40%	32.600	31.088	0.033	0.000	0.14
5.002	S502	120 minute 30 year Winter I+40%	32.600	31.086	0.376	0.000	0.28
5.003	S503	120 minute 30 year Winter I+40%	32.500	31.086	0.426	0.000	0.22
7.000	S700	120 minute 30 year Winter I+40%	32.600	31.286	-0.114	0.000	0.14
7.001	S701	120 minute 30 year Winter I+40%	32.600	31.172	-0.128	0.000	0.05

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Summary Wizard of 120 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		1.3	OK
1.001	S101		6.0	OK
1.002	S102		7.5	SURCHARGED
2.000	S200		5.0	OK
2.001	S201		9.7	SURCHARGED
1.003	S103		9.6	OK
3.000	S300		21.5	OK
4.000	S400		16.8	OK
3.001	S301		35.8	SURCHARGED
1.004	S104		20.1	OK
5.000	S500		6.0	OK
5.001	S501		7.6	SURCHARGED
6.000	S600		2.7	OK
6.001	S601		3.2	OK
6.002	S602		7.7	SURCHARGED
5.002	S502		17.4	SURCHARGED
5.003	S503		17.3	SURCHARGED
7.000	S700		2.3	OK
7.001	S701		2.3	OK

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Summary Wizard of 120 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	120 minute 30 year Winter I+40%	32.550	31.085	0.520	0.000	0.28
1.005	S105	120 minute 30 year Winter I+40%	32.380	31.084	0.614	0.000	0.07
8.000	S800	120 minute 30 year Winter I+40%	32.400	31.307	-0.168	0.000	0.15
1.006	S106	120 minute 30 year Winter I+40%	32.380	31.079	0.919	0.000	0.78
1.007	FW105	120 minute 30 year Winter I+40%	32.380	30.029	-0.106	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		21.7	SURCHARGED
1.005	S105		8.3	SURCHARGED
8.000	S800		10.5	OK
1.006	S106		8.5	SURCHARGED
1.007	FW105		8.5	OK

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Summary Wizard of 180 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	180 minute 30 year Winter I+40%	32.600	31.272	-0.128	0.000	0.05
1.001	S101	180 minute 30 year Winter I+40%	32.400	31.129	-0.081	0.000	0.09
1.002	S102	180 minute 30 year Winter I+40%	32.600	31.128	0.153	0.000	0.11
2.000	S200	180 minute 30 year Winter I+40%	32.600	31.295	-0.105	0.000	0.20
2.001	S201	180 minute 30 year Winter I+40%	32.500	31.128	0.098	0.000	0.13
1.003	S103	180 minute 30 year Winter I+40%	32.380	31.127	-0.474	0.000	0.00
3.000	S300	180 minute 30 year Winter I+40%	32.600	31.326	-0.224	0.000	0.15
4.000	S400	180 minute 30 year Winter I+40%	32.600	31.318	-0.157	0.000	0.20
3.001	S301	180 minute 30 year Winter I+40%	32.600	31.129	0.284	0.000	0.16
1.004	S104	180 minute 30 year Winter I+40%	32.380	31.127	-0.294	0.000	0.00
5.000	S500	180 minute 30 year Winter I+40%	32.600	31.299	-0.101	0.000	0.24
5.001	S501	180 minute 30 year Winter I+40%	32.600	31.130	0.225	0.000	0.12
6.000	S600	180 minute 30 year Winter I+40%	32.600	31.277	-0.123	0.000	0.08
6.001	S601	180 minute 30 year Winter I+40%	32.600	31.130	-0.085	0.000	0.09
6.002	S602	180 minute 30 year Winter I+40%	32.600	31.130	0.075	0.000	0.11
5.002	S502	180 minute 30 year Winter I+40%	32.600	31.128	0.418	0.000	0.22
5.003	S503	180 minute 30 year Winter I+40%	32.500	31.128	0.468	0.000	0.17
7.000	S700	180 minute 30 year Winter I+40%	32.600	31.282	-0.118	0.000	0.10
7.001	S701	180 minute 30 year Winter I+40%	32.600	31.169	-0.131	0.000	0.04

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Summary Wizard of 180 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		1.0	OK
1.001	S101		4.5	OK
1.002	S102		5.6	SURCHARGED
2.000	S200		3.8	OK
2.001	S201		7.3	SURCHARGED
1.003	S103		6.9	OK
3.000	S300		16.1	OK
4.000	S400		12.6	OK
3.001	S301		27.6	SURCHARGED
1.004	S104		16.4	OK
5.000	S500		4.5	OK
5.001	S501		5.7	SURCHARGED
6.000	S600		2.0	OK
6.001	S601		2.4	OK
6.002	S602		5.8	SURCHARGED
5.002	S502		13.7	SURCHARGED
5.003	S503		13.2	SURCHARGED
7.000	S700		1.8	OK
7.001	S701		1.8	OK

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Summary Wizard of 180 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	180 minute 30 year Winter I+40%	32.550	31.126	0.561	0.000	0.21
1.005	S105	180 minute 30 year Winter I+40%	32.380	31.125	0.655	0.000	0.07
8.000	S800	180 minute 30 year Winter I+40%	32.400	31.300	-0.175	0.000	0.11
1.006	S106	180 minute 30 year Winter I+40%	32.380	31.121	0.961	0.000	0.80
1.007	FW105	180 minute 30 year Winter I+40%	32.380	30.030	-0.105	0.000	0.20

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		16.1	SURCHARGED
1.005	S105		8.5	SURCHARGED
8.000	S800		7.9	OK
1.006	S106		8.6	SURCHARGED
1.007	FW105		8.6	OK

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Summary Wizard of 240 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	240 minute 30 year Winter I+40%	32.600	31.270	-0.130	0.000	0.04
1.001	S101	240 minute 30 year Winter I+40%	32.400	31.141	-0.069	0.000	0.07
1.002	S102	240 minute 30 year Winter I+40%	32.600	31.140	0.165	0.000	0.09
2.000	S200	240 minute 30 year Winter I+40%	32.600	31.290	-0.110	0.000	0.16
2.001	S201	240 minute 30 year Winter I+40%	32.500	31.141	0.111	0.000	0.10
1.003	S103	240 minute 30 year Winter I+40%	32.380	31.139	-0.462	0.000	0.00
3.000	S300	240 minute 30 year Winter I+40%	32.600	31.319	-0.231	0.000	0.12
4.000	S400	240 minute 30 year Winter I+40%	32.600	31.311	-0.164	0.000	0.16
3.001	S301	240 minute 30 year Winter I+40%	32.600	31.141	0.296	0.000	0.13
1.004	S104	240 minute 30 year Winter I+40%	32.380	31.139	-0.282	0.000	0.00
5.000	S500	240 minute 30 year Winter I+40%	32.600	31.295	-0.105	0.000	0.19
5.001	S501	240 minute 30 year Winter I+40%	32.600	31.142	0.237	0.000	0.10
6.000	S600	240 minute 30 year Winter I+40%	32.600	31.274	-0.126	0.000	0.06
6.001	S601	240 minute 30 year Winter I+40%	32.600	31.142	-0.073	0.000	0.08
6.002	S602	240 minute 30 year Winter I+40%	32.600	31.142	0.087	0.000	0.09
5.002	S502	240 minute 30 year Winter I+40%	32.600	31.140	0.430	0.000	0.17
5.003	S503	240 minute 30 year Winter I+40%	32.500	31.140	0.480	0.000	0.14
7.000	S700	240 minute 30 year Winter I+40%	32.600	31.279	-0.121	0.000	0.08
7.001	S701	240 minute 30 year Winter I+40%	32.600	31.167	-0.133	0.000	0.03

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Summary Wizard of 240 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.8	OK
1.001	S101		3.7	OK
1.002	S102		4.6	SURCHARGED
2.000	S200		3.0	OK
2.001	S201		5.9	SURCHARGED
1.003	S103		5.7	OK
3.000	S300		13.1	OK
4.000	S400		10.2	OK
3.001	S301		22.4	SURCHARGED
1.004	S104		14.1	OK
5.000	S500		3.7	OK
5.001	S501		4.6	SURCHARGED
6.000	S600		1.6	OK
6.001	S601		1.9	OK
6.002	S602		4.7	SURCHARGED
5.002	S502		10.7	SURCHARGED
5.003	S503		10.4	SURCHARGED
7.000	S700		1.4	OK
7.001	S701		1.4	OK

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Summary Wizard of 240 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	240 minute 30 year Winter I+40%	32.550	31.139	0.574	0.000	0.17
1.005	S105	240 minute 30 year Winter I+40%	32.380	31.137	0.667	0.000	0.07
8.000	S800	240 minute 30 year Winter I+40%	32.400	31.295	-0.180	0.000	0.09
1.006	S106	240 minute 30 year Winter I+40%	32.380	31.133	0.973	0.000	0.80
1.007	FW105	240 minute 30 year Winter I+40%	32.380	30.030	-0.105	0.000	0.20

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		13.2	SURCHARGED
1.005	S105		8.5	SURCHARGED
8.000	S800		6.4	OK
1.006	S106		8.7	SURCHARGED
1.007	FW105		8.7	OK

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Summary Wizard of 360 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	360 minute 30 year Winter I+40%	32.600	31.268	-0.132	0.000	0.03
1.001	S101	360 minute 30 year Winter I+40%	32.400	31.130	-0.080	0.000	0.05
1.002	S102	360 minute 30 year Winter I+40%	32.600	31.129	0.154	0.000	0.07
2.000	S200	360 minute 30 year Winter I+40%	32.600	31.284	-0.116	0.000	0.12
2.001	S201	360 minute 30 year Winter I+40%	32.500	31.129	0.099	0.000	0.08
1.003	S103	360 minute 30 year Winter I+40%	32.380	31.128	-0.473	0.000	0.00
3.000	S300	360 minute 30 year Winter I+40%	32.600	31.310	-0.240	0.000	0.09
4.000	S400	360 minute 30 year Winter I+40%	32.600	31.302	-0.173	0.000	0.12
3.001	S301	360 minute 30 year Winter I+40%	32.600	31.130	0.285	0.000	0.10
1.004	S104	360 minute 30 year Winter I+40%	32.380	31.127	-0.294	0.000	0.00
5.000	S500	360 minute 30 year Winter I+40%	32.600	31.288	-0.112	0.000	0.14
5.001	S501	360 minute 30 year Winter I+40%	32.600	31.130	0.225	0.000	0.07
6.000	S600	360 minute 30 year Winter I+40%	32.600	31.271	-0.129	0.000	0.05
6.001	S601	360 minute 30 year Winter I+40%	32.600	31.131	-0.084	0.000	0.06
6.002	S602	360 minute 30 year Winter I+40%	32.600	31.130	0.075	0.000	0.06
5.002	S502	360 minute 30 year Winter I+40%	32.600	31.129	0.419	0.000	0.13
5.003	S503	360 minute 30 year Winter I+40%	32.500	31.128	0.468	0.000	0.10
7.000	S700	360 minute 30 year Winter I+40%	32.600	31.274	-0.126	0.000	0.06
7.001	S701	360 minute 30 year Winter I+40%	32.600	31.165	-0.135	0.000	0.02

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Summary Wizard of 360 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.6	OK
1.001	S101		2.7	OK
1.002	S102		3.4	SURCHARGED
2.000	S200		2.2	OK
2.001	S201		4.3	SURCHARGED
1.003	S103		4.6	OK
3.000	S300		9.7	OK
4.000	S400		7.6	OK
3.001	S301		16.7	SURCHARGED
1.004	S104		11.4	OK
5.000	S500		2.7	OK
5.001	S501		3.4	SURCHARGED
6.000	S600		1.2	OK
6.001	S601		1.4	OK
6.002	S602		3.4	SURCHARGED
5.002	S502		8.2	SURCHARGED
5.003	S503		7.9	SURCHARGED
7.000	S700		1.0	OK
7.001	S701		1.0	OK

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Summary Wizard of 360 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	360 minute 30 year Winter I+40%	32.550	31.127	0.562	0.000	0.12
1.005	S105	360 minute 30 year Winter I+40%	32.380	31.126	0.656	0.000	0.07
8.000	S800	360 minute 30 year Winter I+40%	32.400	31.288	-0.187	0.000	0.07
1.006	S106	360 minute 30 year Winter I+40%	32.380	31.122	0.962	0.000	0.80
1.007	FW105	360 minute 30 year Winter I+40%	32.380	30.030	-0.105	0.000	0.20

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		9.6	SURCHARGED
1.005	S105		8.4	SURCHARGED
8.000	S800		4.7	OK
1.006	S106		8.6	SURCHARGED
1.007	FW105		8.6	OK

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Summary Wizard of 480 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	480 minute 30 year Winter I+40%	32.600	31.266	-0.134	0.000	0.03
1.001	S101	480 minute 30 year Winter I+40%	32.400	31.114	-0.096	0.000	0.04
1.002	S102	480 minute 30 year Winter I+40%	32.600	31.113	0.138	0.000	0.05
2.000	S200	480 minute 30 year Winter I+40%	32.600	31.281	-0.119	0.000	0.09
2.001	S201	480 minute 30 year Winter I+40%	32.500	31.113	0.083	0.000	0.06
1.003	S103	480 minute 30 year Winter I+40%	32.380	31.112	-0.489	0.000	0.00
3.000	S300	480 minute 30 year Winter I+40%	32.600	31.302	-0.248	0.000	0.07
4.000	S400	480 minute 30 year Winter I+40%	32.600	31.297	-0.178	0.000	0.10
3.001	S301	480 minute 30 year Winter I+40%	32.600	31.114	0.269	0.000	0.08
1.004	S104	480 minute 30 year Winter I+40%	32.380	31.112	-0.309	0.000	0.00
5.000	S500	480 minute 30 year Winter I+40%	32.600	31.284	-0.116	0.000	0.12
5.001	S501	480 minute 30 year Winter I+40%	32.600	31.114	0.209	0.000	0.06
6.000	S600	480 minute 30 year Winter I+40%	32.600	31.269	-0.131	0.000	0.04
6.001	S601	480 minute 30 year Winter I+40%	32.600	31.115	-0.100	0.000	0.05
6.002	S602	480 minute 30 year Winter I+40%	32.600	31.115	0.060	0.000	0.05
5.002	S502	480 minute 30 year Winter I+40%	32.600	31.113	0.403	0.000	0.11
5.003	S503	480 minute 30 year Winter I+40%	32.500	31.113	0.453	0.000	0.08
7.000	S700	480 minute 30 year Winter I+40%	32.600	31.271	-0.129	0.000	0.05
7.001	S701	480 minute 30 year Winter I+40%	32.600	31.163	-0.137	0.000	0.02

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Summary Wizard of 480 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.5	OK
1.001	S101		2.2	OK
1.002	S102		2.7	SURCHARGED
2.000	S200		1.8	OK
2.001	S201		3.5	SURCHARGED
1.003	S103		4.0	OK
3.000	S300		7.8	OK
4.000	S400		6.1	OK
3.001	S301		13.4	SURCHARGED
1.004	S104		9.9	OK
5.000	S500		2.2	OK
5.001	S501		2.7	SURCHARGED
6.000	S600		1.0	OK
6.001	S601		1.1	OK
6.002	S602		2.8	SURCHARGED
5.002	S502		6.6	SURCHARGED
5.003	S503		6.5	SURCHARGED
7.000	S700		0.8	OK
7.001	S701		0.8	OK

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Summary Wizard of 480 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	480 minute 30 year Winter I+40%	32.550	31.112	0.547	0.000	0.10
1.005	S105	480 minute 30 year Winter I+40%	32.380	31.110	0.640	0.000	0.07
8.000	S800	480 minute 30 year Winter I+40%	32.400	31.283	-0.192	0.000	0.05
1.006	S106	480 minute 30 year Winter I+40%	32.380	31.106	0.946	0.000	0.79
1.007	FW105	480 minute 30 year Winter I+40%	32.380	30.030	-0.105	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		7.9	SURCHARGED
1.005	S105		8.2	SURCHARGED
8.000	S800		3.8	OK
1.006	S106		8.6	SURCHARGED
1.007	FW105		8.6	OK

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Summary Wizard of 600 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	600 minute 30 year Winter I+40%	32.600	31.265	-0.135	0.000	0.02
1.001	S101	600 minute 30 year Winter I+40%	32.400	31.090	-0.120	0.000	0.04
1.002	S102	600 minute 30 year Winter I+40%	32.600	31.089	0.114	0.000	0.04
2.000	S200	600 minute 30 year Winter I+40%	32.600	31.278	-0.122	0.000	0.08
2.001	S201	600 minute 30 year Winter I+40%	32.500	31.089	0.059	0.000	0.05
1.003	S103	600 minute 30 year Winter I+40%	32.380	31.088	-0.513	0.000	0.00
3.000	S300	600 minute 30 year Winter I+40%	32.600	31.297	-0.253	0.000	0.06
4.000	S400	600 minute 30 year Winter I+40%	32.600	31.293	-0.182	0.000	0.08
3.001	S301	600 minute 30 year Winter I+40%	32.600	31.090	0.245	0.000	0.06
1.004	S104	600 minute 30 year Winter I+40%	32.380	31.088	-0.333	0.000	0.00
5.000	S500	600 minute 30 year Winter I+40%	32.600	31.281	-0.119	0.000	0.10
5.001	S501	600 minute 30 year Winter I+40%	32.600	31.090	0.185	0.000	0.05
6.000	S600	600 minute 30 year Winter I+40%	32.600	31.267	-0.133	0.000	0.03
6.001	S601	600 minute 30 year Winter I+40%	32.600	31.091	-0.124	0.000	0.04
6.002	S602	600 minute 30 year Winter I+40%	32.600	31.091	0.036	0.000	0.04
5.002	S502	600 minute 30 year Winter I+40%	32.600	31.089	0.379	0.000	0.09
5.003	S503	600 minute 30 year Winter I+40%	32.500	31.089	0.429	0.000	0.07
7.000	S700	600 minute 30 year Winter I+40%	32.600	31.270	-0.130	0.000	0.04
7.001	S701	600 minute 30 year Winter I+40%	32.600	31.161	-0.139	0.000	0.02

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Summary Wizard of 600 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	OK
1.001	S101		1.8	OK
1.002	S102		2.3	SURCHARGED
2.000	S200		1.5	OK
2.001	S201		3.0	SURCHARGED
1.003	S103		3.7	OK
3.000	S300		6.6	OK
4.000	S400		5.2	OK
3.001	S301		11.2	SURCHARGED
1.004	S104		8.9	OK
5.000	S500		1.8	OK
5.001	S501		2.3	SURCHARGED
6.000	S600		0.8	OK
6.001	S601		1.0	OK
6.002	S602		2.4	SURCHARGED
5.002	S502		5.5	SURCHARGED
5.003	S503		5.4	SURCHARGED
7.000	S700		0.7	OK
7.001	S701		0.7	OK

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Summary Wizard of 600 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	600 minute 30 year Winter I+40%	32.550	31.088	0.523	0.000	0.09
1.005	S105	600 minute 30 year Winter I+40%	32.380	31.086	0.616	0.000	0.07
8.000	S800	600 minute 30 year Winter I+40%	32.400	31.281	-0.194	0.000	0.05
1.006	S106	600 minute 30 year Winter I+40%	32.380	31.082	0.922	0.000	0.78
1.007	FW105	600 minute 30 year Winter I+40%	32.380	30.029	-0.106	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		6.8	SURCHARGED
1.005	S105		8.0	SURCHARGED
8.000	S800		3.2	OK
1.006	S106		8.5	SURCHARGED
1.007	FW105		8.5	OK

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Summary Wizard of 720 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	720 minute 30 year Winter I+40%	32.600	31.264	-0.136	0.000	0.02
1.001	S101	720 minute 30 year Winter I+40%	32.400	31.062	-0.148	0.000	0.03
1.002	S102	720 minute 30 year Winter I+40%	32.600	31.061	0.086	0.000	0.04
2.000	S200	720 minute 30 year Winter I+40%	32.600	31.276	-0.124	0.000	0.07
2.001	S201	720 minute 30 year Winter I+40%	32.500	31.061	0.031	0.000	0.05
1.003	S103	720 minute 30 year Winter I+40%	32.380	31.060	-0.541	0.000	0.00
3.000	S300	720 minute 30 year Winter I+40%	32.600	31.294	-0.256	0.000	0.05
4.000	S400	720 minute 30 year Winter I+40%	32.600	31.290	-0.185	0.000	0.07
3.001	S301	720 minute 30 year Winter I+40%	32.600	31.061	0.216	0.000	0.06
1.004	S104	720 minute 30 year Winter I+40%	32.380	31.059	-0.362	0.000	0.00
5.000	S500	720 minute 30 year Winter I+40%	32.600	31.279	-0.121	0.000	0.09
5.001	S501	720 minute 30 year Winter I+40%	32.600	31.062	0.157	0.000	0.04
6.000	S600	720 minute 30 year Winter I+40%	32.600	31.266	-0.134	0.000	0.03
6.001	S601	720 minute 30 year Winter I+40%	32.600	31.083	-0.132	0.000	0.03
6.002	S602	720 minute 30 year Winter I+40%	32.600	31.063	0.008	0.000	0.04
5.002	S502	720 minute 30 year Winter I+40%	32.600	31.061	0.351	0.000	0.08
5.003	S503	720 minute 30 year Winter I+40%	32.500	31.060	0.400	0.000	0.06
7.000	S700	720 minute 30 year Winter I+40%	32.600	31.268	-0.132	0.000	0.04
7.001	S701	720 minute 30 year Winter I+40%	32.600	31.160	-0.140	0.000	0.01

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Summary Wizard of 720 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	OK
1.001	S101		1.6	OK
1.002	S102		2.0	SURCHARGED
2.000	S200		1.3	OK
2.001	S201		2.6	SURCHARGED
1.003	S103		3.4	OK
3.000	S300		5.7	OK
4.000	S400		4.5	OK
3.001	S301		9.8	SURCHARGED
1.004	S104		8.2	OK
5.000	S500		1.6	OK
5.001	S501		2.0	SURCHARGED
6.000	S600		0.7	OK
6.001	S601		0.8	OK
6.002	S602		2.0	SURCHARGED
5.002	S502		4.9	SURCHARGED
5.003	S503		4.7	SURCHARGED
7.000	S700		0.6	OK
7.001	S701		0.6	OK

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Summary Wizard of 720 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	720 minute 30 year Winter I+40%	32.550	31.060	0.495	0.000	0.08
1.005	S105	720 minute 30 year Winter I+40%	32.380	31.058	0.588	0.000	0.07
8.000	S800	720 minute 30 year Winter I+40%	32.400	31.279	-0.196	0.000	0.04
1.006	S106	720 minute 30 year Winter I+40%	32.380	31.054	0.894	0.000	0.77
1.007	FW105	720 minute 30 year Winter I+40%	32.380	30.029	-0.106	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		5.9	SURCHARGED
1.005	S105		7.7	SURCHARGED
8.000	S800		2.8	OK
1.006	S106		8.4	SURCHARGED
1.007	FW105		8.4	OK

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Summary Wizard of 960 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	960 minute 30 year Winter I+40%	32.600	31.261	-0.139	0.000	0.02
1.001	S101	960 minute 30 year Winter I+40%	32.400	31.009	-0.201	0.000	0.02
1.002	S102	960 minute 30 year Winter I+40%	32.600	31.002	0.027	0.000	0.03
2.000	S200	960 minute 30 year Winter I+40%	32.600	31.273	-0.127	0.000	0.06
2.001	S201	960 minute 30 year Winter I+40%	32.500	31.002	-0.028	0.000	0.04
1.003	S103	960 minute 30 year Winter I+40%	32.380	31.001	-0.600	0.000	0.00
3.000	S300	960 minute 30 year Winter I+40%	32.600	31.289	-0.261	0.000	0.04
4.000	S400	960 minute 30 year Winter I+40%	32.600	31.285	-0.190	0.000	0.06
3.001	S301	960 minute 30 year Winter I+40%	32.600	31.003	0.158	0.000	0.05
1.004	S104	960 minute 30 year Winter I+40%	32.380	31.001	-0.420	0.000	0.00
5.000	S500	960 minute 30 year Winter I+40%	32.600	31.276	-0.124	0.000	0.07
5.001	S501	960 minute 30 year Winter I+40%	32.600	31.004	0.099	0.000	0.03
6.000	S600	960 minute 30 year Winter I+40%	32.600	31.265	-0.135	0.000	0.02
6.001	S601	960 minute 30 year Winter I+40%	32.600	31.081	-0.134	0.000	0.03
6.002	S602	960 minute 30 year Winter I+40%	32.600	31.004	-0.051	0.000	0.03
5.002	S502	960 minute 30 year Winter I+40%	32.600	31.002	0.292	0.000	0.07
5.003	S503	960 minute 30 year Winter I+40%	32.500	31.002	0.342	0.000	0.05
7.000	S700	960 minute 30 year Winter I+40%	32.600	31.267	-0.133	0.000	0.03
7.001	S701	960 minute 30 year Winter I+40%	32.600	31.158	-0.142	0.000	0.01

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Summary Wizard of 960 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.3	OK
1.002	S102		1.6	SURCHARGED
2.000	S200		1.1	OK
2.001	S201		2.1	OK
1.003	S103		3.1	OK
3.000	S300		4.6	OK
4.000	S400		3.6	OK
3.001	S301		8.0	SURCHARGED
1.004	S104		7.2	OK
5.000	S500		1.3	OK
5.001	S501		1.6	SURCHARGED
6.000	S600		0.6	OK
6.001	S601		0.7	OK
6.002	S602		1.6	OK
5.002	S502		4.0	SURCHARGED
5.003	S503		4.0	SURCHARGED
7.000	S700		0.5	OK
7.001	S701		0.5	OK

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Summary Wizard of 960 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	960 minute 30 year Winter I+40%	32.550	31.001	0.436	0.000	0.06
1.005	S105	960 minute 30 year Winter I+40%	32.380	31.000	0.530	0.000	0.07
8.000	S800	960 minute 30 year Winter I+40%	32.400	31.276	-0.199	0.000	0.03
1.006	S106	960 minute 30 year Winter I+40%	32.380	30.996	0.836	0.000	0.75
1.007	FW105	960 minute 30 year Winter I+40%	32.380	30.028	-0.107	0.000	0.18

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		4.9	SURCHARGED
1.005	S105		7.5	SURCHARGED
8.000	S800		2.3	OK
1.006	S106		8.2	SURCHARGED
1.007	FW105		8.2	OK

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Summary Wizard of 1440 minute 30 year Winter I+40% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	1440 minute 30 year Winter I+40%	32.600	31.258	-0.142	0.000	0.01
1.001	S101	1440 minute 30 year Winter I+40%	32.400	31.004	-0.206	0.000	0.02
1.002	S102	1440 minute 30 year Winter I+40%	32.600	30.892	-0.083	0.000	0.02
2.000	S200	1440 minute 30 year Winter I+40%	32.600	31.269	-0.131	0.000	0.04
2.001	S201	1440 minute 30 year Winter I+40%	32.500	30.892	-0.138	0.000	0.03
1.003	S103	1440 minute 30 year Winter I+40%	32.380	30.891	-0.710	0.000	0.00
3.000	S300	1440 minute 30 year Winter I+40%	32.600	31.284	-0.266	0.000	0.03
4.000	S400	1440 minute 30 year Winter I+40%	32.600	31.280	-0.195	0.000	0.04
3.001	S301	1440 minute 30 year Winter I+40%	32.600	30.893	0.048	0.000	0.03
1.004	S104	1440 minute 30 year Winter I+40%	32.380	30.891	-0.530	0.000	0.00
5.000	S500	1440 minute 30 year Winter I+40%	32.600	31.272	-0.128	0.000	0.05
5.001	S501	1440 minute 30 year Winter I+40%	32.600	30.894	-0.011	0.000	0.03
6.000	S600	1440 minute 30 year Winter I+40%	32.600	31.261	-0.139	0.000	0.02
6.001	S601	1440 minute 30 year Winter I+40%	32.600	31.079	-0.136	0.000	0.02
6.002	S602	1440 minute 30 year Winter I+40%	32.600	30.894	-0.161	0.000	0.02
5.002	S502	1440 minute 30 year Winter I+40%	32.600	30.893	0.183	0.000	0.05
5.003	S503	1440 minute 30 year Winter I+40%	32.500	30.892	0.232	0.000	0.04
7.000	S700	1440 minute 30 year Winter I+40%	32.600	31.265	-0.135	0.000	0.02
7.001	S701	1440 minute 30 year Winter I+40%	32.600	31.156	-0.144	0.000	0.01

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Summary Wizard of 1440 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.2	OK
1.001	S101		0.9	OK
1.002	S102		1.2	OK
2.000	S200		0.8	OK
2.001	S201		1.5	OK
1.003	S103		2.7	OK
3.000	S300		3.4	OK
4.000	S400		2.7	OK
3.001	S301		6.0	SURCHARGED
1.004	S104		6.1	OK
5.000	S500		0.9	OK
5.001	S501		1.2	OK
6.000	S600		0.4	OK
6.001	S601		0.5	OK
6.002	S602		1.2	OK
5.002	S502		3.0	SURCHARGED
5.003	S503		2.9	SURCHARGED
7.000	S700		0.4	OK
7.001	S701		0.4	OK

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Summary Wizard of 1440 minute 30 year Winter I+40% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	1440 minute 30 year Winter I+40%	32.550	30.891	0.326	0.000	0.05
1.005	S105	1440 minute 30 year Winter I+40%	32.380	30.890	0.420	0.000	0.06
8.000	S800	1440 minute 30 year Winter I+40%	32.400	31.273	-0.202	0.000	0.02
1.006	S106	1440 minute 30 year Winter I+40%	32.380	30.886	0.726	0.000	0.71
1.007	FW105	1440 minute 30 year Winter I+40%	32.380	30.027	-0.108	0.000	0.17

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		3.6	SURCHARGED
1.005	S105		7.1	SURCHARGED
8.000	S800		1.7	OK
1.006	S106		7.7	SURCHARGED
1.007	FW105		7.7	OK

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Summary Wizard of 15 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	15 minute 100 year Winter I+45%	32.600	31.305	-0.095	0.000	0.29
1.001	S101	15 minute 100 year Winter I+45%	32.400	31.095	-0.115	0.000	0.48
1.002	S102	15 minute 100 year Winter I+45%	32.600	30.877	-0.098	0.000	0.61
2.000	S200	15 minute 100 year Winter I+45%	32.600	31.406	0.006	0.000	1.00
2.001	S201	15 minute 100 year Winter I+45%	32.500	30.942	-0.088	0.000	0.68
1.003	S103	15 minute 100 year Winter I+45%	32.380	30.859	-0.742	0.000	0.02
3.000	S300	15 minute 100 year Winter I+45%	32.600	31.451	-0.099	0.000	0.75
4.000	S400	15 minute 100 year Winter I+45%	32.600	31.554	0.079	0.000	1.05
3.001	S301	15 minute 100 year Winter I+45%	32.600	30.921	0.076	0.000	0.84
1.004	S104	15 minute 100 year Winter I+45%	32.380	30.859	-0.562	0.000	0.02
5.000	S500	15 minute 100 year Winter I+45%	32.600	31.614	0.214	0.000	1.17
5.001	S501	15 minute 100 year Winter I+45%	32.600	31.043	0.138	0.000	0.56
6.000	S600	15 minute 100 year Winter I+45%	32.600	31.316	-0.084	0.000	0.40
6.001	S601	15 minute 100 year Winter I+45%	32.600	31.141	-0.074	0.000	0.50
6.002	S602	15 minute 100 year Winter I+45%	32.600	31.047	-0.008	0.000	0.58
5.002	S502	15 minute 100 year Winter I+45%	32.600	31.024	0.314	0.000	1.07
5.003	S503	15 minute 100 year Winter I+45%	32.500	30.956	0.296	0.000	0.79
7.000	S700	15 minute 100 year Winter I+45%	32.600	31.328	-0.072	0.000	0.53
7.001	S701	15 minute 100 year Winter I+45%	32.600	31.195	-0.105	0.000	0.20

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Summary Wizard of 15 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		5.2	OK
1.001	S101		24.9	OK
1.002	S102		31.2	OK
2.000	S200		19.2	SURCHARGED
2.001	S201		38.4	OK
1.003	S103		65.3	OK
3.000	S300		82.6	OK
4.000	S400		65.3	SURCHARGED
3.001	S301		146.0	SURCHARGED
1.004	S104		91.4	OK
5.000	S500		22.0	SURCHARGED
5.001	S501		26.4	SURCHARGED
6.000	S600		10.5	OK
6.001	S601		12.5	OK
6.002	S602		31.3	OK
5.002	S502		65.6	SURCHARGED
5.003	S503		60.6	SURCHARGED
7.000	S700		9.2	OK
7.001	S701		9.1	OK

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Summary Wizard of 15 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	15 minute 100 year Winter I+45%	32.550	30.899	0.334	0.000	0.98
1.005	S105	15 minute 100 year Winter I+45%	32.380	30.859	0.389	0.000	0.07
8.000	S800	15 minute 100 year Winter I+45%	32.400	31.374	-0.101	0.000	0.57
1.006	S106	15 minute 100 year Winter I+45%	32.380	30.856	0.696	0.000	0.70
1.007	FW105	15 minute 100 year Winter I+45%	32.380	30.026	-0.109	0.000	0.17

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		76.0	SURCHARGED
1.005	S105		7.5	SURCHARGED
8.000	S800		40.5	OK
1.006	S106		7.6	SURCHARGED
1.007	FW105		7.6	OK

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Summary Wizard of 30 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	30 minute 100 year Winter I+45%	32.600	31.298	-0.102	0.000	0.23
1.001	S101	30 minute 100 year Winter I+45%	32.400	31.080	-0.130	0.000	0.37
1.002	S102	30 minute 100 year Winter I+45%	32.600	31.055	0.080	0.000	0.47
2.000	S200	30 minute 100 year Winter I+45%	32.600	31.354	-0.046	0.000	0.82
2.001	S201	30 minute 100 year Winter I+45%	32.500	31.056	0.026	0.000	0.54
1.003	S103	30 minute 100 year Winter I+45%	32.380	31.055	-0.546	0.000	0.01
3.000	S300	30 minute 100 year Winter I+45%	32.600	31.421	-0.129	0.000	0.61
4.000	S400	30 minute 100 year Winter I+45%	32.600	31.410	-0.065	0.000	0.85
3.001	S301	30 minute 100 year Winter I+45%	32.600	31.083	0.238	0.000	0.65
1.004	S104	30 minute 100 year Winter I+45%	32.380	31.055	-0.366	0.000	0.01
5.000	S500	30 minute 100 year Winter I+45%	32.600	31.476	0.076	0.000	0.95
5.001	S501	30 minute 100 year Winter I+45%	32.600	31.194	0.289	0.000	0.46
6.000	S600	30 minute 100 year Winter I+45%	32.600	31.308	-0.092	0.000	0.32
6.001	S601	30 minute 100 year Winter I+45%	32.600	31.205	-0.010	0.000	0.40
6.002	S602	30 minute 100 year Winter I+45%	32.600	31.196	0.141	0.000	0.44
5.002	S502	30 minute 100 year Winter I+45%	32.600	31.171	0.461	0.000	0.88
5.003	S503	30 minute 100 year Winter I+45%	32.500	31.102	0.442	0.000	0.70
7.000	S700	30 minute 100 year Winter I+45%	32.600	31.318	-0.082	0.000	0.43
7.001	S701	30 minute 100 year Winter I+45%	32.600	31.190	-0.110	0.000	0.16

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Summary Wizard of 30 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		4.2	OK
1.001	S101		19.2	OK
1.002	S102		24.0	SURCHARGED
2.000	S200		15.7	OK
2.001	S201		30.6	SURCHARGED
1.003	S103		32.5	OK
3.000	S300		67.1	OK
4.000	S400		53.0	OK
3.001	S301		113.4	SURCHARGED
1.004	S104		63.1	OK
5.000	S500		17.9	SURCHARGED
5.001	S501		21.7	SURCHARGED
6.000	S600		8.4	OK
6.001	S601		10.0	OK
6.002	S602		23.9	SURCHARGED
5.002	S502		54.3	SURCHARGED
5.003	S503		53.9	SURCHARGED
7.000	S700		7.4	OK
7.001	S701		7.4	OK

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Summary Wizard of 30 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	30 minute 100 year Winter I+45%	32.550	31.054	0.489	0.000	0.87
1.005	S105	30 minute 100 year Winter I+45%	32.380	31.054	0.584	0.000	0.07
8.000	S800	30 minute 100 year Winter I+45%	32.400	31.358	-0.117	0.000	0.46
1.006	S106	30 minute 100 year Winter I+45%	32.380	31.050	0.890	0.000	0.77
1.007	FW105	30 minute 100 year Winter I+45%	32.380	30.029	-0.106	0.000	0.19

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		67.0	SURCHARGED
1.005	S105		8.2	SURCHARGED
8.000	S800		33.1	OK
1.006	S106		8.4	SURCHARGED
1.007	FW105		8.4	OK

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Summary Wizard of 60 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	60 minute 100 year Winter I+45%	32.600	31.289	-0.111	0.000	0.16
1.001	S101	60 minute 100 year Winter I+45%	32.400	31.256	0.046	0.000	0.25
1.002	S102	60 minute 100 year Winter I+45%	32.600	31.254	0.279	0.000	0.31
2.000	S200	60 minute 100 year Winter I+45%	32.600	31.331	-0.069	0.000	0.56
2.001	S201	60 minute 100 year Winter I+45%	32.500	31.255	0.225	0.000	0.37
1.003	S103	60 minute 100 year Winter I+45%	32.380	31.253	-0.348	0.000	0.00
3.000	S300	60 minute 100 year Winter I+45%	32.600	31.386	-0.164	0.000	0.42
4.000	S400	60 minute 100 year Winter I+45%	32.600	31.373	-0.102	0.000	0.58
3.001	S301	60 minute 100 year Winter I+45%	32.600	31.256	0.411	0.000	0.43
1.004	S104	60 minute 100 year Winter I+45%	32.380	31.253	-0.168	0.000	0.01
5.000	S500	60 minute 100 year Winter I+45%	32.600	31.391	-0.009	0.000	0.68
5.001	S501	60 minute 100 year Winter I+45%	32.600	31.294	0.389	0.000	0.32
6.000	S600	60 minute 100 year Winter I+45%	32.600	31.313	-0.087	0.000	0.22
6.001	S601	60 minute 100 year Winter I+45%	32.600	31.305	0.090	0.000	0.27
6.002	S602	60 minute 100 year Winter I+45%	32.600	31.298	0.243	0.000	0.30
5.002	S502	60 minute 100 year Winter I+45%	32.600	31.276	0.566	0.000	0.62
5.003	S503	60 minute 100 year Winter I+45%	32.500	31.251	0.591	0.000	0.49
7.000	S700	60 minute 100 year Winter I+45%	32.600	31.305	-0.095	0.000	0.29
7.001	S701	60 minute 100 year Winter I+45%	32.600	31.251	-0.049	0.000	0.11

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Summary Wizard of 60 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		2.9	OK
1.001	S101		13.0	SURCHARGED
1.002	S102		16.2	SURCHARGED
2.000	S200		10.7	OK
2.001	S201		20.8	SURCHARGED
1.003	S103		16.2	OK
3.000	S300		46.1	OK
4.000	S400		36.2	OK
3.001	S301		74.2	SURCHARGED
1.004	S104		39.1	OK
5.000	S500		12.9	OK
5.001	S501		15.2	SURCHARGED
6.000	S600		5.7	OK
6.001	S601		6.8	SURCHARGED
6.002	S602		16.2	SURCHARGED
5.002	S502		38.2	SURCHARGED
5.003	S503		37.4	SURCHARGED
7.000	S700		5.0	OK
7.001	S701		5.0	OK

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Summary Wizard of 60 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	60 minute 100 year Winter I+45%	32.550	31.250	0.685	0.000	0.60
1.005	S105	60 minute 100 year Winter I+45%	32.380	31.249	0.779	0.000	0.08
8.000	S800	60 minute 100 year Winter I+45%	32.400	31.337	-0.138	0.000	0.32
1.006	S106	60 minute 100 year Winter I+45%	32.380	31.245	1.085	0.000	0.84
1.007	FW105	60 minute 100 year Winter I+45%	32.380	30.031	-0.104	0.000	0.21

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		46.6	SURCHARGED
1.005	S105		9.0	SURCHARGED
8.000	S800		22.6	OK
1.006	S106		9.1	SURCHARGED
1.007	FW105		9.1	OK

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Summary Wizard of 120 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	120 minute 100 year Winter I+45%	32.600	31.502	0.102	0.000	0.10
1.001	S101	120 minute 100 year Winter I+45%	32.400	31.501	0.291	0.000	0.16
1.002	S102	120 minute 100 year Winter I+45%	32.600	31.500	0.525	0.000	0.19
2.000	S200	120 minute 100 year Winter I+45%	32.600	31.504	0.104	0.000	0.36
2.001	S201	120 minute 100 year Winter I+45%	32.500	31.501	0.471	0.000	0.23
1.003	S103	120 minute 100 year Winter I+45%	32.380	31.499	-0.102	0.000	0.00
3.000	S300	120 minute 100 year Winter I+45%	32.600	31.505	-0.045	0.000	0.27
4.000	S400	120 minute 100 year Winter I+45%	32.600	31.506	0.031	0.000	0.37
3.001	S301	120 minute 100 year Winter I+45%	32.600	31.500	0.655	0.000	0.28
1.004	S104	120 minute 100 year Winter I+45%	32.380	31.497	0.076	0.000	0.00
5.000	S500	120 minute 100 year Winter I+45%	32.600	31.509	0.109	0.000	0.43
5.001	S501	120 minute 100 year Winter I+45%	32.600	31.503	0.598	0.000	0.19
6.000	S600	120 minute 100 year Winter I+45%	32.600	31.504	0.104	0.000	0.14
6.001	S601	120 minute 100 year Winter I+45%	32.600	31.504	0.289	0.000	0.17
6.002	S602	120 minute 100 year Winter I+45%	32.600	31.503	0.448	0.000	0.19
5.002	S502	120 minute 100 year Winter I+45%	32.600	31.501	0.791	0.000	0.37
5.003	S503	120 minute 100 year Winter I+45%	32.500	31.500	0.840	0.000	0.29
7.000	S700	120 minute 100 year Winter I+45%	32.600	31.500	0.100	0.000	0.18
7.001	S701	120 minute 100 year Winter I+45%	32.600	31.500	0.200	0.000	0.07

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Summary Wizard of 120 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		1.8	SURCHARGED
1.001	S101		8.2	SURCHARGED
1.002	S102		10.0	SURCHARGED
2.000	S200		6.8	SURCHARGED
2.001	S201		13.1	SURCHARGED
1.003	S103		10.0	OK
3.000	S300		29.2	OK
4.000	S400		22.9	SURCHARGED
3.001	S301		47.7	SURCHARGED
1.004	S104		26.7	SURCHARGED
5.000	S500		8.2	SURCHARGED
5.001	S501		9.0	SURCHARGED
6.000	S600		3.6	SURCHARGED
6.001	S601		4.3	SURCHARGED
6.002	S602		10.1	SURCHARGED
5.002	S502		22.6	SURCHARGED
5.003	S503		22.2	SURCHARGED
7.000	S700		3.2	SURCHARGED
7.001	S701		3.2	SURCHARGED

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Summary Wizard of 120 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	120 minute 100 year Winter I+45%	32.550	31.499	0.934	0.000	0.36
1.005	S105	120 minute 100 year Winter I+45%	32.380	31.497	1.027	0.000	0.08
8.000	S800	120 minute 100 year Winter I+45%	32.400	31.497	0.022	0.000	0.20
1.006	S106	120 minute 100 year Winter I+45%	32.380	31.493	1.333	0.000	0.91
1.007	FW105	120 minute 100 year Winter I+45%	32.380	30.033	-0.102	0.000	0.22

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		27.6	SURCHARGED
1.005	S105		9.6	SURCHARGED
8.000	S800		14.3	SURCHARGED
1.006	S106		9.9	SURCHARGED
1.007	FW105		9.9	OK

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Summary Wizard of 180 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	180 minute 100 year Winter I+45%	32.600	32.044	0.644	0.000	0.07
1.001	S101	180 minute 100 year Winter I+45%	32.400	32.044	0.834	0.000	0.12
1.002	S102	180 minute 100 year Winter I+45%	32.600	32.042	1.067	0.000	0.14
2.000	S200	180 minute 100 year Winter I+45%	32.600	32.046	0.646	0.000	0.27
2.001	S201	180 minute 100 year Winter I+45%	32.500	32.043	1.013	0.000	0.17
1.003	S103	180 minute 100 year Winter I+45%	32.380	32.041	0.440	0.000	0.00
3.000	S300	180 minute 100 year Winter I+45%	32.600	32.048	0.498	0.000	0.20
4.000	S400	180 minute 100 year Winter I+45%	32.600	32.049	0.574	0.000	0.28
3.001	S301	180 minute 100 year Winter I+45%	32.600	32.044	1.199	0.000	0.21
1.004	S104	180 minute 100 year Winter I+45%	32.380	32.041	0.620	0.000	0.00
5.000	S500	180 minute 100 year Winter I+45%	32.600	32.051	0.651	0.000	0.32
5.001	S501	180 minute 100 year Winter I+45%	32.600	32.046	1.141	0.000	0.15
6.000	S600	180 minute 100 year Winter I+45%	32.600	32.048	0.648	0.000	0.10
6.001	S601	180 minute 100 year Winter I+45%	32.600	32.047	0.832	0.000	0.13
6.002	S602	180 minute 100 year Winter I+45%	32.600	32.047	0.992	0.000	0.14
5.002	S502	180 minute 100 year Winter I+45%	32.600	32.044	1.334	0.000	0.29
5.003	S503	180 minute 100 year Winter I+45%	32.500	32.044	1.384	0.000	0.22
7.000	S700	180 minute 100 year Winter I+45%	32.600	32.044	0.644	0.000	0.14
7.001	S701	180 minute 100 year Winter I+45%	32.600	32.043	0.743	0.000	0.05

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Summary Wizard of 180 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		1.4	SURCHARGED
1.001	S101		6.1	SURCHARGED
1.002	S102		7.2	SURCHARGED
2.000	S200		5.1	SURCHARGED
2.001	S201		9.6	SURCHARGED
1.003	S103		7.4	SURCHARGED
3.000	S300		21.9	SURCHARGED
4.000	S400		17.2	SURCHARGED
3.001	S301		35.7	SURCHARGED
1.004	S104		20.2	SURCHARGED
5.000	S500		6.1	SURCHARGED
5.001	S501		7.0	SURCHARGED
6.000	S600		2.7	SURCHARGED
6.001	S601		3.2	SURCHARGED
6.002	S602		7.7	SURCHARGED
5.002	S502		17.7	SURCHARGED
5.003	S503		17.3	SURCHARGED
7.000	S700		2.4	SURCHARGED
7.001	S701		2.4	SURCHARGED

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Summary Wizard of 180 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	180 minute 100 year Winter I+45%	32.550	32.042	1.477	0.000	0.28
1.005	S105	180 minute 100 year Winter I+45%	32.380	32.041	1.571	0.000	0.09
8.000	S800	180 minute 100 year Winter I+45%	32.400	32.039	0.564	0.000	0.15
1.006	S106	180 minute 100 year Winter I+45%	32.380	32.035	1.875	0.000	1.06
1.007	FW105	180 minute 100 year Winter I+45%	32.380	30.037	-0.098	0.000	0.26

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		21.6	SURCHARGED
1.005	S105		10.4	SURCHARGED
8.000	S800		10.7	SURCHARGED
1.006	S106		11.5	SURCHARGED
1.007	FW105		11.5	OK

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Summary Wizard of 240 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	240 minute 100 year Winter I+45%	32.600	32.260	0.860	0.000	0.06
1.001	S101	240 minute 100 year Winter I+45%	32.400	32.259	1.049	0.000	0.09
1.002	S102	240 minute 100 year Winter I+45%	32.600	32.258	1.283	0.000	0.11
2.000	S200	240 minute 100 year Winter I+45%	32.600	32.262	0.862	0.000	0.22
2.001	S201	240 minute 100 year Winter I+45%	32.500	32.258	1.228	0.000	0.13
1.003	S103	240 minute 100 year Winter I+45%	32.380	32.256	0.655	0.000	0.00
3.000	S300	240 minute 100 year Winter I+45%	32.600	32.264	0.714	0.000	0.16
4.000	S400	240 minute 100 year Winter I+45%	32.600	32.265	0.790	0.000	0.22
3.001	S301	240 minute 100 year Winter I+45%	32.600	32.259	1.414	0.000	0.17
1.004	S104	240 minute 100 year Winter I+45%	32.380	32.256	0.835	0.000	0.00
5.000	S500	240 minute 100 year Winter I+45%	32.600	32.267	0.867	0.000	0.26
5.001	S501	240 minute 100 year Winter I+45%	32.600	32.262	1.357	0.000	0.12
6.000	S600	240 minute 100 year Winter I+45%	32.600	32.264	0.864	0.000	0.08
6.001	S601	240 minute 100 year Winter I+45%	32.600	32.263	1.048	0.000	0.10
6.002	S602	240 minute 100 year Winter I+45%	32.600	32.262	1.207	0.000	0.11
5.002	S502	240 minute 100 year Winter I+45%	32.600	32.260	1.550	0.000	0.23
5.003	S503	240 minute 100 year Winter I+45%	32.500	32.259	1.599	0.000	0.18
7.000	S700	240 minute 100 year Winter I+45%	32.600	32.260	0.860	0.000	0.11
7.001	S701	240 minute 100 year Winter I+45%	32.600	32.259	0.959	0.000	0.04

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Summary Wizard of 240 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		1.1	SURCHARGED
1.001	S101		5.0	FLOOD RISK
1.002	S102		5.7	SURCHARGED
2.000	S200		4.1	SURCHARGED
2.001	S201		7.6	FLOOD RISK
1.003	S103		6.3	FLOOD RISK
3.000	S300		17.7	SURCHARGED
4.000	S400		13.9	SURCHARGED
3.001	S301		29.2	SURCHARGED
1.004	S104		17.3	FLOOD RISK
5.000	S500		5.0	SURCHARGED
5.001	S501		5.7	SURCHARGED
6.000	S600		2.2	SURCHARGED
6.001	S601		2.6	SURCHARGED
6.002	S602		6.2	SURCHARGED
5.002	S502		14.3	SURCHARGED
5.003	S503		14.0	FLOOD RISK
7.000	S700		1.9	SURCHARGED
7.001	S701		1.9	SURCHARGED

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Summary Wizard of 240 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	240 minute 100 year Winter I+45%	32.550	32.258	1.693	0.000	0.23
1.005	S105	240 minute 100 year Winter I+45%	32.380	32.256	1.786	0.000	0.10
8.000	S800	240 minute 100 year Winter I+45%	32.400	32.254	0.779	0.000	0.12
1.006	S106	240 minute 100 year Winter I+45%	32.380	32.250	2.090	0.000	1.11
1.007	FW105	240 minute 100 year Winter I+45%	32.380	30.038	-0.097	0.000	0.27

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		17.5	FLOOD RISK
1.005	S105		10.8	FLOOD RISK
8.000	S800		8.7	FLOOD RISK
1.006	S106		12.0	FLOOD RISK
1.007	FW105		12.0	OK

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Summary Wizard of 360 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	360 minute 100 year Winter I+45%	32.600	32.150	0.750	0.000	0.04
1.001	S101	360 minute 100 year Winter I+45%	32.400	32.150	0.940	0.000	0.07
1.002	S102	360 minute 100 year Winter I+45%	32.600	32.148	1.173	0.000	0.08
2.000	S200	360 minute 100 year Winter I+45%	32.600	32.152	0.752	0.000	0.16
2.001	S201	360 minute 100 year Winter I+45%	32.500	32.149	1.119	0.000	0.10
1.003	S103	360 minute 100 year Winter I+45%	32.380	32.147	0.546	0.000	0.00
3.000	S300	360 minute 100 year Winter I+45%	32.600	32.154	0.604	0.000	0.12
4.000	S400	360 minute 100 year Winter I+45%	32.600	32.155	0.680	0.000	0.16
3.001	S301	360 minute 100 year Winter I+45%	32.600	32.150	1.305	0.000	0.13
1.004	S104	360 minute 100 year Winter I+45%	32.380	32.147	0.726	0.000	0.00
5.000	S500	360 minute 100 year Winter I+45%	32.600	32.158	0.758	0.000	0.19
5.001	S501	360 minute 100 year Winter I+45%	32.600	32.152	1.247	0.000	0.09
6.000	S600	360 minute 100 year Winter I+45%	32.600	32.154	0.754	0.000	0.06
6.001	S601	360 minute 100 year Winter I+45%	32.600	32.153	0.938	0.000	0.08
6.002	S602	360 minute 100 year Winter I+45%	32.600	32.153	1.098	0.000	0.08
5.002	S502	360 minute 100 year Winter I+45%	32.600	32.150	1.440	0.000	0.17
5.003	S503	360 minute 100 year Winter I+45%	32.500	32.150	1.490	0.000	0.13
7.000	S700	360 minute 100 year Winter I+45%	32.600	32.150	0.750	0.000	0.08
7.001	S701	360 minute 100 year Winter I+45%	32.600	32.149	0.849	0.000	0.03

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Summary Wizard of 360 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.8	SURCHARGED
1.001	S101		3.6	FLOOD RISK
1.002	S102		4.2	SURCHARGED
2.000	S200		3.0	SURCHARGED
2.001	S201		5.5	SURCHARGED
1.003	S103		6.3	FLOOD RISK
3.000	S300		13.0	SURCHARGED
4.000	S400		10.2	SURCHARGED
3.001	S301		22.0	SURCHARGED
1.004	S104		13.9	FLOOD RISK
5.000	S500		3.6	SURCHARGED
5.001	S501		4.2	SURCHARGED
6.000	S600		1.6	SURCHARGED
6.001	S601		1.9	SURCHARGED
6.002	S602		4.5	SURCHARGED
5.002	S502		10.6	SURCHARGED
5.003	S503		10.4	SURCHARGED
7.000	S700		1.4	SURCHARGED
7.001	S701		1.4	SURCHARGED

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Summary Wizard of 360 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	360 minute 100 year Winter I+45%	32.550	32.148	1.583	0.000	0.17
1.005	S105	360 minute 100 year Winter I+45%	32.380	32.147	1.677	0.000	0.09
8.000	S800	360 minute 100 year Winter I+45%	32.400	32.145	0.670	0.000	0.09
1.006	S106	360 minute 100 year Winter I+45%	32.380	32.141	1.981	0.000	1.09
1.007	FW105	360 minute 100 year Winter I+45%	32.380	30.037	-0.098	0.000	0.27

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		12.9	SURCHARGED
1.005	S105		10.6	FLOOD RISK
8.000	S800		6.4	FLOOD RISK
1.006	S106		11.8	FLOOD RISK
1.007	FW105		11.8	OK

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Summary Wizard of 480 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	480 minute 100 year Winter I+45%	32.600	32.021	0.621	0.000	0.04
1.001	S101	480 minute 100 year Winter I+45%	32.400	32.021	0.811	0.000	0.06
1.002	S102	480 minute 100 year Winter I+45%	32.600	32.019	1.044	0.000	0.06
2.000	S200	480 minute 100 year Winter I+45%	32.600	32.023	0.623	0.000	0.13
2.001	S201	480 minute 100 year Winter I+45%	32.500	32.020	0.990	0.000	0.08
1.003	S103	480 minute 100 year Winter I+45%	32.380	32.018	0.417	0.000	0.00
3.000	S300	480 minute 100 year Winter I+45%	32.600	32.025	0.475	0.000	0.10
4.000	S400	480 minute 100 year Winter I+45%	32.600	32.026	0.551	0.000	0.13
3.001	S301	480 minute 100 year Winter I+45%	32.600	32.021	1.176	0.000	0.10
1.004	S104	480 minute 100 year Winter I+45%	32.380	32.018	0.597	0.000	0.00
5.000	S500	480 minute 100 year Winter I+45%	32.600	32.028	0.628	0.000	0.16
5.001	S501	480 minute 100 year Winter I+45%	32.600	32.023	1.118	0.000	0.07
6.000	S600	480 minute 100 year Winter I+45%	32.600	32.025	0.625	0.000	0.05
6.001	S601	480 minute 100 year Winter I+45%	32.600	32.024	0.809	0.000	0.06
6.002	S602	480 minute 100 year Winter I+45%	32.600	32.024	0.969	0.000	0.07
5.002	S502	480 minute 100 year Winter I+45%	32.600	32.022	1.312	0.000	0.14
5.003	S503	480 minute 100 year Winter I+45%	32.500	32.021	1.361	0.000	0.11
7.000	S700	480 minute 100 year Winter I+45%	32.600	32.021	0.621	0.000	0.07
7.001	S701	480 minute 100 year Winter I+45%	32.600	32.020	0.720	0.000	0.02

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Summary Wizard of 480 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.6	SURCHARGED
1.001	S101		2.9	SURCHARGED
1.002	S102		3.3	SURCHARGED
2.000	S200		2.4	SURCHARGED
2.001	S201		4.5	SURCHARGED
1.003	S103		6.1	SURCHARGED
3.000	S300		10.5	SURCHARGED
4.000	S400		8.2	SURCHARGED
3.001	S301		17.7	SURCHARGED
1.004	S104		11.9	SURCHARGED
5.000	S500		2.9	SURCHARGED
5.001	S501		3.4	SURCHARGED
6.000	S600		1.3	SURCHARGED
6.001	S601		1.5	SURCHARGED
6.002	S602		3.6	SURCHARGED
5.002	S502		8.5	SURCHARGED
5.003	S503		8.4	SURCHARGED
7.000	S700		1.1	SURCHARGED
7.001	S701		1.1	SURCHARGED

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Summary Wizard of 480 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	480 minute 100 year Winter I+45%	32.550	32.020	1.455	0.000	0.13
1.005	S105	480 minute 100 year Winter I+45%	32.380	32.018	1.548	0.000	0.09
8.000	S800	480 minute 100 year Winter I+45%	32.400	32.016	0.541	0.000	0.07
1.006	S106	480 minute 100 year Winter I+45%	32.380	32.012	1.852	0.000	1.05
1.007	FW105	480 minute 100 year Winter I+45%	32.380	30.037	-0.098	0.000	0.26

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		10.4	SURCHARGED
1.005	S105		10.3	SURCHARGED
8.000	S800		5.1	SURCHARGED
1.006	S106		11.4	SURCHARGED
1.007	FW105		11.4	OK

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Summary Wizard of 600 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	600 minute 100 year Winter I+45%	32.600	31.781	0.381	0.000	0.03
1.001	S101	600 minute 100 year Winter I+45%	32.400	31.780	0.570	0.000	0.05
1.002	S102	600 minute 100 year Winter I+45%	32.600	31.779	0.804	0.000	0.06
2.000	S200	600 minute 100 year Winter I+45%	32.600	31.782	0.382	0.000	0.11
2.001	S201	600 minute 100 year Winter I+45%	32.500	31.779	0.749	0.000	0.07
1.003	S103	600 minute 100 year Winter I+45%	32.380	31.777	0.176	0.000	0.00
3.000	S300	600 minute 100 year Winter I+45%	32.600	31.784	0.234	0.000	0.08
4.000	S400	600 minute 100 year Winter I+45%	32.600	31.785	0.310	0.000	0.11
3.001	S301	600 minute 100 year Winter I+45%	32.600	31.780	0.935	0.000	0.09
1.004	S104	600 minute 100 year Winter I+45%	32.380	31.777	0.356	0.000	0.00
5.000	S500	600 minute 100 year Winter I+45%	32.600	31.787	0.387	0.000	0.13
5.001	S501	600 minute 100 year Winter I+45%	32.600	31.783	0.878	0.000	0.06
6.000	S600	600 minute 100 year Winter I+45%	32.600	31.784	0.384	0.000	0.04
6.001	S601	600 minute 100 year Winter I+45%	32.600	31.783	0.568	0.000	0.05
6.002	S602	600 minute 100 year Winter I+45%	32.600	31.783	0.728	0.000	0.06
5.002	S502	600 minute 100 year Winter I+45%	32.600	31.781	1.071	0.000	0.12
5.003	S503	600 minute 100 year Winter I+45%	32.500	31.780	1.120	0.000	0.09
7.000	S700	600 minute 100 year Winter I+45%	32.600	31.780	0.380	0.000	0.06
7.001	S701	600 minute 100 year Winter I+45%	32.600	31.780	0.480	0.000	0.02

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Summary Wizard of 600 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.5	SURCHARGED
1.001	S101		2.5	SURCHARGED
1.002	S102		2.8	SURCHARGED
2.000	S200		2.0	SURCHARGED
2.001	S201		3.8	SURCHARGED
1.003	S103		4.9	SURCHARGED
3.000	S300		8.8	SURCHARGED
4.000	S400		6.9	SURCHARGED
3.001	S301		14.9	SURCHARGED
1.004	S104		11.4	SURCHARGED
5.000	S500		2.5	SURCHARGED
5.001	S501		2.9	SURCHARGED
6.000	S600		1.1	SURCHARGED
6.001	S601		1.3	SURCHARGED
6.002	S602		3.1	SURCHARGED
5.002	S502		7.2	SURCHARGED
5.003	S503		7.1	SURCHARGED
7.000	S700		1.0	SURCHARGED
7.001	S701		1.0	SURCHARGED

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Summary Wizard of 600 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	600 minute 100 year Winter I+45%	32.550	31.779	1.214	0.000	0.11
1.005	S105	600 minute 100 year Winter I+45%	32.380	31.777	1.307	0.000	0.08
8.000	S800	600 minute 100 year Winter I+45%	32.400	31.776	0.301	0.000	0.06
1.006	S106	600 minute 100 year Winter I+45%	32.380	31.772	1.612	0.000	0.99
1.007	FW105	600 minute 100 year Winter I+45%	32.380	30.035	-0.100	0.000	0.24

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		8.8	SURCHARGED
1.005	S105		9.7	SURCHARGED
8.000	S800		4.3	SURCHARGED
1.006	S106		10.8	SURCHARGED
1.007	FW105		10.8	OK

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Summary Wizard of 720 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	720 minute 100 year Winter I+45%	32.600	31.576	0.176	0.000	0.03
1.001	S101	720 minute 100 year Winter I+45%	32.400	31.576	0.366	0.000	0.04
1.002	S102	720 minute 100 year Winter I+45%	32.600	31.574	0.599	0.000	0.05
2.000	S200	720 minute 100 year Winter I+45%	32.600	31.578	0.178	0.000	0.09
2.001	S201	720 minute 100 year Winter I+45%	32.500	31.575	0.545	0.000	0.06
1.003	S103	720 minute 100 year Winter I+45%	32.380	31.573	-0.028	0.000	0.00
3.000	S300	720 minute 100 year Winter I+45%	32.600	31.577	0.027	0.000	0.07
4.000	S400	720 minute 100 year Winter I+45%	32.600	31.578	0.103	0.000	0.10
3.001	S301	720 minute 100 year Winter I+45%	32.600	31.573	0.728	0.000	0.08
1.004	S104	720 minute 100 year Winter I+45%	32.380	31.571	0.150	0.000	0.00
5.000	S500	720 minute 100 year Winter I+45%	32.600	31.580	0.180	0.000	0.11
5.001	S501	720 minute 100 year Winter I+45%	32.600	31.575	0.670	0.000	0.05
6.000	S600	720 minute 100 year Winter I+45%	32.600	31.577	0.177	0.000	0.04
6.001	S601	720 minute 100 year Winter I+45%	32.600	31.576	0.361	0.000	0.05
6.002	S602	720 minute 100 year Winter I+45%	32.600	31.576	0.521	0.000	0.05
5.002	S502	720 minute 100 year Winter I+45%	32.600	31.574	0.864	0.000	0.10
5.003	S503	720 minute 100 year Winter I+45%	32.500	31.573	0.913	0.000	0.08
7.000	S700	720 minute 100 year Winter I+45%	32.600	31.574	0.174	0.000	0.05
7.001	S701	720 minute 100 year Winter I+45%	32.600	31.573	0.273	0.000	0.02

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Summary Wizard of 720 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.5	SURCHARGED
1.001	S101		2.1	SURCHARGED
1.002	S102		2.5	SURCHARGED
2.000	S200		1.8	SURCHARGED
2.001	S201		3.3	SURCHARGED
1.003	S103		5.2	OK
3.000	S300		7.7	SURCHARGED
4.000	S400		6.0	SURCHARGED
3.001	S301		13.1	SURCHARGED
1.004	S104		11.3	SURCHARGED
5.000	S500		2.1	SURCHARGED
5.001	S501		2.5	SURCHARGED
6.000	S600		0.9	SURCHARGED
6.001	S601		1.1	SURCHARGED
6.002	S602		2.7	SURCHARGED
5.002	S502		6.3	SURCHARGED
5.003	S503		6.1	SURCHARGED
7.000	S700		0.8	SURCHARGED
7.001	S701		0.8	SURCHARGED

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Summary Wizard of 720 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	720 minute 100 year Winter I+45%	32.550	31.572	1.007	0.000	0.10
1.005	S105	720 minute 100 year Winter I+45%	32.380	31.571	1.101	0.000	0.08
8.000	S800	720 minute 100 year Winter I+45%	32.400	31.569	0.094	0.000	0.05
1.006	S106	720 minute 100 year Winter I+45%	32.380	31.566	1.406	0.000	0.94
1.007	FW105	720 minute 100 year Winter I+45%	32.380	30.033	-0.102	0.000	0.23

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		7.7	SURCHARGED
1.005	S105		9.1	SURCHARGED
8.000	S800		3.7	SURCHARGED
1.006	S106		10.1	SURCHARGED
1.007	FW105		10.1	OK

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Summary Wizard of 960 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	960 minute 100 year Winter I+45%	32.600	31.413	0.013	0.000	0.02
1.001	S101	960 minute 100 year Winter I+45%	32.400	31.413	0.203	0.000	0.03
1.002	S102	960 minute 100 year Winter I+45%	32.600	31.412	0.437	0.000	0.04
2.000	S200	960 minute 100 year Winter I+45%	32.600	31.415	0.015	0.000	0.07
2.001	S201	960 minute 100 year Winter I+45%	32.500	31.412	0.382	0.000	0.05
1.003	S103	960 minute 100 year Winter I+45%	32.380	31.410	-0.191	0.000	0.00
3.000	S300	960 minute 100 year Winter I+45%	32.600	31.415	-0.135	0.000	0.06
4.000	S400	960 minute 100 year Winter I+45%	32.600	31.416	-0.059	0.000	0.08
3.001	S301	960 minute 100 year Winter I+45%	32.600	31.412	0.567	0.000	0.06
1.004	S104	960 minute 100 year Winter I+45%	32.380	31.410	-0.011	0.000	0.00
5.000	S500	960 minute 100 year Winter I+45%	32.600	31.402	0.002	0.000	0.09
5.001	S501	960 minute 100 year Winter I+45%	32.600	31.397	0.492	0.000	0.04
6.000	S600	960 minute 100 year Winter I+45%	32.600	31.399	-0.001	0.000	0.03
6.001	S601	960 minute 100 year Winter I+45%	32.600	31.398	0.183	0.000	0.04
6.002	S602	960 minute 100 year Winter I+45%	32.600	31.397	0.342	0.000	0.04
5.002	S502	960 minute 100 year Winter I+45%	32.600	31.396	0.686	0.000	0.08
5.003	S503	960 minute 100 year Winter I+45%	32.500	31.395	0.735	0.000	0.06
7.000	S700	960 minute 100 year Winter I+45%	32.600	31.395	-0.005	0.000	0.04
7.001	S701	960 minute 100 year Winter I+45%	32.600	31.395	0.095	0.000	0.01

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Summary Wizard of 960 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.4	SURCHARGED
1.001	S101		1.7	SURCHARGED
1.002	S102		2.0	SURCHARGED
2.000	S200		1.4	SURCHARGED
2.001	S201		2.7	SURCHARGED
1.003	S103		3.3	OK
3.000	S300		6.1	OK
4.000	S400		4.8	OK
3.001	S301		10.7	SURCHARGED
1.004	S104		8.7	OK
5.000	S500		1.7	SURCHARGED
5.001	S501		2.0	SURCHARGED
6.000	S600		0.8	OK
6.001	S601		0.9	SURCHARGED
6.002	S602		2.2	SURCHARGED
5.002	S502		5.0	SURCHARGED
5.003	S503		5.0	SURCHARGED
7.000	S700		0.7	OK
7.001	S701		0.7	SURCHARGED

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Summary Wizard of 960 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.
5.004	S504	960 minute 100 year Winter I+45%	32.550	31.394	0.829	0.000	0.08
1.005	S105	960 minute 100 year Winter I+45%	32.380	31.393	0.923	0.000	0.08
8.000	S800	960 minute 100 year Winter I+45%	32.400	31.391	-0.084	0.000	0.04
1.006	S106	960 minute 100 year Winter I+45%	32.380	31.388	1.228	0.000	0.88
1.007	FW105	960 minute 100 year Winter I+45%	32.380	30.032	-0.103	0.000	0.22

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		6.2	SURCHARGED
1.005	S105		8.8	SURCHARGED
8.000	S800		3.0	OK
1.006	S106		9.6	SURCHARGED
1.007	FW105		9.6	OK

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Summary Wizard of 1440 minute 100 year Winter I+45% for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	0.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	2
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.360
Region	England and Wales	Cv (Summer)	1.000
M5-60 (mm)	18.000	Cv (Winter)	1.000

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 2, 5, 30, 100
Climate Change (%)	0, 0, 0, 40, 45

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
1.000	S100	1440 minute 100 year Winter I+45%	32.600	31.261	-0.139	0.000	0.02
1.001	S101	1440 minute 100 year Winter I+45%	32.400	31.238	0.028	0.000	0.02
1.002	S102	1440 minute 100 year Winter I+45%	32.600	31.237	0.262	0.000	0.03
2.000	S200	1440 minute 100 year Winter I+45%	32.600	31.272	-0.128	0.000	0.05
2.001	S201	1440 minute 100 year Winter I+45%	32.500	31.237	0.207	0.000	0.04
1.003	S103	1440 minute 100 year Winter I+45%	32.380	31.235	-0.366	0.000	0.00
3.000	S300	1440 minute 100 year Winter I+45%	32.600	31.289	-0.261	0.000	0.04
4.000	S400	1440 minute 100 year Winter I+45%	32.600	31.284	-0.191	0.000	0.06
3.001	S301	1440 minute 100 year Winter I+45%	32.600	31.237	0.392	0.000	0.05
1.004	S104	1440 minute 100 year Winter I+45%	32.380	31.235	-0.186	0.000	0.00
5.000	S500	1440 minute 100 year Winter I+45%	32.600	31.275	-0.125	0.000	0.07
5.001	S501	1440 minute 100 year Winter I+45%	32.600	31.237	0.332	0.000	0.03
6.000	S600	1440 minute 100 year Winter I+45%	32.600	31.265	-0.135	0.000	0.02
6.001	S601	1440 minute 100 year Winter I+45%	32.600	31.238	0.023	0.000	0.03
6.002	S602	1440 minute 100 year Winter I+45%	32.600	31.237	0.182	0.000	0.03
5.002	S502	1440 minute 100 year Winter I+45%	32.600	31.236	0.526	0.000	0.06
5.003	S503	1440 minute 100 year Winter I+45%	32.500	31.235	0.575	0.000	0.05
7.000	S700	1440 minute 100 year Winter I+45%	32.600	31.267	-0.133	0.000	0.03
7.001	S701	1440 minute 100 year Winter I+45%	32.600	31.235	-0.065	0.000	0.01

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Summary Wizard of 1440 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	S100		0.3	OK
1.001	S101		1.2	SURCHARGED
1.002	S102		1.5	SURCHARGED
2.000	S200		1.0	OK
2.001	S201		2.0	SURCHARGED
1.003	S103		2.9	OK
3.000	S300		4.5	OK
4.000	S400		3.5	OK
3.001	S301		8.0	SURCHARGED
1.004	S104		7.4	OK
5.000	S500		1.2	OK
5.001	S501		1.5	SURCHARGED
6.000	S600		0.6	OK
6.001	S601		0.7	SURCHARGED
6.002	S602		1.6	SURCHARGED
5.002	S502		3.7	SURCHARGED
5.003	S503		3.6	SURCHARGED
7.000	S700		0.5	OK
7.001	S701		0.5	OK

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Summary Wizard of 1440 minute 100 year Winter I+45% for Storm

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.
5.004	S504	1440 minute 100 year Winter I+45%	32.550	31.234	0.669	0.000	0.06
1.005	S105	1440 minute 100 year Winter I+45%	32.380	31.233	0.763	0.000	0.07
8.000	S800	1440 minute 100 year Winter I+45%	32.400	31.276	-0.199	0.000	0.03
1.006	S106	1440 minute 100 year Winter I+45%	32.380	31.228	1.068	0.000	0.83
1.007	FW105	1440 minute 100 year Winter I+45%	32.380	30.031	-0.104	0.000	0.20

PN	US/MH Name	Overflow (l/s)	Pipe Flow (l/s)	Status
5.004	S504		4.5	SURCHARGED
1.005	S105		8.3	SURCHARGED
8.000	S800		2.2	OK
1.006	S106		9.0	SURCHARGED
1.007	FW105		9.0	OK

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SGi Consulting Engineers 3rd Floor, Phoenix House, 45 Cross Street, Manchester M2 4JF Tel: 0161 837 1500

APPENDIX F1

KEY:

EXISTING UU COMBINED SEWER

CONNECTIONS TO COMBINED SEWER FOUND DURING CCTV SURVEY

EXISTING PUBLIC COMBINED 1070Ø

UU MH8802
CL: 32.72m
IL: N/A (1070)

EXISTING PUBLIC COMBINED 2450Ø

EXISTING PUBLIC COMBINED 750Ø

MOSS LANE EAST

UU MH9802
CL: 32.60m
IL: 29.02m (750)

EXISTING PUBLIC COMBINED 4500

UU MH8703
CL: 32.43m
IL: 29.16m (450)

EXISTING PUBLIC COMBINED 4500

UU MH8702
CL: 32.41m
IL: 29.22m (450)

EXISTING PUBLIC COMBINED 750Ø

EXISTING PUBLIC COMBINED 4500

UU MH8603
CL: 32.47m
IL: N/A (770)

UU MH8602
CL: 32.50m
IL: 29.53m (450)

225mm connection
150mm connection
150mm connection
225mm connection
150mm connection
100mm connection
150mm connection
150mm connection
150mm connection
100mm connection
150mm connection
150mm connection
225mm connection
150mm connection
150mm connection
150mm connection
100mm connection
150mm connection
225mm connection

Silos
FB
Hoppers
32.5m
Support 4 Progress
Shelter
130
140
PRINCESS ROAD
PRINCESS ROAD
West Indian Sports and Social Club
Support 4 Progress
Shelter
WESTWOOD STREET
33.7m
RABY STREET
Westwood Cottages
Church
151
119
28
9
17

Rev.	Description	Rev. by	Date

Shepherd Gilmour
Consulting Engineers
3rd Floor Phoenix House,
45 Cross Street,
Manchester, M2 4JF
T: 0161 837 1500 W: www.sginfrastructure.co.uk

Client
MSV / MCC

Architect
MCAU

Project
MOSS SIDE
MANCHESTER

Title
CCTV SURVEY
CONNECTIONS REVIEW

Date	08.07.2025	Drawn By	NU
Size	A0	Checked By	RBG
Scale	1:250	Approved By	RBG

Dwg. No.: C1876-007
Rev: P01

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