KEYTECH DEVELOPMENT DESIGN LTD

RESIDENTIAL DEVELOPMENT

BATTLEFIELDS

SHREWSBURY

SHROPSHIRE

SY1 4BF

FLOOD RISK ASSESSMENT

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BATTLEFIELDS
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SHROPSHIRE
SY1 4BF

FLOOD RISK ASSESSMENT

PREPARED BY:

Gareth Small	Associate Director	Keytech Development Design Ltd
		……
Gary Bennett	Director/ Civil Engineer	Keytech Development Design Ltd
		…….

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1 INTRODUCTION

1.1 General

Keytech Development Design Ltd has been commissioned to undertake a Flood Risk Assessment (FRA) on behalf of C2C Consulting Engineers in support of the proposed planning application for development which involves the construction of 130 new residential dwellings, 17 industrial units and 2 office / retail / leisure buildings.

This report sets out the findings of an FRA required by the Local Planning Authority in support of the planning application for residential development at the site. The assessment has been carried out in accordance with the guidance set out in the National Planning Policy Framework (NPPF), Flood Risk and Coastal Change.

1.2 Background Information

The Department for Communities and Local Government (DCLG) published the NPPF and the Technical Guidance to the National Planning Policy Framework (Technical Guidance) in March 2012. The NPPF replaces the guidance previously contained within Planning Policy Statement 25 (PPS25) – Development and Flood Risk. The NPPF, Flood Risk and Coastal Change and the Technical Guidance explain how flood risk should be taken into consideration during the planning process. The guidance specifies a sequential test which local planning authorities should apply to all future proposed development sites.

The following Table 1 – Flood Zones, extracted from Table 1 of the Technical Guidance, defines the levels of flood risk

TABLE 1: FLOOD ZONES

Flood Zone	Definition
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)
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)
Zone 3a 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)
Zone 3b The Functional Floodplain	This zone comprises land where water has to flow or be stored in times of flood. Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

1.2.1 Information on the Gov.uk website indicates that a Flood Risk Assessment is required when the site is one or more of the following:-

- in flood zone 2 or 3 including minor development and change of use
- more than 1 hectare (ha) in flood zone 1
- less than 1 ha in flood zone 1, including a change of use in development type to a more vulnerable class (for example from commercial to residential), where they could be affected by sources of flooding other than rivers and the sea (for example surface water drains, reservoirs)
- in an area within flood zone 1 which has critical drainage problems as notified by the Environment Agency

1.2.2 As part of its general obligations under the Water Resources Act 1991, the EA has carried out surveys of its existing flood defences against flooding and has published a series of nationwide 'Indicative Floodplain Maps' based upon information from historic flood events and basic hydraulic modelling. In general terms, these maps give a good indication of the areas likely to be affected by flooding. More recently the EA have published the 'Indicative Flood Map' on their website which is based on improved hydraulic modelling and detailed local data. The Flood Map indicates areas which may be affected by a 1 in 100-year fluvial flood or a 1 in 200

year tidal/coastal flood (i.e. Zone 3 as defined in the NPPF). It also indicates which areas may be affected by an extreme flood (i.e. Zone 2 as defined in NPPF).

1.2.3 The Indicative Flood Map for the proposed residential development at Schoolhouse Lane, Bishops Castle, Shropshire shows that the whole of the site is located in Flood Zone 1. The Environment Agency Flood Zone Map for the site can be seen in Appendix 2.

1.2.4 The following Table 2, from the NPPF, Flood Risk and Coastal Change, shows the Vulnerability Class for the proposed residential apartments is 'More Vulnerable'

Table 2: Flood Risk Vulnerability Classification

Essential infrastructure

- Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk.
- Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including electricity generating power stations and grid and primary substations; and water treatment works that need to remain operational in times of flood.
- Wind turbines.

Highly vulnerable

- Police and ambulance stations; fire stations and command centres; telecommunications installations required to be operational during flooding.
- Emergency dispersal points.
- Basement dwellings.
- Caravans, mobile homes and park homes intended for permanent residential use.
- Installations requiring hazardous substances consent. (Where there is a demonstrable need to locate such installations for bulk storage of materials with port or other similar facilities, or such installations with energy infrastructure or carbon capture and storage installations, that require coastal or water-side locations, or need to be located in other high flood risk areas, in these instances the facilities should be classified as 'Essential Infrastructure').

More vulnerable

- Hospitals
- Residential institutions such as residential care homes, children's homes, social services homes, prisons and hostels.
- Buildings used for dwelling houses, student halls of residence, drinking establishments, nightclubs and hotels.

- Non–residential uses for health services, nurseries and educational establishments.
- Landfill* and sites used for waste management facilities for hazardous waste.
- Sites used for holiday or short-let caravans and camping, subject to a specific warning and evacuation plan.

Less vulnerable

- Police, ambulance and fire stations which are not required to be operational during flooding.
- Buildings used for shops; financial, professional and other services; restaurants, cafes and hot food takeaways; offices; general industry, storage and distribution; non-residential institutions not included in the 'more vulnerable' class; and assembly and leisure.
- Land and buildings used for agriculture and forestry.
- Waste treatment (except landfill* and hazardous waste facilities).
- Minerals working and processing (except for sand and gravel working).
- Water treatment works which do not need to remain operational during times of flood.
- Sewage treatment works, if adequate measures to control pollution and manage sewage during flooding events are in place.

Water-compatible development

- Flood control infrastructure.
- Water transmission infrastructure and pumping stations.
- Sewage transmission infrastructure and pumping stations.
- Sand and gravel working.
- Docks, marinas and wharves.
- Navigation facilities.
- Ministry of Defence installations.
- Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location.
- Water-based recreation (excluding sleeping accommodation).
- Lifeguard and coastguard stations.
- Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms.
- Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.

1.2.5 The Following Table 3, from the NPPF, Flood Risk and Coastal Change, shows the Flood Risk Vulnerability and Flood Zone Compatibility

Flood Zones	**Flood Risk Vulnerability Classification**				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	✗	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	✗	✗	✗	✓*

† In Flood Zone 3a essential infrastructure should be designed and constructed to remain operational and safe in times of flood.

* In Flood Zone 3b (functional floodplain) essential infrastructure that has to be there and has passed the Exception Test, and water-compatible uses, should be designed and constructed to:

- remain operational and safe for users in times of flood;
- result in no net loss of floodplain storage;
- not impede water flows and not increase flood risk elsewhere.

1.3 The Sequential Test and The Exception Test

1.3.1 The sequential test, as set out in the NPPF and Technical Guidance is a risk-based approach that should be applied at all stages of the planning process. Its aim, in accordance with Paragraph 158 of the NPPF, Flood Risk and Coastal Change, is to steer new development to areas at the lowest probability of flooding (i.e. Flood Zone 1).

1.3.2 Strategic Flood Risk Assessments (SFRA's) should provide the basis for applying the Sequential Test, and where an SFRA is not available, the Sequential Test should be based on the Environment Agency's Flood Zones. Although the whole of the residential element of the proposed development is within Flood Zone 1, there is a very small part of the industrial / office element of the proposed development within Flood Zones 2 and 3. The area of the site affected by Flood Zone 3 is located to the extreme south of the site at the southern boundary.

In accordance with the NPPF, this assessment will assess any Flood Zone 3 influence, with mitigating measures provided as required.

1.3.3 Table 2 of the NPPF, Flood Risk and Coastal Change indicates that the residential element of the proposed development is classed as “More Vulnerable”. Such a classification within Flood Zone 1 is deemed compatible for development.

1.3.4 The industrial / office element of the proposed development is classed as “Less Vulnerable”. Such a classification within Flood Zones 1, 2 and 3 are deemed compatible for development.

1.3.5 As both the residential and commercial / office elements are deemed compatible for development in accordance with Table 3 of the NPPF, Flood Risk and Coastal Change, there is no requirement for an exceptions test to be undertaken.

1.3.6 This FRA will demonstrate that the development is safe and does not increase flood risk elsewhere, thus satisfying part b of the exceptions test as identified in paragraph 160 of the NPPF, Flood Risk and Coastal Change.

2 STRUCTURE OF THE REPORT

2.1.1 The report has been structured to follow the general principles set out in the NPPF, Flood Risk and Coastal Change and the Technical Guidance to the NPPF.

2.1.2 The methodology for this FRA has comprised a desktop study including liaison with:

- Environment Agency (Midlands region);
- Shropshire Council – Level 1 Strategic Flood Risk Assessment (SFRA) by JBA Consulting, dated October 2018.
- Severn Trent Water Plc
- Project Architect – Sutton and Wilkinson Chartered Architects
- Client – C2C Design Engineers Ltd
- Developer – Jessup Brothers Limited

3 SITE SETTING

3.1 Site Description and Location

3.1.1 A summary of the site and its characteristics is provided in Table 1: 'Site Location Summary' below.

The site location and topographical survey can be seen in Appendix 1.

Table 1: Site Location Summary	
Site Name	Battlefields
Site Address	Battlefields, Shrewsbury, Shropshire, ST1 4BF
Total Existing Site Area (ha)	6.39Ha
Existing Land Use	100% Greenfield
Proposed Land Use	Proposed residential development
Local Planning Authority	Shropshire County Council
Environment Agency Area	Midlands, Central Area office, Lichfield
Undertaker	Severn Trent Water

3.1.2 The proposed development site is located off Battlefield Road, Shrewsbury, Shropshire. The site is located at approximate National Grid Reference (NGR),351346,316517 and the nearest postcode is SY1 4BF.

3.1.3 The site is currently an existing green field.

3.1.4 The site is surrounded the A5124 , Battlefield Link Road to the north. The Battlefield Brook is located to the south of the site at the southern boundary and beyond that is existing industrial development. A railway line to the west and an existing residential development to the east along with a public house / restaurant and a bowling green. Beyond this development to the east is the A5112, Battlefield Road. The A5124 Battlefield Link Road and the A5112 Battlefield Road meet at the Battlefield Roundabout which is located to the north east of the proposed development.

3.1.6 The topography of the site is generally sloping from north west to south east. The highest elevation on site is approximately 72.100 AOD at the northern western corner of the site and the lowest elevation is approximately 64.500 AOD at the south eastern boundary (See drawing 2458-13 Site Scheme Layout 9, dated October 2020, by Sutton Wilkinson Chartered Architects with survey information on drawing 2458 – 12 dated October 2020, by Sutton Wilkinson Architects with survey information produced by A.R.M. Surveys on drawing 992-0718-T.

3.2 Existing Drainage Regime

3.2.1 The site is currently an existing green field.

3.2.2 Severn Trent Water's sewer records are shown in Appendix 3 and indicate an existing 300mm diameter public foul sewer running west to east beneath the industrial / office part of the proposed development. This sewer continues to run west to east before turning to run south on the opposite site of Battlefield Road. A Build Near agreement may be required with Severn Trent Water where the easement to the existing sewer conflicts with the corner of Unit 1.

3.2.3 Given the greenfield nature of the existing site, it is assumed surface water drainage takes place via infiltration with surface water permeating through the topsoil and sub strata.

Piped Drainage System

3.2.4 In addition to the existing 300mm diameter public foul sewer as identified in paragraph 3.2.2, the Severn Trent Water public sewer records indicate a 225mm diameter public foul sewer beneath Battlefield Road, running north to south and existing Section 104 foul and surface water sewers beneath the existing residential development to the east of the site. There is a 225mm diameter public surface water sewer located on private land to the eastern side of Battlefield Road. The public sewer records to not indicate where this sewer discharges to.

Existing Infiltration

3.2.5 A previous Flood Risk Assessment undertaken by Woodsyde Development Ltd in conjunction with Andrew Gough Development Consultant, dated September 2015 indicated that *"from knowledge of existing development in the area it is highly unlikely that the ground sub strata will have sufficient porosity for the use of soakaways to the development. The ground make up is known to be heavy with little porosity. Piped attenuation systems have been used for the adjacent developments"*

3.2.6 Given the size of the site, infiltration testing should be undertaken at various locations across the site in line with the requirements of BRE Digest 365. This will either confirm the assumptions made in the 2015 Flood Risk Assessment or will identify areas where the use of infiltration techniques can be implemented, subject to site investigation confirming that sub strata is free of contaminants.

3.3 Flooding History

Fluvial and Pluvial Sources

3.3.1 The SFRA indicates that the primary fluvial flood risk is along the River Severn and its main tributaries. There are no records of any fluvial flooding affecting the Battlefields area.

3.3.2 Table 6-4 from the SFRA, as shown in Appendix 3, states that *"the main fluvial flood risk through Shrewsbury is the River Severn, but fluvial risk is also present from the Bagley Brook, Rad Brook, Rea Brook, Battlefield Brook and other unnamed watercourses. In a severe event, the old course of Severn that runs through the north of the town (and the route of the Bagley Brook) would be affected. Many areas of open space, such as Frankwell carpark and recreation ground and The Quarry park are sacrificial floodplain that flood relatively frequently. Flooding mechanisms are complex at the confluence of the Rea Brook, with water backing up from the Severn affecting low lying properties in the English Bridge area.*

Many parts of the town are therefore at a high risk of fluvial flooding including parts of but not exclusively: Mountfields, Coleham, Abbey Foregate, Frankwell, Castle Fields, Spring Gardens, Mount Pleasant, Ditherington, Heathgates, Monkmoor, Belle Vue, Sutton, Meole Brace and Coton Hill."

Table 6-4 indicates that there have been fluvial events in 1948, 1960, 1998, 2000, 2004 and 2016.

A map of the key watercourses in Shropshire can be seen in Appendix 3 as Figure 6-5 from the SFRA.

3.3.3 The SFRA indicates that the Shrewsbury area us affected by pluvial (surface water) flooding with runoff from local roads flowing into the River Severn, Bagely Brook, Rad Brook and Rea Brook. Areas including Monkmoor, Ditherington, Castlefields and Greenfields could be affected by surface water flooding.

3.3.4 A report in the Shropshire Star on 25th September 2012, following a flood event, indicates that the A5124 Battlefield Link Road (to the north of the site) was under more than 4ft of water at the height of the flood event.

3.3.5 A report from the Shropshire Star on 26th October 2019 states that motorists were stranded at the Battlefields roundabout on the outskirts of Shrewsbury as the road became flooded.

3.3.6 A report on Shropshire Live on 17/2/2020 indicated that the Battlefield Link Road was closed due to flooding. Battlefield Link Road was also reported as closed in a report on ITV news on 27/1/2013.

3.4 Sewer Flooding

3.4.1 Table 6-4 of the SFRA indicates that there has been over 100 incidences of sewer flooding in the Shrewsbury area since 1990. The DG5 register from Welsh Water and Severn Trent Water, as shown in Table 6-2 of the SFRA indicates 50 recorded incidents of sewer flooding in the SY1 4 postcode area, which is where the site is located.

3.5 Ground Water Flooding

3.5.1 The SFRA indicates *a "limited understanding of ground water flooding in the Shropshire area and that mapping of flood risk from groundwater sources is in its infancy. Groundwater level monitoring records are available for areas on Major Aquifers; however, for lower lying valley areas, which can be susceptible to groundwater flooding caused by a high water table in mudstones, clays and superficial alluvial deposits, very few records are available. Additionally, there is increased risk of groundwater flooding where long reaches of watercourse are culverted as a result of elevated groundwater levels not being able to naturally pass into watercourses and be conveyed to less susceptible areas."*

3.6 Flooding From Reservoirs

3.6.1 The SFRA indicates that Shrewsbury is partially located within the reservoir inundation extents of Sunderton Pool. There are no recorded incidences of flooding from this source.

3.7 Flood Alleviation

3.7.1 The following text is taken from section 7.2.1 of the SFRA and indicates the various flood alleviation schemes that are in place within the Shrewsbury area.

"There was major flooding to Shrewsbury Town Centre in 1998 and Autumn 2000. This particularly affected the lowest lying areas of the town, including the Ellesmere Road, Smithfield Road/ Mardol, Frankwell, Town Walls, Longden Coleham and the English Bridge/ Coleham/ Abbey Foregate areas.

Following these major floods, in 2003 the first major scheme was opened to protect the Frankwell area. This is a mixture of permanent flood walls with demountable sections. In the event of a flood warning, Frankwell car park is closed off and the demountable sections put in place *provide a continuous defence. Depending on the forecast flood level, the defences can be further raised adjacent to the footbridge over the Riverside Centre at Frankwell Quay. A Severn Trent pumping station at the entrance to the car park helps to ensure the safe*

evacuation of surface water from behind the flood defences. This scheme protects over 70 properties, including Theatre Severn and the main entrance to the Town Centre from the west, over Welsh Bridge.

In 2011, a further scheme was completed in the River Severn/ Rea Brook confluence area to protect the English Bridge/ Coleham/ Abbey Foregate area, consisting off a mixture of flood walls and demountable sections. During a flood event, water is temporarily over-pumped into the River Severn in this area. This scheme protects 80 properties including 24 businesses, the Abbey and the gyratory road system that forms the main access to the Town Centre from the east, over the English Bridge."

4.0 PROPOSED DEVELOPMENT

4.1 Description of site proposals

4.1.1 The development proposals comprise the following: -

i) 8 X 4 bed dwellings

ii) 49 x 3 bed dwellings

iii) 59 x 2 bed dwellings

iv) 10 x 2 bed bungalows

v) 4 x 2 bed wheelchair bungalows

vi) 17 x Industrial Units

vii) 2 x Office / Retail / Leisure Buildings

4.1.2 The existing site area is 6.39 hectares (63900m²), all of which is green field.

4.1.3 No infiltration testing has been produced or any infiltration testing undertaken at the time of preparing this assessment. However, upon reviewing a site investigation for the neighbouring development at Mayfield Close, trial pit lots indicate areas of made ground and very stiff, sandy, gravelly clay across the site.

4.1.4 Ground conditions can vary from site to site and whilst the site investigation report for the adjacent site can be relied upon for strategic purposes, a detailed site investigation should be undertaken on the subject site. If ground conditions reveal a suitable sub strata for infiltration (i.e. free of contamination, made ground and stiff clays) then infiltration testing should be undertaken at a variety of locations across the site in a accordance with BRE Digest 365.

4.1.5 The proposed development will introduce an impermeable area of 30200m². Although this represents a 47% increase in impermeable area, the use of SuDS across the site will enable surface water discharges to mimic those of the existing greenfield site. This has been assessed with Micro Drainage software as 28 l/s, which is the indicated QBAR value.

4.1.6 The Proposed Site Plan can be seen in Appendix 1.

Drainage Proposals

4.1.7 The Building Regulations 2010 Part H (incorporating the 2015 amendments) and the NPPF, Flood Risk and Coastal Change, state that the primary means of disposing of surface water is via soak-a-ways where ground conditions are suitable. Should future site investigation prove the site to be uncontaminated and suitable for infiltration, then soak-a-ways (infiltration) will be the primary means of disposal, subject to satisfactory porosity testing.

4.1.8 As indicated in paragraph 4.1.3, no site investigation or infiltration testing has been

undertaken on the site. Therefore, at the time of preparing this assessment, infiltration has been discounted and will be reviewed once a site investigation report and the results of any infiltration testing have been provided.

4.1.9 The adoptable site roads will be macadam surfaced with surface water intercepted with appropriately spaced gullies, ensuring that no more than 150m² is captured by each gully. Surface water will be conveyed by a piped network to the Battlefield Brook located at the southern boundary of the site with a variety of SuDS elements included within the drainage system.

4.1.10 All private drives will be permeably paved with sufficient depth of stone beneath to store surface water flows for all storms up to and including the 1 in 100 year return period with an allowance of 40% for climate change. The stone will have an impermeable membrane to the base and sides.

4.1.11 As surface water filtrates through the stone, in accordance with tables 26.2 and 26.3 of the SuDS Manual, potential pollutants such as suspended solids, metals and hydrocarbons will be filtered out, with a cleaner flow entering the piped network. The temporary storage of surface water will also reduce velocities and volumes of water entering the piped network at any one time.

4.1.13 There will be a surface water attenuation basin, located in the Public Open Space in the centre of the residential part of the site. It is not possible or practical for all of the proposed residential dwellings to connect to the proposed attenuation basin, however, where possible, dwellings will discharge to the feature.

4.1.14 In line with the requirements of the SuDS Manual, the attenuation basin will have side slopes that do not exceed 1 in 10.

4.1.15 Flows from the surface water attenuation pond will restricted to 5 l/s by use of an orifice plate flow control chamber. This will reduce the impact of surface water flows as they progress through the surface water system, with reduced flow rates, velocities and volumes.

4.1.16 There will twin 600mm diameter pipes located beneath the proposed road between the allotments and plots 39 to 49. All flows from the residential development will flow into the oversized pipe and will be attenuated, with flows restricted to 5 l/s by use of a Hydro Brake flow control unit. The surface water drainage system will then pass beneath the allotments to the proposed industrial development area at the south of the site.

4.1.17 The flows that enter the oversized pipes will have progressed through various elements of the SuDS train prior to entering the oversized pipe and passing through the Hydro Brake unit.

Therefore the flows will be significantly cleaner, particularly having been filtered through areas of clean stone, as indicated in paragraphs 4.1.10 and 4.1.11.

4.1.18 Surface water flows from the industrial / office development will be attenuated beneath the parking areas to the units. Attenuation will take place in cellular attenuation tanks. The attenuation tanks will have a void ratio of at least 95% in order to maximise efficiency.

4.1.19 Prior to entering the attenuation tanks, all flows from the industrial parking areas (not the roof area of the industrial units) will pass through a suitable sized by pass separator, in order to prevent oils from entering the attenuation tank and the downstream piped network.

4.1.20 Surface water flows from the roof space of the industrial units will connect directly into the attenuation tanks without the requirement of treatment via a bypass separator.

4.1.21 Flows from each attenuation tank will be restricted to varying discharge rates, which have been determined using Micro Drainage modelling software.

4.1.22 Flows from the attenuation tanks will enter the piped network and join with flows from the residential development as indicated in paragraph 4.1.16.

4.1.23 The combined flows from the residential development and the industrial / office development will not exceed the greenfield runoff rate of 28 l/s. Flows will discharge into the Battlefield Brook as indicated on the strategic drainage plans, 200498-103 and 104

4.1.24 The greenfield discharge rate applied, must be agreed with the Lead Local Flood Authority (Shropshire County Council) and the Environment Agency.

4.1.25 The Environment Agency are likely to request that the connection to the Battlefield Brook is registered. This will require confirmation and implementation prior to the undertaking of any drainage works.

4.1.15 Foul flows from the proposed development will be conveyed by a piped drainage system to the existing Severn Trent Water sewer located in Battlefield Road, as shown on the Severn Trent Water sewer records in Appendix 3.

4.1.16 No connection should take place to the surface water public sewer without the consent of Severn Trent Water under Section 106 of the Water Industry Act 1991.

4.2 Vulnerability Classification

4.2.1 In accordance with Table 2, of the NPPF, Flood Risk and Coastal Change ,the Vulnerability Class for the proposed residential apartments is 'More Vulnerable'.

4.2.2 The proposed commercial / office development is classed as "Less Vulnerable"

4.2.3 The residential development is shown indicatively to be within Flood Zone 1, 'Low Probability', of Table 3, NPPF). The industrial / office development is shown indicatively to be partially in Flood Zones 2 and 3, although this is confined to a small part of the extreme southern boundary.

4.2.4 Table 3 of the NPPF, Flood Risk and Coastal Change, shows that this vulnerability classification is appropriate development within Flood Zone 1.

4.2.5 Similarly a site classed as less vulnerable is deemed acceptable within Flood Zones 2 and 3a.

5.0 FLOOD RISK

5.1 Flood Risk – To the Development

5.1.1 The NPPF, Flood Risk and Coastal Change, describes flood risk as, "flood risk" is a combination of the probability and the potential consequences of flooding from all sources – including from rivers and the sea, directly from rainfall on the ground surface and rising groundwater, overwhelmed sewers and drainage systems, and from reservoirs, canals and lakes and other artificial sources.

5.1.2 The presence of a potential flooding source within the vicinity of the site does not necessarily translate into a high risk of flooding.

5.1.3 A summary of flood risks within Shropshire can be seen on Table 6-4 of the Shropshire County Council Strategic Flood Risk Assessment. See Appendix 3.

5.1.4 In this situation flooding from tidal waters is discounted due to the distance from the sea.

Fluvial Flooding

5.1.5 The indicative Flood Plain Map as published by the Environment Agency indicates that the residential development withing the proposed site is located within Flood Zone 1. The industrial / office development withing the proposed site is located within Flood Zones 2 and 3.

5.1.6 Flood Zones 2 and 3 are located at the extreme south of the site adjacent to the southern boundary. It is assumed that the Flood Zone classification in this area is attributed to water levels in the Battlefields Brook rising to levels higher than the site levels at the southern boundary, during extreme storm events. This is likely to be the 1 in 1000 year return period.

5.1.7 The River Severn is located approximately 1.85 Km to the south of the site. The Battlefields Brook runs immediately to the south of the site adjacent to the southern boundary. The Bagley Brook is located 2.25 Km to the south west of the site. Sunderton Pool is located 1.25 Km to the east of the site.

5.1.8 There is a number of other un- named watercourses and water bodies within 10 Km of the site, which form tributaries to the River Severn.

5.1.9 The SFRA indicates that the primary fluvial flood risk is along the River Severn and its main tributaries. There are numerous historical incidences of flooding in the Shrewsbury area as identified in section 3.3. There are no recorded fluvial flooding events on the site itself.

5.1.10 The potential risk of flooding to the development from this source is, therefore, considered to be negligible during the lifetime of the development.

Groundwater Flooding

5.1.9 As indicated in paragraphs 3.5.1, the SFRA indicates a limited understanding of ground water flooding in the Shropshire Area

5.1.10 Flooding from this source is therefore considered to be negligible during the lifetime of the development

Flooding from Artificial Sources

5.1.11 There are a number of small ponds within 10 Km of the development site, the largest of which is Sunderton Pool, located approximately 1.25Km to the east of the site.

5.1.12 There are no reservoirs in the vicinity of the site.

5.1.13 Flooding from this source is therefore considered to be negligible during the lifetime of the development.

Pluvial Flooding/ Overland Runoff

5.1.14 As indicated in Table 6-4 of the SFRA, Shrewsbury is affected by surface water flooding with runoff from local roads flowing into the Severn and the Bagely Brook, Rad Brook and Rea Brook. Areas including Monkmoor, Ditherington, Castlefields and Greenfields could be affected by surface water flooding.

5.1.15 Historical flooding within the Shrewsbury area, as indicated in section 3.3, indicates that there have been numerous incidences of roads becoming flooded during extreme rainfall events. Such events have occurred on the A5124 Battlefield Link Road, to the north of the site, which was under more than 4ft of water at the height of the flood event and at the Battlefields Roundabout to the north east of the site. There is however, no documented reports of pluvial flooding events on the site itself.

5.1.16 The surface water drainage system for the proposed development will be designed so that overland runoff within the site is retained and either directed towards positive drainage points (gullies / linear drainage channels) or draining directly to a SuDS feature, such as a soakaway, permeable paving, cellular storage or a pond.

5.1.17 Where design levels permit, flows will be directed away from proposed dwellings. In circumstances where design levels do not permit flows to be directed away from dwellings, any flows will be intercepted by appropriate measures, such as gullies or linear drainage channels and routed away from the dwelling. Where access paths to proposed dwellings fall away from the dwelling and towards the highway, linear drainage channels will be provided

to intercept flows before they enter the highway. These flows will be conveyed into the private surface water drainage system.

5.1.18 The parking bays and the private drives serving each plot will be permeably paved with sufficient depth of stone beneath to store surface water flows for all storms up to and including the 1 in 100 year return period with an allowance of 40% for climate change. The stone will have an impermeable membrane to the base and sides.

5.1.19 The implementation of the use of permeable paving will provide temporary storage of surface water will also reduce velocities and volumes of water entering the piped network at any one time. The permeable paving will allow surface water to enter the SuDS system at source, thus reducing overland runoff.

5.1.20 The site roads will have a macadam finish and flows will be intercepted by gullies and routed via a piped network to the piped surface water drainage system. Where possible, flows from the road surfaces will be conveyed to the attenuation pond in the central POS, with a bypass separator installed upstream of the pond inlet headwall to intercept any potential oils or chemicals that may be on the road surface.

5.1.21 Information available on the Environment Agency website indicates that the long term flood risk associated with the site area is very low. See the following hyperlink https://flood-warning-information.service.gov.uk/long-term-flood-risk/risk?address=100071402819

5.1.22 Flooding from this source is therefore considered to be negligible during the lifetime of the development.

Flooding from Sewers and Drains

5.1.23 Flooding could theoretically occur from localised, high intensity storms of relatively short duration that might exceed the capacity of the local drainage network. At the detailed design stage it will be ensured that the size and design capacity of the proposed foul and surface water drainage systems are to current design standards. SuDS features such as the permeably paved private drives and the attenuation pond located in the central POS will be designed to cater for all storm events up to and including the 1 in 100 year return period with an allowance of 40% for climate change.

5.1.24 Flood flow paths will be considered during the design process to ensure that potential floodwaters are diverted away from buildings. The risk of flooding to the development from this source is considered, therefore, to be minimal.

5.2 Flood Risk – From the Development

5.2.1 Surface water runoff will be managed in a sustainable manner as detailed in the NPPF, Flood Risk and Coastal Change, with relevant bodies consulted such as the sewerage undertaker, the Environment Agency and the local highways authority. In addition, the planning authority may seek guidance from the lead local flood authority.

5.2.2 The Drainage Strategy Drawing will ensure that surface water runoff from the development does not pose a risk to the development itself or to areas downstream. Although the development will introduce an increased impermeable area of 47%, the use of a variety of SuDS features across the site will ensure that surface water flows do not exceed the existing greenfield QBAR runoff rate of 28 l/s.

Flood Risk and coastal change

5.2.3 Given the geographical distance from any coastline, it is considered that the proposed development will not have any impact upon coastal change.

Floodplain Storage

5.2.4 The development is not located in the floodplain and therefore no flood storage volume will be removed or is required to be given back to the flood plain.

5.3 Climate Change

5.3.1 In assessing the potential flood risk at the site over the lifetime of the development climate change has been taken into account. Climate change allowances have been based on Government guidance on climate change which are available at

The allowances have been reproduced as Table 2 (below).

Parameter	2015-2039	2040-2069	2070-2115
Peak rainfall intensity	+10%	+20%	+40%
Peak river flow	+20%	+30%	+50%
Offshore wind speed	+5%	+10%	+10%
Extreme wave height	+5%	+10%	+10%

6.0 RESIDUAL RISKS

6.0.1 There is always a possibility of a flood in excess of that allowed for which might conceivably cause some flooding to the development. However, such an event would have a very low probability and the risk of flooding to development would be extremely small.

6.0.2 It is considered that the residual risks associated with flooding are not significant.

7.0 CONCLUSIONS

7.0.1 This report gives details of the Flood Risk Assessment, which has been carried out in relation to the proposed development site.

7.0.2 The assessment has shown that the Environment Agency Flood Map indicates that the proposed residential development is located within Flood Zone 1 and the proposed industrial / office development is located in Flood Zones 2 and 3. These areas are confined to the extreme south of the site adjacent to the southern boundary.

7.0.3 Whilst there are historical flooding events in the town of Shrewsbury and on roads that are local to the site, the development site itself has no recorded flooding history and is not considered to be at risk from pluvial, fluvial or groundwater flooding.

7.0.4 The development will not impact upon coastal change due to the sites geographical location.

7.0.5 No site investigation or infiltration testing has been undertaken on the site at the time of preparing this report. However, a site investigation report for the neighbouring residential development at Mayfield Close indicates that there are areas of made ground and a presence of very stiff sandy, silty, gravelly clay across the site. This would not provide suitable conditions for the application of infiltration techniques.

7.0.6 Whilst the findings of a neighbouring developments site investigation is suitable for strategic purposes, a detailed site investigation report should be produced for the subject site. Should appropriate ground conditions be encountered, then infiltration testing should be undertaken at various locations across the site in accordance with BRE Digest 365.

7.0.7 Surface water flow rates from the site will not exceed those of the existing green field scenario. Which has been assessed as 28 l/s for the 6.39 hectare site.

7.0.8 The vulnerability class of the proposed residential development is ‘More Vulnerable’ and for the proposed industrial / office development “Less Vulnerable”. Table 1 of the NPPF, Flood Risk and Coastal Change, indicates that sites classified as ‘More Vulnerable’ within Flood Zone 1 are suitable for development, without the requirement of a sequential test or an exceptions test. Similarly sites that are classed as “Less Vulnerable” and are located in Flood Zones 2 and 3a are also suitable for development without the requirement of a sequential test or an exceptions test.

7.0.9 There are no local site-specific risks that would adversely impact the site. Similarly there are considered to be no significant increased off-site flooding risks as a result of the development. The site, therefore, is considered suitable for the type of development proposed.

APPENDIX 1

Site Location Plan

Topographical Survey

Proposed Site Plan

DO NOT SCALE FROM COPIES

SURVEY STATIONS				
Name	Easting	Northing	Height	Description
SM2	351470.270	316215.668	67.666	Marker pen
SN1	351480.159	316289.360	68.825	Hilti nail
SP3	351438.046	316254.047	67.109	Nail in peg
SP4	351392.690	316262.114	65.037	Nail in peg
SP5	351359.768	316351.216	69.649	Nail in peg
SP6	351412.683	316634.735	71.931	Nail in peg
SR1	351459.614	316239.033	69.186	Marker pen
SR10	351367.400	316368.651	72.281	EP warning sign
SR11	351383.383	316413.337	72.772	EP warning sign
SR12	351408.156	316482.339	73.374	EP warning sign
SR13	351428.980	316568.942	73.645	Marker pen
SR14	351439.511	316589.952	73.582	Marker pen
SR15	351448.713	316608.641	73.518	Marker pen
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SR17	351468.595	316647.986	73.395	Marker pen
SR18	351400.171	316681.256	72.588	Marker pen
SR19	351369.292	316671.675	72.785	Marker pen
SR2	351467.689	316204.058	69.101	Marker pen
SR20	351316.807	316657.628	73.180	Marker pen
SR21	351314.732	316653.138	73.170	Marker pen
SR22	351442.033	316514.391	75.327	EP warning sign
SR3	351457.338	316160.757	68.815	Marker pen
TT479	351408.081	316482.169	73.131	Tree tag
TT488	351367.351	316368.473	72.257	Tree tag

Legend

BT	British Telecom Cover	OHCL	Overhead Cable Level
CL	Ceiling Level	O.S.B.M	OS Bench Mark
DK	Dropped Kerb	PLP	Ped Lamp Post
EP	Electric Pole	RS	Road Sign
FL	Floor Level	TCSL	Tree Clear Stem Level
G	Gully	TP	Telegraph Pole
GSV	Gas Stop Valve	TTL	Top Tree Level
HTL	Hedge Top Level	TWL	Top Wall Level
IC	Inspection Cover	UTL	Unable To Lift
IL	Invert Level	UTM	Unable To Measure
LP	Lamp Post	WSV	Water Stop Valve

Fence types

A/B	Armco Barrier	P/R	Post & Rail
C/L	Chain Link	P/W	Post & Wire
E/F	Estate Fencing	S/S	Steel Security
I/R	Iron Railing	V/C	Vertical Closeboard
P/F	Timber panel		

Borehole — Survey station
Water — Wall
Gas — Building
Telecom — Bottom of bank
Electric — Top of bank
Unknown — Contour major
Fence — Contour minor
Hedge — Surface edge
Foliage — Tree canopy
Gate

Notes.

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The origin and orientation of the survey grid is based on national grid co-ordinates via GNSS with active os network.

This survey was carried out to an agreed specification. Detail and features not included in the original specification will not be shown.

The drawing scale indicates the accuracy of the digital data.

Levels on road kerb strings are taken in the channel.

Trees with a trunk diameter of 0.2m and larger included in the survey and shown with the average canopy spread.

Hedge widths are indicative, text notes show widths.

Stock boundary fences may not be shown where they occur adjacent to other boundary features.

Areas of the site obscured by overgrowth or spoil may have detail omitted from the survey.

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Suite 9
Sabrina Court
Shrewsbury
SY3 7BF
Tel 01743 248265

Client	Project
Jessup Brothers Limited Jessup House 2 Station Court Girton Road Cannock WS11 0EJ	Land off Battlefield Road Shrewsbury

Job	992-0718-T	Scale	1:500
Topographical Survey		Floor Plans	Elevations
3D Laser scan		Lease Plans	Drainage Survey

Date	Dwg no	Rev	Surveyor	Checked
12/07/18	03/03	-	SH	SH

Grid	Contours	Level Datum
25m	0.25m	Ordnance datum via GNSS.

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Fence types

A/B	Armco Barrier	P/R	Post & Rail
C/L	Chain Link	P/W	Post & Wire
E/F	Estate Fencing	S/S	Steel Security
I/R	Iron Railing	V/C	Vertical Closeboard
P/F	Timber panel		

Borehole — S12 Survey station

Water — Wall

Gas — Building

Telecom — Bottom of bank

Electric — Top of bank

Unknown — Contour major

Fence — Contour minor

Hedge — Surface edge

Foliage — Tree canopy

Gate

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3D Laser Scan		Lease Plans	Drainage Survey

Date	Dwg no	Rev	Surveyor	Checked
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Grid	Contours	Level Datum
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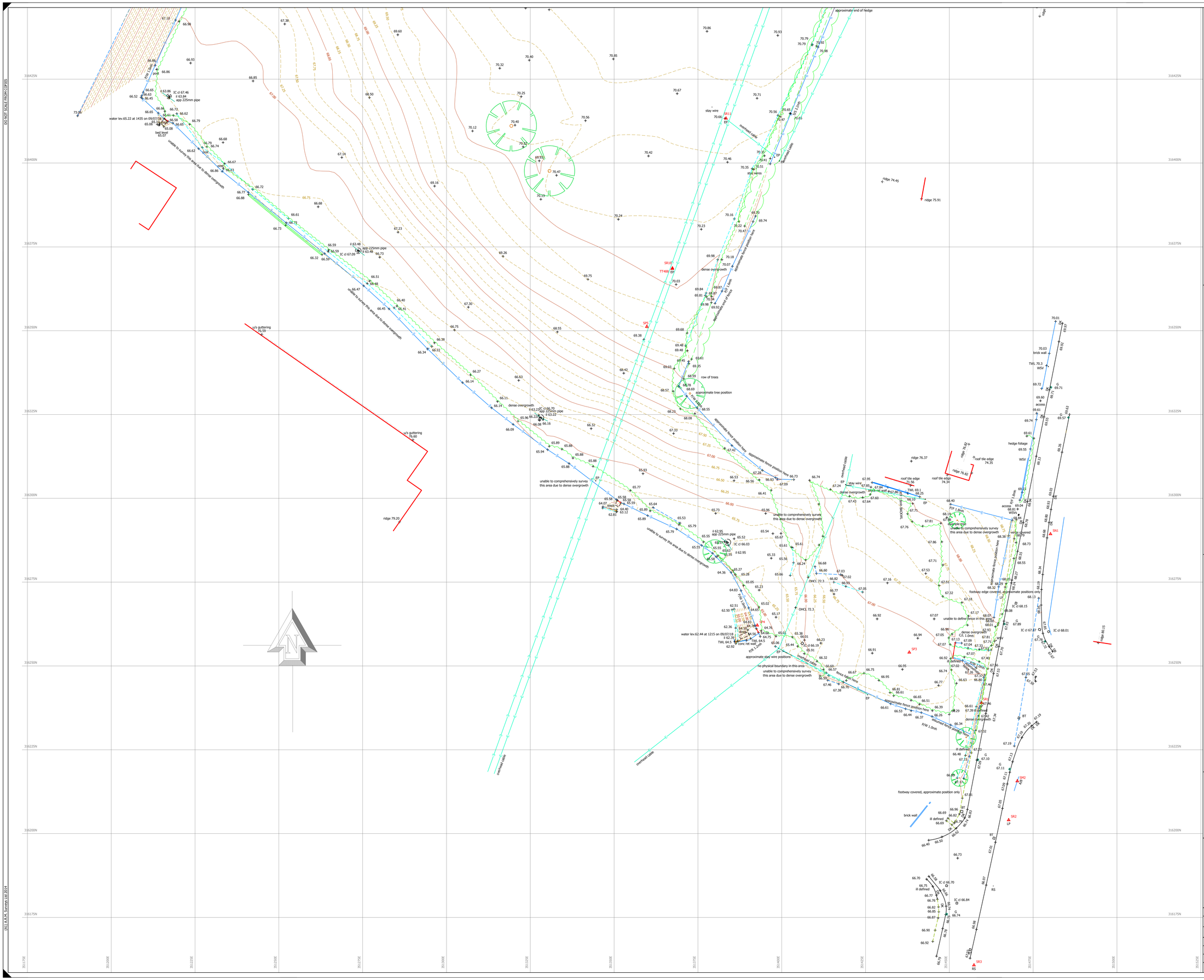

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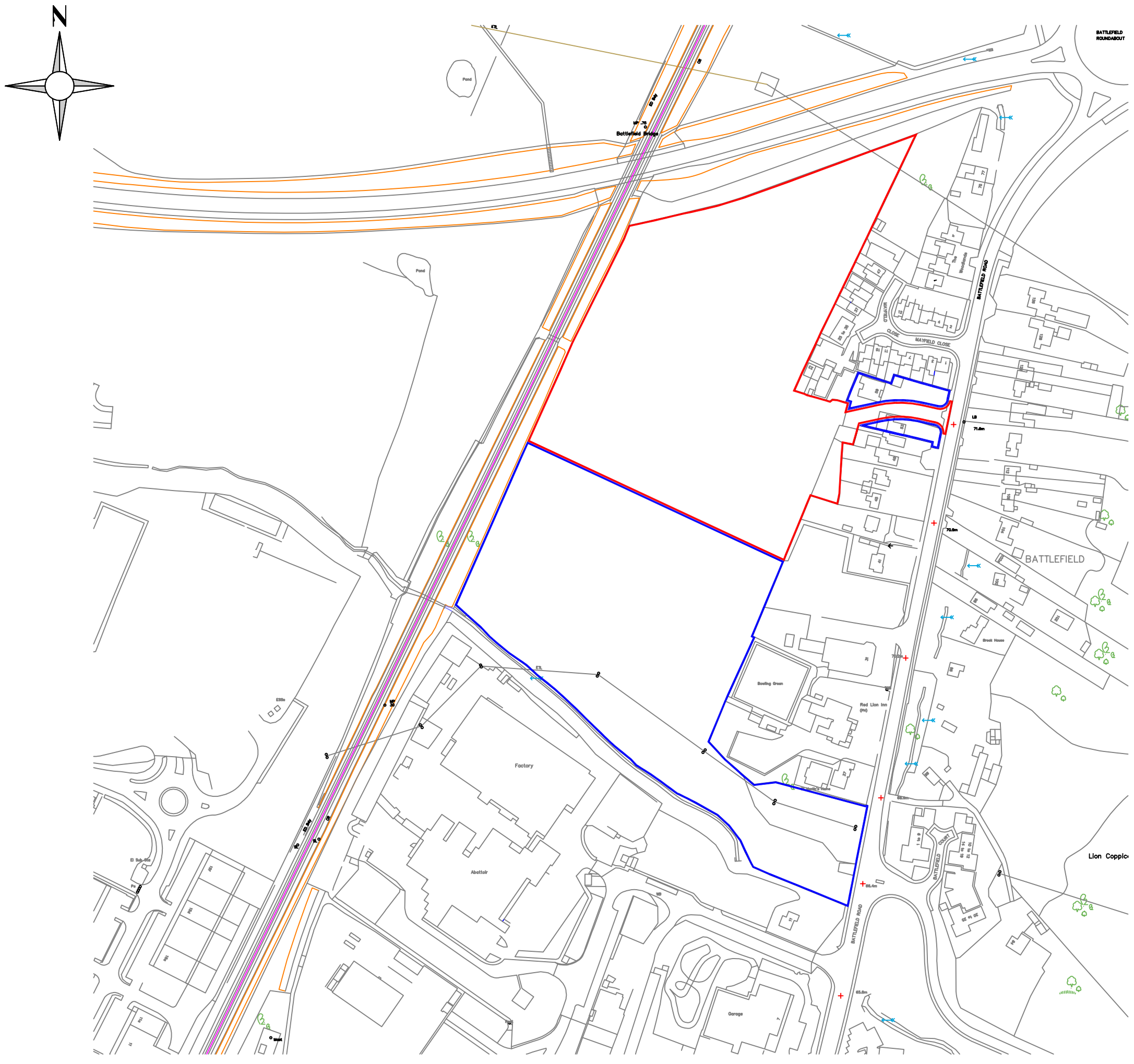
3D Laser Scan	Lease Plans	Drainage Survey

Date	Dwg no	Rev	Surveyor	Checked
12/07/18	02/03	-	SH	SH

Grid	Contours	Level Datum
25m	0.25m	Ordnance datum via GNSS.


Posts
The Woodlands
MAYFIELD CLOSE
MAYFIELD ROAD
Red Lion Inn
(PH)
St Martin's Home
Bowling Green
ALLOTMENTS / P.O.S.
P.O.S.



OS 415793

Rev.	Description	Date	Initial

LES STEPHAN PLANNING LTD
Chartered Town Planners & Development Consultants
9 Sweetlake Business Village
Shrewsbury SY3 9EW.
T: 01743 231040
W: www.lesstephanplanning.co.uk

Client:
The Trustees of The Sundorne Estate

Site Location:
Land West of Battlefield Road
Shrewsbury
SY1 4BF

Drawing Title
Location Plan

Drawn by:	Date:		
SJS	November 2015		
Scale	**Job No.**	**Dwg No**	**Rev.**
1/2500 @ A3	1788	01	-

APPENDIX 2

Environment Agency Indicative Flood Plain Map

Flood map for planning

Your reference	Location (easting/northing)	Created
BATTLEFIELD	**351374/316496**	**27 Oct 2020 17:48**

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

This means:

- you don't need to do a flood risk assessment if your development is smaller than 1 hectare and not affected by other sources of flooding
- you may need to do a flood risk assessment if your development is larger than 1 hectare or affected by other sources of flooding or in an area with critical drainage problems

Notes

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

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

Environment Agency

Flood map for planning

Your reference
BATTLEFIELD

Location (easting/northing)
351374/316496

Scale
1:2500

Created
27 Oct 2020 17:48

- Selected point
- Flood zone 3
- Flood zone 3: areas benefitting from flood defences
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Flood storage area

0 20 40 60m

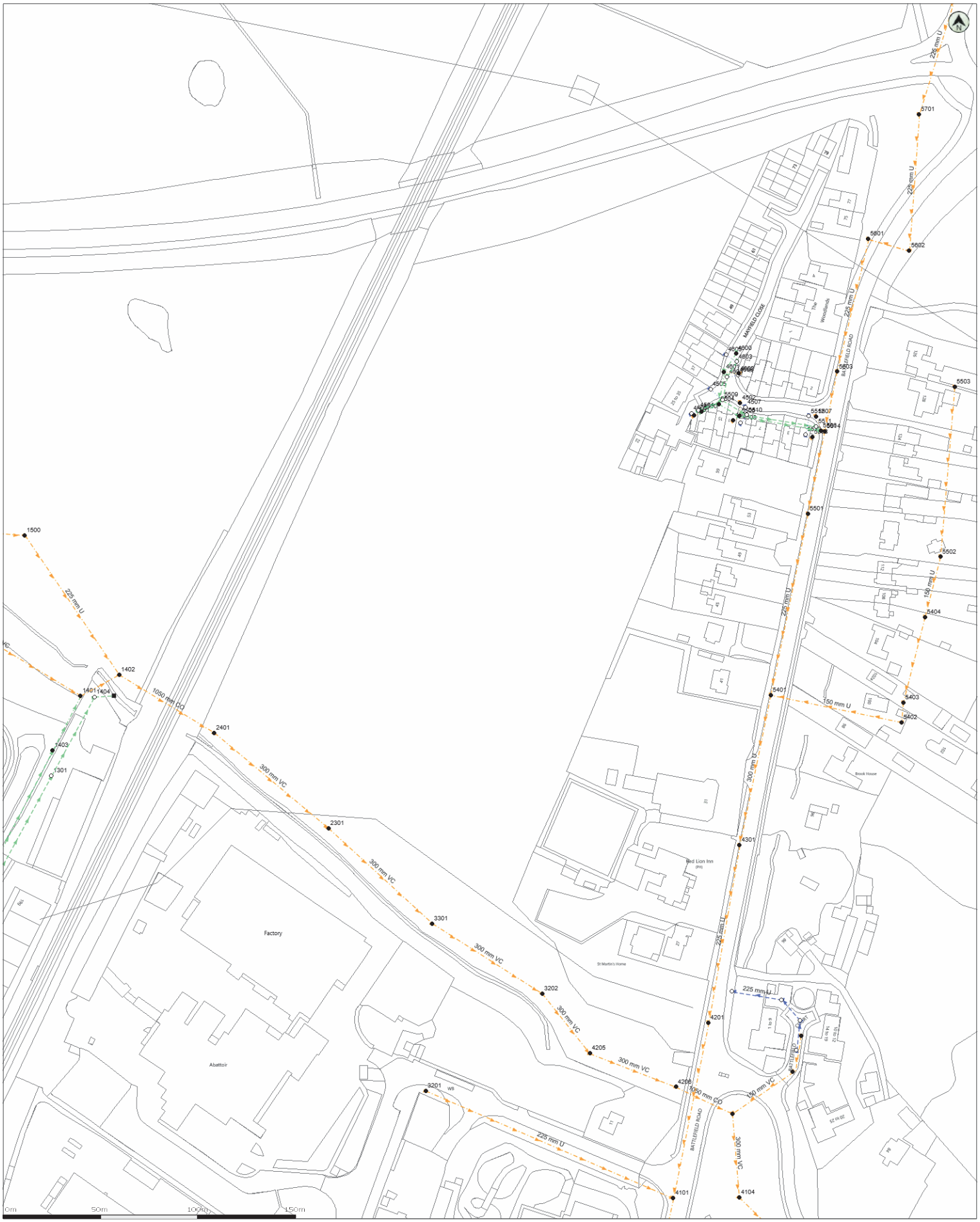
APPENDIX 3

SEVERN TRENT WATER SEWER RECORDS

TABLE 6-2 OF SHROPSHIRE COUNTY COUNCIL'S STRATEGIC FLOOD RISK ASSESSMENT CONTAINING DG5 DATA FROM SEVERN TRENT WATER AND WELSH WATER

TABLE 6-4 OF SHROPSHIRE COUNTY COUNCIL'S STRATEGIC FLOOD RISK ASSESSMENT CONTAINING A SUMMARY OF FLOOD RISKS IN SHROPSHIRE

FIGURE 6-5 OF SHROPSHIRE COUNTY COUNCILS STRATEGIC FLOOD RISK ASSESSMENT CONTAINING A MAP OF THE KEY WATERCOURSES IN SHROPSHIRE



(c) Crown copyright and database rights 2020 Ordnance Survey 100031673
Data updated: 14/11/19

Scale: 1:1250
Map Centre: 351358,316482

Date: 29/01/20
Our Ref: 365904 - 6

Wastewater Plan A2
Powered by digdat

Public Foul Gravity/Lateral Drain
Public Combined Gravity/Lateral Drain
Public Surface Water Gravity/Lateral Drain
Pressure Foul
Pressure Combined
Pressure Surface Water
Highway Drain
Overflow Pipe
Disposal Pipe
Culverted Water Course
Pumping Station
Fitting
Manhole Foul
Manhole Surface
Abandoned Pipe
Private sewers are shown in magenta

duncan@cornerstoneprojects.co.uk

Shrews

SEVERN TRENT

Table 6-2 List of recorded flood incidents from Welsh Water and Severn Trent Water

Post Code	Locality	Recorded Flood Incidents	Post Code	Locality	Recorded Flood Incidents
SY10 7	Weston Rhyn	3	SY7 0	Craven Arms	4
SY11 3	St Martins	36	SY7 8	Clun	3
SY13 1	Whitchurch	42	SY8 1	Ludlow	31
CW3 9	Woore	1	SY8 2	Ludlow	1
DY14 8	Cleobury Mortimer	2	SY8 4	Ludlow	1
SY1 2	Coton Hill	10	SY9 5	Bishops Castle	1
SY1 3	Shrewsbury	1	SY10 8	Oswestry	6
SY1 4	Shrewsbury	50	SY10 9	Oswestry	4
SY2 5	Shrewsbury	3	SY11 1	Oswestry	3
SY2 6	Shrewsbury	2	SY11 2	Oswestry	1
SY3 0	Bayston Hill	3	SY11 4	Oswestry	2
SY3 5	Shrewsbury	1	SY12 9	Criftins	1
SY3 7	Shrewsbury	8	TF9 1	Market Drayton	4
SY3 8	Shrewsbury	15	TF9 3	Market Drayton	2
SY4 2	Shrewsbury	3	TF11 8	Shifnal	3
SY4 3	Shrewsbury	10	TF11 9	Shifnal	1
SY4 4	Shrewsbury	7	TF12 5	Broseley	2

SY4 5	Wem	11	TF13 6	Much Wenlock	14
SY5 0	Minsterley/ Pontesbury	7	WV15 5	Bridgnorth	3
SY5 8	Shrewsbury	5	WV16 4	Bridgnorth	2
SY5 9	Shrewsbury	12	WV16 5	Bridgnorth	1
SY6 6	Church Stretton/ All Stretton	18	WV16 6	Highley	2
SY6 7	Church Stretton	5			**Total=347**

Note: Information combined from Severn Trent Water and Welsh Water

A total of 347 recorded flood incidents in Shropshire were listed in Welsh Water's recorded flood incidents register (from July 1999) and Severn Trent's DG5 register (from 1990). The most frequently flooded localities are: Shrewsbury, Ludlow, St Martins, Whitchurch and Church Stretton.

It is important to recognise the historic flood incident register does not contain information about properties and areas at risk of sewer flooding caused by operational issues such as blockages. Also, the register represents a snapshot in time. As such the sewer flooding flood risk register is not a comprehensive 'at risk register'.

6.7 Flooding from canals

Canals do not generally pose a direct flood risk as they are a regulated waterbody. The residual risk from canals tends to be associated with lower probability events such as overtopping and embankment failure (breach and sudden escape of the water retained in the canal channel).

Breaches or embankment failure may be caused by a number of factors including:

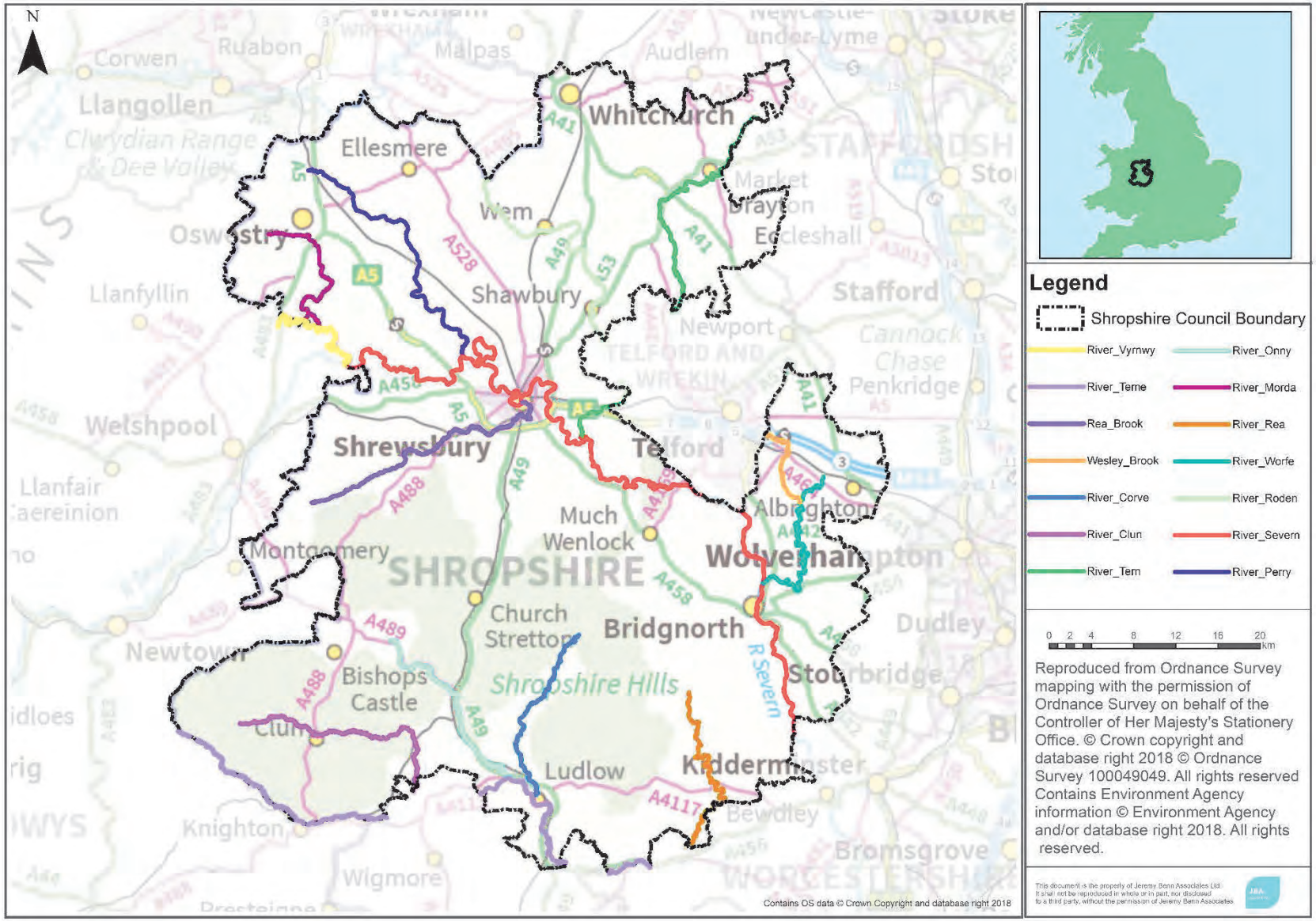
- Culvert collapse
- Overtopping
- Animal burrowing

Flooding from a breach of a canal embankment is largely dictated by canal and ground levels, canal embankment construction, breach characteristics and the volume of water within the canal that can discharge into the lower lying areas behind the embankment. The volume of water released during a breach is dependent on the upstream pound length (i.e. the distance between locks) and how quickly the operating authorities can react to prevent further water loss, for example by the fitting of stop boards to restrict the length of the canal that can empty through the breach, or repair of the breach. The Canal and River Trust monitor embankments at the highest risk of failure.

	detailed flood modelling available from Shropshire Council.								
Oswestry and Morda	The majority of Oswestry lies within Flood Zone 1 and the topography of the town and the culverted watercourse mean that Oswestry is unlikely to flood from primarily fluvial sources. The village of Morda just to the south of Oswestry is partially located within Flood Zones 2 and 3 of the River Morda; however, due to the topography of Morda, only a small number of properties are affected, immediately to the west and east of Morda Bank, and to land along Weston Lane and Weston Road going out of the village.	None	A large number of roads are affected by surface water flooding flowing from high ground in the west to lower ground in the east where there are large areas of ponding in the 1,000-year event.	✓		✓	✓	None	16 incidences of sewer flooding since 1990
Shawbury	The majority of Shawbury lies to the west of the River Roden at higher elevations, leaving it unlikely to flood from primarily fluvial sources. Through the village, the flood extent of the Roden is fairly confined, and only a small number of properties are located within Flood Zones 2 and 3, primarily along the A53.	None	The surface water flood risk in Shawbury is runoff from the high ground in the west to the River Roden in the east and the unnamed watercourse in the south; however, the runoff and ponding events are isolated and very few, primarily along Bridge Way and Poynton Road in the 1,000-year event. The surface water risk from the 30-year event in Shawbury is relatively minor.	✓	✓		✓	None	
Shifnal	The majority of Shifnal is located within Flood Zone 1, with the area immediately around the Wesley Brook located within Flood Zones 2 and 3. The extent of the Flood Zones is fairly well confined due to the topography of the surrounding areas; however, properties that back onto the Wesley Brook through the town, south of Haughton Road to where the Brook leave Shifnal are located within Flood Zones 2 and 3.	None	There are small, isolated areas of surface water flooding in the 30-year event, notably along Curriers Lane and Barn Road with no notable overland flow routes towards the Wesley Brook. This is similar for the 100-year event, with notable ponding along Aston Road. Overland flow routes are more predominant in the 1,000-year event, with notable overland flow routes being along the B4379 and Victoria Road.	✓		✓	✓	Shifnal is partially located within the extents of Priorslee Flash, Priorslee Balancing Lake, Knowle Farm Fishing Pools and Shifnal Reservoir	4 incidences of sewer flooding since 1990
Shrewsbury	The main fluvial flood risk through Shrewsbury is the River Severn, but fluvial risk is also present from the Bagley Brook, Rad Brook, Rea Brook, Battlefield Brook and other unnamed watercourses. In a severe event, the old course of Severn that runs through the north of the town (and the route of the Bagley Brook) would be affected. Many areas of open space, such as Frankwell car	Existing wall with demountable defences along the Severn in Frankwell along Water Lane, passing	Shrewsbury is affected by surface water flooding with runoff from local roads flowing into the Severn and the Bagely Brook, Rad Brook and Rea Brook. Areas including Monkmoor, Ditherington, Castlefields and Greenfields could be affected by surface water flooding.	✓	✓	✓	✓	Shrewsbury is partially located within the reservoir inundation extents of Sunderton Pool	Fluvial events: 1948, 1960, 1998, 2000, 2004, 2015 >100 incidences of sewer flooding since 1990 Pluvial: May/June 2018

	park and recreation ground and The Quarry park are sacrificial floodplain that flood relatively frequently. Flooding mechanisms are complex at the confluence of the Rea Brook, with water backing up from the Severn affecting low lying properties in the English Bridge area. Many parts of the town are therefore at a high risk of fluvial flooding including parts of but not exclusively: Mountfields, Coleham, Abbey Foregate, Frankwell, Castle Fields, Spring Gardens, Mount Pleasant, Ditherington, Heathgates, Monkmoor, Belle Vue, Sutton, Meole Brace and Coton Hill.	the Welsh Bridge and St George's Bridge. Embankment and flood wall along the Rea Brook from Old Potts Way to the English Bridge.							Historic flood events in Shrewsbury date back beyond 1795, which is one of the largest known events on the River Severn when the Welsh Bridge was washed away.
Wem	The majority of the town of Wem lies north of the River Roden, almost entirely within Flood Zone 1. lower around the River Roden, some properties fall within Flood Zones 2 and 3, predominantly around Roden Grove, Mill Street, Sungrove, Brook Drive and to the east of Wem, parts of Aston Road. An unnamed watercourse flows into Wem in the south to join the River Roden; due to the low topography some properties fall into Flood Zone 2 and 3 of this watercourse, namely Dranwell Lane and Wellgate.		The surface water risk in Wem is mainly runoff from the higher ground of the town towards the River Roden. There are notable large areas of ponding in all events around Thomas Adams School and the fields surrounding it also extending down to Bankhouse Lane and Fothergill Way.			✓	✓	None	11 incidences of sewer flooding since 1990
Whitchurch	Whitchurch has a varying topography. An unnamed watercourse flows south from Blake Mere in the north-east of the town, before flowing north-west through the centre of Whitchurch. Properties that back onto the watercourse are located within Flood Zones 2 and 3, along Rydal Avenue, Edward German Drive, Wayland Close, Edgeley Gardens. At Bridgewater Street, the watercourse flows in and out of culverts, from here only the un-culverted parts of the watercourse lie within Flood Zone 3, which is very well confined to the channel. More properties fall into the Flood Zone 2 extent of this watercourse, along Park Avenue,	None	Due to the topography of Whitchurch, the main surface water flood risk is runoff from the high ground of the town towards the unnamed watercourse which flows into the Grindley Brook. Extents in the 30-year event are predominantly areas of ponding around the B5395, Green End and Jubilee Park. Large extents in the 1,000-year extent are notable around Park Avenue and Sherrymill Hill and between the B5398 and Mare Close.	✓	✓	✓	✓	None	Fluvial events: 2000 42 incidences of sewer flooding since 1999

Figure 6-5 Key Watercourses in Shropshire



APPENDIX 4

MICRODRAINAGE HYDRAULIC CALCULATIONS

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface Network 1

- Indicates pipe length does not match coordinates

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000	13.526	0.081	167.0	0.030	5.00	0.0	0.600	o	225	Pipe/Conduit	
1.001	12.502	0.075	166.7	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.002	13.492	0.081	166.6	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.003	14.168	0.085	166.7	0.037	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.004	29.055	0.174	167.0	0.019	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.005	16.501	0.099	166.7	0.013	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.006	12.659	0.054	234.4	0.119	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.007	32.528	0.081	401.6	0.015	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.008	25.459	0.064	397.8	0.053	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.009	27.165	0.068	399.5	0.103	0.00	0.0	0.600	o	450	Pipe/Conduit	
2.000	20.562	0.123	167.2	0.107	5.00	0.0	0.600	o	225	Pipe/Conduit	
2.001	23.874	0.143	167.0	0.010	0.00	0.0	0.600	o	225	Pipe/Conduit	
2.002	15.074	0.090	167.5	0.080	0.00	0.0	0.600	o	225	Pipe/Conduit	
2.003	17.211	0.273	63.0	0.108	0.00	0.0	0.600	o	225	Pipe/Conduit	
2.004	23.613	0.362	65.2	0.110	0.00	0.0	0.600	o	225	Pipe/Conduit	
3.000	18.377#	0.234	78.5	0.092	5.00	0.0	0.600	o	225	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	5.00	5.22	69.800	0.030	0.0	0.0	0.0	1.01	40.1	0.4
1.001	5.00	5.43	69.719	0.030	0.0	0.0	0.0	1.01	40.2	0.4
1.002	5.00	5.65	69.644	0.030	0.0	0.0	0.0	1.01	40.2	0.4
1.003	5.00	5.89	69.563	0.067	0.0	0.0	0.0	1.01	40.2	0.9
1.004	5.00	6.37	69.478	0.086	0.0	0.0	0.0	1.01	40.1	1.2
1.005	5.00	6.64	69.304	0.099	0.0	0.0	0.0	1.01	40.2	1.3
1.006	5.00	6.89	69.205	0.218	0.0	0.0	0.0	0.85	33.8	3.0
1.007	5.00	7.42	68.926	0.233	0.0	0.0	0.0	1.01	160.4	3.2
1.008	5.00	7.84	68.845	0.286	0.0	0.0	0.0	1.01	161.1	3.9
1.009	5.00	8.29	68.781	0.389	0.0	0.0	0.0	1.01	160.8	5.3
2.000	5.00	5.34	70.610	0.107	0.0	0.0	0.0	1.01	40.1	1.4
2.001	5.00	5.73	70.487	0.117	0.0	0.0	0.0	1.01	40.1	1.6
2.002	5.00	5.98	70.344	0.197	0.0	0.0	0.0	1.01	40.1	2.7
2.003	5.00	6.16	70.254	0.305	0.0	0.0	0.0	1.65	65.6	4.1
2.004	5.00	6.40	69.981	0.415	0.0	0.0	0.0	1.62	64.5	5.6
3.000	5.00	5.21	69.853	0.092	0.0	0.0	0.0	1.48	58.7	1.2

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
2.005	20.213	0.123	164.3	0.033	0.00	0.0	0.600	o	225	Pipe/Conduit	
2.006	18.016	0.230	78.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
2.007	19.763	0.120	164.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
2.008	7.496	0.050	149.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
2.009	13.890	0.180	77.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.010	11.432	0.068	168.1	0.014	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.011	17.242	0.103	167.4	0.086	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.012	11.159	0.067	166.6	0.130	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.013	21.988	0.132	166.6	0.014	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.014	11.550	0.029	398.3	0.015	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.015	7.166	0.018	398.1	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
4.000	12.926	0.077	167.9	0.003	5.00	0.0	0.600	o	225	Pipe/Conduit	
4.001	13.212	0.079	167.2	0.151	0.00	0.0	0.600	o	225	Pipe/Conduit	
4.002	31.118	0.186	167.3	0.105	0.00	0.0	0.600	o	225	Pipe/Conduit	
4.003	49.495#	0.296	167.0	0.060	0.00	0.0	0.600	o	225	Pipe/Conduit	
4.004	22.748#	0.530	42.9	0.013	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.016	32.816	0.082	400.2	0.090	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.017	12.310	0.031	400.0	0.070	0.00	0.0	0.600	o	600	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)
2.005	5.00	6.73	69.619	0.540	0.0	0.0	0.0	1.02	40.4	7.3
2.006	5.00	6.90	69.421	0.540	0.0	0.0	0.0	1.78	125.7	7.3
2.007	5.00	7.17	69.191	0.540	0.0	0.0	0.0	1.22	86.4	7.3
2.008	5.00	7.27	69.071	0.540	0.0	0.0	0.0	1.28	90.6	7.3
2.009	5.00	7.40	69.021	0.540	0.0	0.0	0.0	1.79	126.6	7.3
1.010	5.00	8.48	68.713	0.943	0.0	0.0	0.0	1.01	40.0	12.8
1.011	5.00	8.77	68.645	1.029	0.0	0.0	0.0	1.01	40.1	13.9
1.012	5.00	8.95	68.542	1.159	0.0	0.0	0.0	1.01	40.2	15.7
1.013	5.00	9.31	68.475	1.173	0.0	0.0	0.0	1.01	40.2	15.9
1.014	5.00	9.47	67.968	1.188	0.0	0.0	0.0	1.21	343.3	16.1
1.015	5.00	9.57	67.939	1.188	0.0	0.0	0.0	1.21	343.3	16.1
4.000	5.00	5.21	69.464	0.003	0.0	0.0	0.0	1.01	40.0	0.0
4.001	5.00	5.43	69.387	0.154	0.0	0.0	0.0	1.01	40.1	2.1
4.002	5.00	5.95	69.308	0.259	0.0	0.0	0.0	1.01	40.1	3.5
4.003	5.00	6.76	69.122	0.319	0.0	0.0	0.0	1.01	40.1	4.3
4.004	5.00	6.95	68.826	0.332	0.0	0.0	0.0	2.00	79.6	4.5
1.016	5.00	10.02	67.921	1.610	0.0	0.0	0.0	1.21	342.4	21.8
1.017	5.00	10.19	67.839	1.680	0.0	0.0	0.0	1.21	342.5	22.7

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.018	11.374	0.028	406.2	0.012	0.00	0.0	0.600	oo	45	Pipe/Conduit	
1.019	13.577	0.034	399.3	0.000	0.00	0.0	0.600	oo	45	Pipe/Conduit	
1.020	35.249	0.088	400.0	0.050	0.00	0.0	0.600	oo	45	Pipe/Conduit	
1.021	60.683	0.152	400.0	0.088	0.00	0.0	0.600	oo	45	Pipe/Conduit	
1.022	6.823	0.041	166.4	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.023	43.226	0.370	116.8	0.008	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.024	18.090	0.965	18.7	0.074	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.025	8.703	0.022	400.0	0.030	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.026	45.660	0.114	400.5	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
5.000	22.329	0.186	120.0	0.152	5.00	0.0	0.600	o	225	Pipe/Conduit	
5.001	9.071	1.020	8.9	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.027	50.291	0.126	399.1	0.030	0.00	0.0	0.600	oo	45	Pipe/Conduit	
6.000	31.915	0.319	100.0	0.210	5.00	0.0	0.600	o	225	Pipe/Conduit	
6.001	10.435	0.104	100.0	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.028	50.118	0.125	400.0	0.047	0.00	0.0	0.600	oo	45	Pipe/Conduit	
7.000	26.481	0.380	69.7	0.042	5.00	0.0	0.600	o	225	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)
1.018	5.00	10.35	67.808	1.692	0.0	0.0	0.0	1.20	678.7	22.9
1.019	5.00	10.53	67.780	1.692	0.0	0.0	0.0	1.21	684.6	22.9
1.020	5.00	11.02	67.746	1.742	0.0	0.0	0.0	1.21	684.1	23.6
1.021	5.00	11.86	67.658	1.830	0.0	0.0	0.0	1.21	684.1	24.8
1.022	5.00	11.97	67.506	1.830	0.0	0.0	0.0	1.01	40.2	24.8
1.023	5.00	12.56	67.465	1.838	0.0	0.0	0.0	1.21	48.1	24.9
1.024	5.00	12.66	67.095	1.912	0.0	0.0	0.0	3.04	120.7	25.9
1.025	5.00	12.78	65.755	1.942	0.0	0.0	0.0	1.21	342.5	26.3
1.026	5.00	13.41	65.733	1.942	0.0	0.0	0.0	1.21	342.3	26.3
5.000	5.00	5.31	67.200	0.152	0.0	0.0	0.0	1.19	47.4	2.1
5.001	5.00	5.35	67.014	0.152	0.0	0.0	0.0	4.41	175.5	2.1
1.027	5.00	14.10	65.619	2.124	0.0	0.0	0.0	1.21	684.8	28.8
6.000	5.00	5.41	66.875	0.210	0.0	0.0	0.0	1.31	52.0	2.8
6.001	5.00	5.54	66.556	0.210	0.0	0.0	0.0	1.31	52.0	2.8
1.028	5.00	14.79	65.493	2.381	0.0	0.0	0.0	1.21	684.1	32.2
7.000	5.00	5.28	66.320	0.042	0.0	0.0	0.0	1.57	62.4	0.6

STORM SEWER DESIGN by the Modified Rational Method

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
7.001	25.788	0.064	402.9	0.153	0.00	0.0	0.600	o	450	Pipe/Conduit	
7.002	36.494	0.091	401.0	0.070	0.00	0.0	0.600	oo	45	Pipe/Conduit	
7.003	16.363	0.041	400.0	0.000	0.00	0.0	0.600	oo	45	Pipe/Conduit	
8.000	41.055	0.246	166.9	0.218	5.00	0.0	0.600	o	225	Pipe/Conduit	
8.001	8.684	0.052	167.0	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.029	8.883	0.022	403.8	0.030	0.00	0.0	0.600	oo	45	Pipe/Conduit	
1.030	3.080	0.018	171.1	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)
7.001	5.00	5.71	65.715	0.195	0.0	0.0	0.0	1.01	160.1	2.6
7.002	5.00	6.21	65.501	0.265	0.0	0.0	0.0	1.21	683.2	3.6
7.003	5.00	6.44	65.410	0.265	0.0	0.0	0.0	1.21	684.1	3.6
8.000	5.00	5.68	67.000	0.218	0.0	0.0	0.0	1.01	40.1	3.0
8.001	5.00	5.82	66.754	0.218	0.0	0.0	0.0	1.01	40.1	3.0
1.029	5.00	14.92	65.368	2.894	0.0	0.0	0.0	1.20	680.8	39.2
1.030	5.00	14.96	65.346	2.894	0.0	0.0	0.0	1.20	84.8	39.2

Free Flowing Outfall Details for Surface Network 1

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.030	S59	66.500	65.328	0.000	0	0

Simulation Criteria for Surface Network 1

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Simulation Criteria for Surface Network 1

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	1	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	18.000	Storm Duration (mins)	30
Ratio R	0.396		

Online Controls for Surface Network 1

Orifice Manhole: S21, DS/PN: 2.009, Volume (m³): 3.6

Diameter (m) 0.300 Discharge Coefficient 0.600 Invert Level (m) 69.021

Hydro-Brake® Optimum Manhole: S22, DS/PN: 1.010, Volume (m³): 19.6

Unit Reference	MD-SHE-0092-5000-2000-5000
Design Head (m)	2.000
Design Flow (l/s)	5.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	92
Invert Level (m)	68.713
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	2.000	5.0
Flush-Flo™	0.398	4.1
Kick-Flo®	0.816	3.3
Mean Flow over Head Range	-	3.9

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	2.9	1.200	3.9	3.000	6.0	7.000	9.0
0.200	3.8	1.400	4.2	3.500	6.5	7.500	9.3
0.300	4.1	1.600	4.5	4.000	6.9	8.000	9.6
0.400	4.1	1.800	4.8	4.500	7.3	8.500	9.9
0.500	4.1	2.000	5.0	5.000	7.7	9.000	10.2
0.600	4.0	2.200	5.2	5.500	8.0	9.500	10.4
0.800	3.4	2.400	5.4	6.000	8.4		
1.000	3.6	2.600	5.6	6.500	8.7		

Hydro-Brake® Optimum Manhole: S39, DS/PN: 1.022, Volume (m³): 54.6

Unit Reference	MD-SHE-0117-8000-2000-8000
Design Head (m)	2.000
Design Flow (l/s)	8.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	117

Hydro-Brake® Optimum Manhole: S39, DS/PN: 1.022, Volume (m³): 54.6

Invert Level (m)	67.506
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	2.000	8.0
Flush-Flo™	0.511	7.4
Kick-Flo®	1.045	5.9
Mean Flow over Head Range	-	6.7

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	4.1	1.200	6.3	3.000	9.7	7.000	14.5
0.200	6.5	1.400	6.8	3.500	10.4	7.500	15.0
0.300	7.1	1.600	7.2	4.000	11.1	8.000	15.4
0.400	7.4	1.800	7.6	4.500	11.7	8.500	15.9
0.500	7.4	2.000	8.0	5.000	12.3	9.000	16.3
0.600	7.4	2.200	8.4	5.500	12.9	9.500	16.8
0.800	7.1	2.400	8.7	6.000	13.5		
1.000	6.2	2.600	9.0	6.500	14.0		

Orifice Manhole: S45, DS/PN: 5.001, Volume (m³): 2.8

Diameter (m) 0.030 Discharge Coefficient 0.600 Invert Level (m) 67.014

Orifice Manhole: S48, DS/PN: 6.001, Volume (m³): 4.9

Diameter (m) 0.028 Discharge Coefficient 0.600 Invert Level (m) 66.556

Orifice Manhole: S55, DS/PN: 8.001, Volume (m³): 5.9

Diameter (m) 0.028 Discharge Coefficient 0.600 Invert Level (m) 66.754

Hydro-Brake® Optimum Manhole: S57, DS/PN: 1.030, Volume (m³): 15.2

Unit Reference	MD-SHE-0220-2800-1700-2800
Design Head (m)	1.700
Design Flow (l/s)	28.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	220
Invert Level (m)	65.346
Minimum Outlet Pipe Diameter (mm)	300

Hydro-Brake® Optimum Manhole: S57, DS/PN: 1.030, Volume (m³): 15.2

Suggested Manhole Diameter (mm) 1800

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.700	28.0
Flush-Flo™	0.509	28.0
Kick-Flo®	1.110	22.8
Mean Flow over Head Range	-	24.2

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	7.4	1.200	23.7	3.000	36.8	7.000	55.4
0.200	21.7	1.400	25.5	3.500	39.6	7.500	57.3
0.300	26.7	1.600	27.2	4.000	42.2	8.000	59.1
0.400	27.7	1.800	28.8	4.500	44.7	8.500	60.9
0.500	28.0	2.000	30.3	5.000	47.0	9.000	62.6
0.600	27.8	2.200	31.7	5.500	49.3	9.500	64.2
0.800	27.0	2.400	33.0	6.000	51.4		
1.000	25.2	2.600	34.3	6.500	53.4		

Storage Structures for Surface Network 1

Porous Car Park Manhole: S11, DS/PN: 2.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1	Length (m)	33.0
Max Percolation (l/s)	0.0	Slope (1:X)	500.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	70.800	Membrane Depth (mm)	0

Porous Car Park Manhole: S13, DS/PN: 2.002

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	4.0
Membrane Percolation (mm/hr)	1	Length (m)	31.0
Max Percolation (l/s)	0.0	Slope (1:X)	500.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	70.344	Membrane Depth (mm)	0

Porous Car Park Manhole: S15, DS/PN: 2.004

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1	Length (m)	34.0
Max Percolation (l/s)	0.0	Slope (1:X)	500.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	69.981	Membrane Depth (mm)	0

Tank or Pond Manhole: S19, DS/PN: 2.007

Invert Level (m) 69.390

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	200.0	0.401	451.5	0.801	803.1	1.201	1255.2
0.101	253.8	0.501	530.0	0.901	906.7		
0.201	313.5	0.601	614.8	1.001	1016.6		
0.301	379.4	0.701	705.8	1.101	1132.8		

Porous Car Park Manhole: S23, DS/PN: 1.011

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	4.5
Membrane Percolation (mm/hr)	1	Length (m)	26.0
Max Percolation (l/s)	0.0	Slope (1:X)	500.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	68.800	Membrane Depth (mm)	0

Porous Car Park Manhole: S24, DS/PN: 1.012

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	45.0
Membrane Percolation (mm/hr)	1	Length (m)	5.0
Max Percolation (l/s)	0.1	Slope (1:X)	500.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	68.542	Membrane Depth (mm)	0

Porous Car Park Manhole: S29, DS/PN: 4.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.5
Membrane Percolation (mm/hr)	1	Length (m)	44.0
Max Percolation (l/s)	0.1	Slope (1:X)	500.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	69.303	Membrane Depth (mm)	0

Tank or Pond Manhole: S44, DS/PN: 5.000

Invert Level (m) 67.575

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	300.0	1.000	300.0	1.001	0.0

Tank or Pond Manhole: S47, DS/PN: 6.000

Invert Level (m) 66.875

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	350.0	1.000	350.0	1.001	0.0

Tank or Pond Manhole: S54, DS/PN: 8.000

Invert Level (m) 67.000

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	350.0	1.000	350.0	1.001	0.0

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	45		69.848	-0.177	0.000	0.10			3.6	OK
1.001	S2	46		69.767	-0.177	0.000	0.10			3.6	OK
1.002	S3	46		69.692	-0.177	0.000	0.10			3.6	OK
1.003	S4	46		69.632	-0.156	0.000	0.20			7.1	OK
1.004	S5	55		69.552	-0.151	0.000	0.23			8.7	OK
1.005	S6	66		69.431	-0.098	0.000	0.28			9.9	OK
1.006	S7	66		69.430	0.000	0.000	0.70			20.2	OK
1.007	S8	66		69.428	0.052	0.000	0.14			19.9	SURCHARGED
1.008	S9	66		69.428	0.133	0.000	0.10			13.7	SURCHARGED
1.009	S10	66		69.428	0.197	0.000	0.09			12.7	SURCHARGED
2.000	S11	20		70.702	-0.133	0.000	0.34		6	12.6	OK
2.001	S12	20		70.582	-0.130	0.000	0.37			13.6	OK
2.002	S13	27		70.448	-0.121	0.000	0.44		7	15.4	OK
2.003	S14	33		70.352	-0.127	0.000	0.39			22.9	OK
2.004	S15	37		70.091	-0.115	0.000	0.48		7	28.3	OK
3.000	S16	40		69.923	-0.155	0.000	0.21			10.9	OK

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

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	48	69.794	-0.050	0.000	0.96			35.3	OK
2.006	S18	61	69.539	-0.182	0.000	0.32			35.1	OK
2.007	S19	66	69.441	-0.050	0.000	0.38			28.3	OK
2.008	S20	66	69.437	0.066	0.000	0.34			20.9	SURCHARGED
2.009	S21	66	69.436	0.115	0.000	0.19			19.9	SURCHARGED
1.010	S22	66	69.428	0.490	0.000	0.12			4.1	SURCHARGED
1.011	S23	46	68.737	-0.133	0.000	0.34			12.3	OK
1.012	S24	51	68.641	-0.126	0.000	0.40		25	13.5	OK
1.013	S25	51	68.572	-0.128	0.000	0.38			14.0	OK
1.014	S26	65	68.100	-0.468	0.000	0.07			14.7	OK
1.015	S27	66	68.082	-0.457	0.000	0.08			15.2	OK
4.000	S28	40	69.475	-0.214	0.000	0.01			0.4	OK
4.001	S29	60	69.425	-0.187	0.000	0.07			2.3	OK
4.002	S30	44	69.389	-0.144	0.000	0.28			10.4	OK
4.003	S31	46	69.225	-0.122	0.000	0.41			15.6	OK
4.004	S33	46	68.899	-0.151	0.000	0.23			16.8	OK
1.016	S33	66	68.075	-0.446	0.000	0.11			32.2	OK
1.017	S34	66	68.012	-0.427	0.000	0.18			36.4	OK
1.018	S35	66	67.912	-0.496	0.000	0.10			37.1	OK
1.019	S36	66	67.900	-0.480	0.000	0.09			36.9	OK
1.020	S37	66	67.899	-0.447	0.000	0.07			38.9	OK
1.021	S38	66	67.898	-0.360	0.000	0.06			37.6	OK
1.022	S39	66	67.895	0.164	0.000	0.24			7.3	SURCHARGED
1.023	S40	66	67.525	-0.165	0.000	0.16			7.3	OK
1.024	S41	40	67.144	-0.176	0.000	0.10			11.2	OK
1.025	S42	36	65.867	-0.488	0.000	0.08			13.9	OK
1.026	S43	40	65.816	-0.517	0.000	0.05			13.7	OK
5.000	S44	58	67.590	0.165	0.000	0.17			7.4	SURCHARGED
5.001	S45	60	67.737	0.498	0.000	0.01			1.4	SURCHARGED
1.027	S46	45	65.686	-0.533	0.000	0.03			17.1	OK
6.000	S47	66	66.903	-0.197	0.000	0.04			1.9	OK
6.001	S48	66	66.863	0.082	0.000	0.02			0.9	SURCHARGED
1.028	S49	50	65.592	-0.501	0.000	0.03			19.2	OK
7.000	S50	21	66.365	-0.180	0.000	0.09			4.9	OK
7.001	S51	29	65.832	-0.333	0.000	0.15			20.2	OK
7.002	S52	50	65.588	-0.513	0.000	0.05			26.4	OK
7.003	S53	51	65.579	-0.431	0.000	0.05			22.2	OK
8.000	S54	66	67.030	-0.195	0.000	0.04			1.7	OK
8.001	S55	66	66.987	0.008	0.000	0.02			0.8	SURCHARGED
1.029	S56	51	65.578	-0.390	0.000	0.07			23.7	OK
1.030	S57	51	65.575	-0.071	0.000	0.44			22.5	OK

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	46		69.846	-0.179	0.000	0.09			3.2	OK
1.001	S2	47		69.765	-0.179	0.000	0.09			3.2	OK
1.002	S3	47		69.690	-0.179	0.000	0.09			3.2	OK
1.003	S4	47		69.629	-0.159	0.000	0.19			6.6	OK
1.004	S5	58		69.549	-0.154	0.000	0.22			8.1	OK
1.005	S6	63		69.499	-0.030	0.000	0.26			9.3	OK
1.006	S7	63		69.496	0.066	0.000	0.66			19.3	SURCHARGED
1.007	S8	64		69.491	0.115	0.000	0.13			17.9	SURCHARGED
1.008	S9	64		69.490	0.195	0.000	0.07			9.1	SURCHARGED
1.009	S10	64		69.488	0.257	0.000	0.06			8.2	SURCHARGED
2.000	S11	23		70.696	-0.139	0.000	0.31		7	11.4	OK
2.001	S12	23		70.577	-0.135	0.000	0.33			12.2	OK
2.002	S13	25		70.450	-0.119	0.000	0.45		9	15.9	OK
2.003	S14	31		70.355	-0.124	0.000	0.41			24.0	OK
2.004	S15	35		70.095	-0.111	0.000	0.51		9	30.1	OK
3.000	S16	41		69.919	-0.159	0.000	0.19			9.9	OK

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

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	47		69.829	-0.015	0.000	1.00			36.7	OK
2.006	S18	60		69.541	-0.180	0.000	0.34			36.7	OK
2.007	S19	64		69.486	-0.005	0.000	0.33			25.2	OK
2.008	S20	64		69.482	0.111	0.000	0.34			20.8	SURCHARGED
2.009	S21	64		69.482	0.161	0.000	0.19			20.0	SURCHARGED
1.010	S22	64		69.486	0.548	0.000	0.12			4.1	SURCHARGED
1.011	S23	47		68.735	-0.135	0.000	0.34			12.1	OK
1.012	S24	47		68.651	-0.116	0.000	0.47		21	16.1	OK
1.013	S25	47		68.582	-0.118	0.000	0.46			16.8	OK
1.014	S26	62		68.113	-0.455	0.000	0.09			17.7	OK
1.015	S27	63		68.096	-0.443	0.000	0.10			18.0	OK
4.000	S28	42		69.474	-0.215	0.000	0.01			0.3	OK
4.001	S29	53		69.437	-0.175	0.000	0.11			3.9	OK
4.002	S30	48		69.387	-0.146	0.000	0.26			9.8	OK
4.003	S31	47		69.221	-0.126	0.000	0.39			14.9	OK
4.004	S33	47		68.897	-0.154	0.000	0.22			16.0	OK
1.016	S33	63		68.088	-0.433	0.000	0.13			37.2	OK
1.017	S34	65		68.024	-0.415	0.000	0.21			41.4	OK
1.018	S35	64		67.977	-0.431	0.000	0.11			41.8	OK
1.019	S36	64		67.976	-0.403	0.000	0.10			41.1	OK
1.020	S37	64		67.976	-0.370	0.000	0.07			42.3	OK
1.021	S38	64		67.973	-0.284	0.000	0.06			38.2	OK
1.022	S39	64		67.970	0.239	0.000	0.25			7.4	SURCHARGED
1.023	S40	64		67.525	-0.165	0.000	0.16			7.4	OK
1.024	S41	32		67.146	-0.174	0.000	0.11			12.4	OK
1.025	S42	34		65.872	-0.483	0.000	0.08			15.1	OK
1.026	S43	36		65.820	-0.514	0.000	0.05			15.0	OK
5.000	S44	54		67.595	0.170	0.000	0.10			4.2	SURCHARGED
5.001	S45	57		67.741	0.502	0.000	0.01			1.4	SURCHARGED
1.027	S46	40		65.689	-0.530	0.000	0.03			18.5	OK
6.000	S47	64		66.909	-0.191	0.000	0.05			2.7	OK
6.001	S48	64		66.901	0.120	0.000	0.02			0.9	SURCHARGED
1.028	S49	45		65.606	-0.487	0.000	0.03			20.6	OK
7.000	S50	23		66.361	-0.184	0.000	0.08			4.5	OK
7.001	S51	31		65.826	-0.339	0.000	0.14			18.6	OK
7.002	S52	45		65.600	-0.501	0.000	0.04			24.6	OK
7.003	S53	45		65.598	-0.412	0.000	0.04			18.1	OK
8.000	S54	64		67.036	-0.189	0.000	0.06			2.3	OK
8.001	S55	64		67.025	0.046	0.000	0.03			0.8	SURCHARGED
1.029	S56	45		65.597	-0.371	0.000	0.07			24.7	OK
1.030	S57	45		65.593	-0.053	0.000	0.46			23.4	OK

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	49	69.839	-0.186	0.000	0.07			2.4	OK
1.001	S2	49	69.758	-0.186	0.000	0.07			2.4	OK
1.002	S3	49	69.683	-0.186	0.000	0.07			2.4	OK
1.003	S4	49	69.620	-0.168	0.000	0.15			5.1	OK
1.004	S5	59	69.548	-0.155	0.000	0.17			6.5	OK
1.005	S6	58	69.542	0.013	0.000	0.20			7.3	SURCHARGED
1.006	S7	59	69.536	0.106	0.000	0.54			15.8	SURCHARGED
1.007	S8	59	69.527	0.151	0.000	0.09			12.7	SURCHARGED
1.008	S9	60	69.524	0.229	0.000	0.06			8.1	SURCHARGED
1.009	S10	60	69.521	0.290	0.000	0.08			11.1	SURCHARGED
2.000	S11	29	70.684	-0.151	0.000	0.24		10	8.6	OK
2.001	S12	29	70.564	-0.148	0.000	0.25			9.3	OK
2.002	S13	32	70.440	-0.129	0.000	0.38		11	13.4	OK
2.003	S14	36	70.346	-0.133	0.000	0.35			20.5	OK
2.004	S15	38	70.087	-0.119	0.000	0.45		11	26.6	OK
3.000	S16	44	69.909	-0.169	0.000	0.14			7.4	OK
2.005	S17	49	69.790	-0.054	0.000	0.93			34.1	OK
2.006	S18	62	69.536	-0.185	0.000	0.32			34.1	OK
2.007	S19	59	69.524	0.033	0.000	0.27			20.4	SURCHARGED

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

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	59	69.522	0.151	0.000	0.31			18.8	SURCHARGED
2.009	S21	59	69.521	0.200	0.000	0.18			18.7	SURCHARGED
1.010	S22	60	69.519	0.581	0.000	0.12			4.1	SURCHARGED
1.011	S23	49	68.728	-0.142	0.000	0.29			10.5	OK
1.012	S24	46	68.653	-0.114	0.000	0.49		29	16.5	OK
1.013	S25	46	68.584	-0.116	0.000	0.47			17.3	OK
1.014	S26	61	68.114	-0.454	0.000	0.09			18.1	OK
1.015	S27	62	68.096	-0.443	0.000	0.10			18.2	OK
4.000	S28	44	69.471	-0.218	0.000	0.01			0.2	OK
4.001	S29	48	69.444	-0.168	0.000	0.15		74	5.0	OK
4.002	S30	47	69.387	-0.146	0.000	0.26			9.9	OK
4.003	S31	50	69.214	-0.133	0.000	0.35			13.4	OK
4.004	S33	49	68.893	-0.158	0.000	0.19			14.2	OK
1.016	S33	65	68.087	-0.434	0.000	0.13			37.1	OK
1.017	S34	62	68.053	-0.386	0.000	0.21			41.0	OK
1.018	S35	62	68.051	-0.357	0.000	0.11			41.0	OK
1.019	S36	62	68.051	-0.329	0.000	0.10			39.5	OK
1.020	S37	62	68.049	-0.296	0.000	0.07			39.7	OK
1.021	S38	62	68.046	-0.211	0.000	0.06			34.4	OK
1.022	S39	62	68.042	0.311	0.000	0.25			7.4	SURCHARGED
1.023	S40	57	67.526	-0.164	0.000	0.16			7.5	OK
1.024	S41	34	67.146	-0.174	0.000	0.11			12.4	OK
1.025	S42	35	65.869	-0.486	0.000	0.08			14.6	OK
1.026	S43	38	65.818	-0.515	0.000	0.05			14.5	OK
5.000	S44	51	67.597	0.172	0.000	0.08			3.6	SURCHARGED
5.001	S45	49	67.750	0.511	0.000	0.01			1.4	SURCHARGED
1.027	S46	41	65.689	-0.530	0.000	0.03			17.8	OK
6.000	S47	62	66.916	-0.184	0.000	0.06			3.2	OK
6.001	S48	62	66.912	0.131	0.000	0.02			1.0	SURCHARGED
1.028	S49	43	65.613	-0.481	0.000	0.03			19.4	OK
7.000	S50	29	66.355	-0.190	0.000	0.06			3.4	OK
7.001	S51	36	65.814	-0.351	0.000	0.11			14.8	OK
7.002	S52	43	65.608	-0.493	0.000	0.03			19.5	OK
7.003	S53	43	65.606	-0.404	0.000	0.03			13.2	OK
8.000	S54	62	67.043	-0.182	0.000	0.07			2.8	OK
8.001	S55	62	67.039	0.060	0.000	0.03			0.9	SURCHARGED
1.029	S56	43	65.605	-0.363	0.000	0.07			24.5	OK
1.030	S57	43	65.601	-0.045	0.000	0.47			23.8	OK

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500		51	69.831	-0.194	0.000	0.05			1.6	OK
1.001	S2		51	69.750	-0.194	0.000	0.05			1.6	OK
1.002	S3		51	69.675	-0.194	0.000	0.05			1.6	OK
1.003	S4		51	69.611	-0.177	0.000	0.10			3.6	OK
1.004	S5		52	69.557	-0.146	0.000	0.12			4.5	OK
1.005	S6		54	69.551	0.022	0.000	0.13			4.6	SURCHARGED
1.006	S7		54	69.546	0.116	0.000	0.34			9.9	SURCHARGED
1.007	S8		54	69.545	0.169	0.000	0.05			7.5	SURCHARGED
1.008	S9		54	69.545	0.250	0.000	0.06			8.7	SURCHARGED
1.009	S10		54	69.544	0.313	0.000	0.09			11.7	SURCHARGED
2.000	S11		38	70.670	-0.165	0.000	0.16		17	5.8	OK
2.001	S12		38	70.549	-0.163	0.000	0.17			6.3	OK
2.002	S13		40	70.424	-0.145	0.000	0.28		15	9.7	OK
2.003	S14		42	70.331	-0.148	0.000	0.26			15.0	OK
2.004	S15		42	70.071	-0.135	0.000	0.33		15	19.8	OK
3.000	S16		47	69.899	-0.179	0.000	0.09			5.0	OK
2.005	S17		51	69.758	-0.086	0.000	0.70			25.6	OK
2.006	S18		55	69.552	-0.169	0.000	0.24			25.6	OK
2.007	S19		55	69.549	0.058	0.000	0.26			19.3	SURCHARGED

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

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	55	69.547	0.176	0.000	0.30			18.3	SURCHARGED
2.009	S21	55	69.547	0.226	0.000	0.17			18.2	SURCHARGED
1.010	S22	54	69.543	0.605	0.000	0.12			4.1	SURCHARGED
1.011	S23	51	68.719	-0.151	0.000	0.24			8.6	OK
1.012	S24	50	68.642	-0.125	0.000	0.41		60	13.9	OK
1.013	S25	50	68.573	-0.127	0.000	0.40			14.6	OK
1.014	S26	60	68.115	-0.453	0.000	0.08			15.2	OK
1.015	S27	59	68.114	-0.425	0.000	0.08			15.2	OK
4.000	S28	48	69.469	-0.220	0.000	0.00			0.2	OK
4.001	S29	45	69.445	-0.167	0.000	0.15		93	5.2	OK
4.002	S30	49	69.384	-0.149	0.000	0.25			9.3	OK
4.003	S31	51	69.208	-0.139	0.000	0.31			11.9	OK
4.004	S33	51	68.888	-0.163	0.000	0.17			12.4	OK
1.016	S33	59	68.114	-0.407	0.000	0.11			31.5	OK
1.017	S34	59	68.112	-0.327	0.000	0.17			34.5	OK
1.018	S35	59	68.111	-0.297	0.000	0.09			33.5	OK
1.019	S36	59	68.110	-0.270	0.000	0.08			31.2	OK
1.020	S37	59	68.109	-0.237	0.000	0.05			30.5	OK
1.021	S38	59	68.105	-0.152	0.000	0.04			24.7	OK
1.022	S39	59	68.099	0.368	0.000	0.25			7.4	SURCHARGED
1.023	S40	48	67.526	-0.164	0.000	0.17			7.6	OK
1.024	S41	43	67.143	-0.177	0.000	0.10			11.3	OK
1.025	S42	41	65.860	-0.495	0.000	0.07			12.8	OK
1.026	S43	43	65.813	-0.520	0.000	0.04			12.8	OK
5.000	S44	49	67.598	0.173	0.000	0.08			3.6	SURCHARGED
5.001	S45	47	67.751	0.512	0.000	0.01			1.4	SURCHARGED
1.027	S46	46	65.685	-0.534	0.000	0.03			15.6	OK
6.000	S47	58	66.921	-0.179	0.000	0.06			3.2	OK
6.001	S48	58	66.919	0.138	0.000	0.02			1.0	SURCHARGED
1.028	S49	44	65.606	-0.487	0.000	0.03			17.6	OK
7.000	S50	38	66.349	-0.196	0.000	0.04			2.3	OK
7.001	S51	41	65.797	-0.368	0.000	0.08			10.3	OK
7.002	S52	44	65.601	-0.500	0.000	0.02			13.6	OK
7.003	S53	44	65.598	-0.412	0.000	0.02			10.1	OK
8.000	S54	60	67.049	-0.176	0.000	0.08			2.9	OK
8.001	S55	60	67.047	0.068	0.000	0.03			0.9	SURCHARGED
1.029	S56	44	65.597	-0.370	0.000	0.07			23.7	OK
1.030	S57	44	65.594	-0.052	0.000	0.46			23.5	OK

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500		52	69.828	-0.197	0.000	0.04			1.3	OK
1.001	S2		52	69.747	-0.197	0.000	0.04			1.3	OK
1.002	S3		52	69.672	-0.197	0.000	0.04			1.3	OK
1.003	S4		52	69.605	-0.183	0.000	0.08			2.8	OK
1.004	S5		56	69.552	-0.151	0.000	0.09			3.5	OK
1.005	S6		52	69.551	0.022	0.000	0.09			3.4	SURCHARGED
1.006	S7		52	69.550	0.120	0.000	0.24			7.0	SURCHARGED
1.007	S8		52	69.549	0.173	0.000	0.05			6.3	SURCHARGED
1.008	S9		52	69.549	0.254	0.000	0.06			7.7	SURCHARGED
1.009	S10		52	69.549	0.318	0.000	0.08			10.4	SURCHARGED
2.000	S11		44	70.662	-0.173	0.000	0.12		24	4.5	OK
2.001	S12		44	70.541	-0.171	0.000	0.13			4.9	OK
2.002	S13		46	70.415	-0.154	0.000	0.22		19	7.7	OK
2.003	S14		47	70.323	-0.156	0.000	0.20			12.0	OK
2.004	S15		47	70.060	-0.146	0.000	0.27		19	15.9	OK
3.000	S16		49	69.893	-0.185	0.000	0.07			3.9	OK
2.005	S17		53	69.740	-0.104	0.000	0.56			20.6	OK
2.006	S18		51	69.557	-0.164	0.000	0.19			20.6	OK
2.007	S19		51	69.555	0.064	0.000	0.21			15.5	SURCHARGED

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

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	51	69.553	0.182	0.000	0.25			15.1	SURCHARGED
2.009	S21	51	69.552	0.231	0.000	0.14			15.0	SURCHARGED
1.010	S22	52	69.548	0.610	0.000	0.12			4.1	SURCHARGED
1.011	S23	52	68.715	-0.155	0.000	0.21			7.5	OK
1.012	S24	53	68.634	-0.133	0.000	0.35			12.0	OK
1.013	S25	53	68.566	-0.134	0.000	0.34			12.6	OK
1.014	S26	55	68.135	-0.433	0.000	0.07			13.1	OK
1.015	S27	55	68.134	-0.405	0.000	0.07			13.1	OK
4.000	S28	50	69.468	-0.221	0.000	0.00			0.1	OK
4.001	S29	49	69.442	-0.170	0.000	0.14		123	4.8	OK
4.002	S30	52	69.380	-0.153	0.000	0.22			8.3	OK
4.003	S31	53	69.202	-0.145	0.000	0.27			10.5	OK
4.004	S33	53	68.883	-0.167	0.000	0.15			11.0	OK
1.016	S33	55	68.134	-0.387	0.000	0.10			27.3	OK
1.017	S34	55	68.132	-0.307	0.000	0.15			29.5	OK
1.018	S35	55	68.131	-0.277	0.000	0.07			28.5	OK
1.019	S36	55	68.130	-0.250	0.000	0.06			26.1	OK
1.020	S37	55	68.129	-0.217	0.000	0.04			24.7	OK
1.021	S38	55	68.125	-0.132	0.000	0.03			20.5	OK
1.022	S39	55	68.118	0.387	0.000	0.25			7.4	SURCHARGED
1.023	S40	49	67.526	-0.164	0.000	0.17			7.6	OK
1.024	S41	47	67.142	-0.178	0.000	0.10			10.5	OK
1.025	S42	47	65.855	-0.500	0.000	0.07			11.7	OK
1.026	S43	47	65.810	-0.523	0.000	0.04			11.7	OK
5.000	S44	52	67.596	0.171	0.000	0.08			3.6	SURCHARGED
5.001	S45	50	67.749	0.510	0.000	0.01			1.4	SURCHARGED
1.027	S46	49	65.683	-0.536	0.000	0.02			14.3	OK
6.000	S47	55	66.923	-0.177	0.000	0.06			2.9	OK
6.001	S48	55	66.921	0.140	0.000	0.02			1.0	SURCHARGED
1.028	S49	49	65.596	-0.497	0.000	0.03			16.3	OK
7.000	S50	44	66.346	-0.199	0.000	0.03			1.8	OK
7.001	S51	44	65.786	-0.379	0.000	0.06			8.0	OK
7.002	S52	49	65.590	-0.511	0.000	0.02			10.7	OK
7.003	S53	49	65.585	-0.425	0.000	0.02			8.5	OK
8.000	S54	58	67.052	-0.173	0.000	0.07			2.7	OK
8.001	S55	58	67.049	0.070	0.000	0.03			0.9	SURCHARGED
1.029	S56	49	65.585	-0.383	0.000	0.06			23.0	OK
1.030	S57	49	65.581	-0.065	0.000	0.45			22.9	OK

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500		54	69.825	-0.200	0.000	0.03			1.0	OK
1.001	S2		54	69.745	-0.199	0.000	0.03			1.0	OK
1.002	S3		54	69.669	-0.200	0.000	0.03			1.0	OK
1.003	S4		54	69.600	-0.188	0.000	0.07			2.3	OK
1.004	S5		57	69.551	-0.152	0.000	0.08			2.9	OK
1.005	S6		53	69.551	0.022	0.000	0.08			2.7	SURCHARGED
1.006	S7		53	69.550	0.120	0.000	0.20			5.7	SURCHARGED
1.007	S8		53	69.548	0.172	0.000	0.04			5.5	SURCHARGED
1.008	S9		53	69.548	0.253	0.000	0.05			6.6	SURCHARGED
1.009	S10		53	69.548	0.317	0.000	0.07			9.0	SURCHARGED
2.000	S11		48	70.658	-0.177	0.000	0.10		31	3.7	OK
2.001	S12		48	70.537	-0.175	0.000	0.11			4.1	OK
2.002	S13		50	70.409	-0.160	0.000	0.18		24	6.5	OK
2.003	S14		50	70.316	-0.163	0.000	0.17			10.0	OK
2.004	S15		50	70.053	-0.153	0.000	0.23		23	13.4	OK
3.000	S16		52	69.889	-0.189	0.000	0.06			3.2	OK
2.005	S17		54	69.728	-0.116	0.000	0.48			17.4	OK
2.006	S18		53	69.557	-0.164	0.000	0.16			17.5	OK
2.007	S19		52	69.555	0.064	0.000	0.18			13.6	SURCHARGED

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

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	52	69.553	0.182	0.000	0.21			13.1	SURCHARGED
2.009	S21	52	69.552	0.231	0.000	0.12			13.0	SURCHARGED
1.010	S22	53	69.548	0.610	0.000	0.12			4.1	SURCHARGED
1.011	S23	54	68.711	-0.159	0.000	0.19			6.8	OK
1.012	S24	54	68.628	-0.139	0.000	0.31			10.7	OK
1.013	S25	54	68.560	-0.140	0.000	0.30			11.1	OK
1.014	S26	53	68.143	-0.425	0.000	0.06			11.6	OK
1.015	S27	53	68.143	-0.396	0.000	0.06			11.5	OK
4.000	S28	52	69.468	-0.221	0.000	0.00			0.1	OK
4.001	S29	50	69.439	-0.173	0.000	0.12		155	4.3	OK
4.002	S30	53	69.376	-0.157	0.000	0.20			7.5	OK
4.003	S31	54	69.197	-0.150	0.000	0.24			9.3	OK
4.004	S33	54	68.880	-0.171	0.000	0.13			9.7	OK
1.016	S33	53	68.142	-0.379	0.000	0.08			24.0	OK
1.017	S34	53	68.140	-0.298	0.000	0.13			25.6	OK
1.018	S35	53	68.139	-0.268	0.000	0.07			24.8	OK
1.019	S36	53	68.139	-0.241	0.000	0.06			22.8	OK
1.020	S37	53	68.137	-0.208	0.000	0.04			21.8	OK
1.021	S38	53	68.134	-0.124	0.000	0.03			18.3	OK
1.022	S39	53	68.126	0.395	0.000	0.25			7.4	SURCHARGED
1.023	S40	51	67.526	-0.164	0.000	0.17			7.6	OK
1.024	S41	50	67.141	-0.179	0.000	0.09			10.0	OK
1.025	S42	50	65.851	-0.504	0.000	0.06			11.0	OK
1.026	S43	50	65.808	-0.525	0.000	0.04			11.0	OK
5.000	S44	53	67.595	0.170	0.000	0.08			3.6	SURCHARGED
5.001	S45	53	67.746	0.507	0.000	0.01			1.4	SURCHARGED
1.027	S46	51	65.681	-0.538	0.000	0.02			13.4	OK
6.000	S47	53	66.924	-0.176	0.000	0.05			2.6	OK
6.001	S48	53	66.922	0.141	0.000	0.02			1.0	SURCHARGED
1.028	S49	53	65.588	-0.505	0.000	0.03			15.4	OK
7.000	S50	48	66.344	-0.201	0.000	0.03			1.5	OK
7.001	S51	50	65.779	-0.386	0.000	0.05			6.7	OK
7.002	S52	53	65.580	-0.521	0.000	0.02			9.0	OK
7.003	S53	53	65.574	-0.436	0.000	0.02			7.4	OK
8.000	S54	55	67.053	-0.172	0.000	0.06			2.5	OK
8.001	S55	55	67.051	0.072	0.000	0.03			0.9	SURCHARGED
1.029	S56	53	65.573	-0.395	0.000	0.06			22.4	OK
1.030	S57	53	65.570	-0.076	0.000	0.44			22.3	OK

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	56	69.823	-0.202	0.000	0.02			0.8	OK
1.001	S2	56	69.742	-0.202	0.000	0.02			0.8	OK
1.002	S3	56	69.667	-0.202	0.000	0.02			0.8	OK
1.003	S4	56	69.595	-0.193	0.000	0.05			1.8	OK
1.004	S5	60	69.547	-0.156	0.000	0.06			2.3	OK
1.005	S6	56	69.546	0.017	0.000	0.06			2.1	SURCHARGED
1.006	S7	55	69.545	0.115	0.000	0.15			4.4	SURCHARGED
1.007	S8	55	69.544	0.168	0.000	0.03			4.3	SURCHARGED
1.008	S9	55	69.544	0.249	0.000	0.04			5.3	SURCHARGED
1.009	S10	55	69.544	0.313	0.000	0.05			7.4	SURCHARGED
2.000	S11	54	70.651	-0.184	0.000	0.08		48	2.8	OK
2.001	S12	54	70.530	-0.182	0.000	0.08			3.1	OK
2.002	S13	54	70.400	-0.169	0.000	0.14		34	5.0	OK
2.003	S14	54	70.308	-0.171	0.000	0.13			7.8	OK
2.004	S15	54	70.044	-0.162	0.000	0.18		34	10.5	OK
3.000	S16	56	69.884	-0.194	0.000	0.05			2.4	OK
2.005	S17	56	69.714	-0.130	0.000	0.37			13.6	OK
2.006	S18	54	69.552	-0.169	0.000	0.13			13.6	OK
2.007	S19	54	69.550	0.059	0.000	0.15			10.9	SURCHARGED

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

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	54	69.548	0.177	0.000	0.17			10.7	SURCHARGED
2.009	S21	54	69.547	0.226	0.000	0.10			10.6	SURCHARGED
1.010	S22	55	69.543	0.605	0.000	0.12			4.1	SURCHARGED
1.011	S23	56	68.707	-0.163	0.000	0.17		495	6.1	OK
1.012	S24	56	68.621	-0.146	0.000	0.27		493	9.2	OK
1.013	S25	56	68.553	-0.147	0.000	0.26			9.6	OK
1.014	S26	52	68.148	-0.420	0.000	0.05			9.9	OK
1.015	S27	52	68.147	-0.392	0.000	0.05			9.8	OK
4.000	S28	55	69.467	-0.222	0.000	0.00			0.1	OK
4.001	S29	55	69.435	-0.177	0.000	0.10		221	3.5	OK
4.002	S30	57	69.368	-0.165	0.000	0.16			6.1	OK
4.003	S31	57	69.189	-0.158	0.000	0.20			7.5	OK
4.004	S33	57	68.875	-0.176	0.000	0.11			7.9	OK
1.016	S33	52	68.147	-0.374	0.000	0.07			19.8	OK
1.017	S34	52	68.145	-0.294	0.000	0.10			20.5	OK
1.018	S35	52	68.144	-0.264	0.000	0.05			19.9	OK
1.019	S36	52	68.143	-0.237	0.000	0.05			18.6	OK
1.020	S37	52	68.142	-0.204	0.000	0.03			17.9	OK
1.021	S38	52	68.138	-0.120	0.000	0.03			15.5	OK
1.022	S39	52	68.130	0.399	0.000	0.25			7.4	SURCHARGED
1.023	S40	53	67.526	-0.164	0.000	0.16			7.6	OK
1.024	S41	54	67.140	-0.180	0.000	0.09			9.4	OK
1.025	S42	54	65.847	-0.508	0.000	0.06			10.2	OK
1.026	S43	54	65.805	-0.528	0.000	0.03			10.2	OK
5.000	S44	57	67.592	0.167	0.000	0.09			3.7	SURCHARGED
5.001	S45	55	67.744	0.505	0.000	0.01			1.4	SURCHARGED
1.027	S46	56	65.679	-0.540	0.000	0.02			12.3	OK
6.000	S47	52	66.925	-0.175	0.000	0.05			2.2	OK
6.001	S48	52	66.922	0.141	0.000	0.02			1.0	SURCHARGED
1.028	S49	56	65.578	-0.515	0.000	0.02			14.3	OK
7.000	S50	54	66.340	-0.205	0.000	0.02			1.1	OK
7.001	S51	54	65.771	-0.394	0.000	0.04			5.1	OK
7.002	S52	56	65.568	-0.533	0.000	0.01			6.9	OK
7.003	S53	56	65.556	-0.454	0.000	0.01			6.0	OK
8.000	S54	52	67.054	-0.171	0.000	0.05			2.1	OK
8.001	S55	52	67.052	0.073	0.000	0.03			0.9	SURCHARGED
1.029	S56	56	65.556	-0.412	0.000	0.06			21.0	OK
1.030	S57	56	65.553	-0.093	0.000	0.41			21.0	OK

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	58		69.820	-0.205	0.000	0.02			0.6	OK
1.001	S2	58		69.739	-0.205	0.000	0.02			0.6	OK
1.002	S3	58		69.664	-0.205	0.000	0.02			0.6	OK
1.003	S4	58		69.592	-0.196	0.000	0.04			1.4	OK
1.004	S5	62		69.540	-0.163	0.000	0.05			1.8	OK
1.005	S6	59		69.539	0.010	0.000	0.05			1.8	SURCHARGED
1.006	S7	58		69.538	0.108	0.000	0.13			3.7	SURCHARGED
1.007	S8	57		69.536	0.160	0.000	0.03			3.8	SURCHARGED
1.008	S9	57		69.536	0.241	0.000	0.03			4.6	SURCHARGED
1.009	S10	57		69.536	0.305	0.000	0.05			6.4	SURCHARGED
2.000	S11	57		70.647	-0.188	0.000	0.06		62	2.3	OK
2.001	S12	57		70.525	-0.187	0.000	0.07			2.5	OK
2.002	S13	57		70.395	-0.174	0.000	0.12		42	4.2	OK
2.003	S14	57		70.304	-0.175	0.000	0.11			6.5	OK
2.004	S15	57		70.038	-0.168	0.000	0.15		44	8.7	OK
3.000	S16	58		69.881	-0.197	0.000	0.04			2.0	OK
2.005	S17	58		69.704	-0.140	0.000	0.31			11.3	OK
2.006	S18	59		69.544	-0.177	0.000	0.10			11.3	OK
2.007	S19	57		69.543	0.052	0.000	0.12			9.3	SURCHARGED

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

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	57	69.541	0.170	0.000	0.15			9.2	SURCHARGED
2.009	S21	57	69.540	0.219	0.000	0.09			9.2	SURCHARGED
1.010	S22	57	69.536	0.598	0.000	0.12			4.1	SURCHARGED
1.011	S23	58	68.705	-0.165	0.000	0.16		519	5.7	OK
1.012	S24	58	68.617	-0.150	0.000	0.24		515	8.3	OK
1.013	S25	58	68.549	-0.151	0.000	0.23			8.6	OK
1.014	S26	54	68.141	-0.427	0.000	0.05			8.9	OK
1.015	S27	54	68.141	-0.398	0.000	0.05			8.8	OK
4.000	S28	57	69.466	-0.223	0.000	0.00			0.1	OK
4.001	S29	57	69.431	-0.181	0.000	0.09		298	3.0	OK
4.002	S30	58	69.363	-0.170	0.000	0.14			5.1	OK
4.003	S31	58	69.183	-0.164	0.000	0.16			6.3	OK
4.004	S33	58	68.871	-0.180	0.000	0.09			6.6	OK
1.016	S33	54	68.140	-0.380	0.000	0.06			17.2	OK
1.017	S34	54	68.139	-0.300	0.000	0.09			17.8	OK
1.018	S35	54	68.138	-0.270	0.000	0.05			17.3	OK
1.019	S36	54	68.137	-0.243	0.000	0.04			16.2	OK
1.020	S37	54	68.136	-0.210	0.000	0.03			15.8	OK
1.021	S38	54	68.132	-0.126	0.000	0.02			13.9	OK
1.022	S39	54	68.125	0.394	0.000	0.25			7.4	SURCHARGED
1.023	S40	54	67.526	-0.164	0.000	0.16			7.5	OK
1.024	S41	57	67.139	-0.182	0.000	0.08			9.1	OK
1.025	S42	57	65.845	-0.510	0.000	0.05			9.7	OK
1.026	S43	57	65.804	-0.529	0.000	0.03			9.7	OK
5.000	S44	59	67.589	0.164	0.000	0.08			3.6	SURCHARGED
5.001	S45	56	67.742	0.503	0.000	0.01			1.4	SURCHARGED
1.027	S46	57	65.676	-0.544	0.000	0.02			11.7	OK
6.000	S47	54	66.924	-0.176	0.000	0.04			2.0	OK
6.001	S48	54	66.921	0.141	0.000	0.02			1.0	SURCHARGED
1.028	S49	58	65.573	-0.521	0.000	0.02			13.5	OK
7.000	S50	57	66.337	-0.208	0.000	0.02			0.9	OK
7.001	S51	57	65.767	-0.398	0.000	0.03			4.2	OK
7.002	S52	58	65.561	-0.540	0.000	0.01			5.6	OK
7.003	S53	58	65.545	-0.465	0.000	0.01			5.1	OK
8.000	S54	53	67.054	-0.171	0.000	0.05			1.8	OK
8.001	S55	53	67.052	0.073	0.000	0.03			0.9	SURCHARGED
1.029	S56	58	65.545	-0.423	0.000	0.05			19.5	OK
1.030	S57	58	65.543	-0.103	0.000	0.38			19.5	OK

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	60		69.817	-0.208	0.000	0.02			0.5	OK
1.001	S2	60		69.736	-0.208	0.000	0.02			0.5	OK
1.002	S3	60		69.661	-0.208	0.000	0.02			0.5	OK
1.003	S4	60		69.590	-0.198	0.000	0.03			1.2	OK
1.004	S5	63		69.530	-0.173	0.000	0.04			1.6	OK
1.005	S6	60		69.529	0.000	0.000	0.04			1.6	OK
1.006	S7	60		69.528	0.098	0.000	0.11			3.3	SURCHARGED
1.007	S8	60		69.526	0.150	0.000	0.02			3.3	SURCHARGED
1.008	S9	59		69.526	0.231	0.000	0.03			4.0	SURCHARGED
1.009	S10	58		69.526	0.295	0.000	0.04			5.6	SURCHARGED
2.000	S11	60		70.643	-0.192	0.000	0.05		70	2.0	OK
2.001	S12	60		70.522	-0.190	0.000	0.06			2.1	OK
2.002	S13	60		70.392	-0.177	0.000	0.10		49	3.6	OK
2.003	S14	60		70.300	-0.179	0.000	0.09			5.5	OK
2.004	S15	60		70.034	-0.172	0.000	0.13		51	7.5	OK
3.000	S16	60		69.879	-0.199	0.000	0.03			1.7	OK
2.005	S17	60		69.697	-0.147	0.000	0.27			9.7	OK
2.006	S18	63		69.535	-0.186	0.000	0.09			9.7	OK
2.007	S19	58		69.533	0.042	0.000	0.11			8.3	SURCHARGED

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

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	58	69.531	0.160	0.000	0.14			8.3	SURCHARGED
2.009	S21	58	69.530	0.209	0.000	0.08			8.3	SURCHARGED
1.010	S22	58	69.526	0.588	0.000	0.12			4.1	SURCHARGED
1.011	S23	60	68.703	-0.167	0.000	0.15		536	5.5	OK
1.012	S24	60	68.614	-0.153	0.000	0.23		527	7.7	OK
1.013	S25	60	68.546	-0.154	0.000	0.22			8.0	OK
1.014	S26	56	68.131	-0.437	0.000	0.04			8.2	OK
1.015	S27	56	68.130	-0.409	0.000	0.04			8.1	OK
4.000	S28	60	69.466	-0.223	0.000	0.00			0.1	OK
4.001	S29	59	69.427	-0.185	0.000	0.07		547	2.6	OK
4.002	S30	60	69.359	-0.174	0.000	0.12			4.4	OK
4.003	S31	60	69.178	-0.169	0.000	0.14			5.5	OK
4.004	S33	60	68.867	-0.183	0.000	0.08			5.7	OK
1.016	S33	56	68.130	-0.391	0.000	0.05			15.4	OK
1.017	S34	56	68.128	-0.311	0.000	0.08			15.9	OK
1.018	S35	56	68.127	-0.281	0.000	0.04			15.5	OK
1.019	S36	56	68.126	-0.254	0.000	0.04			14.6	OK
1.020	S37	56	68.125	-0.221	0.000	0.03			14.4	OK
1.021	S38	56	68.121	-0.136	0.000	0.02			12.8	OK
1.022	S39	56	68.115	0.384	0.000	0.25			7.4	SURCHARGED
1.023	S40	56	67.526	-0.164	0.000	0.16			7.5	OK
1.024	S41	60	67.138	-0.182	0.000	0.08			8.8	OK
1.025	S42	60	65.843	-0.512	0.000	0.05			9.4	OK
1.026	S43	60	65.803	-0.531	0.000	0.03			9.4	OK
5.000	S44	61	67.586	0.161	0.000	0.08			3.6	SURCHARGED
5.001	S45	59	67.739	0.500	0.000	0.01			1.4	SURCHARGED
1.027	S46	60	65.674	-0.546	0.000	0.02			11.3	OK
6.000	S47	56	66.923	-0.177	0.000	0.04			1.8	OK
6.001	S48	56	66.920	0.139	0.000	0.02			1.0	SURCHARGED
1.028	S49	60	65.569	-0.524	0.000	0.02			13.0	OK
7.000	S50	60	66.334	-0.211	0.000	0.01			0.8	OK
7.001	S51	60	65.764	-0.401	0.000	0.03			3.6	OK
7.002	S52	60	65.553	-0.548	0.000	0.01			4.8	OK
7.003	S53	60	65.537	-0.473	0.000	0.01			4.4	OK
8.000	S54	54	67.053	-0.172	0.000	0.04			1.6	OK
8.001	S55	54	67.051	0.072	0.000	0.03			0.9	SURCHARGED
1.029	S56	60	65.537	-0.431	0.000	0.05			18.4	OK
1.030	S57	60	65.535	-0.111	0.000	0.36			18.4	OK

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	61		69.815	-0.210	0.000	0.01			0.5	OK
1.001	S2	61		69.734	-0.210	0.000	0.01			0.5	OK
1.002	S3	61		69.659	-0.210	0.000	0.01			0.5	OK
1.003	S4	61		69.589	-0.199	0.000	0.03			1.1	OK
1.004	S5	64		69.519	-0.184	0.000	0.04			1.4	OK
1.005	S6	61		69.518	-0.011	0.000	0.04			1.4	OK
1.006	S7	61		69.517	0.087	0.000	0.10			3.0	SURCHARGED
1.007	S8	61		69.515	0.139	0.000	0.02			3.0	SURCHARGED
1.008	S9	61		69.516	0.221	0.000	0.03			3.6	SURCHARGED
1.009	S10	61		69.515	0.284	0.000	0.04			5.0	SURCHARGED
2.000	S11	61		70.641	-0.194	0.000	0.05		78	1.7	OK
2.001	S12	61		70.519	-0.193	0.000	0.05			1.9	OK
2.002	S13	61		70.389	-0.180	0.000	0.09		55	3.1	OK
2.003	S14	61		70.297	-0.182	0.000	0.08			4.8	OK
2.004	S15	61		70.031	-0.175	0.000	0.11		58	6.6	OK
3.000	S16	61		69.878	-0.200	0.000	0.03			1.5	OK

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

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	61	69.692	-0.152	0.000	0.23			8.5	OK
2.006	S18	64	69.524	-0.197	0.000	0.08			8.5	OK
2.007	S19	60	69.522	0.031	0.000	0.10			7.6	SURCHARGED
2.008	S20	60	69.520	0.149	0.000	0.12			7.6	SURCHARGED
2.009	S21	60	69.519	0.198	0.000	0.07			7.6	SURCHARGED
1.010	S22	61	69.515	0.577	0.000	0.12			4.1	SURCHARGED
1.011	S23	61	68.702	-0.168	0.000	0.15		543	5.3	OK
1.012	S24	61	68.612	-0.155	0.000	0.21		535	7.3	OK
1.013	S25	61	68.544	-0.156	0.000	0.20			7.5	OK
1.014	S26	58	68.119	-0.449	0.000	0.04			7.7	OK
1.015	S27	57	68.118	-0.421	0.000	0.04			7.7	OK
4.000	S28	61	69.466	-0.223	0.000	0.00			0.0	OK
4.001	S29	62	69.425	-0.187	0.000	0.07			2.3	OK
4.002	S30	61	69.357	-0.176	0.000	0.11			3.9	OK
4.003	S31	61	69.175	-0.172	0.000	0.13			4.9	OK
4.004	S33	61	68.864	-0.186	0.000	0.07			5.1	OK
1.016	S33	57	68.118	-0.403	0.000	0.05			14.1	OK
1.017	S34	57	68.116	-0.322	0.000	0.07			14.6	OK
1.018	S35	57	68.115	-0.293	0.000	0.04			14.3	OK
1.019	S36	57	68.114	-0.265	0.000	0.03			13.5	OK
1.020	S37	57	68.113	-0.233	0.000	0.02			13.3	OK
1.021	S38	57	68.110	-0.148	0.000	0.02			12.0	OK
1.022	S39	57	68.104	0.373	0.000	0.25			7.4	SURCHARGED
1.023	S40	60	67.526	-0.164	0.000	0.16			7.5	OK
1.024	S41	61	67.137	-0.183	0.000	0.08			8.7	OK
1.025	S42	61	65.842	-0.513	0.000	0.05			9.1	OK
1.026	S43	61	65.802	-0.531	0.000	0.03			9.1	OK
5.000	S44	62	67.583	0.158	0.000	0.08			3.6	SURCHARGED
5.001	S45	62	67.734	0.495	0.000	0.01			1.4	SURCHARGED
1.027	S46	62	65.672	-0.548	0.000	0.02			11.0	OK
6.000	S47	59	66.921	-0.179	0.000	0.03			1.7	OK
6.001	S48	59	66.918	0.138	0.000	0.02			1.0	SURCHARGED
1.028	S49	62	65.567	-0.527	0.000	0.02			12.6	OK
7.000	S50	61	66.332	-0.213	0.000	0.01			0.7	OK
7.001	S51	61	65.761	-0.404	0.000	0.02			3.1	OK
7.002	S52	62	65.548	-0.553	0.000	0.01			4.2	OK
7.003	S53	62	65.531	-0.479	0.000	0.01			4.0	OK
8.000	S54	57	67.052	-0.173	0.000	0.04			1.5	OK
8.001	S55	57	67.050	0.071	0.000	0.03			0.9	SURCHARGED
1.029	S56	62	65.531	-0.437	0.000	0.05			17.6	OK
1.030	S57	62	65.530	-0.116	0.000	0.35			17.6	OK

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	64		69.812	-0.213	0.000	0.01			0.4	OK
1.001	S2	64		69.731	-0.213	0.000	0.01			0.4	OK
1.002	S3	64		69.656	-0.213	0.000	0.01			0.4	OK
1.003	S4	64		69.587	-0.201	0.000	0.02			0.9	OK
1.004	S5	66		69.503	-0.200	0.000	0.03			1.1	OK
1.005	S6	64		69.495	-0.034	0.000	0.03			1.2	OK
1.006	S7	64		69.494	0.064	0.000	0.09			2.6	SURCHARGED
1.007	S8	63		69.493	0.117	0.000	0.02			2.4	SURCHARGED
1.008	S9	63		69.493	0.198	0.000	0.02			3.0	SURCHARGED
1.009	S10	63		69.492	0.261	0.000	0.03			4.1	SURCHARGED
2.000	S11	64		70.638	-0.197	0.000	0.04		92	1.4	OK
2.001	S12	64		70.516	-0.196	0.000	0.04			1.5	OK
2.002	S13	64		70.384	-0.185	0.000	0.07		79	2.5	OK
2.003	S14	64		70.292	-0.187	0.000	0.07			3.9	OK
2.004	S15	64		70.026	-0.180	0.000	0.09		72	5.4	OK
3.000	S16	64		69.876	-0.202	0.000	0.02			1.2	OK

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

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	64	69.685	-0.159	0.000	0.19			7.0	OK
2.006	S18	66	69.501	-0.220	0.000	0.06			7.0	OK
2.007	S19	63	69.499	0.008	0.000	0.09			6.6	SURCHARGED
2.008	S20	63	69.497	0.126	0.000	0.11			6.6	SURCHARGED
2.009	S21	63	69.496	0.175	0.000	0.06			6.6	SURCHARGED
1.010	S22	63	69.492	0.554	0.000	0.12			4.1	SURCHARGED
1.011	S23	63	68.701	-0.169	0.000	0.14		542	5.1	OK
1.012	S24	63	68.610	-0.157	0.000	0.20		541	6.7	OK
1.013	S25	63	68.541	-0.159	0.000	0.19			6.9	OK
1.014	S26	66	68.096	-0.472	0.000	0.04			7.1	OK
1.015	S27	65	68.094	-0.445	0.000	0.04			7.1	OK
4.000	S28	64	69.465	-0.224	0.000	0.00			0.0	OK
4.001	S29	64	69.421	-0.191	0.000	0.06			1.9	OK
4.002	S30	64	69.353	-0.180	0.000	0.09			3.3	OK
4.003	S31	64	69.170	-0.177	0.000	0.10			4.0	OK
4.004	S33	64	68.860	-0.190	0.000	0.06			4.2	OK
1.016	S33	62	68.093	-0.428	0.000	0.04			12.4	OK
1.017	S34	61	68.091	-0.347	0.000	0.06			12.8	OK
1.018	S35	61	68.090	-0.318	0.000	0.03			12.6	OK
1.019	S36	61	68.090	-0.290	0.000	0.03			12.1	OK
1.020	S37	61	68.089	-0.257	0.000	0.02			11.9	OK
1.021	S38	61	68.085	-0.172	0.000	0.02			11.0	OK
1.022	S39	61	68.080	0.349	0.000	0.25			7.4	SURCHARGED
1.023	S40	62	67.526	-0.164	0.000	0.16			7.5	OK
1.024	S41	64	67.136	-0.184	0.000	0.08			8.4	OK
1.025	S42	64	65.840	-0.515	0.000	0.05			8.8	OK
1.026	S43	64	65.801	-0.532	0.000	0.03			8.8	OK
5.000	S44	65	67.580	0.155	0.000	0.08			3.6	SURCHARGED
5.001	S45	64	67.730	0.491	0.000	0.01			1.4	SURCHARGED
1.027	S46	64	65.669	-0.550	0.000	0.02			10.6	OK
6.000	S47	61	66.917	-0.183	0.000	0.03			1.5	OK
6.001	S48	61	66.915	0.134	0.000	0.02			1.0	SURCHARGED
1.028	S49	64	65.564	-0.530	0.000	0.02			12.1	OK
7.000	S50	64	66.330	-0.215	0.000	0.01			0.5	OK
7.001	S51	64	65.755	-0.410	0.000	0.02			2.5	OK
7.002	S52	64	65.540	-0.561	0.000	0.01			3.4	OK
7.003	S53	64	65.523	-0.487	0.000	0.01			3.3	OK
8.000	S54	59	67.049	-0.176	0.000	0.04			1.4	OK
8.001	S55	59	67.047	0.068	0.000	0.03			0.9	SURCHARGED
1.029	S56	64	65.523	-0.445	0.000	0.05			16.4	OK
1.030	S57	65	65.521	-0.124	0.000	0.32			16.4	OK

Summary Wizard of 15 minute 30 year Summer I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	37		69.910	-0.115	0.000	0.25			8.7	OK
1.001	S2	38		69.902	-0.042	0.000	0.25			8.6	OK
1.002	S3	38		69.894	0.025	0.000	0.23			8.2	SURCHARGED
1.003	S4	38		69.897	0.109	0.000	0.53			18.7	SURCHARGED
1.004	S5	38		69.889	0.186	0.000	0.53			19.9	SURCHARGED
1.005	S6	41		69.872	0.343	0.000	0.48			17.2	SURCHARGED
1.006	S7	42		69.859	0.429	0.000	1.75			50.8	SURCHARGED
1.007	S8	44		69.794	0.418	0.000	0.28			38.8	SURCHARGED
1.008	S9	44		69.782	0.487	0.000	0.28			38.1	SURCHARGED
1.009	S10	44		69.767	0.536	0.000	0.36			49.3	SURCHARGED
2.000	S11	10		70.772	-0.063	0.000	0.84		5	30.7	OK
2.001	S12	11		70.672	-0.040	0.000	0.89			32.8	OK
2.002	S13	15		70.586	0.017	0.000	1.01		7	35.7	SURCHARGED
2.003	S14	15		70.513	0.034	0.000	0.98			57.5	SURCHARGED
2.004	S15	22		70.330	0.124	0.000	0.88		9	52.2	SURCHARGED
3.000	S16	24		70.193	0.115	0.000	0.46			24.3	SURCHARGED
2.005	S17	25		70.134	0.290	0.000	1.84			67.4	SURCHARGED
2.006	S18	44		69.770	0.049	0.000	0.62			67.2	SURCHARGED
2.007	S19	44		69.654	0.163	0.000	0.44			33.1	SURCHARGED

Summary Wizard of 15 minute 30 year Summer I+0% for Surface Network 1

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	44	69.650	0.279	0.000	0.30			18.5	SURCHARGED
2.009	S21	44	69.648	0.327	0.000	0.15			16.1	SURCHARGED
1.010	S22	44	69.744	0.806	0.000	0.12			4.1	SURCHARGED
1.011	S23	43	68.811	-0.059	0.000	0.89		6	31.7	OK
1.012	S24	44	68.757	-0.010	0.000	1.00		10	34.0	OK
1.013	S25	44	68.668	-0.032	0.000	1.00			36.7	OK
1.014	S26	44	68.366	-0.202	0.000	0.20			39.4	OK
1.015	S27	44	68.362	-0.177	0.000	0.22			40.4	OK
4.000	S28	26	69.543	-0.146	0.000	0.02			0.7	OK
4.001	S29	26	69.542	-0.070	0.000	0.72		13	24.9	OK
4.002	S30	25	69.543	0.010	0.000	0.88			32.9	SURCHARGED
4.003	S31	31	69.433	0.086	0.000	1.13			43.3	SURCHARGED
4.004	S33	43	68.957	-0.094	0.000	0.63			45.9	OK
1.016	S33	44	68.359	-0.161	0.000	0.36			101.0	OK
1.017	S34	44	68.342	-0.097	0.000	0.57			112.4	OK
1.018	S35	44	68.338	-0.069	0.000	0.29			112.2	OK
1.019	S36	44	68.335	-0.045	0.000	0.27			108.1	OK
1.020	S37	44	68.328	-0.018	0.000	0.19			106.9	OK
1.021	S38	44	68.306	0.048	0.000	0.14			87.6	SURCHARGED
1.022	S39	44	68.306	0.575	0.000	0.25			7.4	SURCHARGED
1.023	S40	26	67.532	-0.158	0.000	0.19			8.6	OK
1.024	S41	7	67.179	-0.141	0.000	0.29			31.7	OK
1.025	S42	18	65.951	-0.404	0.000	0.23			41.2	OK
1.026	S43	20	65.882	-0.451	0.000	0.14			40.1	OK
5.000	S44	44	67.625	0.200	0.000	0.17			7.4	SURCHARGED
5.001	S45	44	67.776	0.537	0.000	0.01			1.5	SURCHARGED
1.027	S46	31	65.766	-0.453	0.000	0.08			45.1	OK
6.000	S47	44	66.944	-0.156	0.000	0.17			8.3	OK
6.001	S48	44	66.948	0.167	0.000	0.02			1.0	SURCHARGED
1.028	S49	31	65.761	-0.332	0.000	0.06			33.9	OK
7.000	S50	12	66.390	-0.155	0.000	0.21			12.1	OK
7.001	S51	18	65.930	-0.235	0.000	0.46			61.6	OK
7.002	S52	31	65.760	-0.341	0.000	0.14			79.9	OK
7.003	S53	31	65.751	-0.259	0.000	0.11			50.9	OK
8.000	S54	44	67.071	-0.154	0.000	0.19			7.4	OK
8.001	S55	44	67.078	0.099	0.000	0.03			0.9	SURCHARGED
1.029	S56	31	65.748	-0.220	0.000	0.10			36.2	OK
1.030	S57	31	65.741	0.095	0.000	0.54			27.5	SURCHARGED

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

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	26	70.008	-0.017	0.000	0.22			7.7	OK
1.001	S2	26	70.001	0.057	0.000	0.21			7.4	SURCHARGED
1.002	S3	26	69.996	0.127	0.000	0.17			5.8	SURCHARGED
1.003	S4	26	69.990	0.202	0.000	0.40			13.9	SURCHARGED
1.004	S5	26	69.975	0.272	0.000	0.42			15.8	SURCHARGED
1.005	S6	27	69.949	0.420	0.000	0.37			13.2	SURCHARGED
1.006	S7	32	69.930	0.500	0.000	1.09			31.8	SURCHARGED
1.007	S8	40	69.860	0.484	0.000	0.23			31.5	SURCHARGED
1.008	S9	41	69.847	0.552	0.000	0.30			40.0	SURCHARGED
1.009	S10	42	69.831	0.600	0.000	0.42			57.2	SURCHARGED
2.000	S11	11	70.759	-0.076	0.000	0.77		6	28.1	OK
2.001	S12	13	70.654	-0.058	0.000	0.81			29.9	OK
2.002	S13	13	70.588	0.019	0.000	0.92		7	32.4	SURCHARGED
2.003	S14	14	70.514	0.035	0.000	0.94			55.2	SURCHARGED
2.004	S15	21	70.350	0.144	0.000	0.88		11	52.1	SURCHARGED
3.000	S16	25	70.174	0.096	0.000	0.42			22.2	SURCHARGED
2.005	S17	26	70.131	0.287	0.000	1.84			67.4	SURCHARGED
2.006	S18	41	69.848	0.127	0.000	0.62			67.3	SURCHARGED
2.007	S19	42	69.732	0.241	0.000	0.32			24.0	SURCHARGED

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

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	42		69.729	0.358	0.000	0.32			19.9	SURCHARGED
2.009	S21	42		69.727	0.406	0.000	0.19			19.7	SURCHARGED
1.010	S22	42		69.808	0.870	0.000	0.12			4.1	SURCHARGED
1.011	S23	44		68.807	-0.063	0.000	0.77			27.6	OK
1.012	S24	43		68.770	0.003	0.000	1.04			35.2	SURCHARGED
1.013	S25	42		68.768	0.068	0.000	1.00			36.8	SURCHARGED
1.014	S26	42		68.794	0.226	0.000	0.20			39.8	SURCHARGED
1.015	S27	42		68.797	0.258	0.000	0.22			40.3	SURCHARGED
4.000	S28	25		69.562	-0.127	0.000	0.02			0.5	OK
4.001	S29	25		69.561	-0.051	0.000	0.75		15	26.0	OK
4.002	S30	26		69.539	0.006	0.000	0.90			33.8	SURCHARGED
4.003	S31	32		69.416	0.069	0.000	1.11			42.5	SURCHARGED
4.004	S33	44		68.954	-0.096	0.000	0.62			44.9	OK
1.016	S33	42		68.798	0.278	0.000	0.36			101.3	SURCHARGED
1.017	S34	42		68.797	0.359	0.000	0.58			114.9	SURCHARGED
1.018	S35	42		68.796	0.388	0.000	0.29			111.7	SURCHARGED
1.019	S36	42		68.796	0.416	0.000	0.25			102.9	SURCHARGED
1.020	S37	42		68.795	0.449	0.000	0.17			98.9	SURCHARGED
1.021	S38	42		68.794	0.537	0.000	0.13			76.9	SURCHARGED
1.022	S39	42		68.794	1.063	0.000	0.25			7.4	SURCHARGED
1.023	S40	17		67.533	-0.157	0.000	0.20			9.1	OK
1.024	S41	9		67.175	-0.145	0.000	0.27			29.5	OK
1.025	S42	19		65.943	-0.412	0.000	0.21			37.6	OK
1.026	S43	23		65.876	-0.458	0.000	0.12			37.0	OK
5.000	S44	39		67.642	0.217	0.000	0.11			4.8	SURCHARGED
5.001	S45	40		67.792	0.553	0.000	0.01			1.5	SURCHARGED
1.027	S46	26		65.811	-0.408	0.000	0.07			41.8	OK
6.000	S47	42		66.965	-0.135	0.000	0.18			8.6	OK
6.001	S48	42		66.962	0.181	0.000	0.02			1.0	SURCHARGED
1.028	S49	26		65.804	-0.290	0.000	0.05			30.2	OK
7.000	S50	13		66.386	-0.159	0.000	0.19			11.1	OK
7.001	S51	19		65.913	-0.252	0.000	0.40			53.5	OK
7.002	S52	26		65.801	-0.300	0.000	0.12			69.6	OK
7.003	S53	26		65.792	-0.218	0.000	0.10			42.7	OK
8.000	S54	42		67.093	-0.132	0.000	0.23			8.8	OK
8.001	S55	42		67.096	0.117	0.000	0.03			0.9	SURCHARGED
1.029	S56	26		65.789	-0.179	0.000	0.10			35.1	OK
1.030	S57	26		65.779	0.133	0.000	0.54			27.7	SURCHARGED

Summary Wizard of 60 minute 30 year Summer I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	25		70.019	-0.006	0.000	0.15			5.4	OK
1.001	S2	25		70.012	0.068	0.000	0.13			4.5	SURCHARGED
1.002	S3	25		70.007	0.138	0.000	0.12			4.3	SURCHARGED
1.003	S4	25		70.001	0.213	0.000	0.23			8.2	SURCHARGED
1.004	S5	25		69.986	0.283	0.000	0.27			10.2	SURCHARGED
1.005	S6	25		69.961	0.432	0.000	0.33			11.8	SURCHARGED
1.006	S7	28		69.939	0.509	0.000	0.96			27.9	SURCHARGED
1.007	S8	36		69.872	0.496	0.000	0.21			28.8	SURCHARGED
1.008	S9	38		69.860	0.565	0.000	0.27			36.3	SURCHARGED
1.009	S10	40		69.846	0.615	0.000	0.38			52.0	SURCHARGED
2.000	S11	13		70.732	-0.103	0.000	0.57		10	20.9	OK
2.001	S12	15		70.615	-0.097	0.000	0.61			22.7	OK
2.002	S13	17		70.523	-0.046	0.000	0.92		9	32.3	OK
2.003	S14	17		70.455	-0.024	0.000	0.86			50.4	OK
2.004	S15	23		70.316	0.110	0.000	0.81		10	48.0	SURCHARGED
3.000	S16	28		70.106	0.028	0.000	0.32			16.8	SURCHARGED
2.005	S17	28		70.083	0.239	0.000	1.73			63.3	SURCHARGED
2.006	S18	36		69.883	0.162	0.000	0.57			61.4	SURCHARGED
2.007	S19	40		69.801	0.310	0.000	0.27			20.3	SURCHARGED

Summary Wizard of 60 minute 30 year Summer I+0% for Surface Network 1

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	40	69.800	0.429	0.000	0.31			18.8	SURCHARGED
2.009	S21	40	69.805	0.484	0.000	0.18			18.7	SURCHARGED
1.010	S22	41	69.827	0.889	0.000	0.12			4.1	SURCHARGED
1.011	S23	40	68.994	0.124	0.000	0.58			20.8	SURCHARGED
1.012	S24	40	68.988	0.221	0.000	1.00			34.0	SURCHARGED
1.013	S25	40	68.988	0.288	0.000	1.00			36.6	SURCHARGED
1.014	S26	40	69.001	0.433	0.000	0.20			39.0	SURCHARGED
1.015	S27	40	69.002	0.463	0.000	0.20			38.0	SURCHARGED
4.000	S28	27	69.542	-0.147	0.000	0.01			0.4	OK
4.001	S29	27	69.542	-0.070	0.000	0.68		22	23.6	OK
4.002	S30	29	69.512	-0.021	0.000	0.88			32.9	OK
4.003	S31	34	69.382	0.035	0.000	1.07			41.0	SURCHARGED
4.004	S33	40	69.020	-0.030	0.000	0.59			43.0	OK
1.016	S33	40	69.004	0.483	0.000	0.33			94.0	SURCHARGED
1.017	S34	40	69.003	0.564	0.000	0.52			102.5	SURCHARGED
1.018	S35	40	69.002	0.594	0.000	0.25			96.6	SURCHARGED
1.019	S36	40	69.001	0.622	0.000	0.21			83.7	SURCHARGED
1.020	S37	40	69.001	0.655	0.000	0.13			76.3	SURCHARGED
1.021	S38	40	69.001	0.743	0.000	0.09			57.4	SURCHARGED
1.022	S39	40	69.001	1.270	0.000	0.25			7.4	SURCHARGED
1.023	S40	27	67.532	-0.158	0.000	0.20			8.9	OK
1.024	S41	12	67.166	-0.154	0.000	0.22			23.8	OK
1.025	S42	22	65.919	-0.436	0.000	0.17			29.7	OK
1.026	S43	26	65.861	-0.472	0.000	0.10			29.4	OK
5.000	S44	32	67.656	0.231	0.000	0.07			3.0	SURCHARGED
5.001	S45	34	67.806	0.567	0.000	0.01			1.5	SURCHARGED
1.027	S46	23	65.828	-0.391	0.000	0.06			33.3	OK
6.000	S47	40	66.985	-0.115	0.000	0.14			7.0	OK
6.001	S48	40	66.983	0.202	0.000	0.02			1.1	SURCHARGED
1.028	S49	23	65.821	-0.273	0.000	0.04			24.1	OK
7.000	S50	15	66.376	-0.169	0.000	0.14			8.2	OK
7.001	S51	22	65.880	-0.285	0.000	0.29			38.9	OK
7.002	S52	23	65.818	-0.283	0.000	0.09			49.4	OK
7.003	S53	23	65.809	-0.201	0.000	0.07			32.8	OK
8.000	S54	40	67.115	-0.110	0.000	0.20			7.6	OK
8.001	S55	40	67.112	0.133	0.000	0.03			1.0	SURCHARGED
1.029	S56	23	65.806	-0.162	0.000	0.09			32.5	OK
1.030	S57	23	65.795	0.149	0.000	0.54			27.7	SURCHARGED

Summary Wizard of 120 minute 30 year Summer I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	31		69.953	-0.072	0.000	0.11			3.7	OK
1.001	S2	32		69.948	0.004	0.000	0.09			3.0	SURCHARGED
1.002	S3	33		69.944	0.075	0.000	0.08			2.9	SURCHARGED
1.003	S4	33		69.939	0.151	0.000	0.17			6.0	SURCHARGED
1.004	S5	34		69.929	0.226	0.000	0.20			7.6	SURCHARGED
1.005	S6	35		69.910	0.381	0.000	0.24			8.7	SURCHARGED
1.006	S7	36		69.894	0.464	0.000	0.69			19.9	SURCHARGED
1.007	S8	38		69.866	0.490	0.000	0.15			21.1	SURCHARGED
1.008	S9	39		69.858	0.563	0.000	0.20			26.4	SURCHARGED
1.009	S10	38		69.856	0.625	0.000	0.28			37.8	SURCHARGED
2.000	S11	18		70.706	-0.129	0.000	0.38		17	13.9	OK
2.001	S12	18		70.587	-0.125	0.000	0.41			15.1	OK
2.002	S13	19		70.480	-0.089	0.000	0.68		15	23.8	OK
2.003	S14	24		70.384	-0.095	0.000	0.63			36.8	OK
2.004	S15	29		70.189	-0.017	0.000	0.69		12	40.6	OK
3.000	S16	30		70.051	-0.027	0.000	0.22			11.5	OK
2.005	S17	30		70.039	0.195	0.000	1.49			54.8	SURCHARGED
2.006	S18	34		69.888	0.167	0.000	0.49			52.4	SURCHARGED
2.007	S19	36		69.855	0.364	0.000	0.18			13.6	SURCHARGED

Summary Wizard of 120 minute 30 year Summer I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	36	69.853	0.482	0.000	0.21			13.1	SURCHARGED
2.009	S21	37	69.853	0.532	0.000	0.12			13.0	SURCHARGED
1.010	S22	37	69.854	0.916	0.000	0.12			4.1	SURCHARGED
1.011	S23	37	69.194	0.324	0.000	0.42			15.0	SURCHARGED
1.012	S24	37	69.187	0.420	0.000	0.83			28.2	SURCHARGED
1.013	S25	37	69.182	0.482	0.000	0.81			29.8	SURCHARGED
1.014	S26	38	69.178	0.610	0.000	0.15			30.0	SURCHARGED
1.015	S27	38	69.178	0.639	0.000	0.16			29.9	SURCHARGED
4.000	S28	32	69.501	-0.188	0.000	0.01			0.3	OK
4.001	S29	32	69.500	-0.112	0.000	0.50		55	17.2	OK
4.002	S30	34	69.458	-0.075	0.000	0.77			29.0	OK
4.003	S31	42	69.294	-0.053	0.000	0.93			35.9	OK
4.004	S33	38	69.186	0.135	0.000	0.51			37.3	SURCHARGED
1.016	S33	38	69.177	0.657	0.000	0.25			69.5	SURCHARGED
1.017	S34	38	69.176	0.737	0.000	0.37			73.6	SURCHARGED
1.018	S35	38	69.175	0.767	0.000	0.18			70.5	SURCHARGED
1.019	S36	38	69.175	0.795	0.000	0.15			62.4	SURCHARGED
1.020	S37	38	69.174	0.828	0.000	0.09			48.9	SURCHARGED
1.021	S38	38	69.173	0.916	0.000	0.06			34.6	SURCHARGED
1.022	S39	38	69.173	1.442	0.000	0.25			7.5	SURCHARGED
1.023	S40	29	67.530	-0.160	0.000	0.19			8.5	OK
1.024	S41	18	67.157	-0.163	0.000	0.17			18.2	OK
1.025	S42	25	65.895	-0.460	0.000	0.12			22.1	OK
1.026	S43	28	65.849	-0.485	0.000	0.07			21.9	OK
5.000	S44	29	67.662	0.237	0.000	0.06			2.4	SURCHARGED
5.001	S45	27	67.815	0.576	0.000	0.01			1.5	SURCHARGED
1.027	S46	25	65.819	-0.401	0.000	0.04			25.2	OK
6.000	S47	38	67.003	-0.097	0.000	0.08			3.8	OK
6.001	S48	38	67.001	0.220	0.000	0.02			1.1	SURCHARGED
1.028	S49	25	65.811	-0.283	0.000	0.03			20.3	OK
7.000	S50	19	66.366	-0.179	0.000	0.09			5.4	OK
7.001	S51	26	65.847	-0.318	0.000	0.19			25.5	OK
7.002	S52	24	65.805	-0.296	0.000	0.06			32.1	OK
7.003	S53	25	65.799	-0.211	0.000	0.05			22.7	OK
8.000	S54	37	67.134	-0.091	0.000	0.11			4.2	OK
8.001	S55	38	67.132	0.153	0.000	0.03			1.0	SURCHARGED
1.029	S56	25	65.795	-0.173	0.000	0.08			30.1	OK
1.030	S57	25	65.786	0.140	0.000	0.54			27.7	SURCHARGED

Summary Wizard of 180 minute 30 year Summer I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	36		69.912	-0.113	0.000	0.08			2.9	OK
1.001	S2	36		69.909	-0.035	0.000	0.07			2.3	OK
1.002	S3	36		69.907	0.038	0.000	0.05			1.9	SURCHARGED
1.003	S4	37		69.904	0.116	0.000	0.12			4.3	SURCHARGED
1.004	S5	37		69.898	0.195	0.000	0.15			5.6	SURCHARGED
1.005	S6	37		69.887	0.358	0.000	0.18			6.4	SURCHARGED
1.006	S7	39		69.879	0.449	0.000	0.56			16.4	SURCHARGED
1.007	S8	35		69.876	0.500	0.000	0.12			17.2	SURCHARGED
1.008	S9	35		69.875	0.580	0.000	0.16			21.4	SURCHARGED
1.009	S10	35		69.874	0.643	0.000	0.22			30.2	SURCHARGED
2.000	S11	24		70.692	-0.143	0.000	0.29		25	10.6	OK
2.001	S12	24		70.573	-0.139	0.000	0.31			11.5	OK
2.002	S13	22		70.460	-0.109	0.000	0.53		20	18.5	OK
2.003	S14	27		70.365	-0.114	0.000	0.49			28.6	OK
2.004	S15	31		70.117	-0.089	0.000	0.64		17	37.9	OK
3.000	S16	31		70.015	-0.063	0.000	0.16			8.7	OK
2.005	S17	31		70.003	0.159	0.000	1.27			46.5	SURCHARGED
2.006	S18	38		69.881	0.160	0.000	0.43			46.0	SURCHARGED
2.007	S19	33		69.877	0.386	0.000	0.14			10.7	SURCHARGED

Summary Wizard of 180 minute 30 year Summer I+0% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	33		69.875	0.504	0.000	0.17			10.4	SURCHARGED
2.009	S21	34		69.875	0.554	0.000	0.10			10.3	SURCHARGED
1.010	S22	34		69.873	0.935	0.000	0.12			4.1	SURCHARGED
1.011	S23	35		69.292	0.422	0.000	0.34			12.3	SURCHARGED
1.012	S24	35		69.284	0.517	0.000	0.68			23.2	SURCHARGED
1.013	S25	35		69.278	0.578	0.000	0.66			24.3	SURCHARGED
1.014	S26	35		69.271	0.703	0.000	0.13			25.6	SURCHARGED
1.015	S27	35		69.271	0.732	0.000	0.14			25.5	SURCHARGED
4.000	S28	35		69.488	-0.201	0.000	0.01			0.3	OK
4.001	S29	36		69.484	-0.128	0.000	0.39		88	13.5	OK
4.002	S30	38		69.437	-0.096	0.000	0.62			23.2	OK
4.003	S31	43		69.285	-0.062	0.000	0.75			28.8	OK
4.004	S33	35		69.276	0.226	0.000	0.41			29.9	SURCHARGED
1.016	S33	35		69.270	0.750	0.000	0.21			60.8	SURCHARGED
1.017	S34	35		69.269	0.830	0.000	0.32			63.6	SURCHARGED
1.018	S35	35		69.268	0.860	0.000	0.16			61.3	SURCHARGED
1.019	S36	35		69.268	0.888	0.000	0.14			55.0	SURCHARGED
1.020	S37	35		69.267	0.921	0.000	0.08			46.5	SURCHARGED
1.021	S38	35		69.266	1.009	0.000	0.04			26.6	SURCHARGED
1.022	S39	35		69.266	1.535	0.000	0.25			7.5	SURCHARGED
1.023	S40	30		67.529	-0.161	0.000	0.18			8.2	OK
1.024	S41	21		67.152	-0.168	0.000	0.14			15.6	OK
1.025	S42	27		65.884	-0.471	0.000	0.10			18.6	OK
1.026	S43	30		65.836	-0.497	0.000	0.06			18.5	OK
5.000	S44	28		67.662	0.237	0.000	0.05			2.3	SURCHARGED
5.001	S45	28		67.814	0.575	0.000	0.01			1.5	SURCHARGED
1.027	S46	29		65.793	-0.426	0.000	0.04			21.6	OK
6.000	S47	34		67.011	-0.089	0.000	0.06			2.8	OK
6.001	S48	35		67.008	0.228	0.000	0.02			1.1	SURCHARGED
1.028	S49	29		65.786	-0.307	0.000	0.03			19.0	OK
7.000	S50	24		66.359	-0.186	0.000	0.07			4.2	OK
7.001	S51	30		65.828	-0.337	0.000	0.14			19.4	OK
7.002	S52	29		65.780	-0.321	0.000	0.04			25.0	OK
7.003	S53	29		65.775	-0.235	0.000	0.04			18.3	OK
8.000	S54	35		67.144	-0.081	0.000	0.07			2.8	OK
8.001	S55	36		67.141	0.162	0.000	0.03			1.0	SURCHARGED
1.029	S56	29		65.772	-0.196	0.000	0.08			29.1	OK
1.030	S57	29		65.763	0.117	0.000	0.54			27.7	SURCHARGED

Summary Wizard of 240 minute 30 year Summer I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	39		69.895	-0.130	0.000	0.07			2.4	OK
1.001	S2	39		69.893	-0.051	0.000	0.06			2.0	OK
1.002	S3	39		69.892	0.023	0.000	0.05			1.6	SURCHARGED
1.003	S4	39		69.890	0.102	0.000	0.10			3.5	SURCHARGED
1.004	S5	39		69.888	0.185	0.000	0.12			4.6	SURCHARGED
1.005	S6	38		69.887	0.358	0.000	0.15			5.3	SURCHARGED
1.006	S7	37		69.885	0.455	0.000	0.47			13.8	SURCHARGED
1.007	S8	33		69.883	0.507	0.000	0.10			14.4	SURCHARGED
1.008	S9	33		69.882	0.587	0.000	0.13			17.9	SURCHARGED
1.009	S10	32		69.882	0.651	0.000	0.18			25.2	SURCHARGED
2.000	S11	28		70.684	-0.151	0.000	0.24		32	8.6	OK
2.001	S12	28		70.564	-0.148	0.000	0.25			9.4	OK
2.002	S13	29		70.448	-0.121	0.000	0.43		26	15.3	OK
2.003	S14	32		70.353	-0.126	0.000	0.40			23.7	OK
2.004	S15	33		70.099	-0.107	0.000	0.54		26	31.8	OK
3.000	S16	36		69.959	-0.119	0.000	0.14			7.4	OK
2.005	S17	37		69.947	0.103	0.000	1.06			39.0	SURCHARGED
2.006	S18	33		69.890	0.169	0.000	0.36			38.4	SURCHARGED
2.007	S19	31		69.887	0.396	0.000	0.12			9.2	SURCHARGED

Summary Wizard of 240 minute 30 year Summer I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	31	69.885	0.514	0.000	0.14			8.9	SURCHARGED
2.009	S21	32	69.884	0.563	0.000	0.08			8.8	SURCHARGED
1.010	S22	31	69.881	0.943	0.000	0.12			4.1	SURCHARGED
1.011	S23	32	69.344	0.474	0.000	0.30		216	10.7	SURCHARGED
1.012	S24	32	69.336	0.569	0.000	0.59			20.0	SURCHARGED
1.013	S25	32	69.330	0.630	0.000	0.57			21.0	SURCHARGED
1.014	S26	32	69.322	0.754	0.000	0.11			22.1	SURCHARGED
1.015	S27	32	69.321	0.782	0.000	0.12			22.1	SURCHARGED
4.000	S28	37	69.482	-0.207	0.000	0.01			0.2	OK
4.001	S29	37	69.475	-0.137	0.000	0.32		120	11.3	OK
4.002	S30	39	69.423	-0.110	0.000	0.51			19.3	OK
4.003	S31	39	69.332	-0.015	0.000	0.62			23.9	OK
4.004	S33	33	69.325	0.275	0.000	0.34			24.9	SURCHARGED
1.016	S33	32	69.321	0.800	0.000	0.18			52.3	SURCHARGED
1.017	S34	32	69.319	0.881	0.000	0.27			53.6	SURCHARGED
1.018	S35	32	69.318	0.910	0.000	0.13			51.2	SURCHARGED
1.019	S36	32	69.318	0.938	0.000	0.11			45.5	SURCHARGED
1.020	S37	32	69.317	0.971	0.000	0.07			38.9	SURCHARGED
1.021	S38	32	69.316	1.059	0.000	0.04			22.8	SURCHARGED
1.022	S39	32	69.316	1.585	0.000	0.25			7.6	SURCHARGED
1.023	S40	32	67.528	-0.162	0.000	0.18			8.1	OK
1.024	S41	25	67.149	-0.171	0.000	0.13			14.1	OK
1.025	S42	29	65.877	-0.478	0.000	0.09			16.5	OK
1.026	S43	32	65.828	-0.505	0.000	0.06			16.4	OK
5.000	S44	31	67.660	0.235	0.000	0.08			3.6	SURCHARGED
5.001	S45	31	67.813	0.574	0.000	0.01			1.5	SURCHARGED
1.027	S46	32	65.765	-0.454	0.000	0.03			19.5	OK
6.000	S47	31	67.015	-0.085	0.000	0.05			2.4	OK
6.001	S48	32	67.012	0.231	0.000	0.02			1.1	SURCHARGED
1.028	S49	32	65.760	-0.333	0.000	0.03			18.3	OK
7.000	S50	28	66.355	-0.190	0.000	0.06			3.4	OK
7.001	S51	33	65.817	-0.348	0.000	0.12			15.8	OK
7.002	S52	32	65.754	-0.347	0.000	0.04			20.6	OK
7.003	S53	32	65.750	-0.260	0.000	0.04			15.7	OK
8.000	S54	32	67.148	-0.077	0.000	0.06			2.2	OK
8.001	S55	33	67.145	0.166	0.000	0.03			1.0	SURCHARGED
1.029	S56	32	65.747	-0.221	0.000	0.08			28.5	OK
1.030	S57	32	65.739	0.093	0.000	0.54			27.5	SURCHARGED

Summary Wizard of 360 minute 30 year Summer I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	40		69.886	-0.139	0.000	0.05			1.8	OK
1.001	S2	40		69.886	-0.058	0.000	0.05			1.6	OK
1.002	S3	40		69.886	0.017	0.000	0.04			1.3	SURCHARGED
1.003	S4	40		69.886	0.098	0.000	0.08			2.8	SURCHARGED
1.004	S5	40		69.885	0.182	0.000	0.10			3.6	SURCHARGED
1.005	S6	39		69.884	0.355	0.000	0.12			4.1	SURCHARGED
1.006	S7	38		69.883	0.453	0.000	0.36			10.4	SURCHARGED
1.007	S8	34		69.881	0.505	0.000	0.08			11.0	SURCHARGED
1.008	S9	34		69.881	0.586	0.000	0.10			13.6	SURCHARGED
1.009	S10	33		69.881	0.650	0.000	0.14			19.1	SURCHARGED
2.000	S11	36		70.673	-0.162	0.000	0.18		46	6.4	OK
2.001	S12	36		70.553	-0.159	0.000	0.19			7.0	OK
2.002	S13	37		70.432	-0.137	0.000	0.32		35	11.5	OK
2.003	S14	40		70.339	-0.140	0.000	0.30			17.7	OK
2.004	S15	41		70.080	-0.126	0.000	0.40		36	23.9	OK
3.000	S16	46		69.901	-0.177	0.000	0.10			5.5	OK
2.005	S17	40		69.896	0.052	0.000	0.83			30.6	SURCHARGED
2.006	S18	32		69.891	0.170	0.000	0.27			29.4	SURCHARGED
2.007	S19	30		69.888	0.397	0.000	0.11			8.0	SURCHARGED

Summary Wizard of 360 minute 30 year Summer I+0% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	30		69.886	0.515	0.000	0.13			7.9	SURCHARGED
2.009	S21	31		69.885	0.564	0.000	0.08			7.9	SURCHARGED
1.010	S22	32		69.880	0.942	0.000	0.12			4.1	SURCHARGED
1.011	S23	28		69.380	0.510	0.000	0.25		229	8.9	SURCHARGED
1.012	S24	28		69.372	0.605	0.000	0.47		329	16.0	SURCHARGED
1.013	S25	28		69.365	0.665	0.000	0.46			16.8	SURCHARGED
1.014	S26	28		69.355	0.787	0.000	0.09			17.6	SURCHARGED
1.015	S27	28		69.354	0.815	0.000	0.09			17.5	SURCHARGED
4.000	S28	41		69.474	-0.215	0.000	0.01			0.2	OK
4.001	S29	39		69.463	-0.149	0.000	0.25		187	8.6	OK
4.002	S30	40		69.406	-0.127	0.000	0.39			14.7	OK
4.003	S31	37		69.362	0.015	0.000	0.47			18.1	SURCHARGED
4.004	S33	29		69.357	0.307	0.000	0.26			18.9	SURCHARGED
1.016	S33	28		69.354	0.833	0.000	0.14			40.6	SURCHARGED
1.017	S34	28		69.352	0.914	0.000	0.21			41.4	SURCHARGED
1.018	S35	28		69.351	0.943	0.000	0.10			39.2	SURCHARGED
1.019	S36	28		69.351	0.971	0.000	0.08			33.7	SURCHARGED
1.020	S37	28		69.350	1.004	0.000	0.05			26.1	SURCHARGED
1.021	S38	28		69.349	1.091	0.000	0.03			18.3	SURCHARGED
1.022	S39	28		69.349	1.618	0.000	0.26			7.6	SURCHARGED
1.023	S40	39		67.527	-0.163	0.000	0.17			7.9	OK
1.024	S41	35		67.145	-0.175	0.000	0.11			12.3	OK
1.025	S42	37		65.867	-0.489	0.000	0.08			14.1	OK
1.026	S43	37		65.819	-0.514	0.000	0.05			14.1	OK
5.000	S44	34		67.655	0.230	0.000	0.08			3.6	SURCHARGED
5.001	S45	33		67.807	0.568	0.000	0.01			1.5	SURCHARGED
1.027	S46	35		65.721	-0.498	0.000	0.03			17.1	OK
6.000	S47	30		67.015	-0.085	0.000	0.04			1.9	OK
6.001	S48	31		67.012	0.232	0.000	0.02			1.1	SURCHARGED
1.028	S49	34		65.711	-0.382	0.000	0.03			17.3	OK
7.000	S50	36		66.350	-0.195	0.000	0.04			2.5	OK
7.001	S51	38		65.803	-0.362	0.000	0.09			11.6	OK
7.002	S52	34		65.705	-0.396	0.000	0.03			15.4	OK
7.003	S53	34		65.702	-0.308	0.000	0.03			12.4	OK
8.000	S54	29		67.151	-0.074	0.000	0.05			1.7	OK
8.001	S55	31		67.148	0.169	0.000	0.03			1.0	SURCHARGED
1.029	S56	34		65.700	-0.268	0.000	0.08			27.5	OK
1.030	S57	34		65.694	0.048	0.000	0.53			27.0	SURCHARGED

Summary Wizard of 480 minute 30 year Summer I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	41		69.876	-0.149	0.000	0.04			1.4	OK
1.001	S2	41		69.876	-0.068	0.000	0.04			1.4	OK
1.002	S3	41		69.876	0.007	0.000	0.03			1.1	SURCHARGED
1.003	S4	41		69.875	0.087	0.000	0.07			2.3	SURCHARGED
1.004	S5	41		69.875	0.172	0.000	0.08			2.9	SURCHARGED
1.005	S6	40		69.874	0.345	0.000	0.09			3.3	SURCHARGED
1.006	S7	40		69.873	0.443	0.000	0.29			8.6	SURCHARGED
1.007	S8	37		69.871	0.495	0.000	0.06			9.0	SURCHARGED
1.008	S9	36		69.871	0.576	0.000	0.08			11.2	SURCHARGED
1.009	S10	36		69.871	0.640	0.000	0.11			15.6	SURCHARGED
2.000	S11	41		70.666	-0.169	0.000	0.14		60	5.1	OK
2.001	S12	41		70.545	-0.167	0.000	0.15			5.6	OK
2.002	S13	41		70.422	-0.147	0.000	0.26		44	9.3	OK
2.003	S14	43		70.329	-0.150	0.000	0.25			14.4	OK
2.004	S15	43		70.069	-0.137	0.000	0.33		43	19.4	OK
3.000	S16	48		69.896	-0.182	0.000	0.08			4.4	OK
2.005	S17	41		69.886	0.042	0.000	0.69			25.2	SURCHARGED
2.006	S18	37		69.881	0.160	0.000	0.23			24.5	SURCHARGED
2.007	S19	32		69.879	0.388	0.000	0.10			7.8	SURCHARGED

Summary Wizard of 480 minute 30 year Summer I+0% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	32		69.876	0.505	0.000	0.12			7.6	SURCHARGED
2.009	S21	33		69.875	0.554	0.000	0.07			7.5	SURCHARGED
1.010	S22	35		69.870	0.932	0.000	0.12			4.1	SURCHARGED
1.011	S23	29		69.372	0.502	0.000	0.22		226	7.8	SURCHARGED
1.012	S24	29		69.364	0.597	0.000	0.40		327	13.7	SURCHARGED
1.013	S25	29		69.356	0.656	0.000	0.39			14.3	SURCHARGED
1.014	S26	30		69.346	0.778	0.000	0.08			14.8	SURCHARGED
1.015	S27	30		69.345	0.806	0.000	0.08			14.8	SURCHARGED
4.000	S28	45		69.471	-0.218	0.000	0.00			0.1	OK
4.001	S29	40		69.455	-0.157	0.000	0.20		250	7.0	OK
4.002	S30	41		69.395	-0.138	0.000	0.32			11.9	OK
4.003	S31	38		69.352	0.005	0.000	0.38			14.7	SURCHARGED
4.004	S33	31		69.348	0.297	0.000	0.21			15.3	SURCHARGED
1.016	S33	30		69.345	0.824	0.000	0.12			33.2	SURCHARGED
1.017	S34	30		69.343	0.904	0.000	0.16			32.0	SURCHARGED
1.018	S35	30		69.342	0.934	0.000	0.08			29.2	SURCHARGED
1.019	S36	30		69.341	0.962	0.000	0.06			23.4	SURCHARGED
1.020	S37	30		69.341	0.995	0.000	0.03			18.7	SURCHARGED
1.021	S38	30		69.340	1.082	0.000	0.03			15.6	SURCHARGED
1.022	S39	30		69.340	1.609	0.000	0.26			7.6	SURCHARGED
1.023	S40	41		67.527	-0.163	0.000	0.17			7.8	OK
1.024	S41	42		67.143	-0.177	0.000	0.10			11.3	OK
1.025	S42	42		65.860	-0.495	0.000	0.07			12.8	OK
1.026	S43	42		65.814	-0.519	0.000	0.04			12.7	OK
5.000	S44	36		67.650	0.225	0.000	0.08			3.6	SURCHARGED
5.001	S45	35		67.802	0.563	0.000	0.01			1.5	SURCHARGED
1.027	S46	37		65.698	-0.521	0.000	0.03			15.5	OK
6.000	S47	32		67.014	-0.086	0.000	0.03			1.6	OK
6.001	S48	33		67.011	0.230	0.000	0.02			1.1	SURCHARGED
1.028	S49	37		65.670	-0.424	0.000	0.03			16.7	OK
7.000	S50	41		66.347	-0.198	0.000	0.03			2.0	OK
7.001	S51	42		65.792	-0.373	0.000	0.07			9.3	OK
7.002	S52	37		65.664	-0.437	0.000	0.02			12.4	OK
7.003	S53	37		65.662	-0.348	0.000	0.02			10.5	OK
8.000	S54	31		67.150	-0.075	0.000	0.04			1.5	OK
8.001	S55	32		67.147	0.168	0.000	0.03			1.0	SURCHARGED
1.029	S56	37		65.660	-0.308	0.000	0.07			26.5	OK
1.030	S57	37		65.655	0.009	0.000	0.52			26.5	SURCHARGED

Summary Wizard of 600 minute 30 year Summer I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500		42	69.867	-0.158	0.000	0.03			1.2	OK
1.001	S2		42	69.867	-0.077	0.000	0.03			1.2	OK
1.002	S3		42	69.866	-0.003	0.000	0.03			1.0	OK
1.003	S4		42	69.866	0.078	0.000	0.06			2.1	SURCHARGED
1.004	S5		42	69.866	0.163	0.000	0.07			2.5	SURCHARGED
1.005	S6		42	69.865	0.336	0.000	0.08			2.9	SURCHARGED
1.006	S7		41	69.864	0.434	0.000	0.25			7.4	SURCHARGED
1.007	S8		39	69.862	0.486	0.000	0.06			7.7	SURCHARGED
1.008	S9		37	69.862	0.567	0.000	0.07			9.5	SURCHARGED
1.009	S10		37	69.862	0.631	0.000	0.10			13.3	SURCHARGED
2.000	S11		46	70.661	-0.174	0.000	0.12		72	4.3	OK
2.001	S12		46	70.540	-0.172	0.000	0.13			4.7	OK
2.002	S13		45	70.416	-0.153	0.000	0.22		52	7.9	OK
2.003	S14		46	70.323	-0.156	0.000	0.21			12.2	OK
2.004	S15		45	70.061	-0.145	0.000	0.28		51	16.5	OK
3.000	S16		51	69.892	-0.186	0.000	0.07			3.7	OK
2.005	S17		42	69.877	0.033	0.000	0.59			21.4	SURCHARGED
2.006	S18		39	69.872	0.151	0.000	0.19			20.7	SURCHARGED
2.007	S19		34	69.869	0.378	0.000	0.10			7.6	SURCHARGED

Summary Wizard of 600 minute 30 year Summer I+0% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	34		69.867	0.496	0.000	0.12			7.4	SURCHARGED
2.009	S21	35		69.866	0.545	0.000	0.07			7.4	SURCHARGED
1.010	S22	36		69.861	0.923	0.000	0.12			4.1	SURCHARGED
1.011	S23	31		69.350	0.480	0.000	0.20		271	7.0	SURCHARGED
1.012	S24	31		69.342	0.575	0.000	0.35		372	12.0	SURCHARGED
1.013	S25	31		69.334	0.634	0.000	0.34			12.4	SURCHARGED
1.014	S26	31		69.324	0.756	0.000	0.06			12.6	SURCHARGED
1.015	S27	31		69.323	0.784	0.000	0.07			12.3	SURCHARGED
4.000	S28	47		69.469	-0.220	0.000	0.00			0.1	OK
4.001	S29	41		69.449	-0.163	0.000	0.17		312	6.0	OK
4.002	S30	46		69.387	-0.146	0.000	0.27			10.1	OK
4.003	S31	40		69.330	-0.017	0.000	0.32			12.5	OK
4.004	S33	32		69.325	0.275	0.000	0.18			13.0	SURCHARGED
1.016	S33	31		69.322	0.802	0.000	0.10			27.9	SURCHARGED
1.017	S34	31		69.321	0.882	0.000	0.12			24.2	SURCHARGED
1.018	S35	31		69.320	0.912	0.000	0.06			23.5	SURCHARGED
1.019	S36	31		69.319	0.939	0.000	0.05			19.4	SURCHARGED
1.020	S37	31		69.319	0.973	0.000	0.03			15.6	SURCHARGED
1.021	S38	31		69.318	1.060	0.000	0.02			14.3	SURCHARGED
1.022	S39	31		69.318	1.587	0.000	0.25			7.6	SURCHARGED
1.023	S40	42		67.527	-0.163	0.000	0.17			7.7	OK
1.024	S41	45		67.142	-0.178	0.000	0.10			10.7	OK
1.025	S42	45		65.856	-0.499	0.000	0.07			11.9	OK
1.026	S43	45		65.811	-0.522	0.000	0.04			11.9	OK
5.000	S44	38		67.646	0.221	0.000	0.09			3.7	SURCHARGED
5.001	S45	37		67.798	0.559	0.000	0.01			1.5	SURCHARGED
1.027	S46	42		65.689	-0.531	0.000	0.02			14.5	OK
6.000	S47	33		67.011	-0.089	0.000	0.03			1.5	OK
6.001	S48	34		67.009	0.228	0.000	0.02			1.1	SURCHARGED
1.028	S49	38		65.639	-0.454	0.000	0.03			16.2	OK
7.000	S50	46		66.345	-0.200	0.000	0.03			1.7	OK
7.001	S51	46		65.785	-0.380	0.000	0.06			7.8	OK
7.002	S52	38		65.636	-0.465	0.000	0.02			10.5	OK
7.003	S53	38		65.634	-0.376	0.000	0.02			9.2	OK
8.000	S54	33		67.148	-0.077	0.000	0.04			1.4	OK
8.001	S55	34		67.145	0.166	0.000	0.03			1.0	SURCHARGED
1.029	S56	38		65.633	-0.335	0.000	0.07			25.2	OK
1.030	S57	38		65.628	-0.018	0.000	0.49			25.2	OK

Summary Wizard of 720 minute 30 year Summer I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	43		69.858	-0.167	0.000	0.03			1.0	OK
1.001	S2	43		69.858	-0.086	0.000	0.03			1.0	OK
1.002	S3	43		69.857	-0.012	0.000	0.03			0.9	OK
1.003	S4	43		69.857	0.069	0.000	0.05			1.9	SURCHARGED
1.004	S5	43		69.857	0.154	0.000	0.06			2.2	SURCHARGED
1.005	S6	43		69.856	0.327	0.000	0.07			2.6	SURCHARGED
1.006	S7	43		69.855	0.425	0.000	0.22			6.4	SURCHARGED
1.007	S8	42		69.853	0.477	0.000	0.05			6.7	SURCHARGED
1.008	S9	40		69.853	0.558	0.000	0.06			8.3	SURCHARGED
1.009	S10	39		69.853	0.622	0.000	0.08			11.6	SURCHARGED
2.000	S11	49		70.658	-0.177	0.000	0.10		87	3.7	OK
2.001	S12	49		70.537	-0.175	0.000	0.11			4.1	OK
2.002	S13	48		70.411	-0.158	0.000	0.19		61	6.8	OK
2.003	S14	48		70.318	-0.161	0.000	0.18			10.6	OK
2.004	S15	48		70.056	-0.150	0.000	0.24		59	14.3	OK
3.000	S16	53		69.889	-0.189	0.000	0.06			3.2	OK
2.005	S17	43		69.868	0.024	0.000	0.51			18.7	SURCHARGED
2.006	S18	40		69.863	0.142	0.000	0.17			18.1	SURCHARGED
2.007	S19	35		69.860	0.369	0.000	0.10			7.3	SURCHARGED

Summary Wizard of 720 minute 30 year Summer I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	35	69.858	0.487	0.000	0.12			7.2	SURCHARGED
2.009	S21	36	69.857	0.536	0.000	0.07			7.2	SURCHARGED
1.010	S22	38	69.852	0.914	0.000	0.12			4.1	SURCHARGED
1.011	S23	33	69.326	0.456	0.000	0.18		311	6.6	SURCHARGED
1.012	S24	33	69.318	0.551	0.000	0.32		412	10.9	SURCHARGED
1.013	S25	33	69.310	0.610	0.000	0.30			11.2	SURCHARGED
1.014	S26	34	69.300	0.732	0.000	0.06			11.3	SURCHARGED
1.015	S27	34	69.299	0.760	0.000	0.06			11.0	SURCHARGED
4.000	S28	51	69.468	-0.221	0.000	0.00			0.1	OK
4.001	S29	44	69.445	-0.167	0.000	0.15		374	5.2	OK
4.002	S30	50	69.382	-0.151	0.000	0.24			8.8	OK
4.003	S31	41	69.306	-0.041	0.000	0.28			10.9	OK
4.004	S33	34	69.301	0.251	0.000	0.16			11.4	SURCHARGED
1.016	S33	34	69.298	0.778	0.000	0.09			24.4	SURCHARGED
1.017	S34	34	69.297	0.858	0.000	0.11			21.9	SURCHARGED
1.018	S35	34	69.296	0.888	0.000	0.06			21.0	SURCHARGED
1.019	S36	34	69.295	0.915	0.000	0.04			17.0	SURCHARGED
1.020	S37	34	69.295	0.949	0.000	0.03			14.4	SURCHARGED
1.021	S38	34	69.294	1.036	0.000	0.02			12.7	SURCHARGED
1.022	S39	34	69.294	1.563	0.000	0.25			7.6	SURCHARGED
1.023	S40	43	67.527	-0.164	0.000	0.17			7.7	OK
1.024	S41	48	67.141	-0.179	0.000	0.09			10.3	OK
1.025	S42	48	65.853	-0.502	0.000	0.06			11.3	OK
1.026	S43	48	65.809	-0.524	0.000	0.04			11.3	OK
5.000	S44	40	67.641	0.216	0.000	0.09			3.9	SURCHARGED
5.001	S45	39	67.793	0.554	0.000	0.01			1.5	SURCHARGED
1.027	S46	47	65.685	-0.535	0.000	0.02			13.7	OK
6.000	S47	35	67.009	-0.091	0.000	0.03			1.4	OK
6.001	S48	36	67.006	0.225	0.000	0.02			1.1	SURCHARGED
1.028	S49	42	65.617	-0.476	0.000	0.03			15.7	OK
7.000	S50	49	66.344	-0.201	0.000	0.03			1.5	OK
7.001	S51	48	65.779	-0.386	0.000	0.05			6.8	OK
7.002	S52	42	65.615	-0.486	0.000	0.02			9.1	OK
7.003	S53	42	65.613	-0.397	0.000	0.02			8.4	OK
8.000	S54	34	67.146	-0.079	0.000	0.03			1.3	OK
8.001	S55	35	67.143	0.164	0.000	0.03			1.0	SURCHARGED
1.029	S56	42	65.611	-0.357	0.000	0.07			24.2	OK
1.030	S57	42	65.607	-0.039	0.000	0.47			24.1	OK

Summary Wizard of 960 minute 30 year Summer I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	48		69.842	-0.183	0.000	0.02			0.8	OK
1.001	S2	44		69.842	-0.102	0.000	0.02			0.8	OK
1.002	S3	44		69.842	-0.027	0.000	0.02			0.8	OK
1.003	S4	44		69.841	0.053	0.000	0.05			1.6	SURCHARGED
1.004	S5	44		69.841	0.138	0.000	0.05			1.8	SURCHARGED
1.005	S6	44		69.840	0.311	0.000	0.06			2.1	SURCHARGED
1.006	S7	44		69.839	0.409	0.000	0.18			5.2	SURCHARGED
1.007	S8	43		69.837	0.461	0.000	0.04			5.4	SURCHARGED
1.008	S9	43		69.837	0.542	0.000	0.05			6.7	SURCHARGED
1.009	S10	41		69.837	0.606	0.000	0.07			9.3	SURCHARGED
2.000	S11	53		70.653	-0.182	0.000	0.08		118	3.0	OK
2.001	S12	53		70.532	-0.180	0.000	0.09			3.3	OK
2.002	S13	53		70.403	-0.166	0.000	0.16		80	5.5	OK
2.003	S14	53		70.311	-0.168	0.000	0.14			8.5	OK
2.004	S15	53		70.048	-0.158	0.000	0.19		77	11.5	OK
3.000	S16	55		69.885	-0.193	0.000	0.05			2.6	OK
2.005	S17	44		69.852	0.008	0.000	0.41			15.0	SURCHARGED
2.006	S18	42		69.847	0.126	0.000	0.14			14.6	SURCHARGED
2.007	S19	39		69.844	0.353	0.000	0.09			6.8	SURCHARGED

Summary Wizard of 960 minute 30 year Summer I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	39	69.842	0.471	0.000	0.11			6.8	SURCHARGED
2.009	S21	39	69.841	0.520	0.000	0.06			6.7	SURCHARGED
1.010	S22	40	69.836	0.898	0.000	0.12			4.1	SURCHARGED
1.011	S23	36	69.275	0.405	0.000	0.17		366	5.9	SURCHARGED
1.012	S24	36	69.266	0.499	0.000	0.28		468	9.5	SURCHARGED
1.013	S25	36	69.259	0.559	0.000	0.27			9.8	SURCHARGED
1.014	S26	36	69.248	0.680	0.000	0.05			9.3	SURCHARGED
1.015	S27	36	69.248	0.709	0.000	0.05			8.8	SURCHARGED
4.000	S28	54	69.467	-0.222	0.000	0.00			0.1	OK
4.001	S29	52	69.439	-0.173	0.000	0.12		498	4.2	OK
4.002	S30	55	69.374	-0.159	0.000	0.19			7.1	OK
4.003	S31	44	69.254	-0.093	0.000	0.23			8.8	OK
4.004	S33	36	69.250	0.199	0.000	0.13			9.2	SURCHARGED
1.016	S33	36	69.247	0.726	0.000	0.07			19.2	SURCHARGED
1.017	S34	36	69.246	0.807	0.000	0.09			18.8	SURCHARGED
1.018	S35	36	69.244	0.837	0.000	0.05			17.5	SURCHARGED
1.019	S36	36	69.244	0.864	0.000	0.03			14.2	SURCHARGED
1.020	S37	36	69.243	0.898	0.000	0.02			13.1	SURCHARGED
1.021	S38	36	69.243	0.985	0.000	0.02			12.5	SURCHARGED
1.022	S39	36	69.243	1.512	0.000	0.25			7.5	SURCHARGED
1.023	S40	44	67.526	-0.164	0.000	0.17			7.6	OK
1.024	S41	52	67.140	-0.180	0.000	0.09			9.7	OK
1.025	S42	52	65.849	-0.506	0.000	0.06			10.5	OK
1.026	S43	52	65.807	-0.527	0.000	0.04			10.5	OK
5.000	S44	43	67.632	0.207	0.000	0.08			3.6	SURCHARGED
5.001	S45	42	67.784	0.545	0.000	0.01			1.5	SURCHARGED
1.027	S46	53	65.681	-0.538	0.000	0.02			12.8	OK
6.000	S47	37	67.003	-0.097	0.000	0.03			1.3	OK
6.001	S48	37	67.001	0.220	0.000	0.02			1.1	SURCHARGED
1.028	S49	51	65.592	-0.501	0.000	0.02			14.9	OK
7.000	S50	53	66.342	-0.203	0.000	0.02			1.2	OK
7.001	S51	53	65.773	-0.392	0.000	0.04			5.4	OK
7.002	S52	51	65.586	-0.515	0.000	0.01			7.3	OK
7.003	S53	50	65.580	-0.430	0.000	0.02			7.1	OK
8.000	S54	36	67.142	-0.083	0.000	0.03			1.2	OK
8.001	S55	37	67.139	0.160	0.000	0.03			1.0	SURCHARGED
1.029	S56	50	65.579	-0.389	0.000	0.06			22.6	OK
1.030	S57	50	65.576	-0.070	0.000	0.44			22.6	OK

Summary Wizard of 15 minute 100 year Summer I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500		6	70.696	0.671	0.000	0.34			12.0	SURCHARGED
1.001	S2		6	70.678	0.734	0.000	0.27			9.5	SURCHARGED
1.002	S3		6	70.661	0.792	0.000	0.30			10.4	SURCHARGED
1.003	S4		6	70.644	0.856	0.000	0.51			18.0	SURCHARGED
1.004	S5		6	70.615	0.912	0.000	0.56			20.9	SURCHARGED
1.005	S6		6	70.568	1.039	0.000	0.67			24.1	SURCHARGED
1.006	S7		6	70.532	1.102	0.000	2.13			62.0	SURCHARGED
1.007	S8		11	70.363	0.987	0.000	0.41			57.2	SURCHARGED
1.008	S9		11	70.338	1.043	0.000	0.53			71.7	SURCHARGED
1.009	S10		12	70.310	1.079	0.000	0.77			105.4	SURCHARGED
2.000	S11		4	70.980	0.145	0.000	0.99		8	35.9	SURCHARGED
2.001	S12		5	70.937	0.225	0.000	0.95			35.0	SURCHARGED
2.002	S13		6	70.879	0.310	0.000	0.95		15	33.5	SURCHARGED
2.003	S14		5	70.858	0.379	0.000	1.09			64.0	SURCHARGED
2.004	S15		6	70.624	0.418	0.000	1.00		18	59.4	SURCHARGED
3.000	S16		3	70.569	0.491	0.000	0.84			44.2	SURCHARGED
2.005	S17		6	70.417	0.573	0.000	2.37			86.8	SURCHARGED
2.006	S18		22	69.964	0.243	0.000	0.77			83.2	SURCHARGED
2.007	S19		37	69.853	0.362	0.000	0.42			31.6	SURCHARGED

Summary Wizard of 15 minute 100 year Summer I+40% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	37		69.848	0.477	0.000	0.33			20.5	SURCHARGED
2.009	S21	30		69.886	0.565	0.000	0.17			18.2	SURCHARGED
1.010	S22	16		70.267	1.329	0.000	0.12			4.2	SURCHARGED
1.011	S23	38		69.145	0.275	0.000	1.00			35.6	SURCHARGED
1.012	S24	38		69.137	0.370	0.000	1.33			45.3	SURCHARGED
1.013	S25	38		69.139	0.439	0.000	1.31			48.0	SURCHARGED
1.014	S26	37		69.186	0.618	0.000	0.27			52.8	SURCHARGED
1.015	S27	37		69.190	0.651	0.000	0.30			55.5	SURCHARGED
4.000	S28	22		69.804	0.115	0.000	0.03			1.0	SURCHARGED
4.001	S29	22		69.803	0.191	0.000	0.94		14	32.6	SURCHARGED
4.002	S30	22		69.818	0.285	0.000	1.04			39.2	SURCHARGED
4.003	S31	20		69.759	0.412	0.000	1.44			55.4	SURCHARGED
4.004	S33	37		69.250	0.199	0.000	0.86			62.4	SURCHARGED
1.016	S33	37		69.194	0.673	0.000	0.53			149.2	SURCHARGED
1.017	S34	37		69.193	0.755	0.000	0.90			178.4	SURCHARGED
1.018	S35	37		69.193	0.785	0.000	0.46			173.7	SURCHARGED
1.019	S36	37		69.192	0.812	0.000	0.39			158.7	SURCHARGED
1.020	S37	37		69.192	0.846	0.000	0.27			156.7	SURCHARGED
1.021	S38	37		69.192	0.934	0.000	0.22			133.5	SURCHARGED
1.022	S39	37		69.192	1.461	0.000	0.25			7.5	SURCHARGED
1.023	S40	2		67.542	-0.148	0.000	0.25			11.3	OK
1.024	S41	2		67.209	-0.111	0.000	0.50			54.6	OK
1.025	S42	14		66.021	-0.334	0.000	0.40			72.2	OK
1.026	S43	16		65.981	-0.352	0.000	0.23			69.5	OK
5.000	S44	22		67.679	0.254	0.000	0.21			9.3	SURCHARGED
5.001	S45	25		67.825	0.586	0.000	0.01			1.5	SURCHARGED
1.027	S46	16		65.975	-0.244	0.000	0.12			71.5	OK
6.000	S47	36		67.004	-0.096	0.000	0.28			13.8	OK
6.001	S48	30		67.016	0.235	0.000	0.02			1.1	SURCHARGED
1.028	S49	16		65.965	-0.128	0.000	0.07			41.2	OK
7.000	S50	8		66.417	-0.128	0.000	0.38			22.0	OK
7.001	S51	14		66.040	-0.125	0.000	0.82			110.1	OK
7.002	S52	14		66.016	-0.085	0.000	0.24			136.5	OK
7.003	S53	14		65.970	-0.040	0.000	0.19			85.3	OK
8.000	S54	38		67.133	-0.092	0.000	0.39			14.9	OK
8.001	S55	29		67.159	0.180	0.000	0.03			1.0	SURCHARGED
1.029	S56	14		65.944	-0.024	0.000	0.13			45.0	OK
1.030	S57	14		65.918	0.272	0.000	0.55			27.9	SURCHARGED

Summary Wizard of 30 minute 100 year Summer I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	3	70.871	0.846	0.000	0.27			9.5	SURCHARGED
1.001	S2	3	70.854	0.910	0.000	0.26			9.1	SURCHARGED
1.002	S3	3	70.839	0.970	0.000	0.31			10.6	SURCHARGED
1.003	S4	3	70.825	1.037	0.000	0.49			17.3	SURCHARGED
1.004	S5	2	70.796	1.093	0.000	0.59			22.2	SURCHARGED
1.005	S6	3	70.737	1.208	0.000	0.73			26.1	SURCHARGED
1.006	S7	3	70.680	1.250	0.000	1.98			57.5	SURCHARGED
1.007	S8	2	70.487	1.111	0.000	0.42			58.8	SURCHARGED
1.008	S9	2	70.461	1.166	0.000	0.54			73.5	SURCHARGED
1.009	S10	2	70.430	1.199	0.000	0.79			107.8	FLOOD RISK
2.000	S11	3	70.994	0.159	0.000	0.96		11	34.8	SURCHARGED
2.001	S12	3	70.959	0.247	0.000	0.91			33.7	SURCHARGED
2.002	S13	3	70.919	0.350	0.000	0.88		19	31.2	SURCHARGED
2.003	S14	3	70.887	0.408	0.000	1.03			60.0	SURCHARGED
2.004	S15	4	70.687	0.481	0.000	0.97		25	57.5	SURCHARGED
3.000	S16	4	70.552	0.474	0.000	0.77			40.4	SURCHARGED
2.005	S17	4	70.437	0.593	0.000	2.37			86.7	SURCHARGED
2.006	S18	20	70.065	0.344	0.000	0.79			84.9	SURCHARGED
2.007	S19	20	69.960	0.469	0.000	0.31			23.5	SURCHARGED

Summary Wizard of 30 minute 100 year Summer I+40% for Surface Network 1

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	20	69.955	0.584	0.000	0.32			19.8	SURCHARGED
2.009	S21	20	69.993	0.672	0.000	0.19			19.7	SURCHARGED
1.010	S22	2	70.387	1.449	0.000	0.12			4.2	SURCHARGED
1.011	S23	25	69.484	0.614	0.000	0.86			30.9	SURCHARGED
1.012	S24	25	69.478	0.711	0.000	1.27			43.2	SURCHARGED
1.013	S25	25	69.475	0.775	0.000	1.31			47.9	SURCHARGED
1.014	S26	23	69.491	0.923	0.000	0.26			51.0	SURCHARGED
1.015	S27	22	69.500	0.961	0.000	0.25			47.3	SURCHARGED
4.000	S28	21	69.862	0.173	0.000	0.02			0.5	SURCHARGED
4.001	S29	21	69.862	0.250	0.000	0.62		25	21.6	SURCHARGED
4.002	S30	21	69.852	0.319	0.000	1.04			39.2	SURCHARGED
4.003	S31	21	69.758	0.411	0.000	1.45			55.6	SURCHARGED
4.004	S33	20	69.577	0.526	0.000	0.84			60.9	SURCHARGED
1.016	S33	22	69.507	0.987	0.000	0.51			144.7	SURCHARGED
1.017	S34	21	69.507	1.069	0.000	0.85			168.9	SURCHARGED
1.018	S35	21	69.507	1.099	0.000	0.41			157.7	SURCHARGED
1.019	S36	21	69.507	1.127	0.000	0.33			132.6	SURCHARGED
1.020	S37	20	69.507	1.161	0.000	0.22			126.6	SURCHARGED
1.021	S38	20	69.507	1.249	0.000	0.17			102.3	SURCHARGED
1.022	S39	20	69.507	1.776	0.000	0.27			7.9	SURCHARGED
1.023	S40	3	67.541	-0.149	0.000	0.25			11.4	OK
1.024	S41	3	67.202	-0.118	0.000	0.45			49.0	OK
1.025	S42	11	66.145	-0.210	0.000	0.36			63.7	OK
1.026	S43	11	66.143	-0.191	0.000	0.21			62.2	OK
5.000	S44	20	67.709	0.284	0.000	0.16			6.8	SURCHARGED
5.001	S45	20	67.839	0.600	0.000	0.01			1.6	SURCHARGED
1.027	S46	10	66.132	-0.087	0.000	0.10			60.5	OK
6.000	S47	20	67.045	-0.055	0.000	0.22			10.7	OK
6.001	S48	20	67.042	0.261	0.000	0.03			1.1	SURCHARGED
1.028	S49	10	66.104	0.011	0.000	0.05			32.3	SURCHARGED
7.000	S50	9	66.412	-0.133	0.000	0.35			20.2	OK
7.001	S51	9	66.168	0.003	0.000	0.72			96.9	SURCHARGED
7.002	S52	10	66.104	0.003	0.000	0.20			117.1	SURCHARGED
7.003	S53	10	66.103	0.093	0.000	0.16			72.4	SURCHARGED
8.000	S54	20	67.176	-0.049	0.000	0.36			13.7	OK
8.001	S55	20	67.173	0.194	0.000	0.03			1.0	SURCHARGED
1.029	S56	10	66.102	0.134	0.000	0.12			41.7	SURCHARGED
1.030	S57	10	66.100	0.454	0.000	0.55			28.0	SURCHARGED

Summary Wizard of 60 minute 100 year Summer I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	4		70.774	0.749	0.000	0.21			7.3	SURCHARGED
1.001	S2	4		70.762	0.818	0.000	0.23			7.9	SURCHARGED
1.002	S3	4		70.750	0.881	0.000	0.26			8.9	SURCHARGED
1.003	S4	4		70.738	0.950	0.000	0.45			15.7	SURCHARGED
1.004	S5	4		70.711	1.008	0.000	0.54			20.2	SURCHARGED
1.005	S6	4		70.656	1.127	0.000	0.66			23.6	SURCHARGED
1.006	S7	4		70.594	1.164	0.000	1.79			52.0	SURCHARGED
1.007	S8	4		70.435	1.059	0.000	0.39			53.9	SURCHARGED
1.008	S9	4		70.411	1.116	0.000	0.49			67.0	SURCHARGED
1.009	S10	6		70.383	1.152	0.000	0.69			94.5	FLOOD RISK
2.000	S11	6		70.947	0.112	0.000	0.88		9	32.1	SURCHARGED
2.001	S12	6		70.918	0.206	0.000	0.83			30.7	SURCHARGED
2.002	S13	5		70.883	0.314	0.000	0.82		22	28.8	SURCHARGED
2.003	S14	6		70.826	0.347	0.000	0.93			54.5	SURCHARGED
2.004	S15	5		70.679	0.473	0.000	0.90		32	53.0	SURCHARGED
3.000	S16	6		70.474	0.396	0.000	0.57			29.9	SURCHARGED

Summary Wizard of 60 minute 100 year Summer I+40% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	7		70.410	0.566	0.000	2.13			78.0	SURCHARGED
2.006	S18	18		70.156	0.435	0.000	0.71			77.0	SURCHARGED
2.007	S19	18		70.056	0.565	0.000	0.27			20.3	SURCHARGED
2.008	S20	18		70.052	0.681	0.000	0.31			18.7	SURCHARGED
2.009	S21	19		70.050	0.729	0.000	0.18			18.7	SURCHARGED
1.010	S22	9		70.345	1.407	0.000	0.12			4.2	SURCHARGED
1.011	S23	18		69.775	0.905	0.000	0.74			26.4	SURCHARGED
1.012	S24	18		69.768	1.001	0.000	1.11			37.8	SURCHARGED
1.013	S25	18		69.762	1.062	0.000	1.14			41.6	SURCHARGED
1.014	S26	18		69.792	1.224	0.000	0.20			40.1	SURCHARGED
1.015	S27	18		69.796	1.257	0.000	0.19			35.1	SURCHARGED
4.000	S28	19		69.936	0.247	0.000	0.01			0.4	SURCHARGED
4.001	S29	19		69.936	0.324	0.000	0.39			13.6	SURCHARGED
4.002	S30	19		69.919	0.386	0.000	0.88			33.0	SURCHARGED
4.003	S31	19		69.873	0.526	0.000	1.35			52.0	SURCHARGED
4.004	S33	18		69.824	0.773	0.000	0.76			55.1	SURCHARGED
1.016	S33	18		69.799	1.278	0.000	0.37			104.0	SURCHARGED
1.017	S34	18		69.798	1.360	0.000	0.53			104.7	SURCHARGED
1.018	S35	18		69.798	1.390	0.000	0.25			97.2	SURCHARGED
1.019	S36	18		69.797	1.418	0.000	0.20			81.8	SURCHARGED
1.020	S37	18		69.797	1.451	0.000	0.14			78.2	SURCHARGED
1.021	S38	18		69.796	1.539	0.000	0.10			61.6	SURCHARGED
1.022	S39	18		69.796	2.065	0.000	0.28			8.5	SURCHARGED
1.023	S40	5		67.537	-0.153	0.000	0.23			10.3	OK
1.024	S41	5		67.187	-0.133	0.000	0.35			37.8	OK
1.025	S42	7		66.391	0.036	0.000	0.27			48.7	SURCHARGED
1.026	S43	7		66.390	0.057	0.000	0.16			46.8	SURCHARGED
5.000	S44	17		67.739	0.314	0.000	0.11			4.9	SURCHARGED
5.001	S45	17		67.882	0.643	0.000	0.01			1.6	SURCHARGED
1.027	S46	7		66.387	0.168	0.000	0.07			41.2	SURCHARGED
6.000	S47	18		67.086	-0.014	0.000	0.13			6.5	OK
6.001	S48	18		67.083	0.302	0.000	0.03			1.2	SURCHARGED
1.028	S49	7		66.385	0.292	0.000	0.04			24.7	SURCHARGED
7.000	S50	10		66.398	-0.147	0.000	0.26			15.1	OK
7.001	S51	7		66.387	0.222	0.000	0.52			69.9	SURCHARGED
7.002	S52	7		66.385	0.284	0.000	0.15			84.0	SURCHARGED
7.003	S53	7		66.384	0.374	0.000	0.12			53.8	SURCHARGED
8.000	S54	18		67.219	-0.006	0.000	0.20			7.8	OK
8.001	S55	18		67.216	0.237	0.000	0.03			1.1	SURCHARGED
1.029	S56	7		66.383	0.415	0.000	0.11			38.2	SURCHARGED
1.030	S57	7		66.382	0.736	0.000	0.55			28.0	SURCHARGED

Summary Wizard of 120 minute 100 year Summer I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	7		70.524	0.499	0.000	0.16			5.6	SURCHARGED
1.001	S2	7		70.515	0.571	0.000	0.16			5.5	SURCHARGED
1.002	S3	7		70.507	0.638	0.000	0.17			5.9	SURCHARGED
1.003	S4	7		70.498	0.710	0.000	0.34			11.8	SURCHARGED
1.004	S5	7		70.477	0.774	0.000	0.40			15.1	SURCHARGED
1.005	S6	7		70.440	0.911	0.000	0.49			17.4	SURCHARGED
1.006	S7	7		70.396	0.966	0.000	1.38			40.2	SURCHARGED
1.007	S8	14		70.301	0.925	0.000	0.30			42.4	SURCHARGED
1.008	S9	14		70.283	0.988	0.000	0.39			52.2	SURCHARGED
1.009	S10	18		70.263	1.032	0.000	0.53			72.5	SURCHARGED
2.000	S11	7		70.843	0.008	0.000	0.70		7	25.4	SURCHARGED
2.001	S12	7		70.816	0.104	0.000	0.68			25.2	SURCHARGED
2.002	S13	7		70.785	0.216	0.000	0.84		20	29.6	SURCHARGED
2.003	S14	7		70.721	0.242	0.000	0.83			48.6	SURCHARGED
2.004	S15	8		70.603	0.397	0.000	0.78		35	46.0	SURCHARGED
3.000	S16	9		70.406	0.328	0.000	0.38			20.2	SURCHARGED

Summary Wizard of 120 minute 100 year Summer I+40% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	12		70.385	0.541	0.000	1.79			65.6	SURCHARGED
2.006	S18	17		70.193	0.472	0.000	0.60			65.1	SURCHARGED
2.007	S19	16		70.142	0.651	0.000	0.20			15.0	SURCHARGED
2.008	S20	16		70.144	0.773	0.000	0.24			14.7	SURCHARGED
2.009	S21	16		70.150	0.829	0.000	0.14			14.6	SURCHARGED
1.010	S22	21		70.234	1.296	0.000	0.12			4.1	SURCHARGED
1.011	S23	16		70.053	1.183	0.000	0.58			20.8	SURCHARGED
1.012	S24	16		70.048	1.281	0.000	0.91			31.0	SURCHARGED
1.013	S25	16		70.044	1.344	0.000	0.88			32.1	SURCHARGED
1.014	S26	16		70.041	1.473	0.000	0.18			35.2	SURCHARGED
1.015	S27	16		70.041	1.502	0.000	0.19			35.4	SURCHARGED
4.000	S28	17		70.063	0.374	0.000	0.01			0.3	SURCHARGED
4.001	S29	17		70.063	0.451	0.000	0.47			16.2	SURCHARGED
4.002	S30	17		70.061	0.528	0.000	0.87			32.5	SURCHARGED
4.003	S31	16		70.056	0.709	0.000	1.10			42.3	SURCHARGED
4.004	S33	16		70.048	0.997	0.000	0.60			43.6	SURCHARGED
1.016	S33	16		70.041	1.521	0.000	0.29			83.3	SURCHARGED
1.017	S34	16		70.040	1.601	0.000	0.43			85.6	SURCHARGED
1.018	S35	16		70.039	1.631	0.000	0.21			80.5	SURCHARGED
1.019	S36	16		70.039	1.659	0.000	0.17			68.2	SURCHARGED
1.020	S37	16		70.038	1.692	0.000	0.09			53.1	SURCHARGED
1.021	S38	16		70.037	1.780	0.000	0.06			39.5	SURCHARGED
1.022	S39	16		70.036	2.305	0.000	0.30			8.9	SURCHARGED
1.023	S40	7		67.535	-0.155	0.000	0.21			9.7	OK
1.024	S41	10		67.172	-0.148	0.000	0.25			27.2	OK
1.025	S42	5		66.462	0.107	0.000	0.19			34.0	SURCHARGED
1.026	S43	5		66.461	0.128	0.000	0.11			32.4	SURCHARGED
5.000	S44	11		67.765	0.340	0.000	0.07			3.2	SURCHARGED
5.001	S45	12		67.897	0.658	0.000	0.01			1.6	SURCHARGED
1.027	S46	5		66.458	0.239	0.000	0.05			29.0	SURCHARGED
6.000	S47	16		67.125	0.025	0.000	0.07			3.2	SURCHARGED
6.001	S48	16		67.122	0.341	0.000	0.03			1.2	SURCHARGED
1.028	S49	5		66.456	0.363	0.000	0.04			21.9	SURCHARGED
7.000	S50	5		66.460	-0.085	0.000	0.17			10.0	OK
7.001	S51	5		66.457	0.292	0.000	0.34			45.3	SURCHARGED
7.002	S52	5		66.455	0.354	0.000	0.10			55.0	SURCHARGED
7.003	S53	5		66.454	0.444	0.000	0.08			37.0	SURCHARGED
8.000	S54	16		67.261	0.036	0.000	0.08			3.2	SURCHARGED
8.001	S55	16		67.257	0.278	0.000	0.04			1.1	SURCHARGED
1.029	S56	5		66.454	0.486	0.000	0.11			38.0	SURCHARGED
1.030	S57	5		66.452	0.806	0.000	0.55			28.0	SURCHARGED

Summary Wizard of 180 minute 100 year Summer I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	11		70.395	0.370	0.000	0.13			4.5	SURCHARGED
1.001	S2	12		70.388	0.444	0.000	0.12			4.3	SURCHARGED
1.002	S3	13		70.382	0.513	0.000	0.12			4.2	SURCHARGED
1.003	S4	14		70.375	0.587	0.000	0.27			9.6	SURCHARGED
1.004	S5	14		70.358	0.655	0.000	0.33			12.2	SURCHARGED
1.005	S6	15		70.329	0.800	0.000	0.39			13.9	SURCHARGED
1.006	S7	16		70.303	0.873	0.000	1.12			32.6	SURCHARGED
1.007	S8	22		70.232	0.856	0.000	0.25			34.3	SURCHARGED
1.008	S9	22		70.218	0.923	0.000	0.31			42.3	SURCHARGED
1.009	S10	22		70.210	0.979	0.000	0.43			58.6	SURCHARGED
2.000	S11	14		70.731	-0.104	0.000	0.53		14	19.5	OK
2.001	S12	9		70.707	-0.005	0.000	0.57			21.1	OK
2.002	S13	9		70.676	0.107	0.000	0.79		19	27.9	SURCHARGED
2.003	S14	9		70.617	0.138	0.000	0.74			43.4	SURCHARGED
2.004	S15	9		70.526	0.320	0.000	0.69		36	40.8	SURCHARGED
3.000	S16	14		70.375	0.297	0.000	0.29			15.4	SURCHARGED

Summary Wizard of 180 minute 100 year Summer I+40% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	15	70.360	0.516	0.000	1.57			57.7	SURCHARGED
2.006	S18	16	70.202	0.481	0.000	0.53			57.3	SURCHARGED
2.007	S19	15	70.187	0.696	0.000	0.15			11.2	SURCHARGED
2.008	S20	15	70.191	0.820	0.000	0.18			11.1	SURCHARGED
2.009	S21	15	70.197	0.876	0.000	0.11			11.1	SURCHARGED
1.010	S22	22	70.207	1.269	0.000	0.12			4.1	SURCHARGED
1.011	S23	15	70.163	1.293	0.000	0.42			15.0	SURCHARGED
1.012	S24	15	70.160	1.393	0.000	0.73			24.8	SURCHARGED
1.013	S25	15	70.156	1.456	0.000	0.70			25.8	SURCHARGED
1.014	S26	15	70.152	1.584	0.000	0.14			27.4	SURCHARGED
1.015	S27	15	70.151	1.612	0.000	0.15			27.2	SURCHARGED
4.000	S28	15	70.172	0.483	0.000	0.01			0.4	SURCHARGED
4.001	S29	15	70.172	0.560	0.000	0.49			16.9	SURCHARGED
4.002	S30	15	70.171	0.638	0.000	0.84			31.6	SURCHARGED
4.003	S31	15	70.166	0.819	0.000	0.96			36.7	SURCHARGED
4.004	S33	15	70.157	1.107	0.000	0.49			35.4	SURCHARGED
1.016	S33	15	70.151	1.631	0.000	0.24			67.5	SURCHARGED
1.017	S34	15	70.150	1.711	0.000	0.33			65.6	SURCHARGED
1.018	S35	15	70.149	1.741	0.000	0.16			61.3	SURCHARGED
1.019	S36	15	70.148	1.768	0.000	0.13			54.3	SURCHARGED
1.020	S37	15	70.148	1.802	0.000	0.08			47.3	SURCHARGED
1.021	S38	15	70.147	1.889	0.000	0.05			29.6	SURCHARGED
1.022	S39	15	70.146	2.415	0.000	0.30			9.1	SURCHARGED
1.023	S40	16	67.534	-0.156	0.000	0.21			9.4	OK
1.024	S41	13	67.165	-0.155	0.000	0.21			22.7	OK
1.025	S42	8	66.352	-0.003	0.000	0.16			27.8	OK
1.026	S43	8	66.333	0.000	0.000	0.09			26.6	OK
5.000	S44	9	67.773	0.348	0.000	0.06			2.4	SURCHARGED
5.001	S45	9	67.903	0.664	0.000	0.01			1.6	SURCHARGED
1.027	S46	8	66.301	0.082	0.000	0.04			24.8	SURCHARGED
6.000	S47	15	67.145	0.045	0.000	0.05			2.5	SURCHARGED
6.001	S48	15	67.142	0.361	0.000	0.03			1.2	SURCHARGED
1.028	S49	8	66.300	0.206	0.000	0.03			20.5	SURCHARGED
7.000	S50	16	66.374	-0.171	0.000	0.13			7.6	OK
7.001	S51	8	66.301	0.136	0.000	0.26			34.4	SURCHARGED
7.002	S52	8	66.299	0.198	0.000	0.07			42.2	SURCHARGED
7.003	S53	8	66.298	0.288	0.000	0.07			29.7	SURCHARGED
8.000	S54	15	67.282	0.057	0.000	0.06			2.4	SURCHARGED
8.001	S55	15	67.279	0.300	0.000	0.04			1.2	SURCHARGED
1.029	S56	8	66.297	0.329	0.000	0.10			34.4	SURCHARGED
1.030	S57	8	66.296	0.650	0.000	0.55			28.0	SURCHARGED

Summary Wizard of 240 minute 100 year Summer I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	17		70.330	0.305	0.000	0.11			3.7	SURCHARGED
1.001	S2	17		70.324	0.380	0.000	0.10			3.6	SURCHARGED
1.002	S3	17		70.318	0.449	0.000	0.10			3.6	SURCHARGED
1.003	S4	17		70.312	0.524	0.000	0.23			8.1	SURCHARGED
1.004	S5	17		70.298	0.595	0.000	0.28			10.3	SURCHARGED
1.005	S6	20		70.274	0.745	0.000	0.33			11.8	SURCHARGED
1.006	S7	22		70.252	0.822	0.000	0.94			27.5	SURCHARGED
1.007	S8	21		70.239	0.863	0.000	0.21			28.9	SURCHARGED
1.008	S9	21		70.238	0.943	0.000	0.26			35.6	SURCHARGED
1.009	S10	21		70.237	1.006	0.000	0.36			49.1	SURCHARGED
2.000	S11	16		70.714	-0.121	0.000	0.44		32	15.8	OK
2.001	S12	16		70.613	-0.099	0.000	0.47			17.3	OK
2.002	S13	14		70.588	0.019	0.000	0.74		20	25.9	SURCHARGED
2.003	S14	12		70.537	0.058	0.000	0.68			39.6	SURCHARGED
2.004	S15	11		70.465	0.259	0.000	0.63		106	37.1	SURCHARGED
3.000	S16	16		70.350	0.272	0.000	0.24			12.5	SURCHARGED

Summary Wizard of 240 minute 100 year Summer I+40% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	17		70.339	0.495	0.000	1.42			52.0	SURCHARGED
2.006	S18	14		70.220	0.499	0.000	0.48			51.7	SURCHARGED
2.007	S19	13		70.217	0.726	0.000	0.12			9.1	SURCHARGED
2.008	S20	13		70.221	0.850	0.000	0.15			9.0	SURCHARGED
2.009	S21	13		70.226	0.905	0.000	0.09			9.0	SURCHARGED
1.010	S22	20		70.235	1.297	0.000	0.12			4.1	SURCHARGED
1.011	S23	13		70.209	1.339	0.000	0.34			12.3	SURCHARGED
1.012	S24	13		70.207	1.440	0.000	0.60			20.3	SURCHARGED
1.013	S25	13		70.203	1.503	0.000	0.58			21.2	SURCHARGED
1.014	S26	12		70.198	1.630	0.000	0.11			22.2	SURCHARGED
1.015	S27	12		70.198	1.659	0.000	0.11			21.0	SURCHARGED
4.000	S28	13		70.222	0.533	0.000	0.01			0.3	SURCHARGED
4.001	S29	13		70.222	0.610	0.000	0.43			15.0	SURCHARGED
4.002	S30	13		70.220	0.687	0.000	0.71			26.8	SURCHARGED
4.003	S31	12		70.214	0.867	0.000	0.79			30.3	SURCHARGED
4.004	S33	12		70.205	1.154	0.000	0.38			27.9	SURCHARGED
1.016	S33	12		70.198	1.677	0.000	0.19			52.8	SURCHARGED
1.017	S34	12		70.196	1.758	0.000	0.27			53.3	SURCHARGED
1.018	S35	12		70.195	1.787	0.000	0.14			52.0	SURCHARGED
1.019	S36	12		70.195	1.815	0.000	0.11			45.5	SURCHARGED
1.020	S37	12		70.194	1.848	0.000	0.06			35.5	SURCHARGED
1.021	S38	12		70.193	1.935	0.000	0.04			24.8	SURCHARGED
1.022	S39	12		70.192	2.461	0.000	0.31			9.1	SURCHARGED
1.023	S40	21		67.533	-0.157	0.000	0.20			9.2	OK
1.024	S41	16		67.160	-0.160	0.000	0.18			20.0	OK
1.025	S42	9		66.238	-0.117	0.000	0.14			24.1	OK
1.026	S43	9		66.234	-0.099	0.000	0.08			23.2	OK
5.000	S44	8		67.775	0.350	0.000	0.06			2.4	SURCHARGED
5.001	S45	8		67.906	0.667	0.000	0.01			1.6	SURCHARGED
1.027	S46	9		66.213	-0.007	0.000	0.04			22.3	OK
6.000	S47	13		67.156	0.056	0.000	0.04			2.1	SURCHARGED
6.001	S48	13		67.153	0.372	0.000	0.03			1.2	SURCHARGED
1.028	S49	9		66.155	0.062	0.000	0.03			20.2	SURCHARGED
7.000	S50	18		66.369	-0.176	0.000	0.11			6.2	OK
7.001	S51	11		66.165	0.000	0.000	0.21			28.0	OK
7.002	S52	9		66.155	0.054	0.000	0.06			34.6	SURCHARGED
7.003	S53	9		66.154	0.144	0.000	0.06			24.8	SURCHARGED
8.000	S54	14		67.295	0.070	0.000	0.05			2.0	SURCHARGED
8.001	S55	14		67.291	0.312	0.000	0.04			1.2	SURCHARGED
1.029	S56	9		66.153	0.185	0.000	0.10			34.1	SURCHARGED
1.030	S57	9		66.151	0.505	0.000	0.55			28.0	SURCHARGED

Summary Wizard of 360 minute 100 year Summer I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	21		70.275	0.250	0.000	0.08			2.8	SURCHARGED
1.001	S2	21		70.274	0.330	0.000	0.08			2.7	SURCHARGED
1.002	S3	21		70.274	0.405	0.000	0.08			2.8	SURCHARGED
1.003	S4	21		70.273	0.485	0.000	0.17			6.1	SURCHARGED
1.004	S5	21		70.272	0.569	0.000	0.21			7.8	SURCHARGED
1.005	S6	21		70.271	0.742	0.000	0.25			8.9	SURCHARGED
1.006	S7	20		70.269	0.839	0.000	0.71			20.8	SURCHARGED
1.007	S8	19		70.266	0.890	0.000	0.16			21.9	SURCHARGED
1.008	S9	19		70.265	0.970	0.000	0.20			27.0	SURCHARGED
1.009	S10	17		70.264	1.033	0.000	0.27			37.1	SURCHARGED
2.000	S11	21		70.697	-0.138	0.000	0.32		49	11.7	OK
2.001	S12	21		70.578	-0.134	0.000	0.35			12.7	OK
2.002	S13	20		70.469	-0.100	0.000	0.60		37	21.0	OK
2.003	S14	18		70.428	-0.051	0.000	0.56			32.5	OK
2.004	S15	16		70.383	0.177	0.000	0.54		418	32.1	SURCHARGED
3.000	S16	18		70.301	0.223	0.000	0.18			9.2	SURCHARGED
2.005	S17	18		70.289	0.445	0.000	1.17			42.9	SURCHARGED
2.006	S18	13		70.254	0.533	0.000	0.39			42.7	SURCHARGED
2.007	S19	12		70.252	0.761	0.000	0.09			6.8	SURCHARGED

Summary Wizard of 360 minute 100 year Summer I+40% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	12	70.254	0.883	0.000	0.11			6.8	SURCHARGED
2.009	S21	12	70.257	0.936	0.000	0.06			6.8	SURCHARGED
1.010	S22	17	70.262	1.324	0.000	0.12			4.1	SURCHARGED
1.011	S23	9	70.228	1.358	0.000	0.27			9.5	SURCHARGED
1.012	S24	9	70.225	1.458	0.000	0.46			15.5	SURCHARGED
1.013	S25	9	70.221	1.521	0.000	0.44			16.2	SURCHARGED
1.014	S26	9	70.215	1.647	0.000	0.09			16.8	SURCHARGED
1.015	S27	9	70.214	1.675	0.000	0.09			16.4	SURCHARGED
4.000	S28	9	70.239	0.550	0.000	0.01			0.3	SURCHARGED
4.001	S29	9	70.239	0.627	0.000	0.35		329	12.3	SURCHARGED
4.002	S30	9	70.237	0.704	0.000	0.57			21.3	SURCHARGED
4.003	S31	9	70.231	0.884	0.000	0.62			23.8	SURCHARGED
4.004	S33	9	70.221	1.170	0.000	0.31			22.5	SURCHARGED
1.016	S33	9	70.214	1.693	0.000	0.13			37.4	SURCHARGED
1.017	S34	9	70.212	1.774	0.000	0.18			35.4	SURCHARGED
1.018	S35	9	70.211	1.803	0.000	0.09			32.8	SURCHARGED
1.019	S36	9	70.211	1.831	0.000	0.07			29.1	SURCHARGED
1.020	S37	9	70.210	1.864	0.000	0.04			21.4	SURCHARGED
1.021	S38	9	70.209	1.951	0.000	0.03			17.5	SURCHARGED
1.022	S39	9	70.208	2.477	0.000	0.31			9.2	SURCHARGED
1.023	S40	18	67.533	-0.157	0.000	0.20			9.2	OK
1.024	S41	20	67.154	-0.166	0.000	0.16			16.8	OK
1.025	S42	12	66.091	-0.264	0.000	0.11			19.9	OK
1.026	S43	12	66.089	-0.244	0.000	0.07			19.5	OK
5.000	S44	10	67.769	0.344	0.000	0.08			3.3	SURCHARGED
5.001	S45	10	67.900	0.661	0.000	0.01			1.6	SURCHARGED
1.027	S46	12	66.079	-0.140	0.000	0.03			20.1	OK
6.000	S47	9	67.166	0.066	0.000	0.04			1.7	SURCHARGED
6.001	S48	9	67.162	0.382	0.000	0.03			1.3	SURCHARGED
1.028	S49	12	66.056	-0.037	0.000	0.03			18.6	OK
7.000	S50	22	66.362	-0.183	0.000	0.08			4.6	OK
7.001	S51	13	66.047	-0.118	0.000	0.15			20.7	OK
7.002	S52	13	66.038	-0.063	0.000	0.04			25.8	OK
7.003	S53	13	66.010	0.000	0.000	0.04			19.2	OK
8.000	S54	11	67.307	0.082	0.000	0.04			1.6	SURCHARGED
8.001	S55	11	67.303	0.324	0.000	0.04			1.2	SURCHARGED
1.029	S56	13	66.003	0.035	0.000	0.09			32.0	SURCHARGED
1.030	S57	13	66.002	0.356	0.000	0.55			27.9	SURCHARGED

Summary Wizard of 480 minute 100 year Summer I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500		18	70.282	0.257	0.000	0.07			2.3	SURCHARGED
1.001	S2		18	70.282	0.338	0.000	0.06			2.2	SURCHARGED
1.002	S3		18	70.281	0.412	0.000	0.06			2.1	SURCHARGED
1.003	S4		18	70.281	0.493	0.000	0.14			5.0	SURCHARGED
1.004	S5		18	70.280	0.577	0.000	0.17			6.4	SURCHARGED
1.005	S6		18	70.279	0.750	0.000	0.20			7.3	SURCHARGED
1.006	S7		18	70.278	0.848	0.000	0.58			17.0	SURCHARGED
1.007	S8		17	70.275	0.899	0.000	0.13			18.0	SURCHARGED
1.008	S9		17	70.274	0.979	0.000	0.16			22.1	SURCHARGED
1.009	S10		15	70.273	1.042	0.000	0.22			30.4	SURCHARGED
2.000	S11		27	70.687	-0.148	0.000	0.25		62	9.3	OK
2.001	S12		27	70.567	-0.145	0.000	0.28			10.1	OK
2.002	S13		24	70.454	-0.115	0.000	0.48		47	16.9	OK
2.003	S14		29	70.359	-0.120	0.000	0.45			26.2	OK
2.004	S15		26	70.289	0.083	0.000	0.47		697	27.8	SURCHARGED
3.000	S16		21	70.279	0.201	0.000	0.14			7.4	SURCHARGED
2.005	S17		21	70.277	0.433	0.000	0.99			36.3	SURCHARGED
2.006	S18		9	70.270	0.549	0.000	0.33			36.1	SURCHARGED
2.007	S19		9	70.268	0.777	0.000	0.08			5.7	SURCHARGED

Summary Wizard of 480 minute 100 year Summer I+40% for Surface Network 1

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	9	70.269	0.898	0.000	0.09			5.7	SURCHARGED
2.009	S21	10	70.270	0.949	0.000	0.05			5.7	SURCHARGED
1.010	S22	14	70.272	1.334	0.000	0.12			4.1	SURCHARGED
1.011	S23	10	70.224	1.354	0.000	0.23			8.2	SURCHARGED
1.012	S24	10	70.221	1.454	0.000	0.39			13.1	SURCHARGED
1.013	S25	10	70.217	1.517	0.000	0.37			13.4	SURCHARGED
1.014	S26	10	70.211	1.643	0.000	0.07			14.0	SURCHARGED
1.015	S27	10	70.211	1.672	0.000	0.07			13.8	SURCHARGED
4.000	S28	10	70.236	0.547	0.000	0.01			0.2	SURCHARGED
4.001	S29	10	70.236	0.624	0.000	0.30		397	10.4	SURCHARGED
4.002	S30	10	70.234	0.701	0.000	0.48			18.0	SURCHARGED
4.003	S31	10	70.227	0.880	0.000	0.52			19.9	SURCHARGED
4.004	S33	10	70.217	1.167	0.000	0.26			19.2	SURCHARGED
1.016	S33	10	70.210	1.690	0.000	0.11			30.9	SURCHARGED
1.017	S34	10	70.209	1.770	0.000	0.13			26.7	SURCHARGED
1.018	S35	10	70.207	1.800	0.000	0.07			25.4	SURCHARGED
1.019	S36	10	70.207	1.827	0.000	0.05			21.1	SURCHARGED
1.020	S37	10	70.206	1.860	0.000	0.03			16.6	SURCHARGED
1.021	S38	10	70.205	1.948	0.000	0.02			14.6	SURCHARGED
1.022	S39	10	70.204	2.473	0.000	0.31			9.2	SURCHARGED
1.023	S40	19	67.533	-0.157	0.000	0.20			9.2	OK
1.024	S41	23	67.151	-0.169	0.000	0.14			15.1	OK
1.025	S42	16	65.995	-0.360	0.000	0.10			17.6	OK
1.026	S43	15	65.993	-0.340	0.000	0.06			17.3	OK
5.000	S44	14	67.761	0.336	0.000	0.06			2.4	SURCHARGED
5.001	S45	14	67.893	0.654	0.000	0.01			1.6	SURCHARGED
1.027	S46	15	65.986	-0.233	0.000	0.03			18.8	OK
6.000	S47	8	67.167	0.067	0.000	0.03			1.5	SURCHARGED
6.001	S48	8	67.164	0.383	0.000	0.03			1.3	SURCHARGED
1.028	S49	15	65.971	-0.122	0.000	0.03			18.2	OK
7.000	S50	27	66.357	-0.188	0.000	0.06			3.6	OK
7.001	S51	16	65.957	-0.208	0.000	0.12			16.6	OK
7.002	S52	16	65.954	-0.147	0.000	0.04			21.4	OK
7.003	S53	16	65.946	-0.064	0.000	0.04			16.5	OK
8.000	S54	9	67.311	0.086	0.000	0.04			1.4	SURCHARGED
8.001	S55	9	67.307	0.328	0.000	0.04			1.2	SURCHARGED
1.029	S56	16	65.937	-0.031	0.000	0.08			29.1	OK
1.030	S57	16	65.912	0.266	0.000	0.55			27.9	SURCHARGED

Summary Wizard of 600 minute 100 year Summer I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500		19	70.282	0.257	0.000	0.06			1.9	SURCHARGED
1.001	S2		19	70.281	0.337	0.000	0.05			1.9	SURCHARGED
1.002	S3		19	70.281	0.412	0.000	0.05			1.8	SURCHARGED
1.003	S4		19	70.281	0.493	0.000	0.12			4.2	SURCHARGED
1.004	S5		19	70.280	0.577	0.000	0.14			5.4	SURCHARGED
1.005	S6		17	70.279	0.750	0.000	0.17			6.2	SURCHARGED
1.006	S7		17	70.278	0.848	0.000	0.49			14.4	SURCHARGED
1.007	S8		16	70.276	0.900	0.000	0.11			15.2	SURCHARGED
1.008	S9		16	70.276	0.981	0.000	0.14			18.7	SURCHARGED
1.009	S10		14	70.275	1.044	0.000	0.19			25.7	SURCHARGED
2.000	S11		32	70.680	-0.155	0.000	0.21		76	7.8	OK
2.001	S12		32	70.560	-0.152	0.000	0.23			8.5	OK
2.002	S13		30	70.443	-0.126	0.000	0.40		57	14.3	OK
2.003	S14		34	70.350	-0.129	0.000	0.38			22.1	OK
2.004	S15		25	70.289	0.083	0.000	0.43		497	25.5	SURCHARGED
3.000	S16		19	70.285	0.207	0.000	0.12			6.3	SURCHARGED
2.005	S17		19	70.284	0.440	0.000	0.88			32.2	SURCHARGED
2.006	S18		7	70.277	0.556	0.000	0.30			32.0	SURCHARGED
2.007	S19		7	70.275	0.784	0.000	0.07			5.1	SURCHARGED

Summary Wizard of 600 minute 100 year Summer I+40% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	7	70.274	0.903	0.000	0.08			5.1	SURCHARGED
2.009	S21	8	70.274	0.953	0.000	0.05			5.1	SURCHARGED
1.010	S22	13	70.274	1.336	0.000	0.12			4.1	SURCHARGED
1.011	S23	11	70.219	1.349	0.000	0.21		710	7.4	SURCHARGED
1.012	S24	11	70.216	1.449	0.000	0.34			11.4	SURCHARGED
1.013	S25	11	70.212	1.512	0.000	0.32			11.6	SURCHARGED
1.014	S26	11	70.206	1.638	0.000	0.06			11.7	SURCHARGED
1.015	S27	11	70.206	1.667	0.000	0.06			11.4	SURCHARGED
4.000	S28	11	70.232	0.543	0.000	0.01			0.2	SURCHARGED
4.001	S29	11	70.232	0.620	0.000	0.26		446	9.1	SURCHARGED
4.002	S30	11	70.229	0.696	0.000	0.41			15.4	SURCHARGED
4.003	S31	11	70.223	0.876	0.000	0.45			17.2	SURCHARGED
4.004	S33	11	70.213	1.162	0.000	0.23			16.7	SURCHARGED
1.016	S33	11	70.205	1.685	0.000	0.09			26.1	SURCHARGED
1.017	S34	11	70.204	1.765	0.000	0.12			23.2	SURCHARGED
1.018	S35	11	70.203	1.795	0.000	0.05			20.9	SURCHARGED
1.019	S36	11	70.202	1.822	0.000	0.04			18.0	SURCHARGED
1.020	S37	11	70.202	1.856	0.000	0.03			14.6	SURCHARGED
1.021	S38	11	70.201	1.943	0.000	0.02			13.5	SURCHARGED
1.022	S39	11	70.199	2.468	0.000	0.31			9.1	SURCHARGED
1.023	S40	20	67.533	-0.157	0.000	0.20			9.2	OK
1.024	S41	26	67.148	-0.172	0.000	0.13			14.0	OK
1.025	S42	21	65.930	-0.425	0.000	0.09			16.1	OK
1.026	S43	17	65.926	-0.408	0.000	0.05			15.9	OK
5.000	S44	15	67.754	0.329	0.000	0.08			3.6	SURCHARGED
5.001	S45	15	67.885	0.646	0.000	0.01			1.6	SURCHARGED
1.027	S46	17	65.919	-0.300	0.000	0.03			17.7	OK
6.000	S47	10	67.165	0.065	0.000	0.03			1.4	SURCHARGED
6.001	S48	10	67.162	0.381	0.000	0.03			1.3	SURCHARGED
1.028	S49	17	65.907	-0.186	0.000	0.03			17.8	OK
7.000	S50	32	66.353	-0.192	0.000	0.05			3.1	OK
7.001	S51	21	65.895	-0.270	0.000	0.10			14.0	OK
7.002	S52	17	65.892	-0.209	0.000	0.03			18.2	OK
7.003	S53	17	65.886	-0.124	0.000	0.03			14.5	OK
8.000	S54	8	67.311	0.086	0.000	0.03			1.3	SURCHARGED
8.001	S55	8	67.307	0.328	0.000	0.04			1.2	SURCHARGED
1.029	S56	17	65.882	-0.086	0.000	0.08			28.8	OK
1.030	S57	17	65.867	0.221	0.000	0.55			27.9	SURCHARGED

Summary Wizard of 720 minute 100 year Summer I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	20	70.277	0.252	0.000	0.05				1.7	SURCHARGED
1.001	S2	20	70.277	0.333	0.000	0.05				1.6	SURCHARGED
1.002	S3	20	70.277	0.408	0.000	0.04				1.6	SURCHARGED
1.003	S4	20	70.277	0.489	0.000	0.10				3.7	SURCHARGED
1.004	S5	20	70.276	0.573	0.000	0.13				4.7	SURCHARGED
1.005	S6	19	70.275	0.746	0.000	0.15				5.3	SURCHARGED
1.006	S7	19	70.274	0.844	0.000	0.43				12.5	SURCHARGED
1.007	S8	18	70.272	0.896	0.000	0.09				13.2	SURCHARGED
1.008	S9	18	70.273	0.978	0.000	0.12				16.2	SURCHARGED
1.009	S10	16	70.272	1.041	0.000	0.16				22.3	SURCHARGED
2.000	S11	34	70.675	-0.160	0.000	0.19			87	6.7	OK
2.001	S12	34	70.555	-0.157	0.000	0.20				7.4	OK
2.002	S13	33	70.436	-0.133	0.000	0.35			64	12.4	OK
2.003	S14	37	70.342	-0.137	0.000	0.33				19.2	OK
2.004	S15	27	70.287	0.081	0.000	0.40			491	23.6	SURCHARGED
3.000	S16	20	70.283	0.205	0.000	0.11				5.5	SURCHARGED
2.005	S17	20	70.283	0.439	0.000	0.82				29.9	SURCHARGED
2.006	S18	8	70.277	0.556	0.000	0.28				29.8	SURCHARGED
2.007	S19	8	70.275	0.784	0.000	0.06				4.8	SURCHARGED

Summary Wizard of 720 minute 100 year Summer I+40% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	8	70.273	0.902	0.000	0.08			4.8	SURCHARGED
2.009	S21	9	70.273	0.952	0.000	0.05			4.8	SURCHARGED
1.010	S22	15	70.271	1.333	0.000	0.12			4.1	SURCHARGED
1.011	S23	12	70.211	1.341	0.000	0.19		756	6.8	SURCHARGED
1.012	S24	12	70.208	1.441	0.000	0.31		879	10.5	SURCHARGED
1.013	S25	12	70.204	1.504	0.000	0.29			10.7	SURCHARGED
1.014	S26	13	70.198	1.630	0.000	0.05			10.5	SURCHARGED
1.015	S27	13	70.198	1.659	0.000	0.05			9.8	SURCHARGED
4.000	S28	12	70.223	0.534	0.000	0.00			0.2	SURCHARGED
4.001	S29	12	70.223	0.611	0.000	0.23		487	8.1	SURCHARGED
4.002	S30	12	70.221	0.688	0.000	0.37			13.7	SURCHARGED
4.003	S31	13	70.214	0.867	0.000	0.39			15.2	SURCHARGED
4.004	S33	13	70.204	1.154	0.000	0.20			14.9	SURCHARGED
1.016	S33	13	70.197	1.677	0.000	0.08			22.4	SURCHARGED
1.017	S34	13	70.196	1.757	0.000	0.10			20.7	SURCHARGED
1.018	S35	13	70.195	1.787	0.000	0.05			18.6	SURCHARGED
1.019	S36	13	70.194	1.814	0.000	0.04			15.6	SURCHARGED
1.020	S37	13	70.193	1.848	0.000	0.02			12.9	SURCHARGED
1.021	S38	13	70.192	1.935	0.000	0.02			12.5	SURCHARGED
1.022	S39	13	70.191	2.460	0.000	0.31			9.1	SURCHARGED
1.023	S40	22	67.533	-0.157	0.000	0.20			9.2	OK
1.024	S41	30	67.147	-0.173	0.000	0.12			13.2	OK
1.025	S42	26	65.889	-0.466	0.000	0.08			15.0	OK
1.026	S43	21	65.878	-0.455	0.000	0.05			14.9	OK
5.000	S44	16	67.748	0.323	0.000	0.08			3.6	SURCHARGED
5.001	S45	16	67.884	0.645	0.000	0.01			1.6	SURCHARGED
1.027	S46	20	65.865	-0.354	0.000	0.03			17.3	OK
6.000	S47	11	67.162	0.062	0.000	0.03			1.3	SURCHARGED
6.001	S48	12	67.159	0.378	0.000	0.03			1.3	SURCHARGED
1.028	S49	20	65.855	-0.238	0.000	0.03			17.7	OK
7.000	S50	34	66.351	-0.194	0.000	0.05			2.6	OK
7.001	S51	25	65.848	-0.317	0.000	0.09			12.2	OK
7.002	S52	20	65.842	-0.259	0.000	0.03			15.9	OK
7.003	S53	20	65.838	-0.172	0.000	0.03			13.1	OK
8.000	S54	10	67.308	0.083	0.000	0.03			1.3	SURCHARGED
8.001	S55	10	67.305	0.326	0.000	0.04			1.2	SURCHARGED
1.029	S56	20	65.835	-0.133	0.000	0.08			28.3	OK
1.030	S57	20	65.823	0.177	0.000	0.55			27.8	SURCHARGED

Summary Wizard of 960 minute 100 year Summer I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	22		70.259	0.234	0.000	0.04			1.3	SURCHARGED
1.001	S2	22		70.259	0.315	0.000	0.04			1.3	SURCHARGED
1.002	S3	22		70.259	0.390	0.000	0.04			1.2	SURCHARGED
1.003	S4	22		70.259	0.471	0.000	0.08			2.9	SURCHARGED
1.004	S5	22		70.259	0.556	0.000	0.10			3.7	SURCHARGED
1.005	S6	22		70.258	0.729	0.000	0.12			4.2	SURCHARGED
1.006	S7	21		70.257	0.827	0.000	0.34			9.9	SURCHARGED
1.007	S8	20		70.256	0.880	0.000	0.08			10.5	SURCHARGED
1.008	S9	20		70.256	0.961	0.000	0.10			12.9	SURCHARGED
1.009	S10	20		70.255	1.024	0.000	0.13			17.8	SURCHARGED
2.000	S11	40		70.667	-0.168	0.000	0.15		118	5.4	OK
2.001	S12	40		70.547	-0.165	0.000	0.16			5.9	OK
2.002	S13	39		70.425	-0.144	0.000	0.28		80	9.9	OK
2.003	S14	41		70.332	-0.147	0.000	0.26			15.3	OK
2.004	S15	28		70.272	0.066	0.000	0.35		453	20.7	SURCHARGED
3.000	S16	22		70.269	0.191	0.000	0.09			4.6	SURCHARGED
2.005	S17	22		70.268	0.424	0.000	0.71			26.0	SURCHARGED
2.006	S18	11		70.264	0.543	0.000	0.24			25.8	SURCHARGED
2.007	S19	11		70.261	0.770	0.000	0.06			4.6	SURCHARGED

Summary Wizard of 960 minute 100 year Summer I+40% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	11	70.259	0.888	0.000	0.08			4.6	SURCHARGED
2.009	S21	11	70.258	0.937	0.000	0.04			4.6	SURCHARGED
1.010	S22	18	70.255	1.317	0.000	0.12			4.1	SURCHARGED
1.011	S23	14	70.187	1.317	0.000	0.18		816	6.3	SURCHARGED
1.012	S24	14	70.184	1.417	0.000	0.27		936	9.3	SURCHARGED
1.013	S25	14	70.180	1.480	0.000	0.26			9.5	SURCHARGED
1.014	S26	14	70.173	1.605	0.000	0.05			9.0	SURCHARGED
1.015	S27	14	70.173	1.634	0.000	0.04			8.3	SURCHARGED
4.000	S28	14	70.198	0.509	0.000	0.00			0.1	SURCHARGED
4.001	S29	14	70.198	0.586	0.000	0.19		548	6.7	SURCHARGED
4.002	S30	14	70.195	0.662	0.000	0.30			11.3	SURCHARGED
4.003	S31	14	70.189	0.842	0.000	0.33			12.6	SURCHARGED
4.004	S33	14	70.179	1.129	0.000	0.17			12.3	SURCHARGED
1.016	S33	14	70.173	1.652	0.000	0.07			18.4	SURCHARGED
1.017	S34	14	70.171	1.733	0.000	0.09			18.2	SURCHARGED
1.018	S35	14	70.170	1.762	0.000	0.04			16.1	SURCHARGED
1.019	S36	14	70.169	1.790	0.000	0.03			14.0	SURCHARGED
1.020	S37	14	70.169	1.823	0.000	0.02			11.9	SURCHARGED
1.021	S38	14	70.168	1.910	0.000	0.02			11.9	SURCHARGED
1.022	S39	14	70.167	2.436	0.000	0.30			9.1	SURCHARGED
1.023	S40	25	67.533	-0.157	0.000	0.20			9.2	OK
1.024	S41	37	67.145	-0.175	0.000	0.11			12.1	OK
1.025	S42	40	65.864	-0.491	0.000	0.08			13.6	OK
1.026	S43	31	65.832	-0.502	0.000	0.05			13.6	OK
5.000	S44	18	67.736	0.311	0.000	0.08			3.6	SURCHARGED
5.001	S45	18	67.882	0.643	0.000	0.01			1.6	SURCHARGED
1.027	S46	30	65.778	-0.441	0.000	0.03			16.1	OK
6.000	S47	14	67.155	0.055	0.000	0.03			1.2	SURCHARGED
6.001	S48	14	67.151	0.370	0.000	0.03			1.2	SURCHARGED
1.028	S49	30	65.771	-0.322	0.000	0.03			17.3	OK
7.000	S50	40	66.348	-0.197	0.000	0.04			2.1	OK
7.001	S51	40	65.798	-0.367	0.000	0.07			9.8	OK
7.002	S52	30	65.762	-0.339	0.000	0.02			13.0	OK
7.003	S53	30	65.758	-0.252	0.000	0.03			11.2	OK
8.000	S54	12	67.302	0.077	0.000	0.03			1.2	SURCHARGED
8.001	S55	12	67.299	0.320	0.000	0.04			1.2	SURCHARGED
1.029	S56	30	65.756	-0.212	0.000	0.08			27.7	OK
1.030	S57	30	65.748	0.102	0.000	0.54			27.5	SURCHARGED

Summary Wizard of 15 minute 1 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	44		69.849	-0.176	0.000	0.11			3.7	OK
1.001	S2	45		69.768	-0.176	0.000	0.11			3.7	OK
1.002	S3	45		69.693	-0.176	0.000	0.11			3.7	OK
1.003	S4	45		69.634	-0.154	0.000	0.21			7.5	OK
1.004	S5	53		69.555	-0.148	0.000	0.25			9.4	OK
1.005	S6	65		69.462	-0.067	0.000	0.30			10.6	OK
1.006	S7	65		69.459	0.029	0.000	0.76			22.0	SURCHARGED
1.007	S8	65		69.455	0.079	0.000	0.15			21.1	SURCHARGED
1.008	S9	65		69.454	0.159	0.000	0.10			13.2	SURCHARGED
1.009	S10	65		69.452	0.221	0.000	0.09			12.8	SURCHARGED
2.000	S11	19		70.705	-0.130	0.000	0.36		6	13.1	OK
2.001	S12	19		70.584	-0.128	0.000	0.39			14.2	OK
2.002	S13	23		70.455	-0.114	0.000	0.48		7	17.0	OK
2.003	S14	28		70.359	-0.120	0.000	0.44			25.7	OK
2.004	S15	32		70.099	-0.107	0.000	0.54		7	31.7	OK
3.000	S16	39		69.924	-0.154	0.000	0.22			11.4	OK

Summary Wizard of 15 minute 1 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	46	69.850	0.006	0.000	1.06			38.7	SURCHARGED
2.006	S18	58	69.545	-0.176	0.000	0.36			39.0	OK
2.007	S19	65	69.462	-0.029	0.000	0.37			28.0	OK
2.008	S20	65	69.459	0.088	0.000	0.34			20.7	SURCHARGED
2.009	S21	65	69.457	0.136	0.000	0.19			20.2	SURCHARGED
1.010	S22	65	69.451	0.513	0.000	0.12			4.1	SURCHARGED
1.011	S23	45	68.739	-0.131	0.000	0.36		13	13.0	OK
1.012	S24	49	68.648	-0.119	0.000	0.45		19	15.3	OK
1.013	S25	49	68.579	-0.121	0.000	0.44			16.0	OK
1.014	S26	64	68.111	-0.457	0.000	0.09			16.8	OK
1.015	S27	64	68.095	-0.444	0.000	0.09			17.2	OK
4.000	S28	39	69.476	-0.213	0.000	0.01			0.4	OK
4.001	S29	56	69.434	-0.178	0.000	0.09			3.3	OK
4.002	S30	42	69.392	-0.141	0.000	0.29			11.0	OK
4.003	S31	45	69.228	-0.119	0.000	0.44			16.8	OK
4.004	S33	45	68.902	-0.149	0.000	0.25			18.1	OK
1.016	S33	64	68.087	-0.433	0.000	0.13			36.8	OK
1.017	S34	64	68.024	-0.414	0.000	0.21			41.3	OK
1.018	S35	65	67.934	-0.474	0.000	0.11			42.0	OK
1.019	S36	65	67.933	-0.447	0.000	0.10			41.6	OK
1.020	S37	65	67.932	-0.413	0.000	0.08			43.1	OK
1.021	S38	65	67.930	-0.327	0.000	0.07			40.3	OK
1.022	S39	65	67.928	0.197	0.000	0.25			7.3	SURCHARGED
1.023	S40	65	67.525	-0.165	0.000	0.16			7.3	OK
1.024	S41	31	67.146	-0.174	0.000	0.11			12.3	OK
1.025	S42	33	65.874	-0.481	0.000	0.09			15.3	OK
1.026	S43	35	65.820	-0.513	0.000	0.05			15.1	OK
5.000	S44	56	67.593	0.168	0.000	0.17			7.2	SURCHARGED
5.001	S45	65	67.721	0.482	0.000	0.01			1.4	SURCHARGED
1.027	S46	39	65.689	-0.530	0.000	0.03			18.6	OK
6.000	S47	65	66.907	-0.193	0.000	0.05			2.4	OK
6.001	S48	65	66.887	0.106	0.000	0.02			0.9	SURCHARGED
1.028	S49	48	65.603	-0.490	0.000	0.03			20.7	OK
7.000	S50	20	66.366	-0.179	0.000	0.09			5.2	OK
7.001	S51	28	65.835	-0.330	0.000	0.16			21.5	OK
7.002	S52	48	65.598	-0.503	0.000	0.05			27.8	OK
7.003	S53	48	65.594	-0.416	0.000	0.05			22.5	OK
8.000	S54	65	67.033	-0.192	0.000	0.05			2.0	OK
8.001	S55	65	67.009	0.030	0.000	0.02			0.8	SURCHARGED
1.029	S56	48	65.594	-0.374	0.000	0.07			24.8	OK
1.030	S57	48	65.590	-0.056	0.000	0.46			23.3	OK

Summary Wizard of 30 minute 1 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Water Level Rank	(m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	47	69.843		-0.182	0.000	0.08			2.9	OK
1.001	S2	48	69.763		-0.181	0.000	0.08			2.9	OK
1.002	S3	48	69.687		-0.182	0.000	0.08			2.9	OK
1.003	S4	48	69.626		-0.162	0.000	0.18			6.2	OK
1.004	S5	54	69.554		-0.149	0.000	0.21			7.8	OK
1.005	S6	55	69.547		0.018	0.000	0.25			8.9	SURCHARGED
1.006	S7	57	69.541		0.111	0.000	0.65			19.0	SURCHARGED
1.007	S8	58	69.530		0.154	0.000	0.12			16.5	SURCHARGED
1.008	S9	58	69.527		0.232	0.000	0.06			8.5	SURCHARGED
1.009	S10	59	69.524		0.293	0.000	0.08			11.6	SURCHARGED
2.000	S11	26	70.691		-0.144	0.000	0.28		9	10.3	OK
2.001	S12	26	70.572		-0.140	0.000	0.30			11.2	OK
2.002	S13	26	70.450		-0.119	0.000	0.45		10	15.9	OK
2.003	S14	30	70.356		-0.123	0.000	0.42			24.4	OK
2.004	S15	34	70.097		-0.109	0.000	0.53		10	31.3	OK
3.000	S16	43	69.915		-0.163	0.000	0.17			8.9	OK

Summary Wizard of 30 minute 1 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	45	69.852	0.008	0.000	1.07			39.2	SURCHARGED
2.006	S18	57	69.546	-0.175	0.000	0.36			39.2	OK
2.007	S19	61	69.511	0.020	0.000	0.32			24.0	SURCHARGED
2.008	S20	62	69.509	0.138	0.000	0.33			20.5	SURCHARGED
2.009	S21	62	69.508	0.187	0.000	0.19			19.9	SURCHARGED
1.010	S22	59	69.519	0.581	0.000	0.12			4.1	SURCHARGED
1.011	S23	48	68.734	-0.136	0.000	0.33			11.8	OK
1.012	S24	45	68.655	-0.112	0.000	0.51		19	17.2	OK
1.013	S25	45	68.586	-0.114	0.000	0.49			18.0	OK
1.014	S26	57	68.119	-0.449	0.000	0.10			18.9	OK
1.015	S27	61	68.102	-0.437	0.000	0.10			19.1	OK
4.000	S28	43	69.473	-0.216	0.000	0.01			0.3	OK
4.001	S29	46	69.445	-0.167	0.000	0.15			5.2	OK
4.002	S30	43	69.390	-0.143	0.000	0.28			10.5	OK
4.003	S31	48	69.220	-0.127	0.000	0.39			15.0	OK
4.004	S33	48	68.897	-0.154	0.000	0.22			16.0	OK
1.016	S33	61	68.094	-0.427	0.000	0.14			39.7	OK
1.017	S34	63	68.030	-0.409	0.000	0.22			44.1	OK
1.018	S35	63	68.016	-0.392	0.000	0.12			44.3	OK
1.019	S36	63	68.015	-0.365	0.000	0.11			43.1	OK
1.020	S37	63	68.014	-0.332	0.000	0.08			43.5	OK
1.021	S38	63	68.012	-0.246	0.000	0.06			38.4	OK
1.022	S39	63	68.008	0.277	0.000	0.25			7.4	SURCHARGED
1.023	S40	59	67.526	-0.164	0.000	0.16			7.5	OK
1.024	S41	29	67.147	-0.173	0.000	0.12			13.1	OK
1.025	S42	30	65.874	-0.481	0.000	0.09			15.6	OK
1.026	S43	34	65.821	-0.512	0.000	0.05			15.5	OK
5.000	S44	50	67.598	0.173	0.000	0.09			4.0	SURCHARGED
5.001	S45	52	67.748	0.509	0.000	0.01			1.4	SURCHARGED
1.027	S46	38	65.691	-0.528	0.000	0.03			19.0	OK
6.000	S47	63	66.913	-0.187	0.000	0.07			3.2	OK
6.001	S48	63	66.909	0.128	0.000	0.02			1.0	SURCHARGED
1.028	S49	41	65.619	-0.475	0.000	0.03			20.6	OK
7.000	S50	26	66.359	-0.186	0.000	0.07			4.1	OK
7.001	S51	32	65.823	-0.342	0.000	0.13			17.8	OK
7.002	S52	41	65.615	-0.486	0.000	0.04			23.5	OK
7.003	S53	41	65.613	-0.397	0.000	0.04			16.0	OK
8.000	S54	63	67.040	-0.185	0.000	0.07			2.8	OK
8.001	S55	63	67.034	0.055	0.000	0.03			0.8	SURCHARGED
1.029	S56	41	65.612	-0.355	0.000	0.07			25.2	OK
1.030	S57	41	65.608	-0.038	0.000	0.47			24.2	OK

Summary Wizard of 60 minute 1 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500		50	69.834	-0.191	0.000	0.06			2.0	OK
1.001	S2		50	69.753	-0.191	0.000	0.06			1.9	OK
1.002	S3		50	69.678	-0.191	0.000	0.06			2.0	OK
1.003	S4		50	69.615	-0.173	0.000	0.12			4.3	OK
1.004	S5		49	69.580	-0.123	0.000	0.15			5.5	OK
1.005	S6		50	69.573	0.044	0.000	0.17			5.9	SURCHARGED
1.006	S7		50	69.567	0.137	0.000	0.44			12.9	SURCHARGED
1.007	S8		51	69.556	0.180	0.000	0.07			10.3	SURCHARGED
1.008	S9		51	69.554	0.259	0.000	0.08			10.8	SURCHARGED
1.009	S10		51	69.553	0.322	0.000	0.11			14.6	SURCHARGED
2.000	S11		33	70.676	-0.159	0.000	0.19		15	7.0	OK
2.001	S12		33	70.556	-0.156	0.000	0.21			7.6	OK
2.002	S13		35	70.434	-0.135	0.000	0.34		13	11.8	OK
2.003	S14		38	70.340	-0.139	0.000	0.31			18.3	OK
2.004	S15		39	70.081	-0.125	0.000	0.41		14	24.4	OK
3.000	S16		45	69.903	-0.175	0.000	0.11			6.0	OK
2.005	S17		50	69.780	-0.064	0.000	0.86			31.5	OK
2.006	S18		52	69.557	-0.164	0.000	0.29			31.5	OK
2.007	S19		53	69.554	0.063	0.000	0.27			20.5	SURCHARGED

Summary Wizard of 60 minute 1 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	53	69.552	0.181	0.000	0.30			18.7	SURCHARGED
2.009	S21	53	69.551	0.230	0.000	0.18			18.5	SURCHARGED
1.010	S22	51	69.551	0.613	0.000	0.12			4.1	SURCHARGED
1.011	S23	50	68.724	-0.146	0.000	0.27			9.6	OK
1.012	S24	48	68.650	-0.117	0.000	0.46		31	15.8	OK
1.013	S25	48	68.581	-0.119	0.000	0.45			16.6	OK
1.014	S26	63	68.111	-0.457	0.000	0.09			17.4	OK
1.015	S27	60	68.104	-0.435	0.000	0.09			17.4	OK
4.000	S28	46	69.470	-0.219	0.000	0.01			0.2	OK
4.001	S29	43	69.448	-0.164	0.000	0.17		66	5.8	OK
4.002	S30	45	69.389	-0.144	0.000	0.28			10.5	OK
4.003	S31	49	69.214	-0.133	0.000	0.35			13.5	OK
4.004	S33	50	68.893	-0.158	0.000	0.19			14.2	OK
1.016	S33	60	68.104	-0.417	0.000	0.13			36.1	OK
1.017	S34	60	68.101	-0.338	0.000	0.20			39.6	OK
1.018	S35	60	68.099	-0.308	0.000	0.10			38.9	OK
1.019	S36	60	68.098	-0.281	0.000	0.09			36.8	OK
1.020	S37	60	68.097	-0.249	0.000	0.06			36.1	OK
1.021	S38	60	68.093	-0.164	0.000	0.05			30.3	OK
1.022	S39	60	68.088	0.357	0.000	0.25			7.4	SURCHARGED
1.023	S40	45	67.526	-0.164	0.000	0.17			7.6	OK
1.024	S41	39	67.145	-0.175	0.000	0.11			11.9	OK
1.025	S42	39	65.865	-0.490	0.000	0.08			13.8	OK
1.026	S43	41	65.816	-0.517	0.000	0.05			13.8	OK
5.000	S44	45	67.602	0.177	0.000	0.08			3.6	SURCHARGED
5.001	S45	46	67.755	0.516	0.000	0.01			1.4	SURCHARGED
1.027	S46	43	65.688	-0.531	0.000	0.03			16.9	OK
6.000	S47	57	66.921	-0.179	0.000	0.07			3.5	OK
6.001	S48	57	66.919	0.138	0.000	0.02			1.0	SURCHARGED
1.028	S49	40	65.621	-0.472	0.000	0.03			18.4	OK
7.000	S50	33	66.351	-0.194	0.000	0.05			2.7	OK
7.001	S51	37	65.807	-0.358	0.000	0.09			12.4	OK
7.002	S52	40	65.618	-0.483	0.000	0.03			16.5	OK
7.003	S53	40	65.616	-0.394	0.000	0.03			12.1	OK
8.000	S54	61	67.049	-0.176	0.000	0.08			3.2	OK
8.001	S55	61	67.046	0.067	0.000	0.03			0.9	SURCHARGED
1.029	S56	40	65.615	-0.353	0.000	0.07			24.7	OK
1.030	S57	40	65.611	-0.035	0.000	0.48			24.3	OK

Summary Wizard of 120 minute 1 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	53		69.827	-0.198	0.000	0.04			1.2	OK
1.001	S2	53		69.746	-0.198	0.000	0.04			1.2	OK
1.002	S3	53		69.671	-0.198	0.000	0.04			1.2	OK
1.003	S4	53		69.605	-0.183	0.000	0.08			2.7	OK
1.004	S5	47		69.586	-0.117	0.000	0.09			3.5	OK
1.005	S6	47		69.584	0.055	0.000	0.10			3.4	SURCHARGED
1.006	S7	47		69.583	0.153	0.000	0.25			7.4	SURCHARGED
1.007	S8	48		69.581	0.205	0.000	0.05			7.6	SURCHARGED
1.008	S9	48		69.581	0.286	0.000	0.07			9.3	SURCHARGED
1.009	S10	48		69.580	0.349	0.000	0.09			12.7	SURCHARGED
2.000	S11	45		70.662	-0.173	0.000	0.12		27	4.4	OK
2.001	S12	45		70.541	-0.171	0.000	0.13			4.8	OK
2.002	S13	44		70.416	-0.153	0.000	0.22		22	7.9	OK
2.003	S14	45		70.323	-0.156	0.000	0.21			12.2	OK
2.004	S15	46		70.061	-0.145	0.000	0.28		22	16.4	OK
3.000	S16	50		69.892	-0.186	0.000	0.07			3.8	OK
2.005	S17	52		69.742	-0.102	0.000	0.58			21.3	OK
2.006	S18	48		69.587	-0.134	0.000	0.20			21.3	OK
2.007	S19	48		69.585	0.094	0.000	0.22			16.4	SURCHARGED

Summary Wizard of 120 minute 1 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	48	69.582	0.211	0.000	0.26			16.1	SURCHARGED
2.009	S21	48	69.582	0.261	0.000	0.15			16.0	SURCHARGED
1.010	S22	48	69.579	0.641	0.000	0.12			4.1	SURCHARGED
1.011	S23	53	68.714	-0.156	0.000	0.21			7.4	OK
1.012	S24	52	68.635	-0.132	0.000	0.36		68	12.2	OK
1.013	S25	52	68.566	-0.134	0.000	0.35			12.8	OK
1.014	S26	50	68.184	-0.384	0.000	0.07			13.4	OK
1.015	S27	50	68.183	-0.356	0.000	0.07			13.3	OK
4.000	S28	49	69.468	-0.221	0.000	0.00			0.1	OK
4.001	S29	47	69.444	-0.168	0.000	0.15		93	5.1	OK
4.002	S30	51	69.381	-0.152	0.000	0.23			8.7	OK
4.003	S31	52	69.204	-0.143	0.000	0.28			10.9	OK
4.004	S33	52	68.885	-0.166	0.000	0.16			11.4	OK
1.016	S33	50	68.183	-0.338	0.000	0.10			27.7	OK
1.017	S34	50	68.180	-0.258	0.000	0.15			29.9	OK
1.018	S35	50	68.179	-0.229	0.000	0.08			28.8	OK
1.019	S36	50	68.178	-0.202	0.000	0.06			26.3	OK
1.020	S37	50	68.176	-0.170	0.000	0.04			25.4	OK
1.021	S38	50	68.171	-0.086	0.000	0.03			21.0	OK
1.022	S39	50	68.161	0.430	0.000	0.25			7.4	SURCHARGED
1.023	S40	46	67.526	-0.164	0.000	0.17			7.6	OK
1.024	S41	46	67.142	-0.178	0.000	0.10			10.5	OK
1.025	S42	46	65.855	-0.500	0.000	0.07			11.7	OK
1.026	S43	46	65.810	-0.523	0.000	0.04			11.7	OK
5.000	S44	46	67.602	0.177	0.000	0.08			3.6	SURCHARGED
5.001	S45	45	67.755	0.516	0.000	0.01			1.4	SURCHARGED
1.027	S46	48	65.684	-0.535	0.000	0.02			14.3	OK
6.000	S47	49	66.928	-0.172	0.000	0.06			3.0	OK
6.001	S48	49	66.926	0.145	0.000	0.02			1.0	SURCHARGED
1.028	S49	46	65.605	-0.488	0.000	0.03			16.3	OK
7.000	S50	45	66.345	-0.200	0.000	0.03			1.7	OK
7.001	S51	45	65.785	-0.380	0.000	0.06			8.0	OK
7.002	S52	46	65.600	-0.501	0.000	0.02			10.7	OK
7.003	S53	46	65.597	-0.413	0.000	0.02			8.8	OK
8.000	S54	51	67.057	-0.168	0.000	0.07			2.8	OK
8.001	S55	51	67.054	0.075	0.000	0.03			0.9	SURCHARGED
1.029	S56	46	65.596	-0.372	0.000	0.07			23.5	OK
1.030	S57	46	65.592	-0.054	0.000	0.46			23.4	OK

Summary Wizard of 180 minute 1 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	55	69.824	-0.201	0.000	0.03			0.9	OK
1.001	S2	55	69.743	-0.201	0.000	0.03			0.9	OK
1.002	S3	55	69.668	-0.201	0.000	0.03			0.9	OK
1.003	S4	55	69.598	-0.190	0.000	0.06			2.1	OK
1.004	S5	45	69.592	-0.111	0.000	0.07			2.6	OK
1.005	S6	45	69.591	0.062	0.000	0.07			2.6	SURCHARGED
1.006	S7	45	69.590	0.160	0.000	0.20			5.8	SURCHARGED
1.007	S8	45	69.589	0.213	0.000	0.04			6.1	SURCHARGED
1.008	S9	45	69.589	0.294	0.000	0.06			7.5	SURCHARGED
1.009	S10	46	69.588	0.357	0.000	0.08			10.3	SURCHARGED
2.000	S11	51	70.656	-0.179	0.000	0.09		40	3.3	OK
2.001	S12	51	70.534	-0.178	0.000	0.10			3.6	OK
2.002	S13	51	70.406	-0.163	0.000	0.17		32	6.0	OK
2.003	S14	51	70.314	-0.165	0.000	0.16			9.3	OK
2.004	S15	51	70.051	-0.155	0.000	0.21		31	12.6	OK
3.000	S16	54	69.887	-0.191	0.000	0.05			2.9	OK
2.005	S17	55	69.724	-0.120	0.000	0.45			16.4	OK
2.006	S18	46	69.596	-0.125	0.000	0.15			16.3	OK
2.007	S19	46	69.594	0.103	0.000	0.17			13.0	SURCHARGED

Summary Wizard of 180 minute 1 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	46	69.592	0.221	0.000	0.21			12.8	SURCHARGED
2.009	S21	46	69.591	0.270	0.000	0.12			12.6	SURCHARGED
1.010	S22	46	69.587	0.649	0.000	0.12			4.1	SURCHARGED
1.011	S23	55	68.709	-0.161	0.000	0.18			6.4	OK
1.012	S24	55	68.626	-0.141	0.000	0.30			10.2	OK
1.013	S25	55	68.557	-0.143	0.000	0.29			10.6	OK
1.014	S26	47	68.215	-0.353	0.000	0.06			11.0	OK
1.015	S27	47	68.215	-0.324	0.000	0.06			10.9	OK
4.000	S28	53	69.467	-0.222	0.000	0.00			0.1	OK
4.001	S29	51	69.439	-0.173	0.000	0.12		130	4.3	OK
4.002	S30	54	69.375	-0.158	0.000	0.19			7.3	OK
4.003	S31	55	69.196	-0.151	0.000	0.23			9.0	OK
4.004	S33	55	68.879	-0.172	0.000	0.13			9.4	OK
1.016	S33	47	68.214	-0.306	0.000	0.08			22.7	OK
1.017	S34	47	68.212	-0.227	0.000	0.12			23.6	OK
1.018	S35	47	68.211	-0.197	0.000	0.06			23.0	OK
1.019	S36	47	68.210	-0.170	0.000	0.05			21.2	OK
1.020	S37	47	68.208	-0.138	0.000	0.04			20.5	OK
1.021	S38	47	68.202	-0.055	0.000	0.03			17.4	OK
1.022	S39	47	68.188	0.457	0.000	0.25			7.4	SURCHARGED
1.023	S40	47	67.526	-0.164	0.000	0.17			7.6	OK
1.024	S41	51	67.141	-0.179	0.000	0.09			9.8	OK
1.025	S42	51	65.850	-0.505	0.000	0.06			10.8	OK
1.026	S43	51	65.807	-0.526	0.000	0.04			10.7	OK
5.000	S44	47	67.601	0.176	0.000	0.09			3.8	SURCHARGED
5.001	S45	48	67.751	0.512	0.000	0.01			1.4	SURCHARGED
1.027	S46	52	65.681	-0.538	0.000	0.02			13.0	OK
6.000	S47	47	66.931	-0.169	0.000	0.05			2.6	OK
6.001	S48	47	66.928	0.147	0.000	0.02			1.0	SURCHARGED
1.028	S49	52	65.590	-0.503	0.000	0.03			15.2	OK
7.000	S50	51	66.343	-0.202	0.000	0.02			1.3	OK
7.001	S51	51	65.776	-0.389	0.000	0.04			6.0	OK
7.002	S52	52	65.582	-0.519	0.000	0.01			8.1	OK
7.003	S53	52	65.577	-0.433	0.000	0.02			7.1	OK
8.000	S54	48	67.060	-0.165	0.000	0.06			2.4	OK
8.001	S55	48	67.057	0.078	0.000	0.03			0.9	SURCHARGED
1.029	S56	52	65.576	-0.392	0.000	0.06			22.5	OK
1.030	S57	52	65.573	-0.073	0.000	0.44			22.4	OK

Summary Wizard of 240 minute 1 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	57		69.823	-0.202	0.000	0.02			0.8	OK
1.001	S2	57		69.742	-0.202	0.000	0.02			0.8	OK
1.002	S3	57		69.667	-0.202	0.000	0.02			0.8	OK
1.003	S4	57		69.595	-0.193	0.000	0.05			1.7	OK
1.004	S5	46		69.592	-0.111	0.000	0.06			2.1	OK
1.005	S6	46		69.591	0.062	0.000	0.06			2.2	SURCHARGED
1.006	S7	46		69.590	0.160	0.000	0.17			4.9	SURCHARGED
1.007	S8	46		69.588	0.212	0.000	0.04			5.1	SURCHARGED
1.008	S9	46		69.588	0.293	0.000	0.05			6.3	SURCHARGED
1.009	S10	45		69.588	0.357	0.000	0.06			8.6	SURCHARGED
2.000	S11	55		70.650	-0.185	0.000	0.07		56	2.7	OK
2.001	S12	55		70.529	-0.183	0.000	0.08			3.0	OK
2.002	S13	55		70.400	-0.169	0.000	0.14		41	5.0	OK
2.003	S14	55		70.308	-0.171	0.000	0.13			7.7	OK
2.004	S15	56		70.044	-0.162	0.000	0.18		41	10.4	OK
3.000	S16	57		69.883	-0.195	0.000	0.04			2.3	OK
2.005	S17	57		69.713	-0.131	0.000	0.37			13.5	OK
2.006	S18	45		69.596	-0.125	0.000	0.12			13.5	OK
2.007	S19	45		69.594	0.103	0.000	0.15			10.9	SURCHARGED

Summary Wizard of 240 minute 1 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	45	69.592	0.221	0.000	0.18			10.9	SURCHARGED
2.009	S21	45	69.591	0.270	0.000	0.10			10.8	SURCHARGED
1.010	S22	45	69.588	0.650	0.000	0.12			4.1	SURCHARGED
1.011	S23	57	68.706	-0.164	0.000	0.17			5.9	OK
1.012	S24	57	68.621	-0.146	0.000	0.27			9.1	OK
1.013	S25	57	68.552	-0.148	0.000	0.26			9.4	OK
1.014	S26	46	68.224	-0.344	0.000	0.05			9.8	OK
1.015	S27	46	68.223	-0.316	0.000	0.05			9.6	OK
4.000	S28	56	69.467	-0.222	0.000	0.00			0.1	OK
4.001	S29	54	69.435	-0.177	0.000	0.10		169	3.6	OK
4.002	S30	56	69.369	-0.164	0.000	0.16			6.2	OK
4.003	S31	56	69.190	-0.157	0.000	0.20			7.6	OK
4.004	S33	56	68.875	-0.176	0.000	0.11			8.0	OK
1.016	S33	46	68.223	-0.298	0.000	0.07			19.5	OK
1.017	S34	46	68.221	-0.218	0.000	0.10			20.0	OK
1.018	S35	46	68.220	-0.188	0.000	0.05			19.5	OK
1.019	S36	46	68.219	-0.161	0.000	0.04			18.2	OK
1.020	S37	46	68.217	-0.129	0.000	0.03			17.8	OK
1.021	S38	46	68.211	-0.047	0.000	0.03			15.3	OK
1.022	S39	46	68.195	0.464	0.000	0.25			7.4	SURCHARGED
1.023	S40	50	67.526	-0.164	0.000	0.17			7.6	OK
1.024	S41	55	67.140	-0.180	0.000	0.09			9.4	OK
1.025	S42	55	65.847	-0.508	0.000	0.06			10.2	OK
1.026	S43	55	65.805	-0.528	0.000	0.03			10.2	OK
5.000	S44	48	67.599	0.174	0.000	0.08			3.6	SURCHARGED
5.001	S45	51	67.749	0.510	0.000	0.01			1.4	SURCHARGED
1.027	S46	55	65.679	-0.540	0.000	0.02			12.3	OK
6.000	S47	46	66.931	-0.169	0.000	0.05			2.3	OK
6.001	S48	46	66.929	0.148	0.000	0.02			1.0	SURCHARGED
1.028	S49	55	65.581	-0.513	0.000	0.02			14.3	OK
7.000	S50	55	66.340	-0.205	0.000	0.02			1.1	OK
7.001	S51	55	65.770	-0.395	0.000	0.04			4.9	OK
7.002	S52	55	65.571	-0.530	0.000	0.01			6.7	OK
7.003	S53	55	65.560	-0.450	0.000	0.01			6.1	OK
8.000	S54	47	67.061	-0.164	0.000	0.06			2.1	OK
8.001	S55	47	67.059	0.080	0.000	0.03			0.9	SURCHARGED
1.029	S56	55	65.560	-0.408	0.000	0.06			21.5	OK
1.030	S57	55	65.557	-0.089	0.000	0.42			21.5	OK

Summary Wizard of 360 minute 1 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	59		69.818	-0.207	0.000	0.02			0.6	OK
1.001	S2	59		69.737	-0.207	0.000	0.02			0.6	OK
1.002	S3	59		69.661	-0.208	0.000	0.02			0.6	OK
1.003	S4	59		69.591	-0.197	0.000	0.04			1.3	OK
1.004	S5	48		69.584	-0.119	0.000	0.04			1.6	OK
1.005	S6	48		69.583	0.054	0.000	0.05			1.6	SURCHARGED
1.006	S7	48		69.583	0.153	0.000	0.12			3.6	SURCHARGED
1.007	S8	47		69.581	0.205	0.000	0.03			3.8	SURCHARGED
1.008	S9	47		69.581	0.286	0.000	0.03			4.6	SURCHARGED
1.009	S10	47		69.581	0.350	0.000	0.05			6.3	SURCHARGED
2.000	S11	59		70.644	-0.191	0.000	0.06		79	2.0	OK
2.001	S12	59		70.523	-0.189	0.000	0.06			2.2	OK
2.002	S13	59		70.393	-0.176	0.000	0.11		59	3.7	OK
2.003	S14	59		70.301	-0.178	0.000	0.10			5.8	OK
2.004	S15	59		70.035	-0.171	0.000	0.13		60	7.9	OK
3.000	S16	59		69.880	-0.198	0.000	0.03			1.8	OK
2.005	S17	59		69.700	-0.144	0.000	0.28			10.2	OK
2.006	S18	47		69.589	-0.132	0.000	0.09			10.2	OK
2.007	S19	47		69.587	0.096	0.000	0.11			8.6	SURCHARGED

Summary Wizard of 360 minute 1 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	47	69.585	0.214	0.000	0.14			8.5	SURCHARGED
2.009	S21	47	69.584	0.263	0.000	0.08			8.5	SURCHARGED
1.010	S22	47	69.580	0.642	0.000	0.12			4.1	SURCHARGED
1.011	S23	59	68.703	-0.167	0.000	0.15			5.5	OK
1.012	S24	59	68.615	-0.152	0.000	0.23			7.8	OK
1.013	S25	59	68.546	-0.154	0.000	0.22			8.1	OK
1.014	S26	45	68.225	-0.343	0.000	0.04			8.3	OK
1.015	S27	45	68.224	-0.315	0.000	0.04			8.2	OK
4.000	S28	59	69.466	-0.223	0.000	0.00			0.1	OK
4.001	S29	58	69.429	-0.183	0.000	0.08		266	2.8	OK
4.002	S30	59	69.361	-0.172	0.000	0.13			4.8	OK
4.003	S31	59	69.180	-0.167	0.000	0.15			5.9	OK
4.004	S33	59	68.869	-0.181	0.000	0.08			6.1	OK
1.016	S33	45	68.224	-0.297	0.000	0.06			15.9	OK
1.017	S34	45	68.222	-0.217	0.000	0.08			16.2	OK
1.018	S35	45	68.221	-0.187	0.000	0.04			15.9	OK
1.019	S36	45	68.219	-0.160	0.000	0.04			15.0	OK
1.020	S37	45	68.218	-0.128	0.000	0.03			14.8	OK
1.021	S38	45	68.212	-0.046	0.000	0.02			13.1	OK
1.022	S39	45	68.196	0.465	0.000	0.25			7.4	SURCHARGED
1.023	S40	52	67.526	-0.164	0.000	0.17			7.6	OK
1.024	S41	59	67.138	-0.182	0.000	0.08			8.9	OK
1.025	S42	59	65.844	-0.511	0.000	0.05			9.5	OK
1.026	S43	59	65.803	-0.530	0.000	0.03			9.5	OK
5.000	S44	55	67.593	0.168	0.000	0.08			3.6	SURCHARGED
5.001	S45	54	67.745	0.506	0.000	0.01			1.4	SURCHARGED
1.027	S46	59	65.675	-0.545	0.000	0.02			11.5	OK
6.000	S47	45	66.931	-0.169	0.000	0.04			1.9	OK
6.001	S48	45	66.929	0.148	0.000	0.02			1.0	SURCHARGED
1.028	S49	59	65.572	-0.521	0.000	0.02			13.2	OK
7.000	S50	59	66.335	-0.210	0.000	0.01			0.8	OK
7.001	S51	59	65.764	-0.401	0.000	0.03			3.7	OK
7.002	S52	59	65.559	-0.542	0.000	0.01			5.0	OK
7.003	S53	59	65.544	-0.466	0.000	0.01			4.8	OK
8.000	S54	45	67.062	-0.163	0.000	0.05			1.8	OK
8.001	S55	45	67.060	0.081	0.000	0.03			0.9	SURCHARGED
1.029	S56	59	65.543	-0.425	0.000	0.05			19.3	OK
1.030	S57	59	65.541	-0.105	0.000	0.38			19.3	OK

Summary Wizard of 480 minute 1 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	62		69.814	-0.211	0.000	0.01			0.5	OK
1.001	S2	62		69.733	-0.211	0.000	0.01			0.5	OK
1.002	S3	62		69.658	-0.211	0.000	0.01			0.5	OK
1.003	S4	62		69.588	-0.200	0.000	0.03			1.0	OK
1.004	S5	50		69.574	-0.129	0.000	0.04			1.3	OK
1.005	S6	49		69.573	0.044	0.000	0.04			1.4	SURCHARGED
1.006	S7	49		69.572	0.142	0.000	0.10			2.9	SURCHARGED
1.007	S8	49		69.571	0.195	0.000	0.02			3.0	SURCHARGED
1.008	S9	49		69.571	0.276	0.000	0.03			3.7	SURCHARGED
1.009	S10	49		69.571	0.340	0.000	0.04			5.1	SURCHARGED
2.000	S11	62		70.641	-0.194	0.000	0.05		96	1.7	OK
2.001	S12	62		70.519	-0.193	0.000	0.05			1.8	OK
2.002	S13	62		70.388	-0.181	0.000	0.09		74	3.0	OK
2.003	S14	62		70.296	-0.183	0.000	0.08			4.7	OK
2.004	S15	62		70.030	-0.176	0.000	0.11		76	6.4	OK
3.000	S16	62		69.877	-0.201	0.000	0.03			1.4	OK

Summary Wizard of 480 minute 1 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17		62	69.691	-0.153	0.000	0.23			8.3	OK
2.006	S18		49	69.579	-0.142	0.000	0.08			8.3	OK
2.007	S19		49	69.577	0.086	0.000	0.10			7.3	SURCHARGED
2.008	S20		49	69.575	0.204	0.000	0.12			7.3	SURCHARGED
2.009	S21		49	69.574	0.253	0.000	0.07			7.3	SURCHARGED
1.010	S22		49	69.570	0.632	0.000	0.12			4.1	SURCHARGED
1.011	S23		62	68.702	-0.168	0.000	0.15		612	5.3	OK
1.012	S24		62	68.611	-0.156	0.000	0.21		591	7.1	OK
1.013	S25		62	68.543	-0.157	0.000	0.20			7.3	OK
1.014	S26		48	68.209	-0.359	0.000	0.04			7.5	OK
1.015	S27		48	68.209	-0.330	0.000	0.04			7.5	OK
4.000	S28		62	69.465	-0.224	0.000	0.00			0.0	OK
4.001	S29		61	69.425	-0.187	0.000	0.07			2.3	OK
4.002	S30		62	69.356	-0.177	0.000	0.10			3.9	OK
4.003	S31		62	69.175	-0.172	0.000	0.13			4.9	OK
4.004	S33		62	68.864	-0.186	0.000	0.07			5.1	OK
1.016	S33		48	68.208	-0.313	0.000	0.05			13.7	OK
1.017	S34		48	68.206	-0.233	0.000	0.07			14.1	OK
1.018	S35		48	68.205	-0.203	0.000	0.04			13.9	OK
1.019	S36		48	68.204	-0.176	0.000	0.03			13.3	OK
1.020	S37		48	68.202	-0.144	0.000	0.02			13.2	OK
1.021	S38		48	68.197	-0.061	0.000	0.02			11.9	OK
1.022	S39		48	68.184	0.453	0.000	0.25			7.4	SURCHARGED
1.023	S40		55	67.526	-0.164	0.000	0.16			7.5	OK
1.024	S41		62	67.137	-0.183	0.000	0.08			8.6	OK
1.025	S42		62	65.842	-0.513	0.000	0.05			9.1	OK
1.026	S43		62	65.802	-0.531	0.000	0.03			9.1	OK
5.000	S44		60	67.588	0.163	0.000	0.08			3.6	SURCHARGED
5.001	S45		58	67.741	0.502	0.000	0.01			1.4	SURCHARGED
1.027	S46		61	65.672	-0.547	0.000	0.02			11.0	OK
6.000	S47		48	66.930	-0.170	0.000	0.03			1.7	OK
6.001	S48		48	66.927	0.147	0.000	0.02			1.0	SURCHARGED
1.028	S49		61	65.567	-0.526	0.000	0.02			12.6	OK
7.000	S50		62	66.332	-0.213	0.000	0.01			0.7	OK
7.001	S51		62	65.761	-0.404	0.000	0.02			3.0	OK
7.002	S52		61	65.549	-0.552	0.000	0.01			4.1	OK
7.003	S53		61	65.533	-0.477	0.000	0.01			4.0	OK
8.000	S54		46	67.061	-0.164	0.000	0.04			1.6	OK
8.001	S55		46	67.059	0.080	0.000	0.03			0.9	SURCHARGED
1.029	S56		61	65.533	-0.435	0.000	0.05			17.8	OK
1.030	S57		61	65.531	-0.115	0.000	0.35			17.8	OK

Summary Wizard of 600 minute 1 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	63		69.812	-0.213	0.000	0.01			0.4	OK
1.001	S2	63		69.731	-0.213	0.000	0.01			0.4	OK
1.002	S3	63		69.656	-0.213	0.000	0.01			0.4	OK
1.003	S4	63		69.587	-0.201	0.000	0.03			0.9	OK
1.004	S5	51		69.560	-0.143	0.000	0.03			1.1	OK
1.005	S6	51		69.559	0.030	0.000	0.03			1.2	SURCHARGED
1.006	S7	51		69.559	0.129	0.000	0.09			2.6	SURCHARGED
1.007	S8	50		69.557	0.181	0.000	0.02			2.6	SURCHARGED
1.008	S9	50		69.557	0.262	0.000	0.02			3.2	SURCHARGED
1.009	S10	50		69.557	0.326	0.000	0.03			4.4	SURCHARGED
2.000	S11	63		70.638	-0.197	0.000	0.04		111	1.4	OK
2.001	S12	63		70.516	-0.196	0.000	0.04			1.5	OK
2.002	S13	63		70.384	-0.185	0.000	0.07		98	2.6	OK
2.003	S14	63		70.292	-0.187	0.000	0.07			4.0	OK
2.004	S15	63		70.027	-0.179	0.000	0.09		92	5.5	OK
3.000	S16	63		69.876	-0.202	0.000	0.02			1.2	OK

Summary Wizard of 600 minute 1 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	63		69.686	-0.158	0.000	0.19			7.1	OK
2.006	S18	50		69.565	-0.156	0.000	0.07			7.1	OK
2.007	S19	50		69.563	0.072	0.000	0.09			6.4	SURCHARGED
2.008	S20	50		69.561	0.190	0.000	0.10			6.4	SURCHARGED
2.009	S21	50		69.560	0.239	0.000	0.06			6.4	SURCHARGED
1.010	S22	50		69.556	0.618	0.000	0.12			4.1	SURCHARGED
1.011	S23	64		68.701	-0.169	0.000	0.14		628	5.1	OK
1.012	S24	64		68.609	-0.158	0.000	0.20		622	6.6	OK
1.013	S25	64		68.540	-0.160	0.000	0.19			6.8	OK
1.014	S26	49		68.185	-0.383	0.000	0.04			7.0	OK
1.015	S27	49		68.185	-0.354	0.000	0.04			7.0	OK
4.000	S28	63		69.465	-0.224	0.000	0.00			0.0	OK
4.001	S29	63		69.422	-0.190	0.000	0.06			2.0	OK
4.002	S30	63		69.353	-0.180	0.000	0.09			3.4	OK
4.003	S31	63		69.171	-0.176	0.000	0.11			4.2	OK
4.004	S33	63		68.861	-0.190	0.000	0.06			4.3	OK
1.016	S33	49		68.184	-0.336	0.000	0.04			12.3	OK
1.017	S34	49		68.182	-0.256	0.000	0.06			12.7	OK
1.018	S35	49		68.181	-0.227	0.000	0.03			12.6	OK
1.019	S36	49		68.180	-0.200	0.000	0.03			12.1	OK
1.020	S37	49		68.179	-0.167	0.000	0.02			12.0	OK
1.021	S38	49		68.174	-0.083	0.000	0.02			11.0	OK
1.022	S39	49		68.164	0.433	0.000	0.25			7.4	SURCHARGED
1.023	S40	58		67.526	-0.164	0.000	0.16			7.5	OK
1.024	S41	63		67.137	-0.183	0.000	0.08			8.5	OK
1.025	S42	63		65.840	-0.515	0.000	0.05			8.9	OK
1.026	S43	63		65.801	-0.532	0.000	0.03			8.9	OK
5.000	S44	63		67.583	0.158	0.000	0.08			3.6	SURCHARGED
5.001	S45	61		67.736	0.497	0.000	0.01			1.4	SURCHARGED
1.027	S46	63		65.670	-0.549	0.000	0.02			10.6	OK
6.000	S47	50		66.927	-0.173	0.000	0.03			1.5	OK
6.001	S48	50		66.925	0.144	0.000	0.02			1.0	SURCHARGED
1.028	S49	63		65.565	-0.529	0.000	0.02			12.2	OK
7.000	S50	63		66.330	-0.215	0.000	0.01			0.6	OK
7.001	S51	63		65.756	-0.409	0.000	0.02			2.6	OK
7.002	S52	63		65.542	-0.559	0.000	0.01			3.5	OK
7.003	S53	63		65.526	-0.484	0.000	0.01			3.4	OK
8.000	S54	49		67.060	-0.165	0.000	0.04			1.4	OK
8.001	S55	49		67.057	0.078	0.000	0.03			0.9	SURCHARGED
1.029	S56	63		65.525	-0.443	0.000	0.05			16.8	OK
1.030	S57	64		65.524	-0.122	0.000	0.33			16.8	OK

Summary Wizard of 720 minute 1 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	65		69.811	-0.214	0.000	0.01			0.3	OK
1.001	S2	65		69.730	-0.214	0.000	0.01			0.3	OK
1.002	S3	65		69.655	-0.214	0.000	0.01			0.3	OK
1.003	S4	65		69.586	-0.202	0.000	0.02			0.8	OK
1.004	S5	61		69.545	-0.158	0.000	0.03			1.0	OK
1.005	S6	57		69.544	0.015	0.000	0.03			1.1	SURCHARGED
1.006	S7	56		69.543	0.113	0.000	0.08			2.3	SURCHARGED
1.007	S8	56		69.542	0.166	0.000	0.02			2.3	SURCHARGED
1.008	S9	56		69.542	0.247	0.000	0.02			2.8	SURCHARGED
1.009	S10	56		69.542	0.311	0.000	0.03			3.9	SURCHARGED
2.000	S11	65		70.637	-0.198	0.000	0.03		125	1.2	OK
2.001	S12	65		70.515	-0.197	0.000	0.04			1.4	OK
2.002	S13	65		70.381	-0.188	0.000	0.06		121	2.3	OK
2.003	S14	65		70.290	-0.189	0.000	0.06			3.5	OK
2.004	S15	65		70.023	-0.183	0.000	0.08		111	4.8	OK
3.000	S16	65		69.874	-0.204	0.000	0.02			1.1	OK

Summary Wizard of 720 minute 1 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	65	69.681	-0.163	0.000	0.17			6.2	OK
2.006	S18	56	69.550	-0.171	0.000	0.06			6.2	OK
2.007	S19	56	69.548	0.057	0.000	0.08			5.8	SURCHARGED
2.008	S20	56	69.546	0.175	0.000	0.09			5.8	SURCHARGED
2.009	S21	56	69.545	0.224	0.000	0.06			5.8	SURCHARGED
1.010	S22	56	69.541	0.603	0.000	0.12			4.1	SURCHARGED
1.011	S23	65	68.701	-0.169	0.000	0.14		639	5.0	OK
1.012	S24	65	68.608	-0.159	0.000	0.19		633	6.4	OK
1.013	S25	65	68.539	-0.161	0.000	0.18			6.5	OK
1.014	S26	51	68.161	-0.407	0.000	0.03			6.7	OK
1.015	S27	51	68.160	-0.379	0.000	0.04			6.7	OK
4.000	S28	65	69.465	-0.224	0.000	0.00			0.0	OK
4.001	S29	65	69.419	-0.193	0.000	0.05			1.8	OK
4.002	S30	65	69.350	-0.183	0.000	0.08			3.0	OK
4.003	S31	65	69.168	-0.179	0.000	0.09			3.6	OK
4.004	S33	65	68.858	-0.192	0.000	0.05			3.8	OK
1.016	S33	51	68.160	-0.361	0.000	0.04			11.4	OK
1.017	S34	51	68.158	-0.281	0.000	0.06			11.8	OK
1.018	S35	51	68.157	-0.251	0.000	0.03			11.7	OK
1.019	S36	51	68.156	-0.224	0.000	0.03			11.3	OK
1.020	S37	51	68.155	-0.191	0.000	0.02			11.2	OK
1.021	S38	51	68.151	-0.107	0.000	0.02			10.4	OK
1.022	S39	51	68.142	0.411	0.000	0.25			7.4	SURCHARGED
1.023	S40	61	67.526	-0.164	0.000	0.16			7.5	OK
1.024	S41	65	67.136	-0.184	0.000	0.08			8.3	OK
1.025	S42	65	65.839	-0.516	0.000	0.05			8.7	OK
1.026	S43	65	65.800	-0.533	0.000	0.03			8.7	OK
5.000	S44	64	67.580	0.155	0.000	0.08			3.6	SURCHARGED
5.001	S45	63	67.732	0.493	0.000	0.01			1.4	SURCHARGED
1.027	S46	65	65.669	-0.550	0.000	0.02			10.4	OK
6.000	S47	51	66.925	-0.175	0.000	0.03			1.4	OK
6.001	S48	51	66.922	0.141	0.000	0.02			1.0	SURCHARGED
1.028	S49	65	65.563	-0.531	0.000	0.02			11.9	OK
7.000	S50	65	66.329	-0.216	0.000	0.01			0.5	OK
7.001	S51	65	65.751	-0.414	0.000	0.02			2.3	OK
7.002	S52	65	65.537	-0.564	0.000	0.01			3.1	OK
7.003	S53	65	65.521	-0.489	0.000	0.01			3.0	OK
8.000	S54	50	67.058	-0.167	0.000	0.03			1.3	OK
8.001	S55	50	67.055	0.076	0.000	0.03			0.9	SURCHARGED
1.029	S56	65	65.520	-0.448	0.000	0.05			16.0	OK
1.030	S57	66	65.519	-0.127	0.000	0.31			16.0	OK

Summary Wizard of 960 minute 1 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	66		69.809	-0.216	0.000	0.01			0.3	OK
1.001	S2	66		69.728	-0.216	0.000	0.01			0.3	OK
1.002	S3	66		69.653	-0.216	0.000	0.01			0.3	OK
1.003	S4	66		69.582	-0.206	0.000	0.02			0.6	OK
1.004	S5	65		69.509	-0.194	0.000	0.02			0.8	OK
1.005	S6	62		69.507	-0.022	0.000	0.03			0.9	OK
1.006	S7	62		69.507	0.077	0.000	0.07			1.9	SURCHARGED
1.007	S8	62		69.506	0.130	0.000	0.01			1.9	SURCHARGED
1.008	S9	62		69.505	0.210	0.000	0.02			2.5	SURCHARGED
1.009	S10	62		69.505	0.274	0.000	0.02			3.2	SURCHARGED
2.000	S11	66		70.635	-0.200	0.000	0.03		148	1.0	OK
2.001	S12	66		70.512	-0.200	0.000	0.03			1.1	OK
2.002	S13	66		70.377	-0.192	0.000	0.05		175	1.8	OK
2.003	S14	66		70.286	-0.193	0.000	0.05			2.9	OK
2.004	S15	66		70.018	-0.188	0.000	0.07		155	3.9	OK
3.000	S16	66		69.870	-0.208	0.000	0.02			0.9	OK

Summary Wizard of 960 minute 1 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	66		69.674	-0.170	0.000	0.14			5.0	OK
2.006	S18	65		69.513	-0.208	0.000	0.05			5.0	OK
2.007	S19	62		69.511	0.020	0.000	0.07			4.9	SURCHARGED
2.008	S20	61		69.509	0.138	0.000	0.08			4.9	SURCHARGED
2.009	S21	61		69.508	0.187	0.000	0.05			4.9	SURCHARGED
1.010	S22	62		69.504	0.566	0.000	0.12			4.1	SURCHARGED
1.011	S23	66		68.700	-0.170	0.000	0.14		630	4.9	OK
1.012	S24	66		68.605	-0.162	0.000	0.18		622	6.0	OK
1.013	S25	66		68.536	-0.164	0.000	0.17			6.2	OK
1.014	S26	59		68.118	-0.450	0.000	0.03			6.3	OK
1.015	S27	58		68.117	-0.422	0.000	0.03			6.3	OK
4.000	S28	66		69.465	-0.224	0.000	0.00			0.0	OK
4.001	S29	66		69.416	-0.196	0.000	0.04			1.4	OK
4.002	S30	66		69.345	-0.188	0.000	0.06			2.4	OK
4.003	S31	66		69.163	-0.184	0.000	0.08			3.0	OK
4.004	S33	66		68.855	-0.195	0.000	0.04			3.1	OK
1.016	S33	58		68.116	-0.404	0.000	0.04			10.1	OK
1.017	S34	58		68.115	-0.324	0.000	0.05			10.6	OK
1.018	S35	58		68.114	-0.294	0.000	0.03			10.5	OK
1.019	S36	58		68.113	-0.267	0.000	0.02			10.1	OK
1.020	S37	58		68.112	-0.234	0.000	0.02			10.1	OK
1.021	S38	58		68.109	-0.149	0.000	0.02			9.6	OK
1.022	S39	58		68.102	0.371	0.000	0.25			7.4	SURCHARGED
1.023	S40	63		67.526	-0.164	0.000	0.16			7.5	OK
1.024	S41	66		67.136	-0.184	0.000	0.08			8.1	OK
1.025	S42	66		65.838	-0.517	0.000	0.05			8.4	OK
1.026	S43	66		65.800	-0.534	0.000	0.03			8.4	OK
5.000	S44	66		67.532	0.107	0.000	0.03			1.4	SURCHARGED
5.001	S45	66		67.529	0.290	0.000	0.01			1.3	SURCHARGED
1.027	S46	66		65.667	-0.552	0.000	0.02			10.0	OK
6.000	S47	60		66.919	-0.181	0.000	0.03			1.3	OK
6.001	S48	60		66.916	0.136	0.000	0.02			1.0	SURCHARGED
1.028	S49	66		65.561	-0.532	0.000	0.02			11.5	OK
7.000	S50	66		66.327	-0.218	0.000	0.01			0.4	OK
7.001	S51	66		65.744	-0.421	0.000	0.01			1.8	OK
7.002	S52	66		65.532	-0.569	0.000	0.00			2.5	OK
7.003	S53	66		65.518	-0.492	0.000	0.01			3.6	OK
8.000	S54	56		67.053	-0.172	0.000	0.03			1.2	OK
8.001	S55	56		67.050	0.071	0.000	0.03			0.9	SURCHARGED
1.029	S56	66		65.518	-0.450	0.000	0.05			18.5	OK
1.030	S57	63		65.528	-0.118	0.000	0.32			16.2	OK

Summary Wizard of 15 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	27		69.998	-0.027	0.000	0.26			9.1	OK
1.001	S2	27		69.991	0.047	0.000	0.26			8.9	SURCHARGED
1.002	S3	27		69.984	0.115	0.000	0.21			7.4	SURCHARGED
1.003	S4	27		69.976	0.188	0.000	0.49			17.3	SURCHARGED
1.004	S5	27		69.959	0.256	0.000	0.51			19.1	SURCHARGED
1.005	S6	32		69.938	0.409	0.000	0.42			14.9	SURCHARGED
1.006	S7	33		69.923	0.493	0.000	1.65			48.1	SURCHARGED
1.007	S8	41		69.855	0.479	0.000	0.27			37.3	SURCHARGED
1.008	S9	42		69.840	0.545	0.000	0.31			41.5	SURCHARGED
1.009	S10	43		69.823	0.592	0.000	0.42			57.6	SURCHARGED
2.000	S11	9		70.780	-0.055	0.000	0.88		5	31.9	OK
2.001	S12	10		70.699	-0.013	0.000	0.89			33.0	OK
2.002	S13	11		70.622	0.053	0.000	0.95		7	33.4	SURCHARGED
2.003	S14	11		70.544	0.065	0.000	0.99			57.9	SURCHARGED
2.004	S15	19		70.372	0.166	0.000	0.91		10	53.8	SURCHARGED
3.000	S16	23		70.220	0.142	0.000	0.48			25.6	SURCHARGED
2.005	S17	23		70.155	0.311	0.000	1.89			69.3	SURCHARGED
2.006	S18	43		69.808	0.087	0.000	0.64			69.3	SURCHARGED
2.007	S19	43		69.688	0.197	0.000	0.43			32.4	SURCHARGED

Summary Wizard of 15 minute 30 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	43	69.684	0.313	0.000	0.34			21.0	SURCHARGED
2.009	S21	43	69.682	0.361	0.000	0.19			19.6	SURCHARGED
1.010	S22	43	69.797	0.859	0.000	0.12			4.1	SURCHARGED
1.011	S23	42	68.812	-0.058	0.000	0.89		6	31.8	OK
1.012	S24	42	68.775	0.008	0.000	1.02		10	34.8	SURCHARGED
1.013	S25	43	68.702	0.002	0.000	1.02			37.2	SURCHARGED
1.014	S26	43	68.568	0.000	0.000	0.20			39.9	OK
1.015	S27	43	68.539	0.000	0.000	0.22			41.3	OK
4.000	S28	24	69.568	-0.121	0.000	0.02			0.8	OK
4.001	S29	24	69.567	-0.045	0.000	0.78		11	27.2	OK
4.002	S30	23	69.555	0.022	0.000	0.90			33.7	SURCHARGED
4.003	S31	28	69.447	0.100	0.000	1.15			44.1	SURCHARGED
4.004	S33	42	68.959	-0.092	0.000	0.65			47.1	OK
1.016	S33	43	68.532	0.011	0.000	0.37			105.7	SURCHARGED
1.017	S34	43	68.530	0.092	0.000	0.60			119.1	SURCHARGED
1.018	S35	43	68.530	0.122	0.000	0.31			119.0	SURCHARGED
1.019	S36	43	68.529	0.149	0.000	0.28			113.0	SURCHARGED
1.020	S37	43	68.529	0.183	0.000	0.19			110.9	SURCHARGED
1.021	S38	43	68.528	0.270	0.000	0.15			92.6	SURCHARGED
1.022	S39	43	68.528	0.797	0.000	0.25			7.4	SURCHARGED
1.023	S40	23	67.533	-0.157	0.000	0.20			9.0	OK
1.024	S41	6	67.180	-0.140	0.000	0.30			32.2	OK
1.025	S42	17	65.953	-0.402	0.000	0.23			41.7	OK
1.026	S43	19	65.883	-0.451	0.000	0.14			40.8	OK
5.000	S44	41	67.635	0.210	0.000	0.20			8.7	SURCHARGED
5.001	S45	43	67.780	0.541	0.000	0.01			1.5	SURCHARGED
1.027	S46	28	65.799	-0.420	0.000	0.08			45.9	OK
6.000	S47	43	66.953	-0.147	0.000	0.19			9.2	OK
6.001	S48	43	66.956	0.175	0.000	0.02			1.0	SURCHARGED
1.028	S49	28	65.792	-0.302	0.000	0.06			33.4	OK
7.000	S50	11	66.392	-0.153	0.000	0.22			12.7	OK
7.001	S51	17	65.931	-0.234	0.000	0.46			62.1	OK
7.002	S52	27	65.796	-0.305	0.000	0.14			80.3	OK
7.003	S53	28	65.782	-0.228	0.000	0.11			50.5	OK
8.000	S54	43	67.080	-0.145	0.000	0.23			8.9	OK
8.001	S55	43	67.090	0.111	0.000	0.03			0.9	SURCHARGED
1.029	S56	28	65.778	-0.190	0.000	0.10			36.8	OK
1.030	S57	28	65.769	0.123	0.000	0.54			27.7	SURCHARGED

Summary Wizard of 30 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	23		70.064	0.039	0.000	0.20			7.0	SURCHARGED
1.001	S2	23		70.057	0.113	0.000	0.18			6.2	SURCHARGED
1.002	S3	23		70.051	0.182	0.000	0.16			5.5	SURCHARGED
1.003	S4	23		70.044	0.256	0.000	0.35			12.2	SURCHARGED
1.004	S5	23		70.027	0.324	0.000	0.39			14.5	SURCHARGED
1.005	S6	23		69.999	0.470	0.000	0.37			13.2	SURCHARGED
1.006	S7	23		69.976	0.546	0.000	1.09			31.7	SURCHARGED
1.007	S8	31		69.905	0.529	0.000	0.23			32.2	SURCHARGED
1.008	S9	32		69.891	0.596	0.000	0.30			40.6	SURCHARGED
1.009	S10	34		69.875	0.644	0.000	0.43			58.3	SURCHARGED
2.000	S11	12		70.749	-0.086	0.000	0.70		8	25.4	OK
2.001	S12	14		70.645	-0.067	0.000	0.74			27.3	OK
2.002	S13	12		70.599	0.030	0.000	0.88		8	30.9	SURCHARGED
2.003	S14	13		70.531	0.052	0.000	0.91			53.5	SURCHARGED
2.004	S15	17		70.378	0.172	0.000	0.86		12	51.0	SURCHARGED
3.000	S16	26		70.170	0.092	0.000	0.39			20.3	SURCHARGED
2.005	S17	24		70.135	0.291	0.000	1.85			67.9	SURCHARGED
2.006	S18	35		69.885	0.164	0.000	0.61			66.1	SURCHARGED
2.007	S19	41		69.772	0.281	0.000	0.33			24.7	SURCHARGED

Summary Wizard of 30 minute 30 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	41		69.768	0.397	0.000	0.33			20.0	SURCHARGED
2.009	S21	41		69.767	0.446	0.000	0.19			19.8	SURCHARGED
1.010	S22	39		69.851	0.913	0.000	0.12			4.1	SURCHARGED
1.011	S23	41		68.889	0.019	0.000	0.68			24.4	SURCHARGED
1.012	S24	41		68.882	0.115	0.000	1.04			35.5	SURCHARGED
1.013	S25	41		68.889	0.189	0.000	1.02			37.4	SURCHARGED
1.014	S26	41		68.960	0.392	0.000	0.20			39.7	SURCHARGED
1.015	S27	41		68.967	0.428	0.000	0.21			39.7	SURCHARGED
4.000	S28	23		69.573	-0.116	0.000	0.01			0.5	OK
4.001	S29	23		69.573	-0.039	0.000	0.78		14	27.0	OK
4.002	S30	24		69.545	0.012	0.000	0.90			33.9	SURCHARGED
4.003	S31	33		69.408	0.061	0.000	1.11			42.5	SURCHARGED
4.004	S33	41		69.018	-0.033	0.000	0.62			45.0	OK
1.016	S33	41		68.972	0.452	0.000	0.36			102.0	SURCHARGED
1.017	S34	41		68.972	0.533	0.000	0.58			115.5	SURCHARGED
1.018	S35	41		68.971	0.563	0.000	0.29			109.4	SURCHARGED
1.019	S36	41		68.971	0.591	0.000	0.24			98.7	SURCHARGED
1.020	S37	41		68.970	0.624	0.000	0.17			94.5	SURCHARGED
1.021	S38	41		68.970	0.713	0.000	0.12			73.1	SURCHARGED
1.022	S39	41		68.970	1.239	0.000	0.25			7.4	SURCHARGED
1.023	S40	24		67.533	-0.157	0.000	0.20			9.1	OK
1.024	S41	11		67.171	-0.149	0.000	0.25			26.8	OK
1.025	S42	20		65.933	-0.422	0.000	0.19			34.1	OK
1.026	S43	24		65.868	-0.465	0.000	0.11			33.7	OK
5.000	S44	35		67.652	0.227	0.000	0.13			5.7	SURCHARGED
5.001	S45	38		67.797	0.558	0.000	0.01			1.5	SURCHARGED
1.027	S46	21		65.849	-0.371	0.000	0.06			38.2	OK
6.000	S47	41		66.976	-0.124	0.000	0.18			8.7	OK
6.001	S48	41		66.974	0.193	0.000	0.02			1.0	SURCHARGED
1.028	S49	21		65.840	-0.253	0.000	0.05			27.9	OK
7.000	S50	14		66.383	-0.162	0.000	0.17			10.0	OK
7.001	S51	20		65.899	-0.266	0.000	0.35			47.1	OK
7.002	S52	21		65.841	-0.260	0.000	0.11			60.6	OK
7.003	S53	21		65.829	-0.181	0.000	0.09			38.8	OK
8.000	S54	41		67.105	-0.120	0.000	0.24			9.1	OK
8.001	S55	41		67.102	0.123	0.000	0.03			0.9	SURCHARGED
1.029	S56	21		65.824	-0.144	0.000	0.10			34.1	OK
1.030	S57	21		65.813	0.167	0.000	0.55			27.8	SURCHARGED

Summary Wizard of 60 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	24		70.036	0.011	0.000	0.13			4.4	SURCHARGED
1.001	S2	24		70.031	0.087	0.000	0.12			4.0	SURCHARGED
1.002	S3	24		70.026	0.157	0.000	0.11			3.7	SURCHARGED
1.003	S4	24		70.020	0.232	0.000	0.21			7.2	SURCHARGED
1.004	S5	24		70.007	0.304	0.000	0.25			9.2	SURCHARGED
1.005	S6	24		69.985	0.456	0.000	0.29			10.5	SURCHARGED
1.006	S7	24		69.965	0.535	0.000	0.86			24.9	SURCHARGED
1.007	S8	30		69.911	0.535	0.000	0.19			26.3	SURCHARGED
1.008	S9	30		69.900	0.605	0.000	0.24			32.5	SURCHARGED
1.009	S10	31		69.889	0.658	0.000	0.34			46.0	SURCHARGED
2.000	S11	15		70.718	-0.117	0.000	0.47		15	16.9	OK
2.001	S12	17		70.600	-0.112	0.000	0.50			18.5	OK
2.002	S13	18		70.502	-0.067	0.000	0.83		13	29.4	OK
2.003	S14	19		70.425	-0.054	0.000	0.77			45.3	OK
2.004	S15	24		70.311	0.105	0.000	0.75		12	44.4	SURCHARGED
3.000	S16	27		70.127	0.049	0.000	0.26			13.8	SURCHARGED
2.005	S17	27		70.111	0.267	0.000	1.67			61.1	SURCHARGED
2.006	S18	29		69.926	0.205	0.000	0.54			58.1	SURCHARGED
2.007	S19	38		69.846	0.355	0.000	0.27			20.2	SURCHARGED

Summary Wizard of 60 minute 30 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	38		69.845	0.474	0.000	0.31			18.8	SURCHARGED
2.009	S21	38		69.851	0.530	0.000	0.18			18.7	SURCHARGED
1.010	S22	33		69.873	0.935	0.000	0.12			4.1	SURCHARGED
1.011	S23	39		69.135	0.265	0.000	0.48			17.3	SURCHARGED
1.012	S24	39		69.128	0.361	0.000	1.00			34.0	SURCHARGED
1.013	S25	39		69.129	0.429	0.000	0.98			35.9	SURCHARGED
1.014	S26	39		69.153	0.585	0.000	0.18			35.3	SURCHARGED
1.015	S27	39		69.155	0.616	0.000	0.17			31.7	SURCHARGED
4.000	S28	28		69.526	-0.163	0.000	0.01			0.4	OK
4.001	S29	28		69.526	-0.086	0.000	0.61		27	21.1	OK
4.002	S30	31		69.495	-0.038	0.000	0.86			32.3	OK
4.003	S31	36		69.362	0.015	0.000	1.04			40.0	SURCHARGED
4.004	S33	39		69.183	0.133	0.000	0.57			41.8	SURCHARGED
1.016	S33	39		69.157	0.637	0.000	0.29			83.2	SURCHARGED
1.017	S34	39		69.156	0.718	0.000	0.43			85.6	SURCHARGED
1.018	S35	39		69.156	0.748	0.000	0.21			81.2	SURCHARGED
1.019	S36	39		69.155	0.776	0.000	0.17			71.1	SURCHARGED
1.020	S37	39		69.155	0.809	0.000	0.11			65.2	SURCHARGED
1.021	S38	39		69.155	0.897	0.000	0.08			49.4	SURCHARGED
1.022	S39	39		69.155	1.424	0.000	0.25			7.4	SURCHARGED
1.023	S40	28		67.531	-0.159	0.000	0.19			8.7	OK
1.024	S41	15		67.161	-0.159	0.000	0.19			20.4	OK
1.025	S42	24		65.904	-0.451	0.000	0.14			25.2	OK
1.026	S43	22		65.877	-0.457	0.000	0.08			24.9	OK
5.000	S44	27		67.668	0.243	0.000	0.09			3.8	SURCHARGED
5.001	S45	29		67.814	0.575	0.000	0.01			1.5	SURCHARGED
1.027	S46	19		65.866	-0.353	0.000	0.05			28.3	OK
6.000	S47	39		67.000	-0.100	0.000	0.13			6.1	OK
6.001	S48	39		66.997	0.216	0.000	0.02			1.1	SURCHARGED
1.028	S49	19		65.857	-0.236	0.000	0.04			22.3	OK
7.000	S50	17		66.371	-0.174	0.000	0.12			6.6	OK
7.001	S51	24		65.872	-0.293	0.000	0.23			31.0	OK
7.002	S52	19		65.855	-0.246	0.000	0.07			38.7	OK
7.003	S53	19		65.845	-0.165	0.000	0.06			26.5	OK
8.000	S54	39		67.130	-0.095	0.000	0.17			6.6	OK
8.001	S55	39		67.127	0.148	0.000	0.03			1.0	SURCHARGED
1.029	S56	19		65.840	-0.128	0.000	0.09			31.1	OK
1.030	S57	19		65.828	0.182	0.000	0.55			27.8	SURCHARGED

Summary Wizard of 120 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Water Level Rank	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	28	69.973	-0.052	0.000	0.08			2.8	OK
1.001	S2	28	69.970	0.026	0.000	0.07			2.5	SURCHARGED
1.002	S3	28	69.968	0.099	0.000	0.06			2.1	SURCHARGED
1.003	S4	28	69.965	0.177	0.000	0.13			4.6	SURCHARGED
1.004	S5	28	69.957	0.254	0.000	0.16			5.9	SURCHARGED
1.005	S6	30	69.945	0.416	0.000	0.19			6.7	SURCHARGED
1.006	S7	30	69.934	0.504	0.000	0.58			16.9	SURCHARGED
1.007	S8	29	69.916	0.540	0.000	0.13			17.8	SURCHARGED
1.008	S9	29	69.913	0.618	0.000	0.16			22.1	SURCHARGED
1.009	S10	29	69.911	0.680	0.000	0.23			31.0	SURCHARGED
2.000	S11	25	70.692	-0.143	0.000	0.29		29	10.5	OK
2.001	S12	25	70.573	-0.139	0.000	0.31			11.5	OK
2.002	S13	21	70.461	-0.108	0.000	0.54		24	18.9	OK
2.003	S14	26	70.367	-0.112	0.000	0.50			29.3	OK
2.004	S15	30	70.147	-0.059	0.000	0.64		13	38.1	OK
3.000	S16	29	70.058	-0.020	0.000	0.16			8.5	OK
2.005	S17	29	70.046	0.202	0.000	1.29			47.4	SURCHARGED
2.006	S18	30	69.923	0.202	0.000	0.43			46.3	SURCHARGED
2.007	S19	28	69.906	0.415	0.000	0.20			15.0	SURCHARGED

Summary Wizard of 120 minute 30 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	28	69.904	0.533	0.000	0.24			14.7	SURCHARGED
2.009	S21	28	69.905	0.584	0.000	0.14			14.6	SURCHARGED
1.010	S22	29	69.909	0.971	0.000	0.12			4.1	SURCHARGED
1.011	S23	30	69.364	0.494	0.000	0.34			12.3	SURCHARGED
1.012	S24	30	69.356	0.589	0.000	0.71			24.0	SURCHARGED
1.013	S25	30	69.351	0.651	0.000	0.69			25.2	SURCHARGED
1.014	S26	29	69.347	0.779	0.000	0.14			26.5	SURCHARGED
1.015	S27	29	69.347	0.808	0.000	0.14			26.3	SURCHARGED
4.000	S28	33	69.490	-0.199	0.000	0.01			0.3	OK
4.001	S29	35	69.487	-0.125	0.000	0.41		61	14.2	OK
4.002	S30	37	69.439	-0.094	0.000	0.64			24.1	OK
4.003	S31	35	69.371	0.024	0.000	0.77			29.7	SURCHARGED
4.004	S33	30	69.357	0.306	0.000	0.42			31.0	SURCHARGED
1.016	S33	29	69.347	0.827	0.000	0.22			62.8	SURCHARGED
1.017	S34	29	69.346	0.907	0.000	0.34			67.6	SURCHARGED
1.018	S35	29	69.345	0.937	0.000	0.17			65.1	SURCHARGED
1.019	S36	29	69.344	0.964	0.000	0.14			58.2	SURCHARGED
1.020	S37	29	69.344	0.998	0.000	0.08			48.5	SURCHARGED
1.021	S38	29	69.343	1.085	0.000	0.05			28.8	SURCHARGED
1.022	S39	29	69.343	1.612	0.000	0.26			7.6	SURCHARGED
1.023	S40	31	67.529	-0.161	0.000	0.18			8.2	OK
1.024	S41	22	67.151	-0.169	0.000	0.14			15.5	OK
1.025	S42	28	65.883	-0.472	0.000	0.10			18.4	OK
1.026	S43	25	65.863	-0.471	0.000	0.06			18.3	OK
5.000	S44	24	67.677	0.252	0.000	0.06			2.4	SURCHARGED
5.001	S45	23	67.826	0.587	0.000	0.01			1.5	SURCHARGED
1.027	S46	22	65.845	-0.375	0.000	0.04			21.3	OK
6.000	S47	28	67.021	-0.079	0.000	0.08			3.7	OK
6.001	S48	29	67.018	0.237	0.000	0.03			1.1	SURCHARGED
1.028	S49	22	65.836	-0.257	0.000	0.03			19.0	OK
7.000	S50	25	66.359	-0.186	0.000	0.07			4.1	OK
7.001	S51	27	65.843	-0.322	0.000	0.14			19.2	OK
7.002	S52	22	65.829	-0.272	0.000	0.04			24.2	OK
7.003	S53	22	65.823	-0.187	0.000	0.04			17.9	OK
8.000	S54	28	67.152	-0.073	0.000	0.10			3.8	OK
8.001	S55	30	67.149	0.170	0.000	0.03			1.0	SURCHARGED
1.029	S56	22	65.819	-0.149	0.000	0.08			29.2	OK
1.030	S57	22	65.808	0.162	0.000	0.55			27.8	SURCHARGED

Summary Wizard of 180 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	29		69.960	-0.065	0.000	0.06			2.1	OK
1.001	S2	29		69.958	0.014	0.000	0.06			1.9	SURCHARGED
1.002	S3	29		69.956	0.087	0.000	0.05			1.6	SURCHARGED
1.003	S4	30		69.954	0.166	0.000	0.10			3.4	SURCHARGED
1.004	S5	31		69.949	0.246	0.000	0.12			4.4	SURCHARGED
1.005	S6	31		69.941	0.412	0.000	0.14			5.0	SURCHARGED
1.006	S7	29		69.937	0.507	0.000	0.44			12.9	SURCHARGED
1.007	S8	26		69.933	0.557	0.000	0.10			13.6	SURCHARGED
1.008	S9	27		69.932	0.637	0.000	0.12			16.9	SURCHARGED
1.009	S10	27		69.931	0.700	0.000	0.17			23.7	SURCHARGED
2.000	S11	31		70.680	-0.155	0.000	0.21		41	7.8	OK
2.001	S12	31		70.560	-0.152	0.000	0.23			8.5	OK
2.002	S13	31		70.443	-0.126	0.000	0.40		34	14.2	OK
2.003	S14	35		70.349	-0.130	0.000	0.38			22.0	OK
2.004	S15	36		70.094	-0.112	0.000	0.50		34	29.8	OK
3.000	S16	32		69.988	-0.090	0.000	0.13			6.7	OK
2.005	S17	32		69.977	0.133	0.000	1.01			37.0	SURCHARGED
2.006	S18	27		69.936	0.215	0.000	0.34			36.6	SURCHARGED
2.007	S19	25		69.932	0.441	0.000	0.15			11.6	SURCHARGED

Summary Wizard of 180 minute 30 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	25	69.930	0.559	0.000	0.19			11.4	SURCHARGED
2.009	S21	26	69.930	0.609	0.000	0.11			11.3	SURCHARGED
1.010	S22	27	69.929	0.991	0.000	0.12			4.1	SURCHARGED
1.011	S23	27	69.461	0.591	0.000	0.28			10.1	SURCHARGED
1.012	S24	27	69.453	0.686	0.000	0.56			19.0	SURCHARGED
1.013	S25	27	69.446	0.746	0.000	0.54			20.0	SURCHARGED
1.014	S26	27	69.437	0.869	0.000	0.11			21.0	SURCHARGED
1.015	S27	27	69.437	0.898	0.000	0.11			20.9	SURCHARGED
4.000	S28	38	69.480	-0.209	0.000	0.01			0.2	OK
4.001	S29	38	69.473	-0.139	0.000	0.31		134	10.8	OK
4.002	S30	35	69.449	-0.084	0.000	0.49			18.3	OK
4.003	S31	29	69.446	0.099	0.000	0.59			22.6	SURCHARGED
4.004	S33	27	69.440	0.390	0.000	0.32			23.5	SURCHARGED
1.016	S33	27	69.436	0.916	0.000	0.18			49.9	SURCHARGED
1.017	S34	27	69.435	0.996	0.000	0.25			50.5	SURCHARGED
1.018	S35	27	69.434	1.026	0.000	0.13			49.8	SURCHARGED
1.019	S36	27	69.433	1.053	0.000	0.11			45.6	SURCHARGED
1.020	S37	27	69.433	1.087	0.000	0.06			36.5	SURCHARGED
1.021	S38	27	69.432	1.174	0.000	0.04			23.8	SURCHARGED
1.022	S39	27	69.432	1.701	0.000	0.26			7.8	SURCHARGED
1.023	S40	33	67.528	-0.162	0.000	0.17			8.0	OK
1.024	S41	27	67.147	-0.173	0.000	0.12			13.4	OK
1.025	S42	31	65.874	-0.481	0.000	0.09			15.6	OK
1.026	S43	29	65.841	-0.492	0.000	0.05			15.6	OK
5.000	S44	23	67.678	0.253	0.000	0.05			2.3	SURCHARGED
5.001	S45	21	67.830	0.591	0.000	0.01			1.5	SURCHARGED
1.027	S46	27	65.805	-0.415	0.000	0.03			18.4	OK
6.000	S47	25	67.031	-0.069	0.000	0.06			2.8	OK
6.001	S48	25	67.028	0.247	0.000	0.03			1.1	SURCHARGED
1.028	S49	27	65.797	-0.296	0.000	0.03			18.0	OK
7.000	S50	31	66.353	-0.192	0.000	0.05			3.1	OK
7.001	S51	35	65.817	-0.348	0.000	0.11			14.2	OK
7.002	S52	28	65.789	-0.312	0.000	0.03			18.6	OK
7.003	S53	27	65.785	-0.225	0.000	0.03			14.6	OK
8.000	S54	26	67.164	-0.061	0.000	0.07			2.7	OK
8.001	S55	27	67.161	0.182	0.000	0.03			1.0	SURCHARGED
1.029	S56	27	65.782	-0.186	0.000	0.08			28.3	OK
1.030	S57	27	65.773	0.127	0.000	0.54			27.7	SURCHARGED

Summary Wizard of 240 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	32		69.953	-0.072	0.000	0.05			1.7	OK
1.001	S2	31		69.952	0.008	0.000	0.05			1.6	SURCHARGED
1.002	S3	31		69.952	0.083	0.000	0.04			1.4	SURCHARGED
1.003	S4	31		69.951	0.163	0.000	0.08			2.8	SURCHARGED
1.004	S5	30		69.950	0.247	0.000	0.10			3.6	SURCHARGED
1.005	S6	28		69.948	0.419	0.000	0.11			4.1	SURCHARGED
1.006	S7	26		69.947	0.517	0.000	0.37			10.7	SURCHARGED
1.007	S8	24		69.944	0.568	0.000	0.08			11.2	SURCHARGED
1.008	S9	25		69.943	0.648	0.000	0.10			13.9	SURCHARGED
1.009	S10	25		69.942	0.711	0.000	0.14			19.4	SURCHARGED
2.000	S11	37		70.672	-0.163	0.000	0.17		53	6.3	OK
2.001	S12	37		70.552	-0.160	0.000	0.19			6.9	OK
2.002	S13	36		70.432	-0.137	0.000	0.33		43	11.5	OK
2.003	S14	39		70.339	-0.140	0.000	0.30			17.8	OK
2.004	S15	40		70.081	-0.125	0.000	0.41		44	24.1	OK
3.000	S16	34		69.960	-0.118	0.000	0.10			5.4	OK
2.005	S17	34		69.958	0.114	0.000	0.83			30.4	SURCHARGED
2.006	S18	25		69.949	0.228	0.000	0.28			30.0	SURCHARGED
2.007	S19	23		69.946	0.455	0.000	0.13			9.9	SURCHARGED

Summary Wizard of 240 minute 30 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	23	69.944	0.573	0.000	0.16			9.6	SURCHARGED
2.009	S21	24	69.943	0.622	0.000	0.09			9.6	SURCHARGED
1.010	S22	25	69.940	1.002	0.000	0.12			4.1	SURCHARGED
1.011	S23	24	69.504	0.634	0.000	0.25			8.9	SURCHARGED
1.012	S24	24	69.495	0.728	0.000	0.47			16.0	SURCHARGED
1.013	S25	24	69.488	0.788	0.000	0.46			16.7	SURCHARGED
1.014	S26	25	69.478	0.910	0.000	0.09			17.5	SURCHARGED
1.015	S27	25	69.477	0.938	0.000	0.09			17.4	SURCHARGED
4.000	S28	36	69.488	-0.201	0.000	0.01			0.2	OK
4.001	S29	34	69.488	-0.124	0.000	0.25		82	8.8	OK
4.002	S30	33	69.487	-0.046	0.000	0.40			14.9	OK
4.003	S31	27	69.484	0.137	0.000	0.48			18.4	SURCHARGED
4.004	S33	25	69.480	0.429	0.000	0.26			19.1	SURCHARGED
1.016	S33	25	69.476	0.956	0.000	0.14			40.1	SURCHARGED
1.017	S34	25	69.475	1.036	0.000	0.20			39.1	SURCHARGED
1.018	S35	25	69.474	1.066	0.000	0.10			36.8	SURCHARGED
1.019	S36	25	69.473	1.093	0.000	0.08			33.4	SURCHARGED
1.020	S37	25	69.473	1.127	0.000	0.04			25.1	SURCHARGED
1.021	S38	25	69.472	1.214	0.000	0.03			18.8	SURCHARGED
1.022	S39	25	69.472	1.741	0.000	0.26			7.9	SURCHARGED
1.023	S40	37	67.528	-0.162	0.000	0.17			7.9	OK
1.024	S41	36	67.145	-0.175	0.000	0.11			12.2	OK
1.025	S42	38	65.866	-0.489	0.000	0.08			14.0	OK
1.026	S43	33	65.824	-0.509	0.000	0.05			13.9	OK
5.000	S44	25	67.676	0.251	0.000	0.05			2.3	SURCHARGED
5.001	S45	22	67.828	0.589	0.000	0.01			1.5	SURCHARGED
1.027	S46	33	65.761	-0.458	0.000	0.03			16.8	OK
6.000	S47	23	67.035	-0.065	0.000	0.05			2.4	OK
6.001	S48	23	67.033	0.252	0.000	0.03			1.1	SURCHARGED
1.028	S49	33	65.756	-0.337	0.000	0.03			17.5	OK
7.000	S50	37	66.350	-0.195	0.000	0.04			2.5	OK
7.001	S51	39	65.803	-0.362	0.000	0.09			11.5	OK
7.002	S52	33	65.749	-0.352	0.000	0.03			15.2	OK
7.003	S53	33	65.745	-0.265	0.000	0.03			12.6	OK
8.000	S54	24	67.170	-0.055	0.000	0.06			2.3	OK
8.001	S55	25	67.167	0.188	0.000	0.03			1.0	SURCHARGED
1.029	S56	33	65.743	-0.225	0.000	0.08			27.7	OK
1.030	S57	33	65.735	0.089	0.000	0.54			27.4	SURCHARGED

Summary Wizard of 360 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	30		69.956	-0.069	0.000	0.04			1.3	OK
1.001	S2	30		69.955	0.011	0.000	0.03			1.2	SURCHARGED
1.002	S3	30		69.955	0.086	0.000	0.03			1.1	SURCHARGED
1.003	S4	29		69.955	0.167	0.000	0.06			2.2	SURCHARGED
1.004	S5	29		69.954	0.251	0.000	0.07			2.7	SURCHARGED
1.005	S6	26		69.952	0.423	0.000	0.09			3.1	SURCHARGED
1.006	S7	25		69.951	0.521	0.000	0.27			7.9	SURCHARGED
1.007	S8	23		69.949	0.573	0.000	0.06			8.3	SURCHARGED
1.008	S9	23		69.948	0.653	0.000	0.08			10.3	SURCHARGED
1.009	S10	23		69.947	0.716	0.000	0.11			14.4	SURCHARGED
2.000	S11	43		70.663	-0.172	0.000	0.13		79	4.6	OK
2.001	S12	43		70.542	-0.170	0.000	0.14			5.0	OK
2.002	S13	43		70.418	-0.151	0.000	0.24		61	8.5	OK
2.003	S14	44		70.326	-0.153	0.000	0.22			13.1	OK
2.004	S15	44		70.065	-0.141	0.000	0.30		60	17.8	OK
3.000	S16	33		69.964	-0.114	0.000	0.08			4.0	OK
2.005	S17	33		69.963	0.119	0.000	0.63			23.1	SURCHARGED
2.006	S18	23		69.956	0.235	0.000	0.21			23.1	SURCHARGED
2.007	S19	21		69.954	0.463	0.000	0.11			8.2	SURCHARGED

Summary Wizard of 360 minute 30 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	21	69.951	0.580	0.000	0.13			8.1	SURCHARGED
2.009	S21	22	69.950	0.629	0.000	0.08			8.1	SURCHARGED
1.010	S22	23	69.946	1.008	0.000	0.12			4.1	SURCHARGED
1.011	S23	21	69.537	0.667	0.000	0.21		322	7.5	SURCHARGED
1.012	S24	21	69.528	0.761	0.000	0.37			12.6	SURCHARGED
1.013	S25	21	69.521	0.821	0.000	0.35			13.0	SURCHARGED
1.014	S26	21	69.510	0.942	0.000	0.07			13.4	SURCHARGED
1.015	S27	21	69.509	0.970	0.000	0.07			13.3	SURCHARGED
4.000	S28	30	69.520	-0.169	0.000	0.00			0.1	OK
4.001	S29	30	69.520	-0.092	0.000	0.19		97	6.5	OK
4.002	S30	28	69.519	-0.014	0.000	0.29			11.0	OK
4.003	S31	24	69.516	0.169	0.000	0.35			13.5	SURCHARGED
4.004	S33	22	69.512	0.461	0.000	0.19			14.1	SURCHARGED
1.016	S33	21	69.509	0.988	0.000	0.11			29.8	SURCHARGED
1.017	S34	22	69.507	1.068	0.000	0.13			26.3	SURCHARGED
1.018	S35	22	69.506	1.098	0.000	0.07			25.7	SURCHARGED
1.019	S36	22	69.505	1.126	0.000	0.05			21.6	SURCHARGED
1.020	S37	22	69.505	1.159	0.000	0.03			17.4	SURCHARGED
1.021	S38	22	69.504	1.246	0.000	0.02			14.9	SURCHARGED
1.022	S39	22	69.504	1.773	0.000	0.27			7.9	SURCHARGED
1.023	S40	34	67.528	-0.162	0.000	0.17			8.0	OK
1.024	S41	44	67.142	-0.178	0.000	0.10			10.8	OK
1.025	S42	44	65.856	-0.499	0.000	0.07			12.1	OK
1.026	S43	44	65.812	-0.521	0.000	0.04			12.1	OK
5.000	S44	26	67.669	0.244	0.000	0.08			3.6	SURCHARGED
5.001	S45	26	67.821	0.582	0.000	0.01			1.5	SURCHARGED
1.027	S46	36	65.705	-0.514	0.000	0.02			14.7	OK
6.000	S47	21	67.038	-0.062	0.000	0.04			1.9	OK
6.001	S48	21	67.035	0.254	0.000	0.03			1.1	SURCHARGED
1.028	S49	36	65.684	-0.409	0.000	0.03			16.3	OK
7.000	S50	43	66.346	-0.199	0.000	0.03			1.8	OK
7.001	S51	43	65.788	-0.377	0.000	0.06			8.4	OK
7.002	S52	36	65.678	-0.423	0.000	0.02			11.3	OK
7.003	S53	36	65.675	-0.335	0.000	0.02			10.1	OK
8.000	S54	21	67.174	-0.051	0.000	0.05			1.8	OK
8.001	S55	21	67.171	0.192	0.000	0.03			1.0	SURCHARGED
1.029	S56	36	65.674	-0.294	0.000	0.08			26.9	OK
1.030	S57	36	65.668	0.022	0.000	0.53			26.7	SURCHARGED

Summary Wizard of 480 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	33		69.948	-0.077	0.000	0.03			1.0	OK
1.001	S2	33		69.948	0.004	0.000	0.03			1.0	SURCHARGED
1.002	S3	32		69.948	0.079	0.000	0.03			0.9	SURCHARGED
1.003	S4	32		69.948	0.160	0.000	0.05			1.8	SURCHARGED
1.004	S5	32		69.947	0.244	0.000	0.06			2.2	SURCHARGED
1.005	S6	29		69.946	0.417	0.000	0.07			2.5	SURCHARGED
1.006	S7	27		69.945	0.515	0.000	0.22			6.4	SURCHARGED
1.007	S8	25		69.943	0.567	0.000	0.05			6.7	SURCHARGED
1.008	S9	24		69.943	0.648	0.000	0.06			8.3	SURCHARGED
1.009	S10	24		69.942	0.711	0.000	0.09			11.6	SURCHARGED
2.000	S11	50		70.658	-0.177	0.000	0.10		103	3.7	OK
2.001	S12	50		70.536	-0.176	0.000	0.11			4.0	OK
2.002	S13	49		70.410	-0.159	0.000	0.19		79	6.8	OK
2.003	S14	49		70.318	-0.161	0.000	0.18			10.5	OK
2.004	S15	49		70.055	-0.151	0.000	0.24		77	14.2	OK
3.000	S16	35		69.959	-0.119	0.000	0.06			3.2	OK
2.005	S17	35		69.958	0.114	0.000	0.51			18.5	SURCHARGED
2.006	S18	24		69.952	0.231	0.000	0.17			18.5	SURCHARGED
2.007	S19	22		69.949	0.458	0.000	0.10			7.4	SURCHARGED

Summary Wizard of 480 minute 30 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	22	69.947	0.576	0.000	0.12			7.3	SURCHARGED
2.009	S21	23	69.946	0.625	0.000	0.07			7.3	SURCHARGED
1.010	S22	24	69.941	1.003	0.000	0.12			4.1	SURCHARGED
1.011	S23	20	69.538	0.668	0.000	0.18		330	6.6	SURCHARGED
1.012	S24	20	69.530	0.763	0.000	0.31		429	10.7	SURCHARGED
1.013	S25	20	69.522	0.822	0.000	0.30			10.9	SURCHARGED
1.014	S26	20	69.511	0.943	0.000	0.06			10.9	SURCHARGED
1.015	S27	20	69.511	0.972	0.000	0.06			10.6	SURCHARGED
4.000	S28	29	69.522	-0.167	0.000	0.00			0.1	OK
4.001	S29	29	69.522	-0.090	0.000	0.15		103	5.2	OK
4.002	S30	27	69.521	-0.012	0.000	0.24			8.8	OK
4.003	S31	23	69.518	0.171	0.000	0.28			10.9	SURCHARGED
4.004	S33	21	69.513	0.463	0.000	0.16			11.3	SURCHARGED
1.016	S33	20	69.510	0.990	0.000	0.08			23.8	SURCHARGED
1.017	S34	20	69.509	1.070	0.000	0.11			21.3	SURCHARGED
1.018	S35	20	69.508	1.100	0.000	0.05			20.4	SURCHARGED
1.019	S36	20	69.507	1.127	0.000	0.04			17.2	SURCHARGED
1.020	S37	21	69.506	1.161	0.000	0.03			15.1	SURCHARGED
1.021	S38	21	69.506	1.248	0.000	0.02			13.2	SURCHARGED
1.022	S39	21	69.506	1.775	0.000	0.27			7.9	SURCHARGED
1.023	S40	35	67.528	-0.162	0.000	0.17			8.0	OK
1.024	S41	49	67.141	-0.179	0.000	0.09			10.1	OK
1.025	S42	49	65.852	-0.503	0.000	0.06			11.1	OK
1.026	S43	49	65.809	-0.525	0.000	0.04			11.1	OK
5.000	S44	30	67.662	0.237	0.000	0.08			3.6	SURCHARGED
5.001	S45	30	67.814	0.575	0.000	0.01			1.5	SURCHARGED
1.027	S46	44	65.688	-0.531	0.000	0.02			13.5	OK
6.000	S47	22	67.036	-0.064	0.000	0.03			1.7	OK
6.001	S48	22	67.033	0.252	0.000	0.03			1.1	SURCHARGED
1.028	S49	39	65.634	-0.460	0.000	0.03			15.5	OK
7.000	S50	50	66.344	-0.201	0.000	0.03			1.4	OK
7.001	S51	49	65.779	-0.386	0.000	0.05			6.7	OK
7.002	S52	39	65.631	-0.470	0.000	0.02			9.1	OK
7.003	S53	39	65.629	-0.381	0.000	0.02			8.6	OK
8.000	S54	22	67.174	-0.051	0.000	0.04			1.6	OK
8.001	S55	22	67.171	0.192	0.000	0.03			1.0	SURCHARGED
1.029	S56	39	65.628	-0.340	0.000	0.07			25.0	OK
1.030	S57	39	65.624	-0.022	0.000	0.49			24.9	OK

Summary Wizard of 600 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	34		69.937	-0.088	0.000	0.02			0.9	OK
1.001	S2	34		69.937	-0.007	0.000	0.02			0.8	OK
1.002	S3	34		69.937	0.068	0.000	0.02			0.8	SURCHARGED
1.003	S4	34		69.937	0.149	0.000	0.04			1.6	SURCHARGED
1.004	S5	33		69.936	0.233	0.000	0.05			1.9	SURCHARGED
1.005	S6	33		69.935	0.406	0.000	0.06			2.2	SURCHARGED
1.006	S7	31		69.934	0.504	0.000	0.19			5.4	SURCHARGED
1.007	S8	27		69.933	0.557	0.000	0.04			5.7	SURCHARGED
1.008	S9	26		69.933	0.638	0.000	0.05			7.1	SURCHARGED
1.009	S10	26		69.932	0.701	0.000	0.07			9.9	SURCHARGED
2.000	S11	52		70.654	-0.181	0.000	0.09		129	3.1	OK
2.001	S12	52		70.533	-0.179	0.000	0.09			3.4	OK
2.002	S13	52		70.404	-0.165	0.000	0.16		99	5.7	OK
2.003	S14	52		70.312	-0.167	0.000	0.15			8.8	OK
2.004	S15	52		70.049	-0.157	0.000	0.20		95	12.0	OK
3.000	S16	37		69.948	-0.130	0.000	0.05			2.7	OK
2.005	S17	36		69.947	0.103	0.000	0.43			15.6	SURCHARGED
2.006	S18	26		69.942	0.221	0.000	0.14			15.6	SURCHARGED
2.007	S19	24		69.940	0.449	0.000	0.09			6.9	SURCHARGED

Summary Wizard of 600 minute 30 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	24	69.937	0.566	0.000	0.11			6.8	SURCHARGED
2.009	S21	25	69.936	0.615	0.000	0.07			6.8	SURCHARGED
1.010	S22	26	69.931	0.993	0.000	0.12			4.1	SURCHARGED
1.011	S23	22	69.527	0.657	0.000	0.17		331	6.1	SURCHARGED
1.012	S24	22	69.518	0.751	0.000	0.28		432	9.5	SURCHARGED
1.013	S25	22	69.511	0.811	0.000	0.27			9.7	SURCHARGED
1.014	S26	22	69.500	0.932	0.000	0.05			9.6	SURCHARGED
1.015	S27	23	69.499	0.960	0.000	0.05			9.2	SURCHARGED
4.000	S28	31	69.510	-0.179	0.000	0.00			0.1	OK
4.001	S29	31	69.510	-0.102	0.000	0.13		108	4.4	OK
4.002	S30	30	69.509	-0.024	0.000	0.20			7.5	OK
4.003	S31	25	69.506	0.159	0.000	0.24			9.2	SURCHARGED
4.004	S33	23	69.502	0.451	0.000	0.13			9.6	SURCHARGED
1.016	S33	23	69.499	0.978	0.000	0.07			19.9	SURCHARGED
1.017	S34	23	69.497	1.059	0.000	0.10			19.3	SURCHARGED
1.018	S35	23	69.496	1.088	0.000	0.05			17.6	SURCHARGED
1.019	S36	23	69.496	1.116	0.000	0.03			14.1	SURCHARGED
1.020	S37	23	69.495	1.149	0.000	0.02			13.7	SURCHARGED
1.021	S38	23	69.494	1.236	0.000	0.02			12.2	SURCHARGED
1.022	S39	23	69.494	1.763	0.000	0.26			7.9	SURCHARGED
1.023	S40	36	67.528	-0.162	0.000	0.17			8.0	OK
1.024	S41	53	67.140	-0.180	0.000	0.09			9.7	OK
1.025	S42	53	65.848	-0.507	0.000	0.06			10.5	OK
1.026	S43	53	65.807	-0.527	0.000	0.04			10.5	OK
5.000	S44	33	67.655	0.230	0.000	0.09			3.7	SURCHARGED
5.001	S45	32	67.807	0.568	0.000	0.01			1.5	SURCHARGED
1.027	S46	50	65.682	-0.537	0.000	0.02			12.7	OK
6.000	S47	24	67.033	-0.067	0.000	0.03			1.5	OK
6.001	S48	24	67.030	0.249	0.000	0.03			1.1	SURCHARGED
1.028	S49	47	65.603	-0.490	0.000	0.02			14.9	OK
7.000	S50	52	66.342	-0.203	0.000	0.02			1.2	OK
7.001	S51	52	65.774	-0.391	0.000	0.04			5.7	OK
7.002	S52	47	65.598	-0.503	0.000	0.01			7.7	OK
7.003	S53	47	65.595	-0.415	0.000	0.02			7.4	OK
8.000	S54	23	67.172	-0.053	0.000	0.04			1.4	OK
8.001	S55	24	67.169	0.190	0.000	0.03			1.0	SURCHARGED
1.029	S56	47	65.594	-0.374	0.000	0.07			23.3	OK
1.030	S57	47	65.591	-0.055	0.000	0.46			23.3	OK

Summary Wizard of 720 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	35	69.925	-0.100	0.000	0.02			0.8	OK
1.001	S2	35	69.925	-0.019	0.000	0.02			0.7	OK
1.002	S3	35	69.924	0.055	0.000	0.02			0.7	SURCHARGED
1.003	S4	35	69.924	0.136	0.000	0.04			1.4	SURCHARGED
1.004	S5	35	69.923	0.220	0.000	0.04			1.7	SURCHARGED
1.005	S6	34	69.922	0.393	0.000	0.05			1.9	SURCHARGED
1.006	S7	34	69.921	0.491	0.000	0.16			4.8	SURCHARGED
1.007	S8	28	69.920	0.544	0.000	0.04			5.0	SURCHARGED
1.008	S9	28	69.920	0.625	0.000	0.05			6.2	SURCHARGED
1.009	S10	28	69.919	0.688	0.000	0.06			8.6	SURCHARGED
2.000	S11	56	70.650	-0.185	0.000	0.07		163	2.7	OK
2.001	S12	56	70.529	-0.183	0.000	0.08			2.9	OK
2.002	S13	56	70.400	-0.169	0.000	0.14		116	4.9	OK
2.003	S14	56	70.308	-0.171	0.000	0.13			7.7	OK
2.004	S15	55	70.044	-0.162	0.000	0.18		118	10.4	OK
3.000	S16	38	69.935	-0.143	0.000	0.04			2.3	OK
2.005	S17	38	69.935	0.091	0.000	0.37			13.6	SURCHARGED
2.006	S18	28	69.930	0.209	0.000	0.13			13.6	SURCHARGED
2.007	S19	26	69.927	0.436	0.000	0.09			6.6	SURCHARGED

Summary Wizard of 720 minute 30 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	26	69.925	0.554	0.000	0.11			6.5	SURCHARGED
2.009	S21	27	69.924	0.603	0.000	0.06			6.5	SURCHARGED
1.010	S22	28	69.919	0.981	0.000	0.12			4.1	SURCHARGED
1.011	S23	23	69.507	0.637	0.000	0.16		336	5.7	SURCHARGED
1.012	S24	23	69.498	0.731	0.000	0.26		438	8.7	SURCHARGED
1.013	S25	23	69.491	0.791	0.000	0.24			9.0	SURCHARGED
1.014	S26	24	69.480	0.912	0.000	0.05			8.8	SURCHARGED
1.015	S27	24	69.479	0.940	0.000	0.05			8.4	SURCHARGED
4.000	S28	34	69.490	-0.199	0.000	0.00			0.1	OK
4.001	S29	33	69.490	-0.122	0.000	0.11		119	3.9	OK
4.002	S30	32	69.489	-0.044	0.000	0.17			6.5	OK
4.003	S31	26	69.486	0.139	0.000	0.21			8.0	SURCHARGED
4.004	S33	24	69.482	0.431	0.000	0.11			8.3	SURCHARGED
1.016	S33	24	69.479	0.958	0.000	0.06			17.5	SURCHARGED
1.017	S34	24	69.477	1.038	0.000	0.09			17.0	SURCHARGED
1.018	S35	24	69.476	1.068	0.000	0.04			15.6	SURCHARGED
1.019	S36	24	69.475	1.096	0.000	0.03			13.1	SURCHARGED
1.020	S37	24	69.475	1.129	0.000	0.02			12.8	SURCHARGED
1.021	S38	24	69.474	1.216	0.000	0.02			11.7	SURCHARGED
1.022	S39	24	69.474	1.743	0.000	0.26			7.9	SURCHARGED
1.023	S40	38	67.528	-0.163	0.000	0.17			7.9	OK
1.024	S41	56	67.139	-0.181	0.000	0.09			9.4	OK
1.025	S42	56	65.846	-0.509	0.000	0.06			10.1	OK
1.026	S43	56	65.805	-0.528	0.000	0.03			10.1	OK
5.000	S44	37	67.648	0.223	0.000	0.08			3.6	SURCHARGED
5.001	S45	36	67.800	0.561	0.000	0.01			1.5	SURCHARGED
1.027	S46	54	65.679	-0.540	0.000	0.02			12.2	OK
6.000	S47	26	67.029	-0.071	0.000	0.03			1.4	OK
6.001	S48	26	67.027	0.246	0.000	0.03			1.1	SURCHARGED
1.028	S49	54	65.585	-0.509	0.000	0.02			14.3	OK
7.000	S50	56	66.339	-0.206	0.000	0.02			1.1	OK
7.001	S51	56	65.770	-0.395	0.000	0.04			4.9	OK
7.002	S52	54	65.576	-0.525	0.000	0.01			6.7	OK
7.003	S53	54	65.568	-0.442	0.000	0.01			6.6	OK
8.000	S54	25	67.169	-0.056	0.000	0.03			1.3	OK
8.001	S55	26	67.166	0.187	0.000	0.03			1.0	SURCHARGED
1.029	S56	54	65.567	-0.401	0.000	0.06			22.0	OK
1.030	S57	54	65.564	-0.082	0.000	0.43			22.0	OK

Summary Wizard of 960 minute 30 year Winter I+0% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	38	69.905	-0.120	0.000	0.02			0.6	OK
1.001	S2	37	69.905	-0.039	0.000	0.02			0.6	OK
1.002	S3	37	69.905	0.036	0.000	0.02			0.6	SURCHARGED
1.003	S4	36	69.904	0.116	0.000	0.03			1.2	SURCHARGED
1.004	S5	36	69.904	0.201	0.000	0.04			1.4	SURCHARGED
1.005	S6	36	69.903	0.374	0.000	0.04			1.6	SURCHARGED
1.006	S7	35	69.902	0.472	0.000	0.13			3.8	SURCHARGED
1.007	S8	32	69.900	0.524	0.000	0.03			4.0	SURCHARGED
1.008	S9	31	69.900	0.605	0.000	0.04			5.0	SURCHARGED
1.009	S10	30	69.899	0.668	0.000	0.05			6.9	SURCHARGED
2.000	S11	58	70.645	-0.190	0.000	0.06		207	2.1	OK
2.001	S12	58	70.524	-0.188	0.000	0.06			2.4	OK
2.002	S13	58	70.394	-0.175	0.000	0.11		149	4.0	OK
2.003	S14	58	70.302	-0.177	0.000	0.10			6.1	OK
2.004	S15	58	70.037	-0.169	0.000	0.14		151	8.3	OK
3.000	S16	42	69.916	-0.162	0.000	0.04			1.8	OK
2.005	S17	39	69.915	0.071	0.000	0.29			10.8	SURCHARGED
2.006	S18	31	69.909	0.188	0.000	0.10			10.7	SURCHARGED
2.007	S19	27	69.907	0.416	0.000	0.08			6.0	SURCHARGED

Summary Wizard of 960 minute 30 year Winter I+0% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	27	69.905	0.534	0.000	0.10			6.0	SURCHARGED
2.009	S21	29	69.903	0.582	0.000	0.06			5.9	SURCHARGED
1.010	S22	30	69.899	0.961	0.000	0.12			4.1	SURCHARGED
1.011	S23	26	69.466	0.596	0.000	0.15		427	5.3	SURCHARGED
1.012	S24	26	69.457	0.690	0.000	0.23		530	7.7	SURCHARGED
1.013	S25	26	69.450	0.750	0.000	0.22			7.9	SURCHARGED
1.014	S26	26	69.439	0.871	0.000	0.04			8.0	SURCHARGED
1.015	S27	26	69.438	0.899	0.000	0.04			7.8	SURCHARGED
4.000	S28	58	69.466	-0.223	0.000	0.00			0.1	OK
4.001	S29	42	69.448	-0.164	0.000	0.09		243	3.1	OK
4.002	S30	36	69.447	-0.086	0.000	0.14			5.2	OK
4.003	S31	30	69.445	0.098	0.000	0.17			6.4	SURCHARGED
4.004	S33	26	69.440	0.390	0.000	0.09			6.6	SURCHARGED
1.016	S33	26	69.437	0.917	0.000	0.05			15.1	SURCHARGED
1.017	S34	26	69.436	0.997	0.000	0.08			14.9	SURCHARGED
1.018	S35	26	69.435	1.027	0.000	0.03			13.2	SURCHARGED
1.019	S36	26	69.434	1.054	0.000	0.03			11.9	SURCHARGED
1.020	S37	26	69.434	1.088	0.000	0.02			11.7	SURCHARGED
1.021	S38	26	69.433	1.175	0.000	0.02			11.2	SURCHARGED
1.022	S39	26	69.433	1.702	0.000	0.26			7.8	SURCHARGED
1.023	S40	40	67.527	-0.163	0.000	0.17			7.8	OK
1.024	S41	58	67.138	-0.182	0.000	0.08			9.0	OK
1.025	S42	58	65.844	-0.511	0.000	0.05			9.6	OK
1.026	S43	58	65.803	-0.530	0.000	0.03			9.6	OK
5.000	S44	42	67.633	0.208	0.000	0.08			3.6	SURCHARGED
5.001	S45	41	67.786	0.547	0.000	0.01			1.5	SURCHARGED
1.027	S46	58	65.676	-0.544	0.000	0.02			11.6	OK
6.000	S47	27	67.022	-0.078	0.000	0.03			1.3	OK
6.001	S48	28	67.019	0.238	0.000	0.03			1.1	SURCHARGED
1.028	S49	57	65.574	-0.519	0.000	0.02			13.5	OK
7.000	S50	58	66.336	-0.209	0.000	0.01			0.8	OK
7.001	S51	58	65.765	-0.400	0.000	0.03			3.9	OK
7.002	S52	57	65.563	-0.538	0.000	0.01			5.3	OK
7.003	S53	57	65.548	-0.462	0.000	0.01			5.4	OK
8.000	S54	27	67.163	-0.062	0.000	0.03			1.2	OK
8.001	S55	28	67.160	0.181	0.000	0.03			1.0	SURCHARGED
1.029	S56	57	65.548	-0.420	0.000	0.06			19.9	OK
1.030	S57	57	65.546	-0.100	0.000	0.39			19.9	OK

Summary Wizard of 15 minute 100 year Winter I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	2	70.883	0.858	0.000	0.35				12.0	SURCHARGED
1.001	S2	2	70.866	0.922	0.000	0.30				10.3	SURCHARGED
1.002	S3	2	70.849	0.980	0.000	0.32				11.2	SURCHARGED
1.003	S4	2	70.833	1.045	0.000	0.51				17.9	SURCHARGED
1.004	S5	3	70.789	1.086	0.000	0.61				22.7	SURCHARGED
1.005	S6	2	70.737	1.208	0.000	0.74				26.6	SURCHARGED
1.006	S7	2	70.695	1.265	0.000	2.11				61.4	SURCHARGED
1.007	S8	3	70.486	1.110	0.000	0.43				59.6	SURCHARGED
1.008	S9	3	70.459	1.164	0.000	0.56				75.6	SURCHARGED
1.009	S10	3	70.427	1.196	0.000	0.82				112.0	FLOOD RISK
2.000	S11	2	71.030	0.195	0.000	0.97			9	35.3	SURCHARGED
2.001	S12	2	70.996	0.284	0.000	0.95				35.0	SURCHARGED
2.002	S13	2	70.950	0.381	0.000	0.95			16	33.5	SURCHARGED
2.003	S14	2	70.922	0.443	0.000	1.08				63.4	SURCHARGED
2.004	S15	3	70.706	0.500	0.000	1.03			19	61.1	SURCHARGED
3.000	S16	1	70.630	0.552	0.000	0.87				46.1	SURCHARGED
2.005	S17	2	70.467	0.623	0.000	2.46				90.1	SURCHARGED
2.006	S18	21	70.006	0.285	0.000	0.80				86.9	SURCHARGED
2.007	S19	29	69.896	0.405	0.000	0.47				35.6	SURCHARGED

Summary Wizard of 15 minute 100 year Winter I+40% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	29		69.891	0.520	0.000	0.34			20.8	SURCHARGED
2.009	S21	21		69.968	0.647	0.000	0.16			16.7	SURCHARGED
1.010	S22	5		70.380	1.442	0.000	0.12			4.2	SURCHARGED
1.011	S23	34		69.296	0.426	0.000	0.97			34.9	SURCHARGED
1.012	S24	34		69.289	0.522	0.000	1.38			46.8	SURCHARGED
1.013	S25	34		69.286	0.586	0.000	1.37			50.2	SURCHARGED
1.014	S26	33		69.312	0.744	0.000	0.28			55.2	SURCHARGED
1.015	S27	33		69.315	0.776	0.000	0.30			56.6	SURCHARGED
4.000	S28	20		69.872	0.183	0.000	0.02			0.8	SURCHARGED
4.001	S29	20		69.871	0.259	0.000	0.83		16	28.8	SURCHARGED
4.002	S30	20		69.860	0.327	0.000	1.09			40.9	SURCHARGED
4.003	S31	22		69.718	0.371	0.000	1.48			56.9	SURCHARGED
4.004	S33	28		69.410	0.359	0.000	0.87			63.2	SURCHARGED
1.016	S33	33		69.317	0.797	0.000	0.55			155.5	SURCHARGED
1.017	S34	33		69.316	0.877	0.000	0.94			186.7	SURCHARGED
1.018	S35	33		69.315	0.907	0.000	0.48			181.2	SURCHARGED
1.019	S36	33		69.314	0.934	0.000	0.41			165.6	SURCHARGED
1.020	S37	33		69.314	0.968	0.000	0.29			164.2	SURCHARGED
1.021	S38	33		69.313	1.055	0.000	0.22			137.5	SURCHARGED
1.022	S39	33		69.313	1.582	0.000	0.25			7.6	SURCHARGED
1.023	S40	1		67.543	-0.147	0.000	0.25			11.5	OK
1.024	S41	1		67.209	-0.111	0.000	0.51			54.9	OK
1.025	S42	13		66.049	-0.306	0.000	0.41			72.6	OK
1.026	S43	13		66.049	-0.285	0.000	0.24			69.9	OK
5.000	S44	21		67.691	0.266	0.000	0.24			10.3	SURCHARGED
5.001	S45	24		67.826	0.587	0.000	0.01			1.5	SURCHARGED
1.027	S46	13		66.045	-0.174	0.000	0.12			70.5	OK
6.000	S47	29		67.020	-0.080	0.000	0.30			14.6	OK
6.001	S48	27		67.026	0.245	0.000	0.03			1.1	SURCHARGED
1.028	S49	13		66.037	-0.057	0.000	0.07			40.2	OK
7.000	S50	6		66.420	-0.125	0.000	0.40			23.0	OK
7.001	S51	10		66.165	0.000	0.000	0.82			111.1	SURCHARGED
7.002	S52	12		66.101	0.000	0.000	0.24			137.6	OK
7.003	S53	12		66.015	0.005	0.000	0.19			84.3	SURCHARGED
8.000	S54	30		67.150	-0.075	0.000	0.41			15.6	OK
8.001	S55	23		67.169	0.190	0.000	0.03			1.0	SURCHARGED
1.029	S56	12		66.014	0.046	0.000	0.12			44.5	SURCHARGED
1.030	S57	12		66.012	0.366	0.000	0.55			27.9	SURCHARGED

Summary Wizard of 30 minute 100 year Winter I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500		1	70.950	0.925	0.000	0.25			8.8	SURCHARGED
1.001	S2		1	70.934	0.990	0.000	0.26			9.1	SURCHARGED
1.002	S3		1	70.921	1.052	0.000	0.30			10.6	SURCHARGED
1.003	S4		1	70.907	1.119	0.000	0.50			17.5	SURCHARGED
1.004	S5		1	70.877	1.174	0.000	0.60			22.5	SURCHARGED
1.005	S6		1	70.814	1.285	0.000	0.74			26.5	SURCHARGED
1.006	S7		1	70.745	1.315	0.000	1.99			57.9	SURCHARGED
1.007	S8		1	70.548	1.172	0.000	0.43			59.9	SURCHARGED
1.008	S9		1	70.521	1.226	0.000	0.55			74.5	SURCHARGED
1.009	S10		1	70.490	1.259	0.000	0.78			106.5	FLOOD RISK
2.000	S11		1	71.045	0.210	0.000	0.93		12	33.9	SURCHARGED
2.001	S12		1	71.015	0.303	0.000	0.88			32.3	SURCHARGED
2.002	S13		1	70.981	0.412	0.000	0.89		20	31.5	SURCHARGED
2.003	S14		1	70.939	0.460	0.000	0.99			57.7	SURCHARGED
2.004	S15		1	70.768	0.562	0.000	0.97		26	57.7	SURCHARGED
3.000	S16		2	70.579	0.501	0.000	0.70			37.0	SURCHARGED

Summary Wizard of 30 minute 100 year Winter I+40% for Surface Network 1

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17		1	70.482	0.638	0.000	2.36			86.6	SURCHARGED
2.006	S18		19	70.110	0.389	0.000	0.79			85.0	SURCHARGED
2.007	S19		19	70.004	0.513	0.000	0.35			26.0	SURCHARGED
2.008	S20		19	69.998	0.627	0.000	0.33			20.0	SURCHARGED
2.009	S21		18	70.056	0.735	0.000	0.19			19.9	SURCHARGED
1.010	S22		1	70.446	1.508	0.000	0.13			4.3	SURCHARGED
1.011	S23		19	69.623	0.753	0.000	0.83			29.7	SURCHARGED
1.012	S24		19	69.616	0.849	0.000	1.27			43.1	SURCHARGED
1.013	S25		19	69.613	0.913	0.000	1.30			47.6	SURCHARGED
1.014	S26		19	69.656	1.088	0.000	0.25			49.8	SURCHARGED
1.015	S27		19	69.672	1.133	0.000	0.24			44.7	SURCHARGED
4.000	S28		18	69.976	0.287	0.000	0.02			0.6	SURCHARGED
4.001	S29		18	69.976	0.364	0.000	0.61			21.3	SURCHARGED
4.002	S30		18	69.956	0.423	0.000	0.97			36.2	SURCHARGED
4.003	S31		18	69.902	0.555	0.000	1.45			55.7	SURCHARGED
4.004	S33		19	69.760	0.709	0.000	0.82			59.8	SURCHARGED
1.016	S33		19	69.686	1.165	0.000	0.49			139.3	SURCHARGED
1.017	S34		19	69.692	1.254	0.000	0.78			154.7	SURCHARGED
1.018	S35		19	69.695	1.287	0.000	0.38			144.4	SURCHARGED
1.019	S36		19	69.695	1.316	0.000	0.30			121.5	SURCHARGED
1.020	S37		19	69.696	1.351	0.000	0.20			116.3	SURCHARGED
1.021	S38		19	69.696	1.439	0.000	0.15			94.3	SURCHARGED
1.022	S39		19	69.696	1.965	0.000	0.28			8.3	SURCHARGED
1.023	S40		4	67.539	-0.151	0.000	0.24			10.9	OK
1.024	S41		4	67.195	-0.125	0.000	0.40			43.8	OK
1.025	S42		6	66.419	0.064	0.000	0.32			56.9	SURCHARGED
1.026	S43		6	66.417	0.084	0.000	0.19			55.0	SURCHARGED
5.000	S44		19	67.728	0.303	0.000	0.18			7.9	SURCHARGED
5.001	S45		19	67.861	0.622	0.000	0.01			1.6	SURCHARGED
1.027	S46		6	66.415	0.195	0.000	0.09			52.6	SURCHARGED
6.000	S47		19	67.066	-0.034	0.000	0.21			10.4	OK
6.001	S48		19	67.063	0.283	0.000	0.03			1.1	SURCHARGED
1.028	S49		6	66.413	0.320	0.000	0.05			29.9	SURCHARGED
7.000	S50		7	66.418	-0.127	0.000	0.32			18.2	OK
7.001	S51		6	66.414	0.249	0.000	0.63			85.5	SURCHARGED
7.002	S52		6	66.412	0.311	0.000	0.18			101.7	SURCHARGED
7.003	S53		6	66.411	0.401	0.000	0.14			63.3	SURCHARGED
8.000	S54		19	67.198	-0.027	0.000	0.35			13.2	OK
8.001	S55		19	67.195	0.216	0.000	0.03			1.1	SURCHARGED
1.029	S56		6	66.411	0.443	0.000	0.11			39.5	SURCHARGED
1.030	S57		6	66.409	0.763	0.000	0.55			28.0	SURCHARGED

Summary Wizard of 60 minute 100 year Winter I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	5		70.730	0.705	0.000	0.19			6.6	SURCHARGED
1.001	S2	5		70.719	0.775	0.000	0.20			6.9	SURCHARGED
1.002	S3	5		70.708	0.839	0.000	0.22			7.5	SURCHARGED
1.003	S4	5		70.697	0.909	0.000	0.41			14.4	SURCHARGED
1.004	S5	5		70.671	0.968	0.000	0.49			18.4	SURCHARGED
1.005	S6	5		70.622	1.093	0.000	0.60			21.4	SURCHARGED
1.006	S7	5		70.562	1.132	0.000	1.65			48.0	SURCHARGED
1.007	S8	5		70.424	1.048	0.000	0.36			50.5	SURCHARGED
1.008	S9	5		70.401	1.106	0.000	0.46			62.4	SURCHARGED
1.009	S10	9		70.376	1.145	0.000	0.64			87.1	FLOOD RISK
2.000	S11	5		70.975	0.140	0.000	0.77		11	28.2	SURCHARGED
2.001	S12	4		70.949	0.237	0.000	0.76			27.9	SURCHARGED
2.002	S13	4		70.919	0.350	0.000	0.85		23	30.1	SURCHARGED
2.003	S14	4		70.861	0.382	0.000	0.88			51.5	SURCHARGED
2.004	S15	2		70.730	0.524	0.000	0.87		33	51.6	SURCHARGED
3.000	S16	5		70.497	0.419	0.000	0.47			24.5	SURCHARGED

Summary Wizard of 60 minute 100 year Winter I+40% for Surface Network 1

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	3	70.464	0.620	0.000	2.05			75.2	SURCHARGED
2.006	S18	15	70.208	0.487	0.000	0.69			74.5	SURCHARGED
2.007	S19	17	70.111	0.620	0.000	0.28			20.9	SURCHARGED
2.008	S20	17	70.107	0.736	0.000	0.30			18.5	SURCHARGED
2.009	S21	17	70.106	0.785	0.000	0.18			18.6	SURCHARGED
1.010	S22	10	70.340	1.402	0.000	0.12			4.2	SURCHARGED
1.011	S23	17	69.943	1.073	0.000	0.66			23.7	SURCHARGED
1.012	S24	17	69.937	1.170	0.000	1.07			36.2	SURCHARGED
1.013	S25	17	69.933	1.233	0.000	1.08			39.7	SURCHARGED
1.014	S26	17	69.975	1.407	0.000	0.20			39.0	SURCHARGED
1.015	S27	17	69.979	1.440	0.000	0.19			35.8	SURCHARGED
4.000	S28	16	70.077	0.388	0.000	0.01			0.4	SURCHARGED
4.001	S29	16	70.077	0.465	0.000	0.39			13.4	SURCHARGED
4.002	S30	16	70.069	0.536	0.000	0.88			33.1	SURCHARGED
4.003	S31	17	70.045	0.698	0.000	1.27			48.8	SURCHARGED
4.004	S33	17	70.009	0.958	0.000	0.69			50.1	SURCHARGED
1.016	S33	17	69.983	1.462	0.000	0.34			96.8	SURCHARGED
1.017	S34	17	69.983	1.544	0.000	0.49			98.1	SURCHARGED
1.018	S35	17	69.982	1.574	0.000	0.24			92.4	SURCHARGED
1.019	S36	17	69.982	1.602	0.000	0.20			79.8	SURCHARGED
1.020	S37	17	69.982	1.636	0.000	0.13			74.0	SURCHARGED
1.021	S38	17	69.982	1.724	0.000	0.09			56.4	SURCHARGED
1.022	S39	17	69.981	2.250	0.000	0.29			8.8	SURCHARGED
1.023	S40	6	67.537	-0.153	0.000	0.22			10.1	OK
1.024	S41	8	67.177	-0.143	0.000	0.29			31.0	OK
1.025	S42	2	66.899	0.544	0.000	0.22			39.5	SURCHARGED
1.026	S43	2	66.897	0.564	0.000	0.13			37.9	SURCHARGED
5.000	S44	12	67.765	0.340	0.000	0.13			5.5	SURCHARGED
5.001	S45	11	67.898	0.659	0.000	0.01			1.6	SURCHARGED
1.027	S46	2	66.894	0.675	0.000	0.06			34.1	SURCHARGED
6.000	S47	17	67.114	0.014	0.000	0.14			6.7	SURCHARGED
6.001	S48	17	67.112	0.331	0.000	0.03			1.2	SURCHARGED
1.028	S49	2	66.892	0.799	0.000	0.04			22.9	SURCHARGED
7.000	S50	2	66.897	0.352	0.000	0.21			12.2	SURCHARGED
7.001	S51	2	66.894	0.729	0.000	0.41			54.9	SURCHARGED
7.002	S52	2	66.892	0.791	0.000	0.11			65.9	SURCHARGED
7.003	S53	2	66.891	0.881	0.000	0.11			48.8	SURCHARGED
8.000	S54	17	67.247	0.022	0.000	0.19			7.2	SURCHARGED
8.001	S55	17	67.244	0.265	0.000	0.04			1.1	SURCHARGED
1.029	S56	2	66.890	0.922	0.000	0.11			38.1	SURCHARGED
1.030	S57	2	66.888	1.242	0.000	0.55			28.0	FLOOD RISK

Summary Wizard of 120 minute 100 year Winter I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	8		70.460	0.435	0.000	0.13			4.6	SURCHARGED
1.001	S2	8		70.453	0.509	0.000	0.13			4.4	SURCHARGED
1.002	S3	8		70.446	0.577	0.000	0.12			4.4	SURCHARGED
1.003	S4	8		70.438	0.650	0.000	0.29			10.0	SURCHARGED
1.004	S5	8		70.421	0.718	0.000	0.34			12.8	SURCHARGED
1.005	S6	10		70.391	0.862	0.000	0.41			14.6	SURCHARGED
1.006	S7	13		70.364	0.934	0.000	1.17			33.9	SURCHARGED
1.007	S8	15		70.294	0.918	0.000	0.26			35.8	SURCHARGED
1.008	S9	15		70.279	0.984	0.000	0.33			44.0	SURCHARGED
1.009	S10	19		70.262	1.031	0.000	0.44			60.7	SURCHARGED
2.000	S11	8		70.835	0.000	0.000	0.53		7	19.3	OK
2.001	S12	8		70.806	0.094	0.000	0.56			20.7	SURCHARGED
2.002	S13	8		70.777	0.208	0.000	0.82		23	28.8	SURCHARGED
2.003	S14	8		70.717	0.238	0.000	0.75			43.9	SURCHARGED
2.004	S15	7		70.617	0.411	0.000	0.72		44	42.7	SURCHARGED
3.000	S16	7		70.449	0.371	0.000	0.29			15.6	SURCHARGED

Summary Wizard of 120 minute 100 year Winter I+40% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	5	70.432	0.588	0.000	1.64			60.2	SURCHARGED
2.006	S18	12	70.258	0.537	0.000	0.55			59.8	SURCHARGED
2.007	S19	14	70.209	0.718	0.000	0.23			16.9	SURCHARGED
2.008	S20	14	70.209	0.838	0.000	0.27			16.8	SURCHARGED
2.009	S21	14	70.218	0.897	0.000	0.16			16.8	SURCHARGED
1.010	S22	19	70.239	1.301	0.000	0.12			4.1	SURCHARGED
1.011	S23	8	70.239	1.369	0.000	0.47			16.9	SURCHARGED
1.012	S24	8	70.239	1.472	0.000	0.84			28.7	SURCHARGED
1.013	S25	8	70.239	1.539	0.000	0.82			30.1	SURCHARGED
1.014	S26	8	70.242	1.674	0.000	0.16			31.8	SURCHARGED
1.015	S27	8	70.242	1.703	0.000	0.16			30.5	SURCHARGED
4.000	S28	8	70.274	0.585	0.000	0.01			0.4	SURCHARGED
4.001	S29	8	70.274	0.662	0.000	0.50			17.5	SURCHARGED
4.002	S30	8	70.272	0.739	0.000	0.87			32.5	SURCHARGED
4.003	S31	8	70.264	0.917	0.000	1.04			39.9	SURCHARGED
4.004	S33	8	70.252	1.201	0.000	0.55			40.2	SURCHARGED
1.016	S33	8	70.243	1.722	0.000	0.27			75.7	SURCHARGED
1.017	S34	8	70.242	1.803	0.000	0.39			78.3	SURCHARGED
1.018	S35	8	70.241	1.833	0.000	0.20			75.2	SURCHARGED
1.019	S36	8	70.240	1.860	0.000	0.16			63.5	SURCHARGED
1.020	S37	8	70.240	1.894	0.000	0.08			47.0	SURCHARGED
1.021	S38	8	70.239	1.981	0.000	0.06			35.3	SURCHARGED
1.022	S39	8	70.238	2.507	0.000	0.31			9.2	SURCHARGED
1.023	S40	8	67.535	-0.155	0.000	0.21			9.7	OK
1.024	S41	14	67.165	-0.155	0.000	0.21			22.7	OK
1.025	S42	1	66.949	0.594	0.000	0.15			27.2	SURCHARGED
1.026	S43	1	66.948	0.614	0.000	0.09			25.5	SURCHARGED
5.000	S44	5	67.792	0.367	0.000	0.08			3.5	SURCHARGED
5.001	S45	5	67.925	0.686	0.000	0.01			1.6	SURCHARGED
1.027	S46	1	66.944	0.725	0.000	0.04			24.0	SURCHARGED
6.000	S47	12	67.161	0.061	0.000	0.07			3.6	SURCHARGED
6.001	S48	11	67.159	0.378	0.000	0.03			1.3	SURCHARGED
1.028	S49	1	66.942	0.849	0.000	0.04			21.9	SURCHARGED
7.000	S50	1	66.948	0.403	0.000	0.13			7.6	SURCHARGED
7.001	S51	1	66.944	0.779	0.000	0.25			33.2	SURCHARGED
7.002	S52	1	66.942	0.841	0.000	0.07			42.5	SURCHARGED
7.003	S53	1	66.941	0.931	0.000	0.08			36.2	SURCHARGED
8.000	S54	13	67.296	0.071	0.000	0.10			3.8	SURCHARGED
8.001	S55	13	67.293	0.314	0.000	0.04			1.2	SURCHARGED
1.029	S56	1	66.940	0.972	0.000	0.11			38.0	SURCHARGED
1.030	S57	1	66.938	1.292	0.000	0.55			28.0	FLOOD RISK

Summary Wizard of 180 minute 100 year Winter I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	15		70.376	0.351	0.000	0.10			3.5	SURCHARGED
1.001	S2	15		70.370	0.426	0.000	0.10			3.4	SURCHARGED
1.002	S3	15		70.365	0.496	0.000	0.09			3.3	SURCHARGED
1.003	S4	15		70.360	0.572	0.000	0.22			7.7	SURCHARGED
1.004	S5	15		70.348	0.645	0.000	0.26			9.8	SURCHARGED
1.005	S6	16		70.326	0.797	0.000	0.31			11.2	SURCHARGED
1.006	S7	15		70.311	0.881	0.000	0.90			26.1	SURCHARGED
1.007	S8	13		70.304	0.928	0.000	0.20			27.6	SURCHARGED
1.008	S9	13		70.302	1.007	0.000	0.25			33.9	SURCHARGED
1.009	S10	13		70.300	1.069	0.000	0.34			46.7	SURCHARGED
2.000	S11	17		70.708	-0.127	0.000	0.39		41	14.4	OK
2.001	S12	12		70.663	-0.049	0.000	0.43			15.7	OK
2.002	S13	10		70.639	0.070	0.000	0.70		24	24.7	SURCHARGED
2.003	S14	10		70.591	0.112	0.000	0.64			37.4	SURCHARGED
2.004	S15	10		70.523	0.317	0.000	0.62		77	36.4	SURCHARGED
3.000	S16	8		70.415	0.337	0.000	0.22			11.6	SURCHARGED

Summary Wizard of 180 minute 100 year Winter I+40% for Surface Network 1

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	8	70.403	0.559	0.000	1.40			51.3	SURCHARGED
2.006	S18	10	70.265	0.544	0.000	0.47			51.0	SURCHARGED
2.007	S19	10	70.263	0.772	0.000	0.17			12.8	SURCHARGED
2.008	S20	10	70.268	0.897	0.000	0.21			12.8	SURCHARGED
2.009	S21	7	70.278	0.957	0.000	0.12			12.7	SURCHARGED
1.010	S22	12	70.297	1.359	0.000	0.12			4.1	SURCHARGED
1.011	S23	7	70.353	1.483	0.000	0.36			12.9	SURCHARGED
1.012	S24	7	70.355	1.588	0.000	0.67			22.9	SURCHARGED
1.013	S25	7	70.354	1.654	0.000	0.65			23.8	SURCHARGED
1.014	S26	7	70.354	1.786	0.000	0.12			24.4	SURCHARGED
1.015	S27	7	70.354	1.815	0.000	0.13			24.1	SURCHARGED
4.000	S28	7	70.387	0.698	0.000	0.01			0.3	SURCHARGED
4.001	S29	7	70.387	0.775	0.000	0.45			15.6	SURCHARGED
4.002	S30	7	70.384	0.851	0.000	0.73			27.5	SURCHARGED
4.003	S31	7	70.376	1.029	0.000	0.84			32.2	SURCHARGED
4.004	S33	7	70.363	1.312	0.000	0.43			31.4	SURCHARGED
1.016	S33	7	70.354	1.833	0.000	0.21			58.6	SURCHARGED
1.017	S34	7	70.353	1.914	0.000	0.31			62.3	SURCHARGED
1.018	S35	7	70.352	1.944	0.000	0.16			61.0	SURCHARGED
1.019	S36	7	70.351	1.971	0.000	0.13			54.6	SURCHARGED
1.020	S37	7	70.351	2.005	0.000	0.08			44.5	SURCHARGED
1.021	S38	7	70.350	2.092	0.000	0.05			28.8	FLOOD RISK
1.022	S39	7	70.348	2.617	0.000	0.31			9.4	FLOOD RISK
1.023	S40	14	67.534	-0.156	0.000	0.21			9.6	OK
1.024	S41	17	67.158	-0.162	0.000	0.18			19.0	OK
1.025	S42	3	66.824	0.469	0.000	0.13			22.5	SURCHARGED
1.026	S43	3	66.823	0.490	0.000	0.07			21.3	SURCHARGED
5.000	S44	3	67.804	0.379	0.000	0.06			2.6	SURCHARGED
5.001	S45	3	67.936	0.697	0.000	0.01			1.7	SURCHARGED
1.027	S46	3	66.820	0.601	0.000	0.03			21.0	SURCHARGED
6.000	S47	7	67.183	0.083	0.000	0.06			2.8	SURCHARGED
6.001	S48	7	67.180	0.399	0.000	0.03			1.3	SURCHARGED
1.028	S49	3	66.818	0.725	0.000	0.04			22.0	SURCHARGED
7.000	S50	3	66.822	0.277	0.000	0.10			5.6	SURCHARGED
7.001	S51	3	66.819	0.654	0.000	0.18			24.8	SURCHARGED
7.002	S52	3	66.817	0.716	0.000	0.05			31.4	SURCHARGED
7.003	S53	3	66.816	0.806	0.000	0.07			30.5	SURCHARGED
8.000	S54	7	67.320	0.095	0.000	0.07			2.7	SURCHARGED
8.001	S55	7	67.317	0.338	0.000	0.04			1.2	SURCHARGED
1.029	S56	3	66.816	0.848	0.000	0.10			34.5	SURCHARGED
1.030	S57	3	66.814	1.168	0.000	0.55			28.0	FLOOD RISK

Summary Wizard of 240 minute 100 year Winter I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	16		70.350	0.325	0.000	0.08			2.9	SURCHARGED
1.001	S2	16		70.349	0.405	0.000	0.08			2.7	SURCHARGED
1.002	S3	16		70.349	0.480	0.000	0.08			2.7	SURCHARGED
1.003	S4	16		70.348	0.560	0.000	0.18			6.3	SURCHARGED
1.004	S5	16		70.346	0.643	0.000	0.21			8.0	SURCHARGED
1.005	S6	14		70.342	0.813	0.000	0.26			9.1	SURCHARGED
1.006	S7	14		70.339	0.909	0.000	0.73			21.3	SURCHARGED
1.007	S8	12		70.334	0.958	0.000	0.16			22.5	SURCHARGED
1.008	S9	12		70.332	1.037	0.000	0.20			27.6	SURCHARGED
1.009	S10	11		70.331	1.100	0.000	0.28			38.0	FLOOD RISK
2.000	S11	22		70.697	-0.138	0.000	0.32		56	11.5	OK
2.001	S12	22		70.578	-0.134	0.000	0.34			12.6	OK
2.002	S13	16		70.540	-0.029	0.000	0.60		25	21.1	OK
2.003	S14	16		70.512	0.033	0.000	0.55			32.1	SURCHARGED
2.004	S15	12		70.463	0.257	0.000	0.55			32.7	SURCHARGED
3.000	S16	13		70.382	0.304	0.000	0.18			9.3	SURCHARGED

Summary Wizard of 240 minute 100 year Winter I+40% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.005	S17	14	70.371	0.527	0.000	1.23			44.9	SURCHARGED
2.006	S18	6	70.299	0.578	0.000	0.41			44.7	SURCHARGED
2.007	S19	6	70.299	0.808	0.000	0.14			10.3	SURCHARGED
2.008	S20	6	70.303	0.932	0.000	0.17			10.3	SURCHARGED
2.009	S21	6	70.312	0.991	0.000	0.10			10.3	SURCHARGED
1.010	S22	11	70.328	1.390	0.000	0.12			4.1	SURCHARGED
1.011	S23	5	70.402	1.532	0.000	0.30			10.8	SURCHARGED
1.012	S24	5	70.405	1.638	0.000	0.55			18.7	SURCHARGED
1.013	S25	5	70.404	1.704	0.000	0.53			19.4	SURCHARGED
1.014	S26	5	70.403	1.835	0.000	0.10			20.2	SURCHARGED
1.015	S27	5	70.403	1.864	0.000	0.11			20.0	SURCHARGED
4.000	S28	5	70.438	0.749	0.000	0.01			0.3	SURCHARGED
4.001	S29	5	70.438	0.826	0.000	0.39			13.4	SURCHARGED
4.002	S30	5	70.434	0.901	0.000	0.62			23.2	SURCHARGED
4.003	S31	5	70.426	1.079	0.000	0.69			26.6	SURCHARGED
4.004	S33	5	70.413	1.362	0.000	0.34			24.9	SURCHARGED
1.016	S33	5	70.403	1.883	0.000	0.17			46.9	SURCHARGED
1.017	S34	5	70.402	1.963	0.000	0.25			50.0	SURCHARGED
1.018	S35	5	70.401	1.993	0.000	0.12			47.5	SURCHARGED
1.019	S36	5	70.400	2.020	0.000	0.10			41.2	SURCHARGED
1.020	S37	5	70.400	2.054	0.000	0.06			33.0	SURCHARGED
1.021	S38	5	70.399	2.141	0.000	0.04			21.7	FLOOD RISK
1.022	S39	5	70.397	2.666	0.000	0.32			9.5	FLOOD RISK
1.023	S40	12	67.535	-0.155	0.000	0.21			9.6	OK
1.024	S41	19	67.154	-0.166	0.000	0.16			16.9	OK
1.025	S42	4	66.624	0.269	0.000	0.11			19.8	SURCHARGED
1.026	S43	4	66.622	0.289	0.000	0.06			19.0	SURCHARGED
5.000	S44	1	67.808	0.383	0.000	0.06			2.5	SURCHARGED
5.001	S45	1	67.939	0.700	0.000	0.01			1.7	SURCHARGED
1.027	S46	4	66.619	0.400	0.000	0.03			19.5	SURCHARGED
6.000	S47	6	67.195	0.095	0.000	0.05			2.3	SURCHARGED
6.001	S48	6	67.192	0.411	0.000	0.03			1.3	SURCHARGED
1.028	S49	4	66.617	0.524	0.000	0.04			22.1	SURCHARGED
7.000	S50	4	66.621	0.076	0.000	0.08			4.5	SURCHARGED
7.001	S51	4	66.618	0.453	0.000	0.15			20.1	SURCHARGED
7.002	S52	4	66.616	0.515	0.000	0.04			25.0	SURCHARGED
7.003	S53	4	66.616	0.606	0.000	0.05			21.9	SURCHARGED
8.000	S54	6	67.335	0.110	0.000	0.06			2.2	SURCHARGED
8.001	S55	6	67.331	0.352	0.000	0.04			1.2	SURCHARGED
1.029	S56	4	66.615	0.647	0.000	0.10			34.3	SURCHARGED
1.030	S57	4	66.614	0.968	0.000	0.55			28.0	SURCHARGED

Summary Wizard of 360 minute 100 year Winter I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500		14	70.378	0.353	0.000	0.06			2.1	SURCHARGED
1.001	S2		14	70.377	0.433	0.000	0.06			2.0	SURCHARGED
1.002	S3		14	70.377	0.508	0.000	0.05			1.9	SURCHARGED
1.003	S4		13	70.376	0.588	0.000	0.13			4.6	SURCHARGED
1.004	S5		13	70.375	0.672	0.000	0.16			5.9	SURCHARGED
1.005	S6		13	70.372	0.843	0.000	0.19			6.7	SURCHARGED
1.006	S7		12	70.370	0.940	0.000	0.54			15.7	SURCHARGED
1.007	S8		10	70.366	0.990	0.000	0.12			16.6	SURCHARGED
1.008	S9		10	70.365	1.070	0.000	0.15			20.4	SURCHARGED
1.009	S10		10	70.364	1.133	0.000	0.21			28.1	FLOOD RISK
2.000	S11		30	70.683	-0.152	0.000	0.23		81	8.4	OK
2.001	S12		30	70.563	-0.149	0.000	0.25			9.2	OK
2.002	S13		28	70.448	-0.121	0.000	0.44		66	15.5	OK
2.003	S14		23	70.390	-0.089	0.000	0.41			23.9	OK
2.004	S15		20	70.357	0.151	0.000	0.46			27.3	SURCHARGED
3.000	S16		17	70.350	0.272	0.000	0.13			6.8	SURCHARGED
2.005	S17		16	70.349	0.505	0.000	0.95			34.9	SURCHARGED
2.006	S18		5	70.342	0.621	0.000	0.32			34.7	SURCHARGED
2.007	S19		5	70.342	0.851	0.000	0.10			7.6	SURCHARGED

Summary Wizard of 360 minute 100 year Winter I+40% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	5	70.345	0.974	0.000	0.12			7.5	SURCHARGED
2.009	S21	5	70.351	1.030	0.000	0.07			7.5	SURCHARGED
1.010	S22	8	70.362	1.424	0.000	0.12			4.1	SURCHARGED
1.011	S23	1	70.423	1.553	0.000	0.24			8.6	SURCHARGED
1.012	S24	1	70.425	1.658	0.000	0.42			14.3	SURCHARGED
1.013	S25	1	70.424	1.724	0.000	0.41			15.0	SURCHARGED
1.014	S26	1	70.422	1.854	0.000	0.08			15.7	SURCHARGED
1.015	S27	1	70.422	1.883	0.000	0.08			15.2	SURCHARGED
4.000	S28	2	70.456	0.767	0.000	0.01			0.2	SURCHARGED
4.001	S29	2	70.456	0.844	0.000	0.30		348	10.3	SURCHARGED
4.002	S30	2	70.453	0.920	0.000	0.47			17.5	SURCHARGED
4.003	S31	2	70.444	1.097	0.000	0.52			20.1	SURCHARGED
4.004	S33	2	70.431	1.380	0.000	0.26			18.8	SURCHARGED
1.016	S33	1	70.422	1.901	0.000	0.12			34.1	SURCHARGED
1.017	S34	1	70.420	1.982	0.000	0.16			31.5	SURCHARGED
1.018	S35	1	70.419	2.011	0.000	0.08			31.1	SURCHARGED
1.019	S36	1	70.419	2.039	0.000	0.07			26.8	SURCHARGED
1.020	S37	1	70.418	2.072	0.000	0.04			20.4	SURCHARGED
1.021	S38	1	70.417	2.159	0.000	0.03			15.9	FLOOD RISK
1.022	S39	1	70.416	2.685	0.000	0.32			9.5	FLOOD RISK
1.023	S40	9	67.535	-0.155	0.000	0.21			9.6	OK
1.024	S41	24	67.150	-0.170	0.000	0.13			14.6	OK
1.025	S42	10	66.149	-0.206	0.000	0.09			16.8	OK
1.026	S43	10	66.146	-0.188	0.000	0.06			16.4	OK
5.000	S44	2	67.805	0.380	0.000	0.08			3.6	SURCHARGED
5.001	S45	2	67.936	0.697	0.000	0.01			1.7	SURCHARGED
1.027	S46	11	66.130	-0.089	0.000	0.03			17.9	OK
6.000	S47	4	67.208	0.108	0.000	0.04			1.9	SURCHARGED
6.001	S48	4	67.204	0.424	0.000	0.03			1.3	SURCHARGED
1.028	S49	11	66.093	0.000	0.000	0.03			20.3	OK
7.000	S50	30	66.355	-0.190	0.000	0.06			3.3	OK
7.001	S51	12	66.110	-0.055	0.000	0.11			15.0	OK
7.002	S52	11	66.101	0.000	0.000	0.03			19.1	OK
7.003	S53	11	66.088	0.078	0.000	0.03			15.2	SURCHARGED
8.000	S54	5	67.350	0.125	0.000	0.05			1.7	SURCHARGED
8.001	S55	5	67.347	0.368	0.000	0.04			1.2	SURCHARGED
1.029	S56	11	66.087	0.119	0.000	0.09			31.6	SURCHARGED
1.030	S57	11	66.086	0.440	0.000	0.55			28.0	SURCHARGED

Summary Wizard of 480 minute 100 year Winter I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500		12	70.391	0.366	0.000	0.05			1.7	SURCHARGED
1.001	S2		11	70.390	0.446	0.000	0.05			1.6	SURCHARGED
1.002	S3		11	70.390	0.521	0.000	0.04			1.5	SURCHARGED
1.003	S4		11	70.389	0.601	0.000	0.11			3.7	SURCHARGED
1.004	S5		11	70.388	0.685	0.000	0.13			4.7	SURCHARGED
1.005	S6		11	70.386	0.857	0.000	0.15			5.4	SURCHARGED
1.006	S7		10	70.385	0.955	0.000	0.43			12.6	SURCHARGED
1.007	S8		8	70.381	1.005	0.000	0.10			13.3	SURCHARGED
1.008	S9		8	70.381	1.086	0.000	0.12			16.4	SURCHARGED
1.009	S10		7	70.380	1.149	0.000	0.16			22.5	FLOOD RISK
2.000	S11		35	70.675	-0.160	0.000	0.18		104	6.7	OK
2.001	S12		35	70.555	-0.157	0.000	0.20			7.3	OK
2.002	S13		34	70.436	-0.133	0.000	0.35		83	12.3	OK
2.003	S14		25	70.382	-0.097	0.000	0.33			19.1	OK
2.004	S15		18	70.377	0.171	0.000	0.40			23.5	SURCHARGED
3.000	S16		15	70.372	0.294	0.000	0.10			5.5	SURCHARGED
2.005	S17		13	70.371	0.527	0.000	0.81			29.7	SURCHARGED
2.006	S18		4	70.366	0.645	0.000	0.27			29.6	SURCHARGED
2.007	S19		4	70.365	0.874	0.000	0.08			6.1	SURCHARGED

Summary Wizard of 480 minute 100 year Winter I+40% for Surface Network 1

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	4	70.367	0.996	0.000	0.10			6.1	SURCHARGED
2.009	S21	4	70.371	1.050	0.000	0.06			6.1	SURCHARGED
1.010	S22	6	70.378	1.440	0.000	0.12			4.1	SURCHARGED
1.011	S23	2	70.419	1.549	0.000	0.21			7.5	SURCHARGED
1.012	S24	2	70.423	1.656	0.000	0.35			12.0	SURCHARGED
1.013	S25	2	70.423	1.723	0.000	0.34			12.3	SURCHARGED
1.014	S26	2	70.421	1.853	0.000	0.06			12.2	SURCHARGED
1.015	S27	2	70.421	1.882	0.000	0.06			12.0	SURCHARGED
4.000	S28	1	70.457	0.768	0.000	0.00			0.2	SURCHARGED
4.001	S29	1	70.457	0.845	0.000	0.24		426	8.4	SURCHARGED
4.002	S30	1	70.454	0.921	0.000	0.38			14.2	SURCHARGED
4.003	S31	1	70.445	1.098	0.000	0.43			16.4	SURCHARGED
4.004	S33	1	70.431	1.381	0.000	0.21			15.4	SURCHARGED
1.016	S33	2	70.421	1.901	0.000	0.10			27.7	SURCHARGED
1.017	S34	2	70.420	1.981	0.000	0.12			24.2	SURCHARGED
1.018	S35	2	70.419	2.011	0.000	0.06			22.4	SURCHARGED
1.019	S36	2	70.418	2.038	0.000	0.04			17.9	SURCHARGED
1.020	S37	2	70.418	2.072	0.000	0.03			15.1	SURCHARGED
1.021	S38	2	70.417	2.159	0.000	0.02			13.3	FLOOD RISK
1.022	S39	2	70.415	2.684	0.000	0.32			9.5	FLOOD RISK
1.023	S40	10	67.535	-0.155	0.000	0.21			9.6	OK
1.024	S41	28	67.147	-0.173	0.000	0.12			13.4	OK
1.025	S42	15	66.006	-0.349	0.000	0.08			15.1	OK
1.026	S43	14	66.004	-0.329	0.000	0.05			15.0	OK
5.000	S44	4	67.795	0.370	0.000	0.08			3.6	SURCHARGED
5.001	S45	4	67.926	0.687	0.000	0.01			1.6	SURCHARGED
1.027	S46	14	65.996	-0.223	0.000	0.03			16.9	OK
6.000	S47	2	67.212	0.112	0.000	0.03			1.6	SURCHARGED
6.001	S48	2	67.209	0.428	0.000	0.03			1.3	SURCHARGED
1.028	S49	14	65.980	-0.114	0.000	0.03			18.5	OK
7.000	S50	35	66.351	-0.194	0.000	0.05			2.6	OK
7.001	S51	15	65.962	-0.203	0.000	0.09			12.1	OK
7.002	S52	15	65.959	-0.142	0.000	0.03			15.8	OK
7.003	S53	15	65.951	-0.059	0.000	0.03			13.0	OK
8.000	S54	3	67.357	0.132	0.000	0.04			1.5	SURCHARGED
8.001	S55	3	67.353	0.374	0.000	0.04			1.3	SURCHARGED
1.029	S56	15	65.943	-0.025	0.000	0.08			28.5	OK
1.030	S57	15	65.917	0.271	0.000	0.55			27.9	SURCHARGED

Summary Wizard of 600 minute 100 year Winter I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	9	70.396	0.371	0.000	0.04			1.4	SURCHARGED
1.001	S2	9	70.396	0.452	0.000	0.04			1.4	SURCHARGED
1.002	S3	9	70.395	0.526	0.000	0.04			1.3	SURCHARGED
1.003	S4	9	70.395	0.607	0.000	0.09			3.1	SURCHARGED
1.004	S5	9	70.394	0.691	0.000	0.11			4.0	SURCHARGED
1.005	S6	8	70.392	0.863	0.000	0.13			4.5	SURCHARGED
1.006	S7	9	70.391	0.961	0.000	0.36			10.6	SURCHARGED
1.007	S8	7	70.388	1.012	0.000	0.08			11.2	SURCHARGED
1.008	S9	7	70.388	1.093	0.000	0.10			13.8	SURCHARGED
1.009	S10	5	70.387	1.156	0.000	0.14			18.9	FLOOD RISK
2.000	S11	39	70.669	-0.166	0.000	0.15		129	5.6	OK
2.001	S12	39	70.548	-0.164	0.000	0.17			6.1	OK
2.002	S13	38	70.427	-0.142	0.000	0.29		100	10.3	OK
2.003	S14	22	70.394	-0.085	0.000	0.27			16.0	OK
2.004	S15	15	70.390	0.184	0.000	0.35			20.8	SURCHARGED
3.000	S16	12	70.386	0.308	0.000	0.09			4.7	SURCHARGED
2.005	S17	11	70.385	0.541	0.000	0.71			26.0	SURCHARGED
2.006	S18	3	70.380	0.659	0.000	0.24			25.8	SURCHARGED
2.007	S19	3	70.379	0.888	0.000	0.07			5.2	SURCHARGED

Summary Wizard of 600 minute 100 year Winter I+40% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	2	70.379	1.008	0.000	0.08			5.2	SURCHARGED
2.009	S21	2	70.381	1.060	0.000	0.05			5.2	SURCHARGED
1.010	S22	4	70.386	1.448	0.000	0.12			4.1	SURCHARGED
1.011	S23	3	70.417	1.547	0.000	0.19		724	6.8	SURCHARGED
1.012	S24	3	70.420	1.653	0.000	0.31			10.6	SURCHARGED
1.013	S25	3	70.419	1.719	0.000	0.29			10.8	SURCHARGED
1.014	S26	3	70.418	1.850	0.000	0.05			10.7	SURCHARGED
1.015	S27	3	70.418	1.879	0.000	0.05			10.3	SURCHARGED
4.000	S28	3	70.453	0.764	0.000	0.00			0.1	SURCHARGED
4.001	S29	3	70.453	0.841	0.000	0.21		458	7.1	SURCHARGED
4.002	S30	3	70.449	0.916	0.000	0.32			12.0	SURCHARGED
4.003	S31	3	70.441	1.094	0.000	0.36			13.8	SURCHARGED
4.004	S33	3	70.427	1.377	0.000	0.18			13.1	SURCHARGED
1.016	S33	3	70.418	1.897	0.000	0.08			23.3	SURCHARGED
1.017	S34	3	70.416	1.978	0.000	0.10			20.7	SURCHARGED
1.018	S35	3	70.415	2.007	0.000	0.05			19.9	SURCHARGED
1.019	S36	3	70.415	2.035	0.000	0.04			15.9	SURCHARGED
1.020	S37	3	70.414	2.068	0.000	0.02			13.5	SURCHARGED
1.021	S38	3	70.413	2.155	0.000	0.02			12.8	FLOOD RISK
1.022	S39	3	70.412	2.681	0.000	0.32			9.5	FLOOD RISK
1.023	S40	11	67.535	-0.155	0.000	0.21			9.6	OK
1.024	S41	33	67.146	-0.174	0.000	0.12			12.6	OK
1.025	S42	23	65.912	-0.443	0.000	0.08			14.1	OK
1.026	S43	18	65.906	-0.427	0.000	0.05			14.0	OK
5.000	S44	6	67.786	0.361	0.000	0.08			3.6	SURCHARGED
5.001	S45	6	67.918	0.679	0.000	0.01			1.6	SURCHARGED
1.027	S46	18	65.899	-0.320	0.000	0.03			16.1	OK
6.000	S47	1	67.212	0.112	0.000	0.03			1.4	SURCHARGED
6.001	S48	1	67.209	0.428	0.000	0.03			1.3	SURCHARGED
1.028	S49	18	65.887	-0.206	0.000	0.03			18.0	OK
7.000	S50	39	66.348	-0.197	0.000	0.04			2.2	OK
7.001	S51	23	65.874	-0.291	0.000	0.08			10.2	OK
7.002	S52	18	65.872	-0.229	0.000	0.02			13.4	OK
7.003	S53	18	65.867	-0.143	0.000	0.03			11.5	OK
8.000	S54	1	67.359	0.134	0.000	0.04			1.4	SURCHARGED
8.001	S55	1	67.355	0.376	0.000	0.04			1.3	SURCHARGED
1.029	S56	18	65.863	-0.104	0.000	0.08			28.2	OK
1.030	S57	18	65.850	0.204	0.000	0.55			27.9	SURCHARGED

Summary Wizard of 720 minute 100 year Winter I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	10		70.396	0.371	0.000	0.04			1.2	SURCHARGED
1.001	S2	10		70.395	0.451	0.000	0.03			1.2	SURCHARGED
1.002	S3	10		70.395	0.526	0.000	0.03			1.1	SURCHARGED
1.003	S4	10		70.394	0.606	0.000	0.08			2.7	SURCHARGED
1.004	S5	10		70.394	0.691	0.000	0.09			3.5	SURCHARGED
1.005	S6	9		70.392	0.863	0.000	0.11			3.9	SURCHARGED
1.006	S7	8		70.391	0.961	0.000	0.32			9.2	SURCHARGED
1.007	S8	6		70.389	1.013	0.000	0.07			9.7	SURCHARGED
1.008	S9	6		70.388	1.093	0.000	0.09			11.9	SURCHARGED
1.009	S10	4		70.387	1.156	0.000	0.12			16.4	FLOOD RISK
2.000	S11	42		70.664	-0.171	0.000	0.13		157	4.9	OK
2.001	S12	42		70.544	-0.168	0.000	0.14			5.3	OK
2.002	S13	42		70.421	-0.148	0.000	0.25		346	9.0	OK
2.003	S14	20		70.399	-0.080	0.000	0.24			13.9	OK
2.004	S15	13		70.395	0.189	0.000	0.31			18.2	SURCHARGED
3.000	S16	10		70.391	0.313	0.000	0.08			4.0	SURCHARGED
2.005	S17	9		70.391	0.547	0.000	0.63			23.2	SURCHARGED
2.006	S18	1		70.386	0.665	0.000	0.21			23.1	SURCHARGED
2.007	S19	1		70.384	0.893	0.000	0.06			4.7	SURCHARGED

Summary Wizard of 720 minute 100 year Winter I+40% for Surface Network 1

PN	US/MH Name	Storm	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	1	70.384	1.013	0.000	0.08			4.7	SURCHARGED
2.009	S21	1	70.384	1.063	0.000	0.04			4.7	SURCHARGED
1.010	S22	3	70.386	1.448	0.000	0.12			4.1	SURCHARGED
1.011	S23	4	70.406	1.536	0.000	0.18		752	6.3	SURCHARGED
1.012	S24	4	70.409	1.642	0.000	0.28		877	9.6	SURCHARGED
1.013	S25	4	70.408	1.708	0.000	0.27			9.9	SURCHARGED
1.014	S26	4	70.406	1.838	0.000	0.05			9.6	SURCHARGED
1.015	S27	4	70.406	1.867	0.000	0.05			8.9	SURCHARGED
4.000	S28	4	70.440	0.751	0.000	0.00			0.1	SURCHARGED
4.001	S29	4	70.440	0.828	0.000	0.18		488	6.2	SURCHARGED
4.002	S30	4	70.436	0.903	0.000	0.28			10.5	SURCHARGED
4.003	S31	4	70.428	1.081	0.000	0.31			12.1	SURCHARGED
4.004	S33	4	70.415	1.364	0.000	0.16			11.5	SURCHARGED
1.016	S33	4	70.406	1.885	0.000	0.07			20.1	SURCHARGED
1.017	S34	4	70.404	1.966	0.000	0.10			19.2	SURCHARGED
1.018	S35	4	70.403	1.995	0.000	0.05			17.9	SURCHARGED
1.019	S36	4	70.403	2.023	0.000	0.03			14.0	SURCHARGED
1.020	S37	4	70.402	2.056	0.000	0.02			12.5	SURCHARGED
1.021	S38	4	70.401	2.143	0.000	0.02			12.4	FLOOD RISK
1.022	S39	4	70.400	2.669	0.000	0.32			9.5	FLOOD RISK
1.023	S40	13	67.534	-0.156	0.000	0.21			9.6	OK
1.024	S41	38	67.145	-0.175	0.000	0.11			12.1	OK
1.025	S42	32	65.874	-0.481	0.000	0.07			13.4	OK
1.026	S43	27	65.854	-0.479	0.000	0.04			13.3	OK
5.000	S44	7	67.778	0.353	0.000	0.08			3.6	SURCHARGED
5.001	S45	7	67.909	0.670	0.000	0.01			1.6	SURCHARGED
1.027	S46	24	65.826	-0.394	0.000	0.03			15.8	OK
6.000	S47	3	67.210	0.110	0.000	0.03			1.3	SURCHARGED
6.001	S48	3	67.206	0.426	0.000	0.03			1.3	SURCHARGED
1.028	S49	24	65.816	-0.277	0.000	0.03			17.8	OK
7.000	S50	42	66.346	-0.199	0.000	0.03			1.9	OK
7.001	S51	34	65.817	-0.348	0.000	0.07			8.8	OK
7.002	S52	25	65.803	-0.298	0.000	0.02			11.8	OK
7.003	S53	24	65.800	-0.210	0.000	0.02			10.5	OK
8.000	S54	2	67.358	0.133	0.000	0.03			1.3	SURCHARGED
8.001	S55	2	67.354	0.375	0.000	0.04			1.3	SURCHARGED
1.029	S56	24	65.798	-0.170	0.000	0.08			27.9	OK
1.030	S57	24	65.788	0.142	0.000	0.54			27.7	SURCHARGED

Summary Wizard of 960 minute 100 year Winter I+40% for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
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	10
Number of Online Controls	7	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 0.400
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	18.000	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	1500	13		70.383	0.358	0.000	0.03			1.0	SURCHARGED
1.001	S2	13		70.382	0.438	0.000	0.03			0.9	SURCHARGED
1.002	S3	12		70.382	0.513	0.000	0.03			0.9	SURCHARGED
1.003	S4	12		70.382	0.594	0.000	0.06			2.2	SURCHARGED
1.004	S5	12		70.381	0.678	0.000	0.07			2.8	SURCHARGED
1.005	S6	12		70.380	0.851	0.000	0.09			3.1	SURCHARGED
1.006	S7	11		70.379	0.949	0.000	0.25			7.3	SURCHARGED
1.007	S8	9		70.377	1.001	0.000	0.06			7.7	SURCHARGED
1.008	S9	9		70.377	1.082	0.000	0.07			9.5	SURCHARGED
1.009	S10	8		70.376	1.145	0.000	0.10			13.1	FLOOD RISK
2.000	S11	47		70.659	-0.176	0.000	0.11		210	3.9	OK
2.001	S12	47		70.537	-0.175	0.000	0.11			4.2	OK
2.002	S13	47		70.412	-0.157	0.000	0.20		457	7.1	OK
2.003	S14	21		70.394	-0.085	0.000	0.19			11.0	OK
2.004	S15	14		70.391	0.185	0.000	0.25		800	14.7	SURCHARGED
3.000	S16	11		70.388	0.310	0.000	0.06			3.2	SURCHARGED
2.005	S17	10		70.387	0.543	0.000	0.51			18.7	SURCHARGED
2.006	S18	2		70.382	0.661	0.000	0.17			18.6	SURCHARGED
2.007	S19	2		70.380	0.889	0.000	0.06			4.5	SURCHARGED

Summary Wizard of 960 minute 100 year Winter I+40% for Surface Network 1

PN	US/MH Name	Storm Rank	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
2.008	S20	3	70.378	1.007	0.000	0.07			4.5	SURCHARGED
2.009	S21	3	70.378	1.057	0.000	0.04			4.4	SURCHARGED
1.010	S22	7	70.376	1.438	0.000	0.12			4.1	SURCHARGED
1.011	S23	6	70.373	1.503	0.000	0.16		805	5.8	SURCHARGED
1.012	S24	6	70.373	1.606	0.000	0.25		934	8.5	SURCHARGED
1.013	S25	6	70.371	1.671	0.000	0.24			8.7	SURCHARGED
1.014	S26	6	70.368	1.800	0.000	0.04			8.4	SURCHARGED
1.015	S27	6	70.368	1.829	0.000	0.04			7.7	SURCHARGED
4.000	S28	6	70.400	0.711	0.000	0.00			0.1	SURCHARGED
4.001	S29	6	70.400	0.788	0.000	0.15		544	5.0	SURCHARGED
4.002	S30	6	70.397	0.864	0.000	0.23			8.4	SURCHARGED
4.003	S31	6	70.389	1.042	0.000	0.25			9.7	SURCHARGED
4.004	S33	6	70.377	1.326	0.000	0.13			9.3	SURCHARGED
1.016	S33	6	70.368	1.847	0.000	0.06			17.0	SURCHARGED
1.017	S34	6	70.367	1.928	0.000	0.08			16.5	SURCHARGED
1.018	S35	6	70.365	1.958	0.000	0.04			14.8	SURCHARGED
1.019	S36	6	70.365	1.985	0.000	0.03			12.7	SURCHARGED
1.020	S37	6	70.364	2.018	0.000	0.02			11.6	SURCHARGED
1.021	S38	6	70.363	2.106	0.000	0.02			11.3	FLOOD RISK
1.022	S39	6	70.362	2.631	0.000	0.31			9.4	FLOOD RISK
1.023	S40	15	67.534	-0.156	0.000	0.21			9.5	OK
1.024	S41	41	67.144	-0.176	0.000	0.11			11.4	OK
1.025	S42	43	65.858	-0.497	0.000	0.07			12.4	OK
1.026	S43	39	65.818	-0.516	0.000	0.04			12.4	OK
5.000	S44	13	67.762	0.337	0.000	0.08			3.6	SURCHARGED
5.001	S45	13	67.894	0.655	0.000	0.01			1.6	SURCHARGED
1.027	S46	34	65.723	-0.497	0.000	0.02			14.9	OK
6.000	S47	5	67.200	0.100	0.000	0.05			2.3	SURCHARGED
6.001	S48	5	67.197	0.416	0.000	0.03			1.3	SURCHARGED
1.028	S49	35	65.711	-0.382	0.000	0.03			17.3	OK
7.000	S50	47	66.344	-0.201	0.000	0.03			1.5	OK
7.001	S51	47	65.781	-0.384	0.000	0.05			7.1	OK
7.002	S52	35	65.702	-0.399	0.000	0.02			9.5	OK
7.003	S53	35	65.700	-0.310	0.000	0.02			8.9	OK
8.000	S54	4	67.351	0.126	0.000	0.03			1.2	SURCHARGED
8.001	S55	4	67.348	0.369	0.000	0.04			1.2	SURCHARGED
1.029	S56	35	65.698	-0.270	0.000	0.08			27.0	OK
1.030	S57	35	65.692	0.046	0.000	0.53			27.0	SURCHARGED

DRAWINGS

DRAWINGS ARE SEPARATE TO THIS REPORT