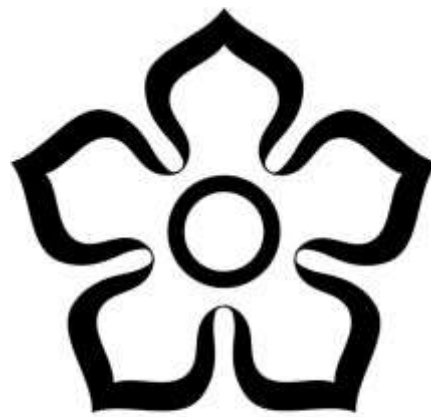


Flood Investigation Report  
of the flood event  
Thursday 22nd June 2023  
(South and east Leicester City)  
By  
Leicester City Council  
Lead Local Flood Authority



Leicester  
City Council

Version Control

Version	Date of issue	Approved by	Amendment details
1	April 2024		Created report
2	June 2024		Updated following consultation with RMAs.

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## 1. Executive summary

On Thursday 22<sup>nd</sup> of June 2023, an intense rainfall event impacted areas in the south and east of Leicester. This resulted in the internal flooding of over 80 domestic properties in Leicester, triggering a formal Section 19 investigation. The primary cause has been determined as surface water flooding, whereby the volume of rainfall is unable to infiltrate into the ground or drain into the drainage systems and instead flows across the surface. The intensity of the rainfall event (understood to be 50mm within a one-hour period) likely overwhelmed the capacity of drains and sewer systems. Some locations of flooding were also reported along the Scraftoft, Bushby and Evington Brooks, which are tributaries of the River Soar.

An action plan has been developed, with Leicester City Council, Severn Trent and the Environment Agency taking on measures with the aim of reducing the impacts of future flooding and increasing preparedness for flooding. It is also recognised that property owners have their own responsibilities, such as ensuring that they have an appropriate level of building and contents insurance cover and understanding of flood risk at their property. Based on information gathered after the event and correspondence with property owners or tenants, the residents in the affected areas were not aware of their level of flood risk, were unprepared for flooding events and under-insured for flooding. A common finding was also that the responsibilities of Risk Management Authorities were not fully understood, and property owners were not aware of their own responsibilities regarding flood risk. A proposed action plan has been developed, which includes:

- Moving to a risk-based approach to gully cleansing in the city.
- Developing resources for residents to understand their flood risk and the importance of insurance.
- Continuing to liaise with Severn Trent regarding specific locations of sewer-related flooding and any further investigations or actions.

## 2. Introduction

The intense rainfall event which hit the south and west of Leicester on the 22<sup>nd</sup> of June 2023 resulted in the internal flooding of over 80 domestic properties in Leicester.

Section 19 of the Flood and Water Management Act 2010 requires the City Council, as a Lead Local Flood Authority (LLFA) to investigate flooding incidences as stated below.

### 2.1. Flood and Water Management Act (2010)

Section 19 of the Flood and Water Management Act (2010) states:

*(1) On becoming aware of a flood in its area, a lead local flood authority must, to the extent that it considers it necessary or appropriate, investigate—*

*(a) which risk management authorities have relevant flood risk management functions, and*

*(b) whether each of those risk management authorities has exercised, or is proposing to exercise, those functions in response to the flood.*

*(2) Where an authority carries out an investigation under subsection (1) it must—*

*(a) publish the results of its investigation, and*

*(b) notify any relevant risk management authorities.*

### 2.2. Formal Flood Investigations Criteria

Not all flooding that is reported to and investigated by Leicester City Council requires a Section 19 report to be commissioned and published.

When investigating a flooding incident, Leicester City Council have determined that a Section 19 report will only be published when:

1. 30 or more properties in a single event have experienced internal flooding of living accommodation for residential properties or where the function of the property has become inoperable or adversely affected for non-residential properties.
2. A Section 19 Flood Investigation has been requested by an Elected Member (a Councillor, the City Mayor, or a Member of Parliament) in response to flooding in the city.
3. And where no other flood risk management authority is exercising or proposing to exercise its risk management functions.

This flooding event has triggered a report to be published as it exceeded the 30 properties limit for properties that have experienced internal flooding to their living accommodation.

### 3. Report methodology

The number of properties that were flooded were recorded over a large area of the city. These flooded properties can be grouped together into separate discrete catchments. The report focuses on the one storm, but each individual catchment has been investigated separately. This is because the flooding experienced in each discrete catchment may have resulted from different flooding mechanisms.

Information was gathered by interviewing residents with first-hand experience of the event, from risk management authorities such as Severn Trent and the Environment Agency, as well as weather reports from the Met Office and other weather forecasters and recorders.

The majority of the information supporting this report is based on first-hand accounts and flood survey information provided by affected residents. It is possible that additional properties were flooded during this event but were not reported to the City Council. This report has therefore been compiled using the data available to the City Council at the time.

### 4. Flood Risk Management Authorities identified in this report.

Leicester City Council is the Lead Local Flood Authority for the Unitary Authority of Leicester. It is responsible for the management of flooding from surface water, ground water and ordinary watercourses.

Leicester City Council is the highway authority for the city of Leicester and is responsible for managing flood risk from the highway and highway drainage.

The Environment Agency is responsible for managing flood risk from 'main' rivers which include the River Soar, Melton Brook, Willow Brook (Bushby Brook, Scruptoft Brook, Thurnby Brook and Evington Brook), Saffron Brook, and Braunstone Brook, all within the city boundary.

The Environment Agency and the City Council (as LLFA) are statutory consultees to the planning process. In line with national policy, partners work to ensure that new development is directed away from areas at highest risk, and that all sources of flood risk and the current and future impacts of climate change are taken into account when providing comments.

Severn Trent is the water company responsible for the maintenance and management of flood risk from the public sewerage system in the Severn Trent region which includes the city of Leicester.

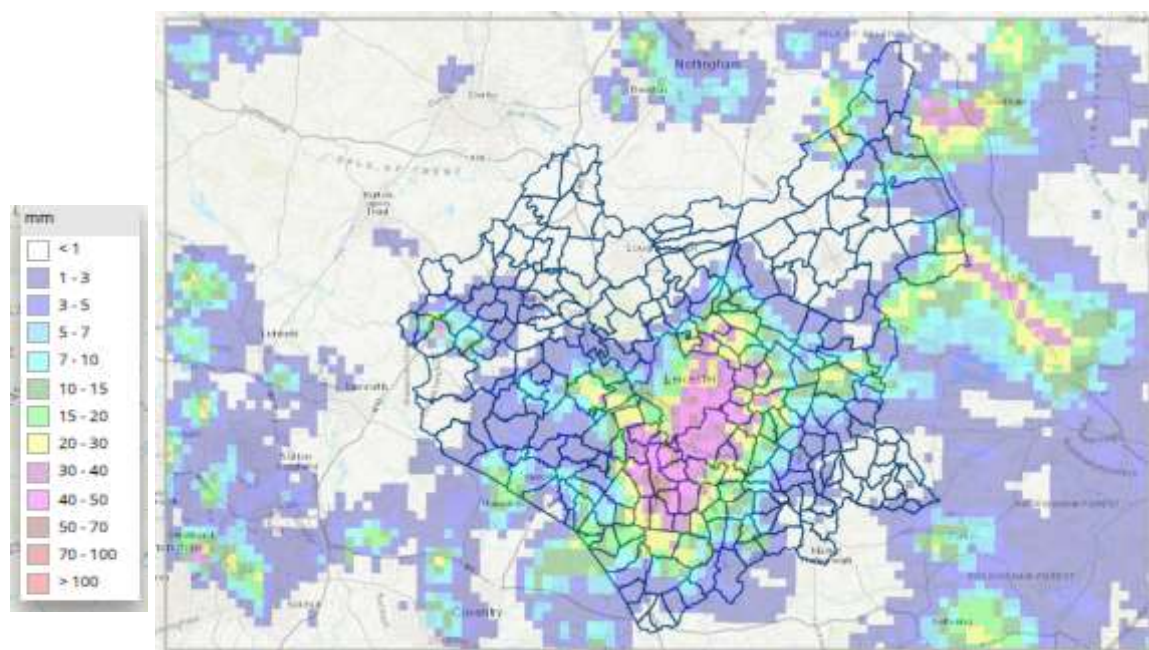
### 5. Previous flooding events

In the south and east parts of the city, the city council has previously been made aware of flooding affecting areas such as around Abbots Road South, Lorne Road, Arreton Close and High Street (Evington). None of these previous flooding events triggered a

Section 19 formal flood investigation and do not form part of the response actions for this event.

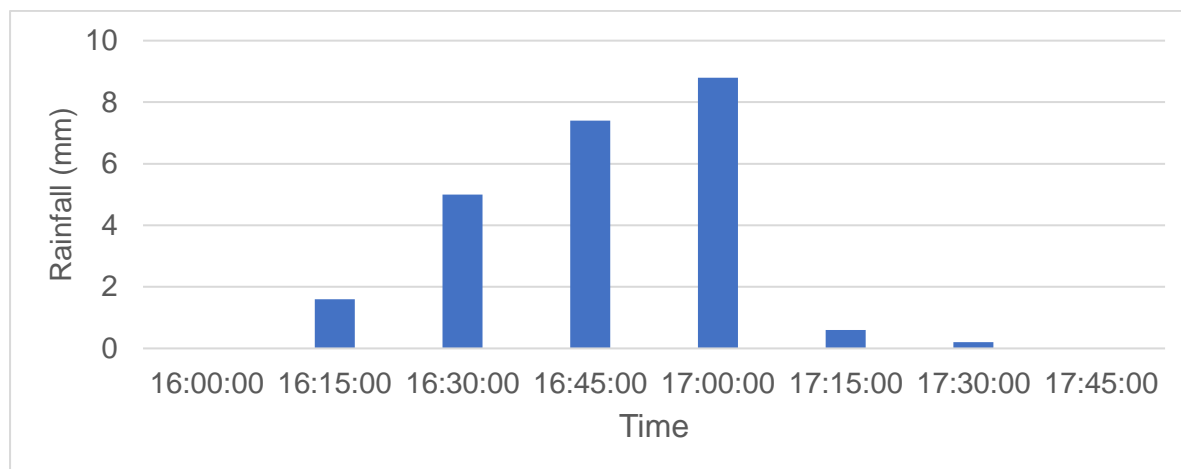
## 6. Details of the storm event 22<sup>nd</sup> June 2023

Around the time of the event thunderstorms were moving across the British Isles in a general direction from the southwest to the northeast. One specifically intense storm on the 22<sup>nd</sup> June 2023, which lasted from approximately 16:30 to 18:30, produced rainfall rates of greater than 32mm per hour over the south and east of the city including Oadby and Wigston, beyond the city boundary. A separate report will be produced by Leicestershire County Council to cover the area affected outside the city boundary. Once published, this will be available to view [here](#). Cumulative rainfall readings generated figures of greater than 50mm over a one-hour duration. These figures would exceed the design capacity of most conventional drainage systems which would normally be designed to convey rainfall intensities of between 12mm and 25mm in one hour. Therefore, the hydraulic capacity of many of the sewers were likely to have been exceeded, evidenced by areas where manhole covers were displaced as a result of sewers surcharging (which is when the capacity of the sewer system is exceeded). This resulted in damage to roads and paving. The capacity of highway gullies was also likely exceeded, and the ability of highway drainage systems to outfall was likely restricted by surcharged sewers downstream. Given the intensity of the rainfall event, significant volumes of rainfall would have been unable to infiltrate into the ground or drain into the drainage systems. These factors resulted in overland flow rapidly moving towards low areas. Inspection covers were displaced and there was significant damage to highway surfacing. The rainfall event was estimated at being a 1 in 143-year event or an event having a probability of 0.7%.



**Figure 1: Rainfall totals over Leicester and Leicestershire on Thursday 22<sup>nd</sup> June (provided by Hydro-master – Leicestershire County Council)**

The Environment Agency have provided rainfall data for the 22<sup>nd</sup> June 2023 from the Evington rainfall gauge (for location of the rainfall gauge, see Appendix II). A total of 23.4mm of rainfall was recorded over the period of one hour (23.6mm over 1 hour and 15 minutes).



**Figure 2: Rainfall recorded on 22<sup>nd</sup> June 2023 at the Evington gauge (monitored by the Environment Agency) within Leicester**

## 7. Initial response

Reports of flooding were received from the public from 5:00pm onwards by the City Highways standby supervisor via County Hall out of hours system. There were too many to deal with individually, therefore they had to be prioritised.

Sewer inspection covers were displaced, roads flooded, and roads damaged. Emergency repairs were carried out by the city council highway maintenance teams.

Reports of flooded gardens and internal flooding were received, and gully crews were dispatched.

Calls abated 11:30 pm but recovery and clearing up continued until 3:00am on the morning of Friday 23<sup>rd</sup> June.

Leicester City Council's Highways teams responded to reports of flooding and highway damage. Repairs were carried out during the days after the flood event to make the carriageway safe.

Leicester City Council's Emergency Management staff established an emergency centre at Wesley Hall Community Centre (on Hartington Road) and visited flooded properties and their occupants. Some residents were provided with temporary accommodation.

Leicestershire Fire and Rescue Service attended to 18 flooding incidents within the city (such as on Uppingham Road) on the 22<sup>nd</sup> of June. This involved a total of 95 personnel from the Fire and Rescue Service and 7 pumps (at 6 locations).

Severn Trent also attended to calls received directly for sewer flooding and to flooded properties in the wider affected areas. Over 60 properties were visited on and after the flood event.



The Environment Agency responded to call outs for Arreton Close (Hol Brook), Mervyn Road (Evington Brook) and Abbots Road South (Scraptoft Brook) and visited the locations.

## 8. Further activities taken by Risk Management Authorities

Following the storm event of the 22<sup>nd</sup> June 2023 internal property flooding was reported across the south and east of the city. Some reports were received by the City Council and others were received by Severn Trent and some by the Environment Agency.

Properties reporting internal flooding were visited on Saturday 24<sup>th</sup> of June following the storm on Thursday 22<sup>nd</sup> by the LCC's flooding team to understand the extent of the flood event and offer support to residents. A flooding proforma was completed for all visited properties and some residents were referred to social housing and adult social care after the visit.

The Environment Agency responded to calls from the public, visiting properties in Arreton Close, Meryvn Road and Abbots Road South, speaking to impacted residents and collecting information. The Environment Agency instigated flood patrols in accordance with their incident response procedures and cleared blockages in the area after the peak flows.

Severn Trent responded to calls from the public over the area covering Oadby and Wigston and areas to the south and east of the city, attending sites which they had received flooding reports from. The City Council shared details of affected areas in the City where Severn Trent had not directly received reports. Severn Trent proactively contacted these areas using letters and questionnaires to gather information, including The Portwey, Hallaton Road, Lorne Road, Lotus Road and Uppingham Road.

Following the property visits completed in the immediate period after the flooding, letters were sent out by Leicester City Council to all properties near to the already reported areas and those within the surface water high flood risk areas nearby, to capture any residents who might have not reported flooding to City Council. The letters contained QR codes which linked to an online questionnaire on the city council's website. This data was then added to the initial site visit data.

A total of 161 properties responded, 81 properties reported internal property flooding, of which 21 (26%) confirmed they had some form of insurance (Building insurance, Contents insurance or both) and others did not declare they had any insurance. This shows there is a low percentage of residents who had insurance in the area.

Responses from residents showed that there is a lack of understanding of the responsibility of the property owner and the role of each of the Risk Management Authorities in the area. During the site visits and follow-up telephone conversations, the city council explained about the Risk Management Authorities responsibilities and advised residents to visit the city council's web pages for further flooding information.

Leicester City Council's drainage teams carried out checks on highway drainage systems and undertook cleaning of highway gullies in areas affected by the flooding. Specific parking suspensions were put in place by the city council in the areas of Clarendon Park and Spinney Hills in September and October 2023 to enable highway drainage maintenance crews to access gullies to clean, and repair drainage infrastructure where required.

## 9. Flooding locations

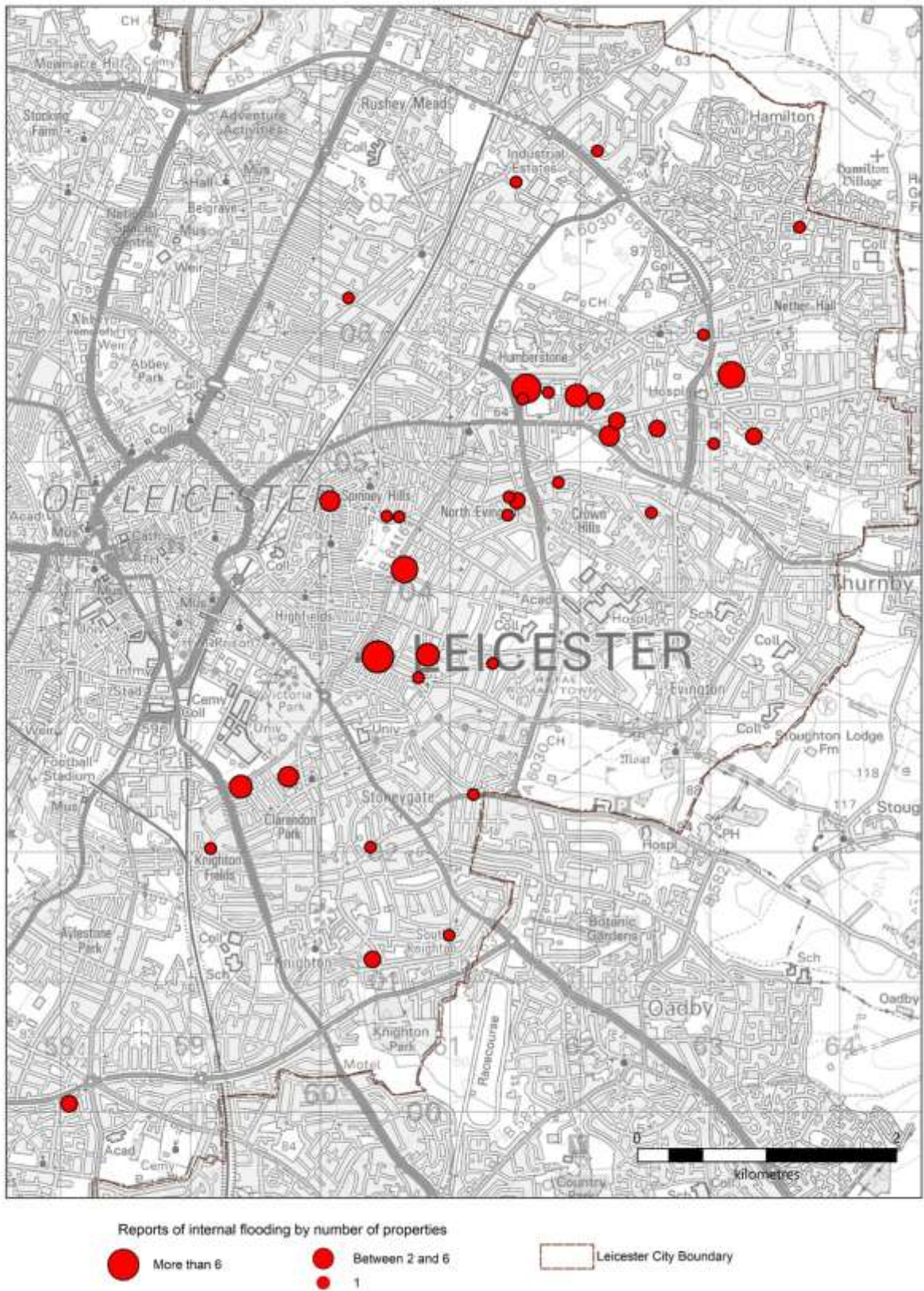


Figure 3: Locations of reported internal property flooding.

## 10. Causes and impacts of flooding by ward.

**Table 1: Internal property flooding reported in Castle ward**

Location	Flooding Source	Notes
Lorne Road (LE2)	Surface water (High risk of surface water flooding)	<ul style="list-style-type: none"> <li>• Low point of flood route of runoff from Victoria Park Road</li> <li>• Previous reports of flooding</li> <li>• Possible sewer capacity exceedance</li> </ul>
Oxford Road (LE2)	Surface water (Medium to High surface water flood risk)	<ul style="list-style-type: none"> <li>• Surface water flows from both Montague Road and Edward Road (through into the rear of the properties on Oxford Road)</li> </ul>
Kingsley Street / Wordsworth Road (LE2)	Surface water (High surface water flood risk)	<ul style="list-style-type: none"> <li>• Corner of Kingsley Street and Wordsworth Road is where two surface water flow routes meet</li> </ul>

**Table 2: Internal property flooding reported in Evington ward**

Location	Flooding Source	Notes
Deepdale (LE5)	Surface water (Low to medium surface water flood risk)	<ul style="list-style-type: none"> <li>• Surface water flow route along Deepdale, heading north towards Green Lane Road</li> </ul>
Rockingham Close (LE5)	Surface water (No listing for any flood risk)	<ul style="list-style-type: none"> <li>• Low spot in large private housing area</li> </ul>

**Table 3: Internal property flooding reported in Eyres Monsell ward**

Location	Flooding Source	Notes
Tamerton Road (LE2)	Surface water (High risk of surface water flooding)	<ul style="list-style-type: none"> <li>• Surface water flow routes join together, one from the south and the other from the south-east.</li> </ul>

**Table 4: Internal property flooding reported in Humberstone and Hamilton ward**

Location	Flooding Source	Notes
St Marys Avenue/ Abbots Road South (LE5)	Surface water/fluvial (main river)  Combination of pluvial and fluvial (Scraptoft Brook)	<ul style="list-style-type: none"> <li>• Surface water flow route along garage access adjacent to the brook flood walls.</li> <li>• Also reported internal property flooding on the 12<sup>th</sup> June 2023</li> </ul>
Humberstone Drive (LE5)	Surface water  (High surface water flood risk)	<ul style="list-style-type: none"> <li>• Surface water flow route from Tennis Court Drive, behind properties on South Drive and towards Humberstone Drive, follows public sewer line.</li> </ul>
Tennis Court Drive/ West Drive (LE5)	Surface water  (Low surface water flood risk)	<ul style="list-style-type: none"> <li>• Surface water flow route from Tennis Court Drive, behind properties on South Drive follows public sewer line.</li> </ul>
Steins Lane (LE5)	Surface water  (Very low surface water flood risk)	<ul style="list-style-type: none"> <li>• On a surface water flow route</li> <li>• Large area of highway drains towards this property</li> </ul>
Burdock Close (LE5)	Surface water  (Very low surface water flood risk)	<ul style="list-style-type: none"> <li>• Land behind properties is much higher than rear garden</li> </ul>

**Table 5: Internal property flooding reported in Knighton ward**

Location	Flooding Source	Notes
Arreton Close (LE2)	Surface water/ Fluvial (Culverted Ordinary Watercourse)  (Medium surface water flood risk)  Flood Extent of Hol Brook	<ul style="list-style-type: none"> <li>• Surface water flow route from east to west, following the line of the Hol Brook</li> <li>• Lowest point in the road</li> </ul>
Knighton Church Road (LE2)	Surface water  (Medium surface water flood risk)  (Flood Extent of Hol Brook)	<ul style="list-style-type: none"> <li>• Surface water flow route along Knighton Church Road</li> </ul>
Knighton Road (LE2)	Surface water  (Low to medium surface water flood risk)	<ul style="list-style-type: none"> <li>• Surface water flow route shown to come from the junction of Stoneygate Avenue and Knighton Road, towards Westernhay Road</li> </ul>
Stoughton Road (LE2)	Surface water/fluvial (Main River)  (Medium fluvial and surface water flood risk)	<ul style="list-style-type: none"> <li>• Close to Evington Brook</li> <li>• Surface water flow route along Gartree Road</li> </ul>
Welford Road (LE2)	Surface water  (High risk surface water flood risk)	<ul style="list-style-type: none"> <li>• Pluvial low spot above Saffron Brook</li> </ul>

**Table 6: Internal property flooding reported in North Evington ward**

Location	Flooding Source	Notes
Lotus Road/ Hallaton Road/ Lily Road (LE5)	Surface water/fluval (Ordinary watercourse)  Area at high risk of surface water flooding	<ul style="list-style-type: none"> <li>• Combination of fluvial (Portwey Brook) and pluvial.</li> <li>• Investigations are ongoing regarding the surface water pumping station, which drains the hard surfacing area and discharges into the Portwey Brook.</li> <li>• West end of development is in a low spot and on a flow route from east to west</li> </ul>
The Littleway (LE5)	Surface water  (High risk from surface water flooding)	<ul style="list-style-type: none"> <li>• Long block of linked houses at the end of the road blocking surface water flow route.</li> </ul>
Asfordby Street (LE5)	Surface water  (Medium risk from surface water flooding)	<ul style="list-style-type: none"> <li>• Surface water low spot behind the flats</li> <li>• Evacuation and temporary accommodation facilitated by LCC Emergency Management team</li> </ul>
The Portwey (LE5)	Surface water/sewer  (High risk from surface water flooding)	<ul style="list-style-type: none"> <li>• Surface water flows from the east (allotments site and Lotus Road development)</li> <li>• The Portwey brook is culverted upstream</li> </ul>
Clumber Road (LE5)	Surface water  (Medium risk of surface water flooding)	<ul style="list-style-type: none"> <li>• Surface water flow route from south-west</li> <li>• Property thresholds lower than road level</li> </ul>
Green Lane Road (LE5)	Surface water  (High risk from surface water flooding)	<ul style="list-style-type: none"> <li>• On surface water flow route, from the Littleway</li> </ul>
Halstead Steet (LE5)	Surface water  (Low risk from surface water flooding)	<ul style="list-style-type: none"> <li>• Low area (compared to St Saviours Road end)</li> </ul>

**Table 7: Internal property flooding reported in Rushey Mead ward**

Location	Flooding Source	Notes
Canon Street (LE4)	Surface water (Low to Medium risk from surface water flooding)	<ul style="list-style-type: none"> <li>• Low spot</li> <li>• It is in an isolated location and is not on a surface water flow route.</li> </ul>

**Table 8: Internal property flooding reported in Spinney Hills ward**

Location	Flooding Source	Notes
Gwendolen Road (LE5)	Surface water/fluviial (Main River) (High risk of surface water flooding)	<ul style="list-style-type: none"> <li>• Surface water flow route along the Evington Brook, and along the road.</li> </ul>
Evington Drive (LE5)	Surface water (Medium risk from surface water flooding)	<ul style="list-style-type: none"> <li>• Surface water low spot. On flow route from Norwood Road</li> </ul>

**Table 9: Internal property flooding reported in Stoneygate ward**

Location	Flooding Source	Notes
Linton Street (LE5)	Surface water (High risk of surface water flooding)	<ul style="list-style-type: none"> <li>• Low spot and surface water flow route from Evington Road.</li> </ul>
Mervyn Road (LE5)	Surface water/fluviial (Main River) (High risk of surface water flooding)	<ul style="list-style-type: none"> <li>• Next to the Evington Brook, surface water flow route along the flow path of the brook.</li> </ul>
Evington Road (LE5)	Surface water/fluviial (Main River) (High risk of surface water flooding)	<ul style="list-style-type: none"> <li>• Fluvial Flood risk from Evington Brook (Flood Zone 3b)</li> <li>• Road level is low in relation to the nearby Evington Brook.</li> </ul>



**Table 10: Internal property flooding reported in Thurncourt ward**

Location	Flooding Source	Notes
Uppingham Road (LE5)	Foul/Combined sewer  (High risk from surface water flooding)	<ul style="list-style-type: none"> <li>Flooding from combined sewer in rear garden. Photographic evidence of discharge from raised inspection access in the garden.</li> <li>Bushby brook flows to the rear of the even numbered properties on Uppingham Road.</li> <li>Brook level was within flood walls and at a relatively low level during the flood event.</li> </ul>
Scraptoft Lane (LE5)	Surface water/fluvial (Main River)  (Medium risk from surface water flooding)	<ul style="list-style-type: none"> <li>Bushby Brook flows behind the odd numbered properties on Scraptoft Lane</li> </ul>
Vale Close (LE5)	Surface water  (Medium risk from surface water flooding)	<ul style="list-style-type: none"> <li>On a flood flow route to Bushby Brook which is just to the rear of the properties.</li> </ul>
Elmcroft Avenue (LE5)	Surface water  (Low to medium risk from surface water flooding)	<ul style="list-style-type: none"> <li>Surface water flow route from Elmcroft Avenue south, towards properties</li> <li>Elmcroft Avenue is in a low spot.</li> </ul>
Barbara Avenue (LE5)	Surface water  (Medium to high risk from surface water)	<ul style="list-style-type: none"> <li>Road slopes down from Scraptoft Lane</li> <li>Area of surface water flood risk adjacent to the Bushby Brook</li> </ul>

**Table 11: Internal property flooding reported in Troon ward**

Location	Flooding Source	Notes
Wenlock Way (LE4)	Surface water  (Medium risk from surface water flooding)	<ul style="list-style-type: none"> <li>Low area surface water destination for large area of carriageway.</li> </ul>
Barkby Road (LE4)	Surface water/sewer  (Medium risk from surface water flooding)	<ul style="list-style-type: none"> <li>Surface water flows from the north.</li> <li>Reported issues with operation of sewer at this location.</li> </ul>

**Table 12: Internal property flooding reported in Wycliffe ward**

Location	Flooding Source	Notes
Nedham Street (LE2)	Surface water  (High risk from surface water flooding)	<ul style="list-style-type: none"> <li>Water came in from the road onto shop floors.</li> <li>Surface water flows down Melbourne Road, Hasting Road, and Cecil Road towards Nedham Street and then to Humberstone Road.</li> <li>There was flooding to basement experienced by one residential property</li> </ul>

**Table 13: List of streets where properties reported garden, road and/or cellar/basement flooding**

Street Name	Postcode area	Area of reported flooding
Central Avenue	LE2	Road, cellar/basement
Clarendon Park Road	LE2	Cellar/basement
Holmfield Road	LE2	Cellar/basement
Northcote Road	LE2	Garden
Shirley Road	LE2	Garden
South Knighton Road	LE2	Garden/basement
Stanton Road	LE2	Garden
Victoria Park Road	LE2	Road, garden
Averil Road	LE5	Garden, road
Cradock Street	LE5	Cellar/basement, road
Farrington Street	LE5	Road
Francis Street	LE2	Road
Grantham Road	LE5	Garden, driveway
Halstead Street	LE5	Cellar/basement
Hollington Road	LE5	Garden, outbuilding
Keyham Lane	LE5	Road
King Edward Road	LE5	Road
Mervyn Road	LE5	Garden, outbuilding
Morledge Street	LE5	Cellar/basement
Salterford Road	LE5	Road
Vulcan Road	LE5	Cellar/basement

## 11. Summary and assessment of flood mechanism

Maps showing flooding in each flooding cluster are shown in Appendix I. Clusters have only been mapped where there are multiple properties in the same area have reported internal flooding.

### Issues and comments

- Cumulative rainfall quantities exceeded the design capacity of drainage systems in the areas affected.
- Properties built across natural flow routes.
- Properties built on natural low spots close to water courses – within 8m of the bank.
- Problems arise when the water level in watercourses restrict the ability of public sewers and highway drainage systems to outfall effectively.
- Surface flows following routes of culverted water courses e.g., Hol Brook passes through housing in Arreton Close.
- On terraced streets, cars are often parked on both sides making it difficult to access road gullies for cleaning, and the channels at the edge of the road for sweeping. The frequency of cleaning gullies is severely impacted by access problems caused by parked vehicles. The use of temporary parking suspensions is required to access gullies in some streets.
- Many properties did not have an adequate level of insurance to cover flooding.

## 12. Conclusions

Property owners were not aware of their flood risk and were under-insured.

Property owners were not aware of what they could do to mitigate the impact of flooding on their property.

There was a lack of understanding by the public of the council's role and responsibilities and those of other flood risk authorities.

These flooding events are becoming more frequent and more severe, due to predicted increase in extreme weather events including thunderstorms as a result of climate change.

The drainage infrastructure which can date from the Victorian era is under increasing pressure from urban development, housing extensions, increased areas of impermeable driveways and gardens paved over and built on. These systems can deteriorate with age and become susceptible to breakages, root ingress and collapse over time if not maintained.

New development sites are using sustainable drainage and green spaces and planting trees to address these pressures. In its role as statutory consultee to the planning process, the City Council encourages all developments to utilise SuDS to manage flood risk.

The public needs to become more aware of the risks and more prepared to respond to the demands of climate change.

## 13. Recommendations

It is recommended that property owners be encouraged to understand the flood risk posed to their property, and that they are supported to undertake the following actions:

- Sign up to Environment Agency's Flood Warnings service and Met Office Weather warnings.
- Prepare a flood plan for their property.
- Explore options for installation of appropriate flood resilience measures.
- Ensure that they have an adequate level of insurance, to cover flooding.

## 14. Proposed actions

**Table 14: Risk Management Authorities responses and actions**

Risk Management Authority	Issue	What have we done up to now	Actions	Deadline
Leicester City Council as the Highway Authority	Resources to continue gully cleansing across the whole city.	Investigated a risk-based approach, prioritising cleaning gullies in areas at high flood risk.	Move to a risk-based approach to gully cleansing using a new highway management system.  Provide sufficient resources to maintain the highway drainage systems in optimum condition.	September 2024
	Gullies obstructed by parked vehicles preventing access.	Specific parking suspensions were put in place by LCC (in Clarendon Park and Spinney Hills areas) in September and October 2023 to enable highway drainage maintenance crews to access gullies to clean, and repair drainage infrastructure where required.	Develop a programme which sets out areas at high surface water flood risk, where parking suspensions will be put in place to access gullies normally obstructed by parked vehicles.	September 2024
	Flooding of public highways in Leicester relating to the interaction between public sewers and highway drainage.	The City Council reports incidents of highway flooding to Severn Trent where the condition &/or capacity of public sewers is identified as a potential factor.	Continue to share information with Severn Trent to request inspections/remedial work on the public sewer network where required.	Ongoing

Leicester City Council - Flood Investigation Report  
 Flooding in South and East Leicester on Thursday 22<sup>nd</sup> June 2023

Risk Management Authority	Issue	What have we done up to now	Actions	Deadline
Leicester City Council as the Lead Local Flood Authority	Lack of awareness of flooding in areas at high risk.	Leicester City Council has updated its flooding website to provide guidance on being prepared for flooding and signposting where the public can find further information and support. Carried out previous flood risk awareness events held across the city.	Develop resources to raise awareness of flood risk across the city and highlight the need for residents and businesses to understand their flood risk, what they can do to reduce runoff from their property and take the necessary steps to consider property level protection.	December 2024
	Low understanding and uptake of insurance to cover flooding in areas at high risk	Leicester City Council provides high-level information on how property owners can ensure that they have an adequate level of insurance, to cover flooding. This is currently available at: <a href="https://www.leicester.gov.uk/preparing-for-a-flood/">Preparing for a flood (leicester.gov.uk)</a> .	Develop further guidance and resources on how property owners can investigate obtaining insurance which includes cover for flooding. Directing residents to schemes such as <a href="#">Flood Re – A flood re-insurance scheme</a> .	December 2024
	Pressures of new development and managing flood risk.	Leicester City Council encourages all developments to utilise SuDS to manage flood risk.	To continue to encourage the use of SuDS in all developments to reduce flood risk, improve water quality and present options for biodiversity and public amenity.	Ongoing
		Directs new development away from areas at highest risk in line with national guidance. Uses the available flood risk modelling to assess flood risk at proposed sites.	To continue to direct new development away from areas at highest risk and assess applications in line with the current planning legislation.	Ongoing
	Leicester City Council has developed SuDS Technical Guidance to guide developers to deliver SuDS using best practice.	To update SuDS guidance to reflect any future changes in national policy and best practice.	Ongoing	

Risk Management Authority	Issue	What have we done up to now	Actions	Deadline
Environment Agency	Construction activities along main river corridors and inaction by riparian landowners (no maintenance)	Formal process is in place for consenting flood risk activity permits, for activities proposed next to main rivers. Anyone wishing to carry out works within 8 metres of a Main River, must apply for a Flood Risk Activity Permit by searching 'Flood Risk Activity Permit' on Gov.UK	To continue to regulate activities on main river corridors and review applications for Flood Risk Activity Permits.	Ongoing
	Public awareness of flood alerts and warnings	Since August 2023, 9 new Flood Alert and Warning areas have been released, covering the impacted area. Some have since been issued. There has been a sign-up rate of between 60-80% for all Flood Warnings.	To monitor the effect of the Flood Alert and Warning areas and continue to promote the uptake of these.	Ongoing
Severn Trent as the water company for Leicester City	Property flooding as a result of rainfall exceeding the capacity of public sewer systems.	Severn Trent attended properties which reported flooded during the event to provide support and contacted residents in other affected areas to gather information.	Severn Trent will share information with the LLFA regarding any investigations or remedial work undertaken in response to this flooding event.	Ongoing
		Severn Trent have worked with Leicester City Council to investigate previous specific incidents of properties affected by sewer flooding.	Severn Trent will continue to work with Leicester City Council to investigate any sewer related flooding issues and coordinate relevant work with the City Council as the highway authority.	Ongoing

Leicester City Council - Flood Investigation Report  
 Flooding in South and East Leicester on Thursday 22<sup>nd</sup> June 2023

	<p>Flooding of public highways in Leicester relating to the interaction between public sewers and highway drainage.</p>	<p>Severn Trent have discussed specific flooding locations with LCC where the interaction between public sewers and highway drainage has been identified as a factor.</p>	<p>Severn Trent to share reports of condition of public sewers in the roads which experienced flooding during the 22<sup>nd</sup> June event (listed in this report). Modelling results for each of these areas also need to be provided where available, to identify any capacity issues.</p>	<p>December 2024</p>
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## 14.1 Overall responsibilities going forwards.

Leicester City Council as the Highway Authority:

- Provide sufficient resources to maintain the highway drainage systems in optimum condition.
- Move to a risk-based approach to gully cleansing.
- Use temporary parking suspensions to access gullies normally obstructed by parked vehicles.
- Increase the frequency of street sweeping on streets experiencing high leaf fall.

Leicester City Council as the Lead Local Flood Authority:

- Manage flood risk from surface water, groundwater, and Ordinary Watercourses.
- Work with other Risk Management Authorities to develop projects to reduce flood risk.
- Proactively clean flood risk assets (primarily trash screens) on Ordinary Watercourses.
- Maintain land owned by the city council next to watercourses.
- Review applications for Land Drainage Consent for alterations to Ordinary Watercourses. Carry out enforcement when required.
- Raise awareness of flood risk across the city and highlight the need for residents and businesses to understand their flood risk.

Environment Agency:

- Manage flood risk from main rivers.
- Maintain flood defence and flood storage assets.
- Monitor water levels on main rivers and issue flood alerts, flood warnings and severe flood warnings (when required).

Severn Trent:

As the water and sewerage company for Leicester City, Severn Trent manage the risk of flooding from their water supply and sewerage facilities. This includes:

- Surface water sewers – these carry rainfall and surface water away from properties to watercourses;
- Foul water sewers – these carry wastewater away from properties to be treated;
- Combined water sewers – these drain both wastewater and surface water from properties along with run off from highways.
- Managing the impact of flooding to their networks by ensuring their systems have the appropriate level of resilience to flooding.
- Engaging with RMAs on how water and sewerage company assets impact on local flood risk.

- Severn Trent are Category 2 responders under the Civil Contingencies act, providing emergency response and supporting the management of flooding events.
- Provide sufficient resources to maintain the public sewerage system.
- Cooperate with the Highway Authority to resolve drainage issues in the public realm.
- Cooperate with the Lead Local Flood Authority to develop projects to reduce flood risk.

## 15. Status of report and disclaimer

### **DISCLAIMER**

This report has been prepared pursuant to the Council's statutory responsibility, under the FWMA, to investigate flood incidents in its area. The statutory duty to investigate is not absolute or exhaustive. Under Section 19 of FWMA, the Council's statutory responsibility is limited to conducting investigations only to the extent the Council deems it necessary.

Where the Council deems it necessary to investigate, it is required to address two questions under 19(1) of the FWMA:

- Firstly, the Council is required to identify relevant "Risk Management Authorities" (As defined by Section 6(13) of FWMA).
- Secondly the Council is required to investigate whether the Risk Management Authorities have exercised, or are proposing to exercise, flood risk management functions set out under Section 4 of FWMA.

The relevant flood risk management authorities identified by the Council are defined in this report. The flood risk management functions which the Risk Management Authorities are proposing are also described in the body of this report.

Beyond discharging the specific statutory responsibilities under Section 19(1) of FWMA, the intended purpose of this report is solely as a resource to assist Risk Management Authorities and stakeholders to better understand the relevant flooding incident and to mitigate risks going forward.

Although the Council has commented upon contextual issues related to the flood event, it is not the purpose of this report to determine any private rights arising from the flood event.

Nor is the purpose of this report to reach conclusions as to whether any Risk Management Authority or other stakeholder (e.g., private landowners, public bodies, or government agencies) has breached any duty of care (whether statutory or common law) that they may have held.

The Council has, in good faith, sought to locate and collate relevant primary and secondary evidence to prepare this report. However, the Council accepts no responsibility for assumptions or statements made based on evidence which is incomplete, inaccurate or both. As such, this report should not be considered as a definitive assessment of all factors that may have triggered or contributed to the flood event.

The Council does not accept responsibility for any error in or omission from, this report arising from or in connection with any assumptions being incorrect. Further the Council does not accept any liability for the use of this report or its contents by any third party. Where any party wishes to assert any rights or cause of action related to the flooding event they should rely on their own investigations.

### 15.1. Mapping

The maps included in this report are reproduced from Ordnance Survey material with the permission of OS on behalf of Her Majesty's Stationery office © Crown copyright Leicester City Council 100019264.

## 16. Contacts & useful links

Leicester City Council:

- [Flooding and watercourses \(leicester.gov.uk\)](https://www.leicester.gov.uk)
- Customer Services (Monday to Friday 8am - 6pm): 0116 454 1001
- Emergency Team (out of hours only 5pm - 8.30am): 0116 454 1004

Environment Agency:

- [Sign up for flood warnings - GOV.UK \(www.gov.uk\)](https://www.gov.uk)
- [Check the long term flood risk for an area in England - GOV.UK \(www.gov.uk\)](https://www.gov.uk)
- [Check for flooding in England - GOV.UK \(check-for-flooding.service.gov.uk\)](https://check-for-flooding.service.gov.uk)
- Floodline (24 hours): 0345 988 1188

Severn Trent:

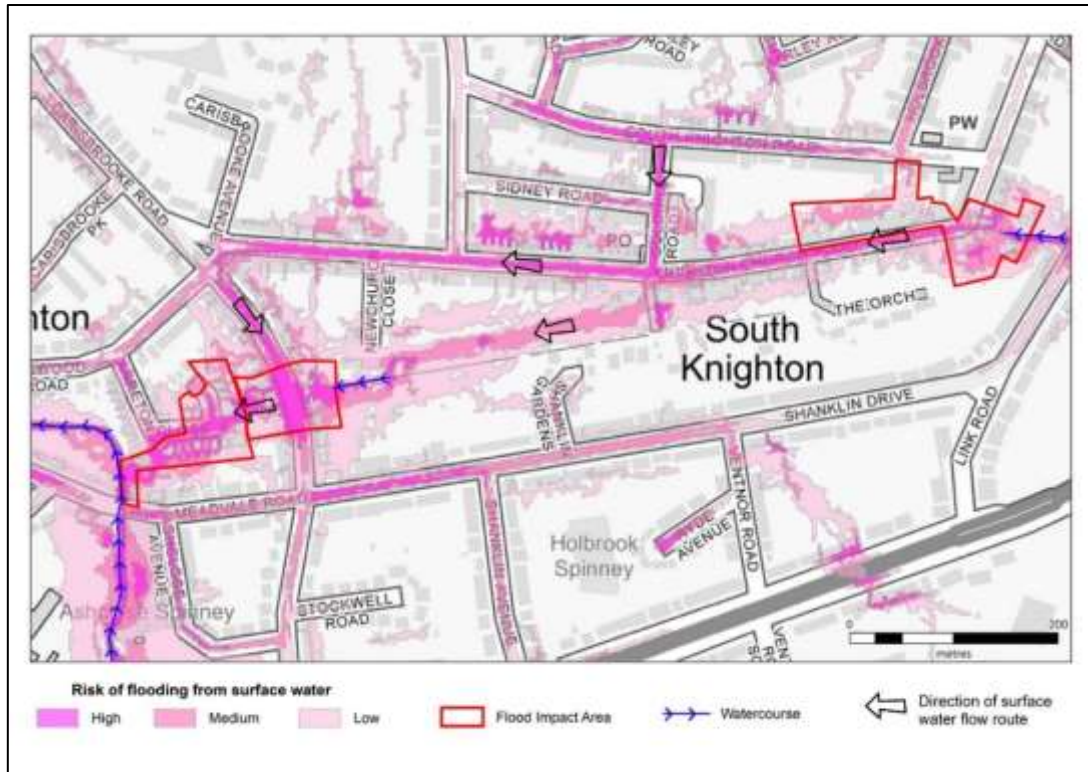
- [Check my area | In My Area | Severn Trent Water \(stwater.co.uk\)](https://stwater.co.uk)
- Emergency contact (24 hours): 0800 783 4444

National Flood Forum:

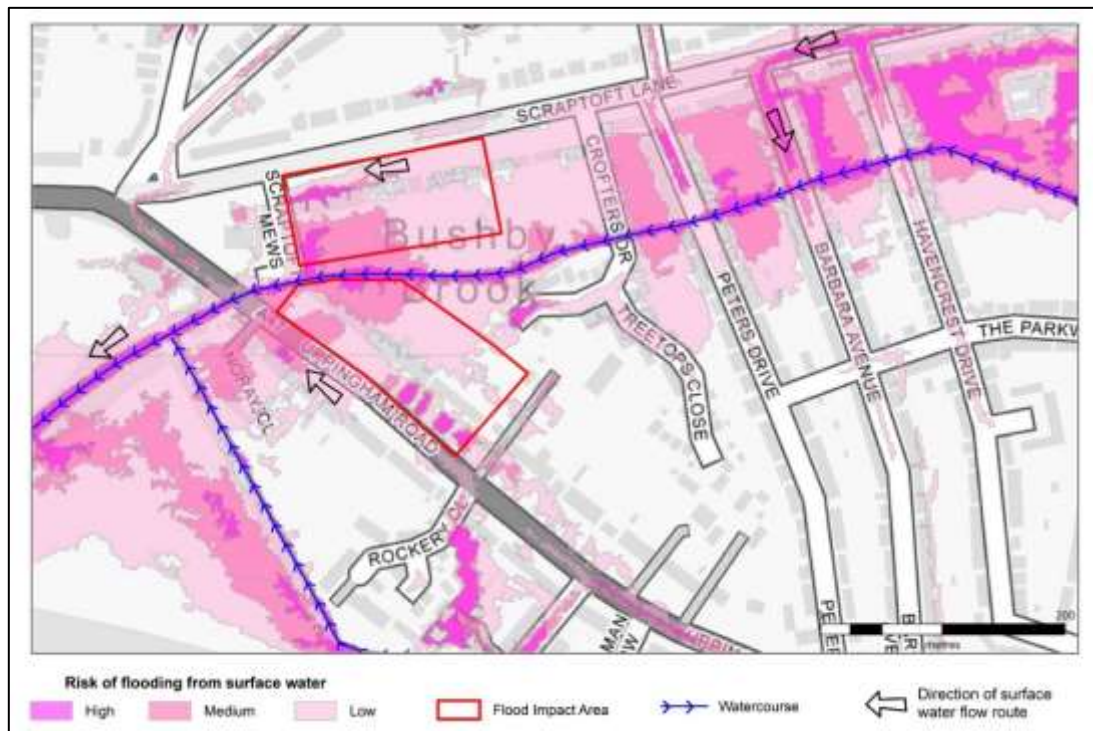
- [National Flood Forum – A charity to help, support and represent people at risk of flooding.](https://www.nationalfloodforum.org)

## 17. Appendices

### Appendix I - maps of surface water flood risk within the flooding clusters



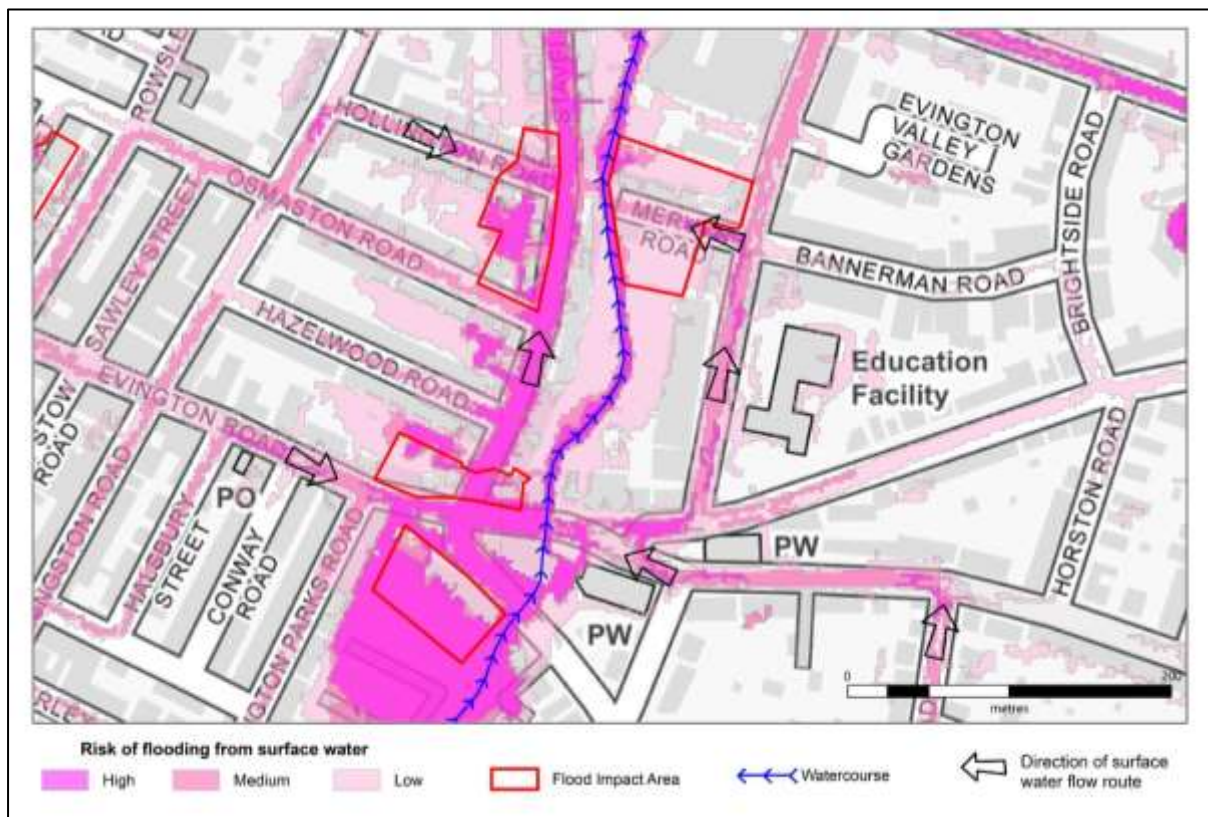
**Areas affected by flooding in South Knighton area (along the Hol Brook)**



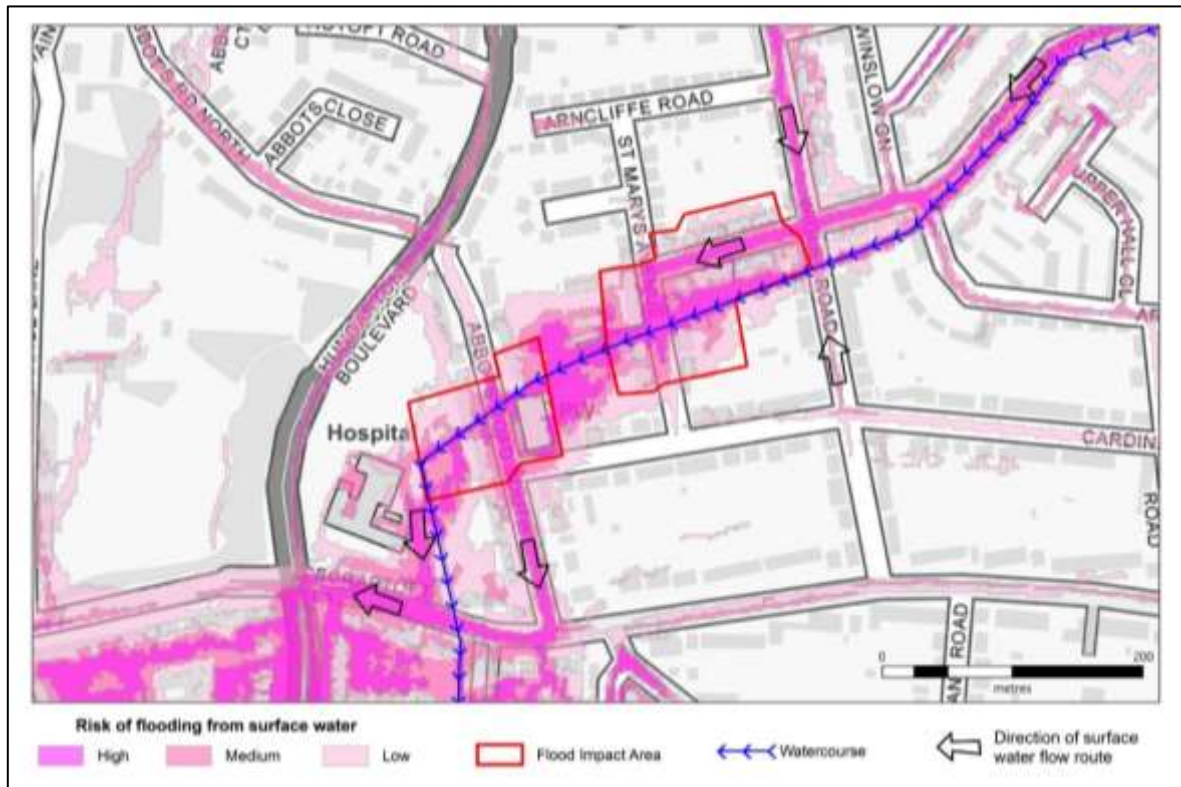
**Areas affected by flooding in Scraftoft Lane area (along the Bushby Brook)**



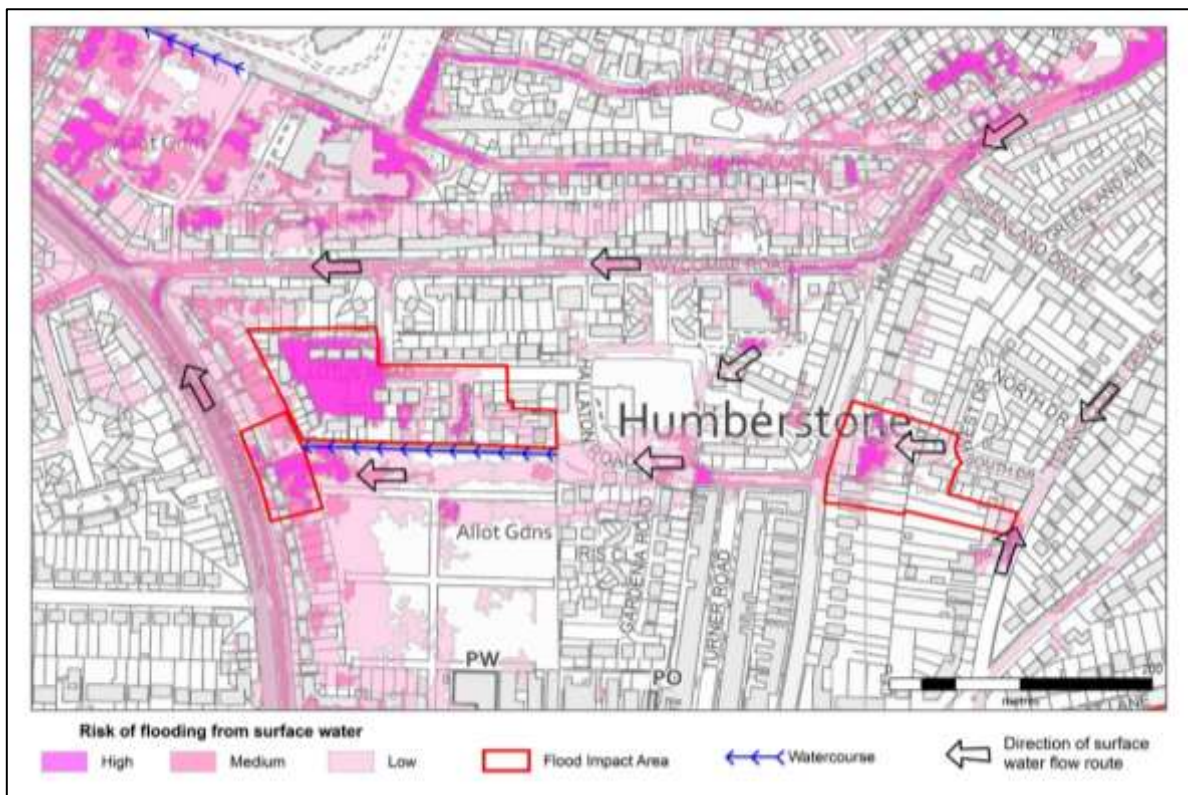
Areas affected by flooding in Clarendon Park area



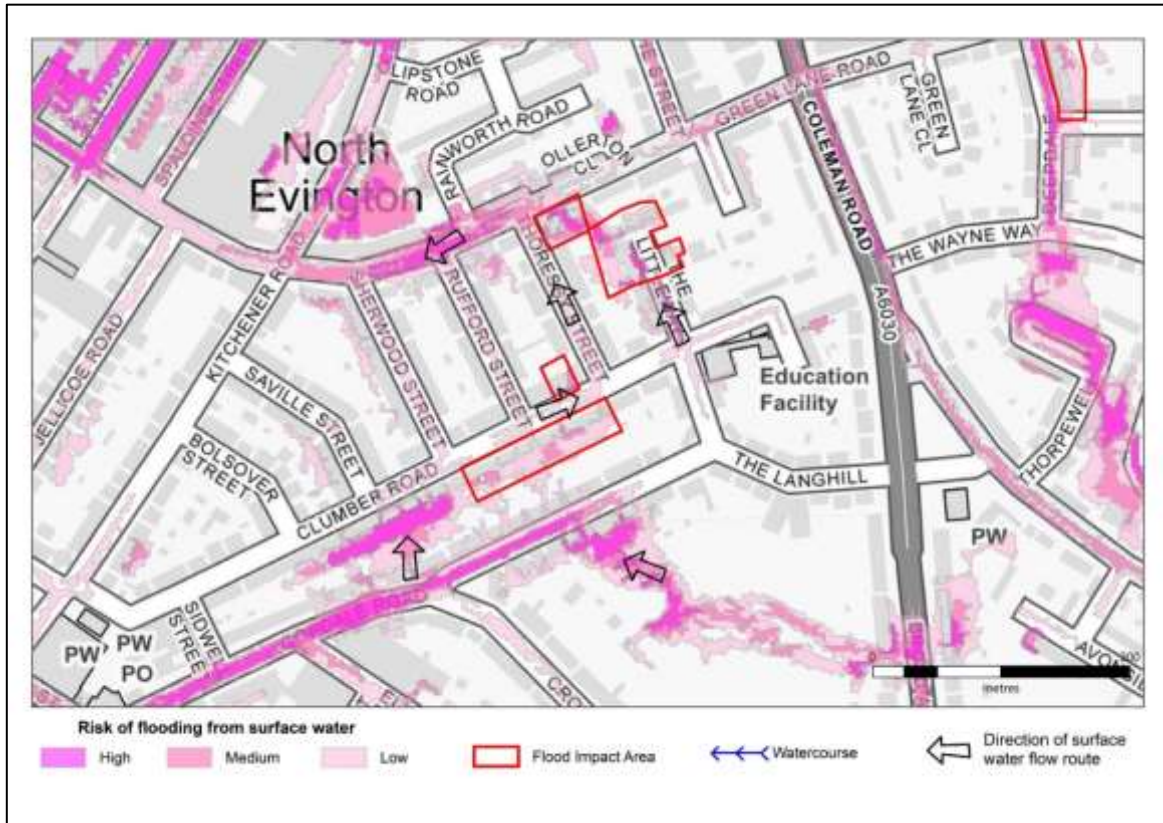
Areas affected by flooding in Staveley Road area (along the Evington Brook)



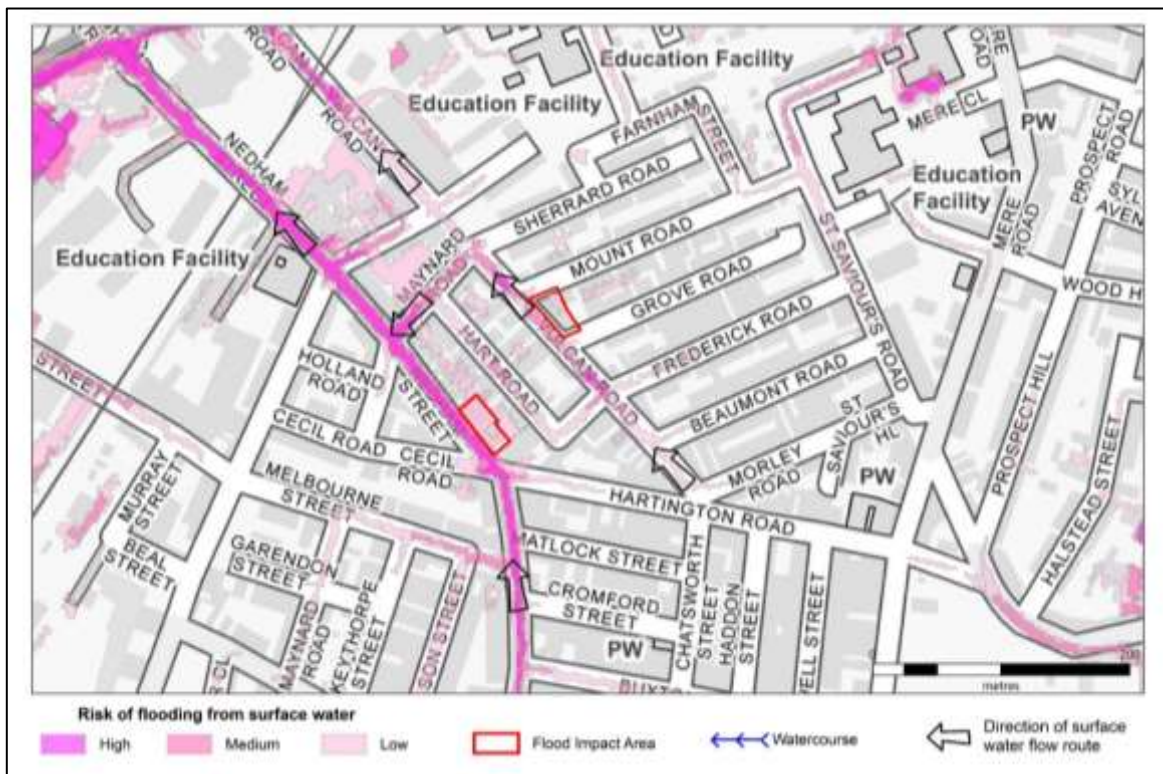
Areas affected by flooding in Abbots Road South area (along the Scraftoft Brook)



Areas affected by flooding in Humberstone area (along the Portway Brook)



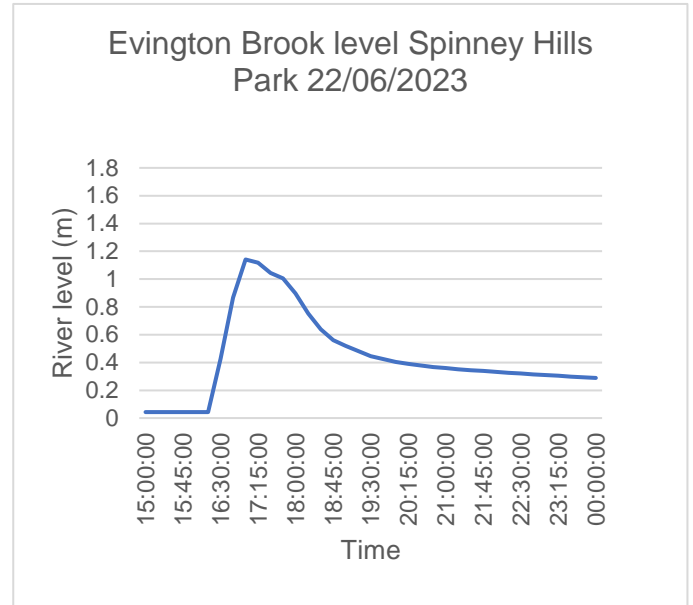
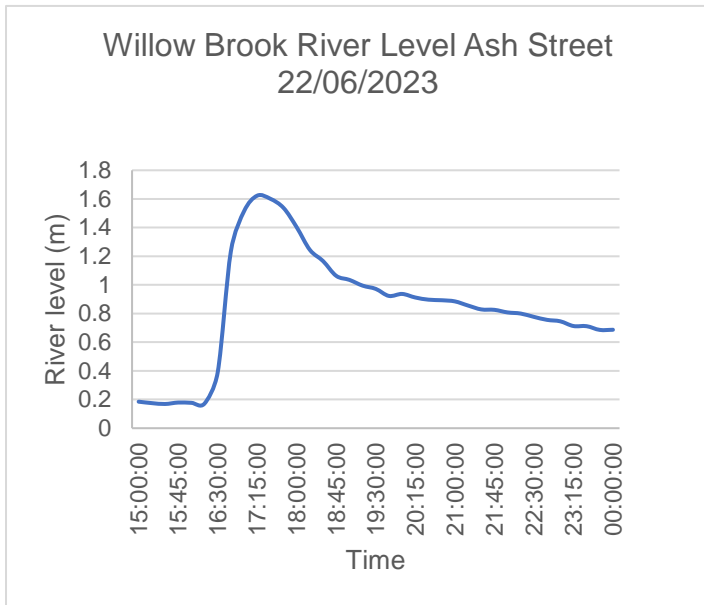
**Areas affected by flooding in area of The Littleway/Clumber Road**



**Areas affected by flooding in Nedham Street area**



Appendix II - River level graphs for the 22<sup>nd</sup> to 23<sup>rd</sup> June 2023



Map of Environment Agency maintained river and rainfall gauges in east Leicester

Appendix III – Table showing streets containing flooded properties, responsible authorities and descriptions of flood mechanisms

Location			Flood Risk Authority					Notes
Ward	Street	Post Code	Main River (EA)	Sewer (Severn Trent)	Highway Drain (LCC)	Ordinary Watercourse (LLFA)	Surface Water Flood Risk	Description of flood mechanism
Castle	Lorne Road	LE2 1YF		✓	✓	No	High	Low point of surface water flood route of runoff from Victoria Park Road.
	Oxford Road	LE2 1TN		✓	✓	No	Medium to high	Surface water flows from both Montague Road and Edward Road.
	Kingsley Street/ Wordsworth Road	LE2 6DY		✓	✓	No	high	Two surface water flow routes meet at the corner of Kingsley Street and Wordsworth Road.
Evington	Deepdale	LE5 4LS		✓	?	No	Medium to high	Surface water flow route along Deepdale.
	Rockingham Close	LE5 4EG		?	?	No	Very low	Low spot in large private housing area.
Eyres Monsell	Tamerton Road	LE2 9DD		✓	✓	No	High	Surface water flow routes join together on Tamerton Road.
Humberstone and Hamilton	St Marys Avenue/Abbots Road South	LE5 1JA, LE5 1DA	Scraptoft Brook	✓	✓	No	High	Surface water flow route along garage access adjacent to the Scraptoft Brook.
	Humberstone Drive	LE5 0RE		✓	✓	No	High	Surface water flow route from Tennis Court Drive, which follows the route of the public sewer line.
	Tennis Court Drive/West Drive	LE5 1AP		✓	✓	No	Low	Surface water flow route, before Humberstone Drive.
	Steins Lane	LE5 1ED		✓	✓	No	Very low	Surface water flow route flowing from north to south.
	Burdock Close	LE5 1UJ		✓	✓	No	Very low	Start of overland surface water flow route, from open land at rear of property.
Knighton	Arreton Close	LE2 3PP		✓	✓	✓ (Hol Brook)	Medium	Surface water flow route from east to west, following the line of the Hol Brook.
	Knighton Church Road	LE2 3LS		✓	✓	✓ (Hol Brook)	Medium	Surface water flow route along Knighton Church Road.
	Knighton Road	LE2 3HL		✓	✓	No	Low to medium	Surface water flow route shown to come from the junction of Stoneygate Avenue and Knighton Road, towards Westernhay Road.
	Stoughton Road	LE2 2EF	Evington Brook	✓	✓	No	Medium	Surface water flow route along Gartree Road, close to Evington Brook.
	Welford Road	LE2 6EN	Saffron Brook	✓	✓	No	High	Pluvial low spot above Saffron Brook.
North Evington	Lotus Road/Lily Road/Hallaton Road	LE5 0QL, LE5 0PW, LE5 0PX		✓	✓	✓ (The Portway Brook)	High	Pluvial/Fluvial Surface water pumping station discharges into the Portway Brook whole west end of development is in a low spot.
	The Littleway	LE5 4PN		✓	✓	No	High	Long block of linked houses at the end of the road blocking surface water flow route.
	Asfordby Street	LE5 3QJ		✓	✓	No	Medium	Surface water low spot behind the flats.
	The Portway	LE5 0PT		✓	✓	✓ (The Portway Brook)	High	Surface water flows from the east (allotments site and Lotus Road development).
	Clumber Road	LE5 4FJ		✓	✓	No	Medium	Surface water flow route from south-west.
	Green Lane Road	LE5 4PE		✓	✓	No	High	On surface water flow route, from the Littleway.
Rushey Mead	Canon Street	LE4 6NL		✓	✓	No	Low to medium	Pluvial low spot, in an isolated location and not on a surface water flow route.

Location			Flood Risk Authority				Notes	
Ward	Street	Post Code	Main River (EA)	Sewer (Severn Trent)	Highway Drain (LCC)	Ordinary Watercourse (LLFA)	Surface Water Flood Risk	Description of flood mechanism
Spinney Hills	Gwendolen Road	LE5 5FE	Evington Brook	✓	✓	No	High	Surface water flow route along the Evington Brook, and also along the road.
	Evington Drive	LE5 5PD		✓	✓	No	Medium	Surface water low spot, and on flow route from Norwood Road.
Stoneygate	Linton Street	LE5 3BJ		✓	✓	No	High	Low spot and surface water flow route from Evington Road.
	Mervyn Road	LE5 5NH	Evington Brook	✓	✓	No	High	Next to the Evington Brook, surface water flow route along the flow path of the brook.
	Evington Road	LE2 1HN	Evington Brook	✓	✓	No	High	Road level is low spot in relation to the nearby Evington Brook.
Thurncourt	Uppingham Road	LE5 2BE		✓		No	High	Flooding from combined sewer in rear garden.
	Scraptoft Lane	LE5 2FD	Bushby Brook	?	?	No	Medium	Bushby Brook flows behind the odd numbered properties on Scraptoft Lane.
	Vale Close	LE5 2NP		✓	✓	No	Medium	On a flood flow route to Bushby Brook which is just to the rear of the properties.
	Elmcroft Avenue	LE5 2DL		?	?	No	Low to medium	Surface water flow route from Elmcroft Avenue south, towards properties. Elmcroft Avenue is in a low spot.
Troon	Wenlock Way	LE4 9HU		✓	✓	No	Medium	Low area surface water destination for large area of carriageway.
	Barkby Road	LE4 9LG		✓	?	No	Medium	Surface water flows from the north
Wycliffe	Nedham Street	LE2 0HB		✓	✓	No	High	Surface water flow down Melbourne Road, Hasting Road and Cecil Road towards Nedham Street and then to Humberstone Road.