

Flood Investigation Report

LOUGHBOROUGH ROAD, MOUNTSORREL

28TH JULY 2019

To discuss this report, please contact the Flood Risk Management Team by email flooding@leics.gov.uk or by phone 0116 305 0001

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1 EXECUTIVE SUMMARY

On the 28th July 2019, four residential properties along Loughborough Road in Mountsorrel were internally flooded. Weather conditions leading up to the flood event were reasonably dry and warm. This meant that the catchment was also dry and susceptible to surface water runoff. Heavy rainfall¹ occurred on the morning of the flood event (approximately 35.2mm in 24 hours, with 19.6mm specifically falling over a 3-hour period; source: Wanlip rain gauge² – located approximately 5.7km south-east of Loughborough Road). This rainfall event resulted in significant overland surface water flows from the Wood Lane area towards the residential properties. The large quantity of rainwater also quickly overwhelmed the ordinary watercourse network and local drainage systems. This in turn caused water to surcharge from an inspection chamber and combine with surface water runoff which entered four residential properties internally. It was also reported that one garage internally flooded.

1.1 SUMMARY OF FLOOD SOURCES

| | | | |
|-----------------------------|-------------------------------------|-------------------------|--------------------------|
| Ordinary Watercourse | <input checked="" type="checkbox"/> | Public Sewer | <input type="checkbox"/> |
| Main River | <input type="checkbox"/> | Canal | <input type="checkbox"/> |
| Surface Water | <input checked="" type="checkbox"/> | Land Drainage | <input type="checkbox"/> |
| Groundwater | <input type="checkbox"/> | Highway Drainage | <input type="checkbox"/> |

1.2 RECEPTORS IMPACTED (NUMBER)

| Residential | Business | Other Buildings | Roads | Critical Infrastructure |
|--------------------------------------|-----------------|------------------------|--------------|--------------------------------|
| 4 (2 flats & 2 bungalows) | | 1 (Garage) | | |

¹ https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/library-and-archive/library/publications/factsheets/factsheet_3-water-in-the-atmosphere.pdf

² <https://www.gaugemap.co.uk/#!Map/Summary/8123/3465/2019-07-26/2019-08-01>

2 INTRODUCTION

2.1 SECTION 19 INVESTIGATIONS – DUTY TO INVESTIGATE

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

- (1) *On becoming aware of a flood in its area, a Lead Local Flood Authority (LLFA) must, to the extent that it considers it necessary or appropriate, investigate:*
- which Risk Management Authorities (RMAs) have relevant flood risk management functions, and*
 - whether each of those RMAs has exercised, or is proposing to exercise, those functions in response to a flood event.*
- (2) *Where an authority carries out an investigation under section 1 (above) it must:*
- publish the results of its investigation, and*
 - notify any relevant RMAs.”*

2.2 FORMAL FLOOD INVESTIGATIONS CRITERIA

Leicestershire County Council, from herein referred to as “*The Council*”, identified local thresholds for formally investigating flood incidents across Leicestershire within the Local Flood Risk Management Strategy published in August 2015. This policy advises when a formal flood investigation should be undertaken, including where one or more of the thresholds in table 1 occurs as a result of a flooding incident.

A formal investigation into the flood incident on Loughborough Road on the 28th July 2019 has been undertaken as the event triggered the locally agreed flooding characteristics or discretionary items as indicated below:

Table 1: Locally Agreed Criteria for Formal Flood Investigations

| | |
|------------------------------------------------------------------------------------|-------------------------------------|
| Mandatory Investigation | |
| Loss of life or serious injury | <input type="checkbox"/> |
| Critical infrastructure flooded or nearly flooded from unknown or multiple sources | <input type="checkbox"/> |
| Internal property flooding from unknown or multiple sources | <input checked="" type="checkbox"/> |
| Discretionary Investigation | |
| A number of properties have been flooded or nearly flooded | <input type="checkbox"/> |
| Other infrastructure flooded | <input type="checkbox"/> |
| Repeated instances | <input type="checkbox"/> |
| Investigation requested | <input type="checkbox"/> |
| Risk to health (foul water) | <input type="checkbox"/> |
| Environmental or ecologically important site affected | <input type="checkbox"/> |
| Depth/area/velocity of flooding a cause for concern | <input type="checkbox"/> |

2.3 RISK MANAGEMENT AUTHORITIES (RMAS)

The following RMAs were identified as relevant to the flooding in Loughborough Road:

- Leicestershire County Council – LLFA
- Leicestershire County Council – Local Highways Authority
- Charnwood Borough Council (CBC) - Local Planning Authority and Land Drainage Authority who can carry out flood risk management works on minor watercourses
- Severn Trent Water Ltd (STW) - Statutory undertaker for public wastewater and freshwater assets along Loughborough Road.

3 FLOOD INVESTIGATION

3.1 LOCATION AND SETTING

Loughborough Road is a main highway through Mountsorrel located in Charnwood Borough (Figure 1). The flood impact area (Figure 1) is located to the east of Granite Way with the residential properties impacted during the flood event located on the western side of Loughborough Road, opposite the supermarket site. Land falls steeply from the Wood Lane area in a north easterly direction towards the affected residential properties, with slopes reaching a maximum of 1 in 25. The land from the impacted residential properties then falls gently down Betty Hensers Lane (Figure 1). This local topography means that the impacted residential properties sit within a slight 'bowl' making it more difficult for floodwaters to escape. The geology of the site is predominantly mudstone which indicates that the sub-catchment area has relatively low permeability.

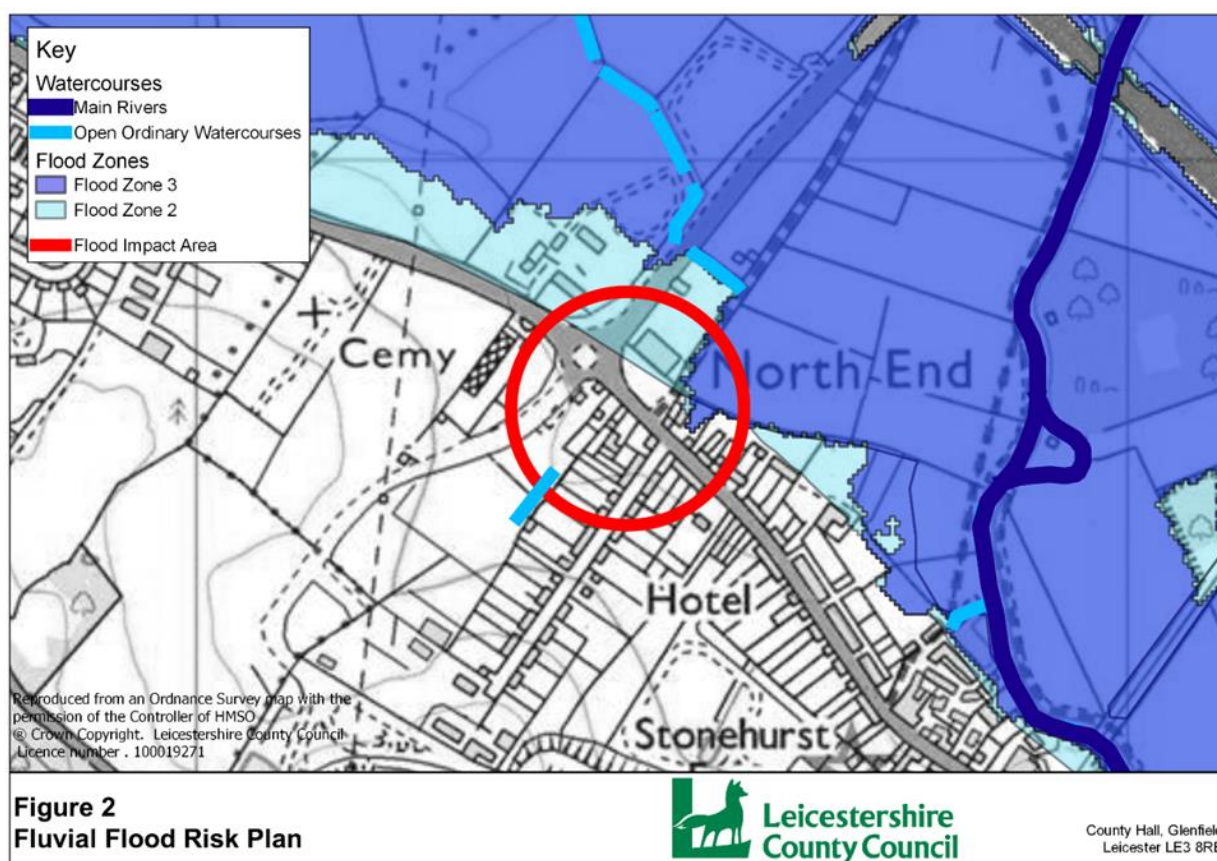


Please note this plan is only an indicative drawing of the drainage system for simplicity purposes.

3.2 LOCAL DRAINAGE

Figure 1 illustrates the locations of key ordinary watercourses within close proximity to the flood impact area. The ordinary watercourse system enters open ordinary watercourse 1 from an unknown diameter culvert behind the Mountsorrel Household Waste and Recycling Centre. Open ordinary watercourse 1 runs parallel to both Granite Way and Hawcliffe Road for around 85m (Photo 1 in Figure 1) before entering a 300mm diameter culvert. This culvert continues running in a north-easterly direction towards Loughborough Road where there is an inspection chamber (Photo 2 in Figure 1) located within a private landowner's property. The system then runs under Loughborough Road to enter a 1200mm diameter culvert which runs from Loughborough Road to Betty Hensers Lane. The culverted watercourse system then drops into a 500mm diameter culvert as it runs down Betty Hensers Lane before eventually outfalling behind the supermarket site into open ordinary watercourse 2 (Photo 3). Open ordinary watercourse 2 then outfalls into a 700mm diameter culvert passing under Granite Way before becoming open ordinary watercourse 3 which drains in a north-westerly direction towards the River Soar (Main River).

The flood impact area is approximately 0.5km away from the nearest Main River, the River Soar, and is categorised as Flood Zone 1 (low risk to fluvial flooding) although the area does lie in close proximity to both Flood Zones 2 and 3 (Figure 2).



Loughborough Road is served by traditional highway drainage with gullies located along the north section of Loughborough Road outside the supermarket site and flood impact area. All highway gullies in the direct vicinity of the impacted residential

properties eventually outfall into the 1200mm culverted watercourse system in Figure 1.

The flood impact area (as illustrated on Figures 1 and 2) is served by two separate STW surface water sewer systems. To the east of the flood impact area Hawcliffe Road and Peppers Close are served by a 225mm diameter STW surface water system which eventually outfalls into the 500mm diameter culverted system on Betty Hensers Lane. The STW surface water sewer network which serves Granite Way and Woodward Close to the west of the flood impact area is understood to outfall from a 675mm diameter pipe into an unmarked open ordinary watercourse on Granite Way to the north-west of the flood impact area.

4 FLOODING INCIDENT ON 28TH JULY 2019

The majority of the information supporting the description of the flooding incident is based on first-hand accounts and flood survey information provided by affected residents.

4.1 PRIOR TO THE EVENT

Early July 2019 saw largely dry conditions in Mountsorrel however following the 26th July 2019, the weather was very wet with the largest event occurring on the 28th July 2019 (the day of the residential property flooding). This rainfall event brought surface water flooding to central and northern parts of Britain.

Mountsorrel currently has no flood warden nor is there flood plans available, meaning that there was limited preparedness by the residents prior to the event.

In December 2016, the Council received anecdotal reports of flooding within the flood impact area in relation to one of the impacted residential properties with an inspection chamber in the front garden (Figure 1). It was reported at the time that the inspection chamber had surcharged four times in 2016 causing external flooding. Further anecdotal reports of external flooding were received in both May 2017 and July 2018 by which time the Council had begun informal investigations into the flooding issues. In 2018 it was anecdotally reported that the flooding issues were caused by blockages such as silt, tree roots and rubbish in the 500mm diameter private culverted watercourse system down Betty Hensers Lane (Figure 1).

In August 2018 the Council received further reports that internal flooding to one residential property had taken place on the 21st November 2016. At this time, a formal flood investigation was not triggered as the source of flooding was apparent (the restricted 500mm diameter private culverted watercourse system down Betty Hensers Lane).

In October 2018, as part of the Councils informal investigation, a site investigation (involving the review of an inspection chamber) took place to understand where potential restrictions in the culverted watercourse system may be; it became apparent that the restrictions were in the 500mm diameter private culverted system (Figure 1). The Council continued engagement with the private riparian landowners to remind them of riparian responsibilities following the outcome of the site visit. To expedite the process, the Council commissioned a CCTV survey and cleanse of the 500mm diameter private culverted system. The cleanse of the system was not completed due to a significant amount of tree root vegetation within the culvert that required specialist cutting equipment to clear. The Council continued to engage with the riparian landowner to try to get the blockages removed.

4.2 FLOOD EVENT

Following prolonged rainfall throughout the night of the 28th July 2019, at around 07:30hrs red/brown silted water was described to be quickly emerging from the inspection chamber in the garden of one of the affected residential properties on Loughborough Road. Within a short period of time, flood water inundated the property and spread to neighbouring properties. Anecdotal sources reported that surface water

flowed from higher land in a north easterly direction towards the rear of the impacted residential properties, subsequently exacerbating the volume of flood water. The heavy downpours combined with surface water meant four residential properties (two bungalows and two ground floor flats) on Loughborough Road and a garage on Hawcliffe Road were inundated by the sheer volume of flood water which breached the internal residential property boundaries (Photos 4 and 5). Anecdotal sources suggest Granite Way towards the A6 was also flooded. Residents of the four effected residential properties were then forced to evacuate.

Shortly after 08:00hrs, Leicestershire Fire and Rescue received reports to attend flooded properties on Loughborough Road. It was reported by the local news outlet, Leicester Mercury³, that the flood impact area was pumped by Leicestershire Fire and Rescue to land in front of the supermarket on the opposite side of Loughborough Road (Photo 6).



Photo 4: External flood waters witnessed from one of the impacted residential properties⁴



Photo 5: Internal flood waters witnessed from one of the impacted residential properties⁴



Photo 6: Leicestershire Fire and Rescue pumping flood waters onto land outside the supermarket on Loughborough Road⁴

³ <https://www.leicestermercury.co.uk/news/local-news/shocking-scenes-inside-pensioners-flooded-3145291>

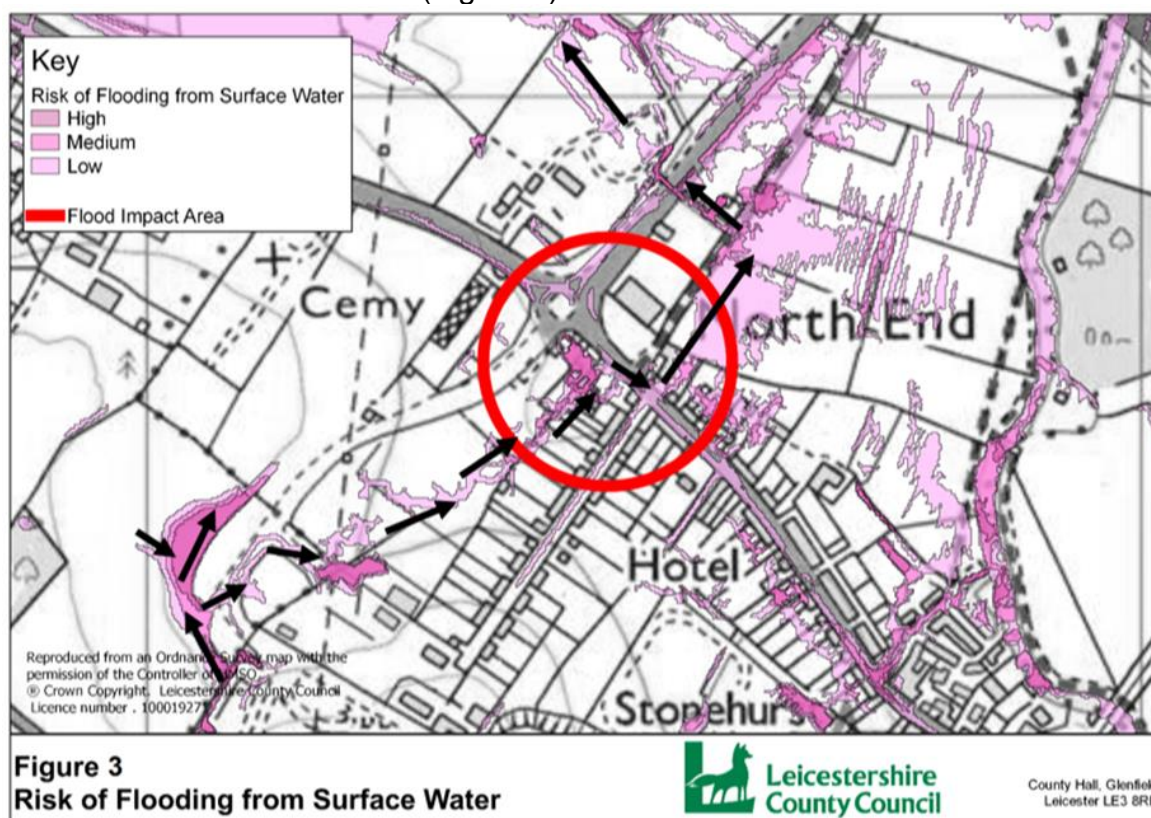
⁴ <https://www.leicestermercury.co.uk/news/leicester-news/gallery/shocking-pictures-show-dramatic-flooding-3145378>

4.3 POST FLOOD EVENT

Following the flood event, the Council conducted a review of all available data and various site visits to gather further information. The Council also spoke directly with the affected residents to help understand where the flood water had come from.

It was identified through this investigation that CBC had received reports of flooding in July 2009 at the same location. CBC initiated an investigation to trace the private 500mm culverted watercourse downstream of the residential property and found heavy root ingress through the culvert adjacent to the supermarket carpark. CBC spent three weeks clearing the culvert and received no further flood reports until 2016 where the customer was then advised to engage with the Council. This led the Council to begin an informal investigation as described earlier in this report.

The Risk of Flooding from Surface Water map (Figure 3) has been produced by the Environment Agency (EA) and is created using high level modelling which represents where water could flow and accumulate during certain rainfall events⁵. Anecdotal evidence indicates that overland surface water flowed in a north-easterly direction from the Wood Lane area towards the rear of the impacted residential properties (indicated by arrows on Figure 3). Figure 3 illustrates a medium risk of surface water flooding (between 300mm – 900mm deep of flood water) to the affected residential properties. The Risk of Flooding from Surface Water map therefore supports the local reports of the event. The modelling is high level (not designed to be accurate at the local level) and was completed in December 2013. The modelling does not consider property threshold levels, and therefore cannot accurately predict internal flooding. However, in this case it indicates that the flooded residential properties were likely affected by the surface water flow routes (Figure 3).



⁵ <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

Anecdotal reports indicate that the outlet of open ordinary watercourse 1 into the 300mm diameter culvert is frequently restricted due to debris from the surrounding trees and foliage. It has also been reported that this debris can travel down the culverted system and cause further restrictions. During heavy rainfall events it has been anecdotally reported that these restrictions can increase the volume of flood water within open ordinary watercourse 1 and breach the watercourse banks, subsequently adding to the volume of overland surface water flow; Figure 3 illustrates the flow path that these overland flows will take in times of flooding.

Loughborough Road is higher than the impacted residential properties and the land behind the properties is higher causing a minor 'bowl' effect. This resulted in flood water collecting around the impacted residential properties and subsequently breaching the residential property thresholds to cause internal flooding.

Anecdotal reports from some impacted residents indicated how the change of building use, from an office into flats, to the west of the impacted bungalows may have changed the levels of the carpark and fitted kerb stones (Photos 7 and 8). It was reported that this may have further trapped the flood water from following its previous flow path in a westerly direction towards the bungalows and exacerbated the volume and depth of flood water impacting the residential properties. However, during the 2019 flood event the sheer volume of flood water overtopped the kerb stones and resulted in internal flooding to the ground floor flats as well as the bungalows.



**Photo 7: Carpark height off
Loughborough Road in July 2011⁶**



**Photo 8: Carpark height off
Loughborough Road in January
2021⁷**

As part of the investigation it was reported that the volume of overland surface water was exacerbated due to a restriction in the 500mm diameter private culverted ordinary watercourse system downstream of the inspection chamber (Photo 2 in Figure 1). The Council conducted maintenance works following the flooding on the week commencing 12th September 2019 starting from the inspection chamber within private land, under Loughborough Road to the junction of Betty Hensers Lane. The Council also carried out three excavations on the 300mm diameter culverted system within the garden of one of the impacted residential properties. During these works the Council removed a build-up of siltation and debris from the culvert. The Council also carried

⁶ <https://www.google.com/maps/>

out clearance and exploratory works along Betty Hensers Lane. These restrictions combined with the reduced capacity (through root ingress and siltation) in the 500mm diameter private culverted watercourse would have likely contributed to the volume of flood water which surcharged from the inspection chamber (Photo 2) and pooled around the effected residential properties.

It was observed by the Council during a site visit (after the event) that open ordinary watercourse 4 (an unmarked ordinary watercourse previously not available on any mapping available to the Council) runs adjacent to the 500mm diameter private culverted watercourse system (Figure 4). This watercourse joins open ordinary watercourse 2 immediately downstream of the 500mm diameter culvert. During the site visit open ordinary watercourse 4 was observed to be heavily overgrown with blockages such as tree branches within the channel. The Council subsequently contacted the relevant riparian landowner who carried out clearance works.

Following the flood event and recognising the capacity issues in the culverted ordinary watercourse system, the Council allocated funds, received a private sector donation and successfully applied for Local Levy funding towards works to install an overflow pipe (Photo 9 in Figure 4). This overflow pipe is designed to take excess flows during storm events from the 500mm diameter private culverted watercourse (Figure 4) to open ordinary watercourse 4. The Council also provided additional clearance works to the watercourse prior to the installation of the overflow system (Photo 9 in Figure 4).

Reports from the impacted residents mentioned the red-brown colour of the flood waters and suggested that the quarry may be feeding into this culverted watercourse system. Following the flood event, the Council held discussions with the quarry where it was explained how waters outfall from ponds to open ordinary watercourses to the west of Granite Way and are not believed to feed into the culverted system running under the impacted residential properties and down Betty Hensers Lane (Figure 1). The quarry indicated they had previously engaged with the community and had adopted a community minded approach so in times of inclement weather, water would be pumped from their holding ponds back into a disused quarry pit rather than local ordinary watercourses. It was hoped that this would reduce pressure on the local drainage network. Local residents had reported that when this was requested during other flood events they had seen the water level reduce in the 300mm diameter culverted watercourse, however there is no further evidence to prove or disprove this. When discussing the issue with the Council, the quarry had mentioned that the switch over from pumping into local watercourses to a disused pit has to be done manually and therefore only done during operational hours. The flood event occurred on a Sunday (out of operational hours) and therefore there was no one to stop the outfall into local ordinary watercourses on the day of the flooding event.

In July 2019, following the flood event, the Council served notice under Section 25 of the Land Drainage Act (1991) as the private riparian landowners had not completed the required maintenance to the 500mm diameter private culverted system as previously requested. In response to this notice, the riparian landowner contacted the Council to express the difficulties they experienced cleansing the system due to the tree roots. The riparian landowner articulated the wish to replace the section of culvert affected by blockages however they also explained how this would not be possible due to a STW foul sewer being positioned in close proximity limiting their access. The landowner therefore liaised with the Council regarding the rerouting of the culverted

system from an inspection chamber near the junction of Betty Hensers Lane and Loughborough Road, underneath the centre of Betty Hensers Lane (Photo 10 in Figure 4), and back into open ordinary watercourse 2 (Figure 1 and Photo 11). The riparian landowner was granted consent under Section 23 of the Land Drainage Act (1991) by the Council and eventually completed the rerouting of the system in July 2020.



Please note this plan is only an indicative drawing of the drainage system for simplicity purposes.

4.4 SUMMARY OF IMPACTS AND FINDINGS

The result of the combination of factors described below resulted in the ingress of storm flood water to four residential properties on Loughborough Road and one garage on 28th July 2019:

- Heavy rainfall, specifically 19.6mm falling over a 3-hour period, inundated local drainage networks and ran as surface water towards the residential properties.
- The relatively low permeability of the sub-catchment combined with the intense rainfall event overwhelmed the already dry ground and resulted in relatively low infiltration levels of the surface water. This resulted in excessive amounts of surface water and the whole local drainage system becoming overwhelmed.
- The impacted residential properties are situated at a low point surrounded by higher land from the Wood Lane area and Loughborough Road creating a minor 'bowl' effect.
- The restriction in the 300mm diameter culvert in the flood impact area reduced the flow rate downstream and thus exacerbated water gathering around the affected properties as water surcharged from the inspection chamber.
- Restrictions due to root ingress and silt in the downstream 500mm diameter private culverted ordinary watercourse system on Betty Hensers Lane also resulted in a significantly reduced flow rates and thus also exacerbated water gathering around the affected properties.

There are many factors that may have exacerbated the impacts of the flood event. Whilst these factors may have made a difference to the volume and peak flood levels, at the time of writing this report, there is no firm evidence that suggests these factors would have prevented any of the internal flooding experienced by this event. These factors include:

- Debris and vegetation causing restrictions to the entrance of the 300mm diameter culvert upstream of the effected residential properties which would have likely increased overland flow towards the residential properties.
- The kerb stones surrounding the residential car park off Loughborough Road and the change of the carpark levels would have likely exacerbated water levels around the affected properties.

At the time of writing this report there is no firm evidence that the quarry is connected to the same ordinary watercourse system which surcharged and flooded properties and is therefore believed not to have impacted the flooding experienced in July 2019.

On 7th July 2021 reports emerged that the inspection chamber was surcharging once again causing external flooding following a day of localised heavy thunderstorms. The Council as the Highways Authority checked on the system as it passes under Loughborough Road and found the highway section to be silted and holding water. A site visit was carried out on the 8th July 2021 where it was observed that the culverted watercourse was running freely, this was later confirmed by a CCTV report carried out the riparian landowner on 20th July 2021. It was also reported that the back gardens of the bungalows were affected once again by surface water flows.

5 RESPONSIBILITIES

5.1 LEAD LOCAL FLOOD AUTHORITY (LCC)

As the LLFA, the Council has the responsibility to co-ordinate the management of flood risk and the interaction of RMAs across Leicestershire. For more information please refer to the Local Flood Risk Management Strategy.

5.2 CHARNWOOD BOROUGH COUNCIL

Charnwood Borough Council has powers under Section 14 of the Land Drainage Act 1991 (LDA) to undertake flood risk management works on ordinary watercourses (excluding Main Rivers), where deemed necessary. Under Section 20 of the LDA, Borough/District Councils have the power (by agreement of any person and at their expense) to undertake drainage work which that person is entitled to carry out and maintain.

5.3 HIGHWAY AUTHORITY (LCC)

The Local Highway Authority has a duty to maintain the Highway under Section 41 of the Highways Act (1980). Section 100 states that the Council also has various permissive powers for the purpose of draining the highway or preventing surface water from flowing on to it.

5.4 SEVERN TRENT WATER

Water and sewerage companies are responsible for managing flood risk related to surface water, foul water and combined sewer systems. Public sewers are designed to protect properties from flood risk in normal wet weather conditions. In extreme weather conditions however, there is a risk of these public sewers being overwhelmed resulting in sewer flooding.

5.5 RIPARIAN LANDOWNERS OF WATERCOURSES AND HOMEOWNERS

Riparian landowners have certain rights and responsibilities including:

- They must maintain the bed and banks of their watercourse, including the trees and shrubs growing on the banks;
- They must clear any debris, even if it did not originate from their land. This debris may be natural or man-made;
- They must keep any structures that they own clear of debris. These structures include (but are not limited to) culverts, trash screens, weirs and mill gates.

A full explanation of the rights and responsibilities of riparian ownership are given on the 'Owning a Watercourse' government webpage found at;
<https://www.gov.uk/guidance/owning-a-watercourse>

Local residents and tenants who are aware that they are at risk of flooding should take action to ensure that they and their properties are protected.

Community resilience is important in providing information and support to each other if flooding is anticipated. Actions taken can include; signing up to Flood Warning Direct (if available), nominating a community flood warden, producing a community flood

plan, implementing property level protection and moving valuable items to higher ground. More permanent measures are also possible such as; installing floodgates, raising electrical sockets, and fitting non-return valves on pipes.

6 RECOMMENDATIONS/ACTIONS

6.1 LEICESTERSHIRE COUNTY COUNCIL

The Council has agreed/completed the following actions:

| ACTION | PROPOSED TIMESCALE |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| To coordinate the formal flooding investigation and the actions of all RMAs, and feedback to the community. | Completed |
| To work with all RMAs and the local community to better understand the flooding mechanisms and identify ways to help mitigate future flooding in addition to the works already completed. This should include investigating ways to help prevent overland surface water flows from the open ordinary watercourse upstream of the 300mm diameter culvert such as a trash screen on the inlet to the 300mm diameter culvert and to continue to investigate the connectivity upstream. | 12 months from publication date |
| To investigate the appropriateness of a bid for national funding to help fund resilience work where possible, such as property level resilience | 12 months from publication date |
| Engaged with all riparian landowners to raise awareness of riparian responsibilities. | Completed |
| Engaged with all affected residents and provide support and guidance as appropriate. | Completed |
| Clearance of the culverted watercourse in the effected properties garden to ensure this system was free from silt and debris. | Completed |
| Prior to the installation of the overflow system, completed clearance of the open ordinary watercourse 4 on Betty Hensers Lane. | Completed |
| Installed a new overflow system on Betty Hensers Lane into the open ordinary watercourse 4 to help with capacity in the culverted system in times of inclement weather. | Completed |
| Completed various jetting works of the highway gully lateral drains and routinely check the system subject to maintenance schedules. | Completed |

6.2 CHARNWOOD BOROUGH COUNCIL

Charnwood Borough Council has agreed the following actions:

| ACTION | PROPOSED TIMESCALE |
|-----------------------------------------------------------------------------------------------------------------|-----------------------|
| To work with all RMAs to understand the flooding mechanisms and identify ways to help mitigate future flooding. | Completed |

6.3 RIPARIAN LANDOWNERS

Riparian Landowners have agreed/completed the following actions:

| ACTION | PROPOSED TIMESCALE |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Completed the replacement of the blocked culverted watercourse system on Betty Hensers Lane, where it now runs under the centre of the footpath before joining back into the existing system after the restrictions from root ingress and silt before out falling into the open ordinary watercourse 2. | Completed |
| To complete ongoing riparian maintenance as per their riparian responsibilities. | Ongoing |

STATUS OF REPORT AND DISCLAIMER

This report has been prepared as part of the Council's responsibilities under the FWMA.

The findings of the report are based on a subjective assessment of the information available by those undertaking the investigation and therefore may not include all relevant information. As such it should not be considered as a definitive assessment of all factors that may have triggered or contributed to the flood event.

The opinions, conclusions and any recommendations in this report are based on assumptions made by the Council when preparing this report, including, but not limited to those key assumptions noted in the report, including reliance on information provided by others.

The Council expressly disclaims responsibility for any error in, or omission from this report arising from or in connection with any of the assumptions being incorrect.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the time of preparation and the Council expressly disclaims responsibility for any error in, or omission from, this report arising from or in connection with those opinions, conclusions and any recommendations.

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