



Flood Investigation Report

Newtown Linford

16th June 2020

Final Version

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



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1 EXECUTIVE SUMMARY

The flood event of 16th June 2020 was the result of an intense, heavy rainfall event which fell onto the steep rural catchments north of Newtown Linford. The volume of water exceeded the infiltration capacity of the catchment, resulting in significant overland flows from agricultural fields. The flood water subsequently overwhelmed the capacity of the local drainage network flowed down Sharpley Hill (and off the Tyburn Footpath) collecting on Main Street and overwhelming property thresholds causing internal property flooding to at least 16 residential properties and one commercial property.

1.1 SUMMARY OF FLOOD SOURCES

Ordinary Watercourse		Public Sewer	
Main River		Canal	
Surface Water	Ø	Land Drainage	N
Groundwater		Highway Drainage	

1.2 RECEPTORS IMPACTED (NUMBER)

Residential	Business	Other Buildings	Roads	Critical Infrastructure
16 (internal) 7 (external)	1	0	2	0



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:

- a. which Risk Management Authorities (RMAs) have relevant flood risk management functions, and
- b. 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 in Newtown Linford on the 16th June 2020 has been undertaken as the event triggered the locally agreed flooding characteristics or discretionary items as indicated below:

Mandatory Investigation	
Loss of life or serious injury	
Critical infrastructure flooded or nearly flooded from unknown or multiple	
sources	
Internal property flooding from unknown or multiple sources	$\mathbf{\Sigma}$
Discretionary Investigation	
A number of properties have been flooded or nearly flooded	
Other infrastructure flooded	
Repeated instances	
Investigation requested	
Risk to health (foul water)	
Environmental or ecologically important site affected	
Depth/area/velocity of flooding a cause for concern	

Table 1: Locally Agreed Criteria for Formal Flood Investigations



2.3 RISK MANAGEMENT AUTHORITIES (RMAS)

The following RMAs were identified as relevant to the flooding in Newtown Linford:

- Leicestershire County Council LLFA
- Leicestershire County Council Local Highways Authority
- Charnwood Borough Council 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



3 FLOOD INVESTIGATION

3.1 LOCATION AND SETTING

Newtown Linford is a village located in the Charnwood Borough of Leicestershire, approximately 5 miles north-west of Leicester and 6 miles south-east of Loughborough. The village lies within the River Lin catchment, which is part of the wider River Soar Catchment. The village is surrounded by a steep sided catchment made up of grassland and farmed agricultural land which falls towards the residential properties, which sit close to the topographical low point next to the River Lin. The geology in the area is dominated by head superficial deposits made up of clay, silt, sand and gravel, and a bedrock of sedimentary mudstone. Both ground formations are associated with poor infiltration ability, high-water table and groundwater flooding.



Figure 1: Location Plan

3.2 LOCAL DRAINAGE

The River Lin is an ordinary watercourse which flows around the village in a south-easterly direction before turning northwards and joining the River Soar (Main River) approximately five miles North-East of Newtown Linford. The majority of the catchment is made up of rural upland farmland, woods and heaths which drain towards the River Lin. The local topography means that any water which falls to the north of Newtown Linford flows through



the village via numerous ditches, culverts, overland flow routes and drainage systems as it makes its way towards the River Soar.

Figure 2 shows a detailed plan of the marked and unmarked ordinary watercourses throughout Newtown Linford. Several unmarked ordinary watercourses are critical for draining the upland farmland to the north of Newtown Linford (labelled as unmarked ordinary watercourse 1 & 2 on Figure 2). Both of these watercourses comprise of historic and established field ditch systems which drain the water downhill towards the River Lin.

Unmarked ordinary watercourse 1 is partially culverted at a number of locations (adjacent to Sharpley Hill, see Figure 2) to facilitate various field accesses before reaching the highway where it bends east in an 300mm diameter culvert (illustrated on Figure 2 as a red square) and then eventually outfalls into the River Lin to the west of the village. Unmarked ordinary watercourse 2 is also culverted for access at two known locations (see Figure 2) both of these culverts are approximately 225mm in size.

As well as these natural and agricultural features, there are highway and surface water drainage systems along Sharply Hill, Main Street and Grey Crescent. The highway drainage on Sharply Hill is served by highway storm water gullies which connect directly into the adjacent ditch network shown on Figure 2 as unmarked ordinary watercourse 1. Main Street and Grey Crescent are served by a traditional highway drainage system, including highway storm water gullies which connect directly into the STW surface water system. The village is served by a combined foul and surface water sewer network, owned and maintained by STW. The combined sewer system consists of a 225mm diameter pipe and flows in a south-easterly direction down Main Street, connecting with the Grey Crescent branch (225mm) before connecting into the STW pumping station adjacent to Stamford Rise (as illustrated on Figure 2).

It should be noted that the primary purpose of this highway drainage network is to drain the water which falls directly upon the highway itself, and not to intercept additional flows from other sources. While the highway drainage may intercept some of these additional flows, it is not designed to take water from anywhere but that which lands directly on the highway.

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Figure 2: Local Drainage Features



4 FLOODING INCIDENT ON 16TH JUNE 2020

4.1 PRIOR TO THE EVENT

The Council holds records of flooding in Newtown Linford for 2013, 2016 and 2019. During the 2013 and 2016 events, no internal property flooding was reported.

Following the 1st October 2019 event the Council received reports of two properties having internally flooded from the River Lin. No formal flood investigation was completed due to source of flooding being known; however, the Council did engage with the residents affected and undertook relevant actions. Including (but not limited to) the issuing of emergency flood advice, riparian guidance and undertaking inspections of the River Lin to ensure that the watercourse was well maintained and flowing free of obstructions. It was also noted during the October 2019 event that the gullies on Sharpley Hill required some maintenance and that their outfalls were obstructed by unmarked ordinary watercourse 1. The Council therefore contacted the relevant landowner, and this maintenance work was completed in February 2020. The Council subsequently cleansed the highway gullies in March 2020 and the enquiry was closed.

The River Lin is an ordinary watercourse and not classified as a Main River and is not covered by any EA flood warnings. Prior to June 16th, 2020, there was no local flood plan or volunteer flood wardens for Newtown Linford. The Council therefore holds no records of any organised actions being taken prior to the event to prepare the community with regards to flooding.

The weather conditions leading up to June 16th were characterised by a long period of high pressure, sunny periods, and below average rainfall was experienced for May and the first two weeks of June. Ground conditions across the catchment were very dry, and water levels in watercourses and drainage systems was low. This situation changed abruptly on the 14th of June when low pressure dominated. This low-pressure front brought with it a series of intense rainfall events which started late on the 15th and continued at intervals through the 16th, 17th, and 18th of June. The rainfall on these four days contributed significantly to June 2020 being over 1.5 times wetter than average, with the catchment receiving over 130% of its average monthly rainfall over these four days.

Date and Time	Rainfall Measured (Thornton Rain Gauge)
15/06/2020 22:00 - 23:59	12.1mm
16/06/2020 14:00 - 14:59	13.4mm
16/06/2020 21:00 - 22:59	14.2mm
17/06/2020 16:00 - 17:59	42.2mm
18/06/2020 06:00 - 11:59	13.2mm (95.1mm cumulative)
Rest of the month of June	65mm

Table 1: List of the major rainstorm events throughout June 2020

Figure 3 and Table 1 show that June 2020 was defined as a wetter than average month compared to the 15-year trends. However, the months overall were comparable over the same period in 2019, where throughout the summer no significant flooding events were recorded. June 2019 was characterised by consistent rainfall throughout the month, whereas conversely, Table 1 shows that more than half of the month's rainfall fell in five intense rainfall events. The ground conditions following the long period of dry weather from



late march were considered 'dry and hard' with agricultural pastoral land, grass footpaths and other high traffic areas at 'high risk of compaction'.



Figure 3: Long term rainfall trends – comparative rainfall data for the relevant period with previous 2 periods and the 15-year average

4.2 FLOOD EVENT

As the two focus areas were flooded by different mechanisms, they are discussed below independently.

Flood Area 'a' – Sharpley Hill and Main Street

The nature of the event was described as a 'tidal wave' down Main Street, with anecdotal reports indicating it originated from unmarked ordinary watercourse 1 overtopping its banks along the field boundary of Sharpley Hill (refer to Figure 4, Photo 6). The water then used the highway as a conduit to flow southwards (Photos 5, 7 and 10) into the village via Main Street. The water overwhelmed highway drainage systems and gathered on the southern side of Main Street, and quickly overtopped kerbs and caused flooding to driveways, gardens, footpaths, and the local highway network. Flood water eventually started to enter residential properties via overtopping the highway in some instances. Internal water levels were described as varying from 2-30cm depending on the location and gradient of the residential property.

Flood Area 'b' – Grey Crescent and Tyburn Footpath

Overland surface water run-off was described from the agricultural land to the north of Grey Crescent, where field drainage ditches were overwhelmed and overtopped, spilling across gardens and eventually entered the internal space of three properties and a business premises. Flood water also flowed down Tyburn Footpath (Figure 4 and Photos 5 & 6) and onto Main Street, where it flooded a further two properties internally along with a number of gardens, outbuildings and driveways.

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Figure 4: Areas affected by the flooding (arrows indicate the known and reported flood flow paths)

¹ Photo 7 and Photo 8 taken by residents and used with permission in this report



4.3 POST FLOOD EVENT

Following the flood event, CBC collected data, distributed sandbags and helped reassure the community. A community meeting was held in the village hall for residents which the Council, CBC and STW attended.

On the 17th June, the Council as the Highway Authority undertook remedial maintenance of highway drainage assets along Sharpley Hill, Main Street and Grey's Crescent. The Council has also conducted a range of site visits and meetings and distributed Flood Reporting Forms to gather further information on the nature and impacts of the event. The Council has reviewed and analysed all available data as part of this investigation.

As part of the initial desktop study, the Council reviewed the Risk of Flooding from Surface Water Map (Figure 5) available online¹. This data 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 events. The surface water flood map illustrates flow routes which roughly compare to what was witnessed during the flooding. However, the severity, extent and risk of flooding are all underrepresented. The flood routing for Flood area 'a' roughly follows the course expected should the water remain within the unmarked ordinary watercourse 1. However, the flooding is considered 'low risk', only expected in a 1 in 100 year event. Flood area 'b' is better represented on the flood mapping, showing flows similar to those witnessed along Tyburn footpath and Grey Crescent. However, these again are considered 'low risk', only expected in a 1 in 100 year event. The surface water flood map does not accurately represent the upstream catchment and sources of flooding either although this could be explained by the modelling being very high level (not designed to be accurate at the local level).

A review of geological information from the British Geology Societies online mapping system² identified that this area of Leicestershire is dominated by clay based alluvial superficial deposits, and mudstone-based bedrock. The local catchment of the River Lin is comprised of typical glacial geology, with a predominance of river alluvium and head deposits. These deposits are relatively non-porous and result in very poor infiltration rates, as rain can only percolate down through the topsoil, and this quickly becomes saturated.

Anecdotal reports and site evidence indicate that the main source of flooding to Flood Area 'a' was from unmarked ordinary watercourse 1 exceeding its capacity, with subsequent flood water flowing onto Main Street via Sharpley Hill. The site visit conducted by the Council after the flood event identified that unmarked ordinary watercourse 1 was recently maintained with limited vegetation and had a large cross-sectional profile (Photo 2).

A number of old farm accesses have been identified along Sharpley Hill which are traversed by small culverts (circa 100mm, refer to Figure 2). The water was described to be entering the highway during the flood event at one of these old farm access points and this culvert was identified to be blocked following a site visit conducted by the Council on the 19th June 2020 (Photos 5 and 6 on Figure 4). It is not known if this culvert was blocked at the time of the flooding, however given the recent maintenance it is likely that this culvert was clear at the beginning of the event and likely blocked by debris and silt washed down by the flooding. During the site visit on 19th June 2020, it was also identified that the right-hand bank of unmarked ordinary watercourse 1 was lower than the left-hand bank and that the field tipped towards the highway. Therefore, it was concluded that this point was the lowest point for which water would leave the watercourse and enter the highway and that this would happen when the watercourse became overwhelmed (either through becoming overfull or unable to drain due to the culvert being blocked).

¹ <u>https://check-long-term-flood-risk.service.gov.uk/map</u>

² https://mapapps2.bgs.ac.uk/geoindex/home.html?_ga=2.126588623.377520356.1649146089-

^{1757798915.1649146089}

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It should be noted that in normal conditions, the steepness of the catchment means that the field access culverts will act as a throttle during periods of high rainfall. Ultimately providing a benefit to downstream flood risk by slowing down the flow of water heading downstream.

Further down Sharpley Hill, unmarked ordinary watercourse 1 eventually terminates at a headwall which conveys the flow under Sharpley Hill highway and across arable land before eventually terminating into the River Lin. This culvert was also identified to be blocked by silt during the Council's inspection after the event. It is not known if this culvert was blocked during the event and there was no anecdotal or site evidence that water surcharged onto Sharpley Hill from this point.

In a similar fashion to Sharpley Hill, unmarked ordinary watercourse 2 had also recently been cleared (maintenance performed by the landowner) and thus conveyed the water quickly down to the headwall. Here the ditch terminates into a small headwall and 100mm culvert. Anecdotal evidence supplied by the landowner claimed that they had maintained the ditch and refurbished the headwall, and it all appeared to be in good working order at the start of the flood. Despite this, sediment carried by the fast-flowing water likely silted and blocked this culvert in a similar fashion to the culvert on unmarked ordinary watercourse 1. A CCTV survey of this culvert conducted by the Council following the flooding also identified a likely partial collapse on 3rd party land.

It is understood that the maintenance and clearance work on unmarked ordinary watercourses 1 and 2 by the riparian landowner was undertaken in good faith, following their duties under the Land Drainage Act (1991). The official recommendation is to perform routine maintenance in the autumn and winter to avoid disturbing wildlife, although emergency work on critical systems should be undertaken as soon as possible and at all times of year.





Figure 5: Surface water flood risk mapping



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 16 residential properties and commercial on Main Street and Greys Crescent and the external flooding of an additional 7 residential properties on the 16th June 2020.

- Prior weather conditions through May and June were dry and hot, which left the soils dry and hard, reducing their ability to infiltrate. Local geology of head alluvial deposits also meant that infiltration would be limited even in optimal conditions.
- The catchment is very steep and naturally slopes towards Sharpley Hill highway and the village of Newtown Linford towards Main Street which sits at the lowest point. This increases the likelihood of overland flow and limits the potential for the ditches to store or drain the surface water away effectively.
- On 16th June 2020, the whole of Leicestershire received a much higher than average rainfall event, with local rainfall over the three days around the event being greater than the total for the rest of the month. This volume of rainfall is likely to have quickly overwhelmed the local drainage network forcing water out of bank even if all drainage features were in ideal conditions. It is believed that silts and debris washed down during the event and obstructed key culverts along unmarked ordinary watercourses 1 and 2 further forcing water out of bank.
- The volume of flood water on Main Street reached such depths that it breached residential property thresholds. Some property threshold levels along Main Street would have been more quickly compromised due to their frontages being at a lower level than the highway.

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 these factors would have prevented any of the internal flooding experienced by this event. These factors include:

- Bow waves from cars passing through Main Street were reported to increase water ingress to the front of some of the residential properties and the commercial property. Main Street is considered a key route within the local highway network, and so the volume of cars passing over the highway may have exacerbated the impacts. Due to the flash nature of the flood, there was not enough time for the road to be formally closed before the flooding abated.
- It was anecdotally reported that many of the impacted residential properties did not have any awareness of previous flooding to their residential properties. By considering the speed of the flood water and lack of forward planning it can be presumed that there may have been limited personal preparation for the flood, thus exacerbating its impacts.
- The ditches along unmarked ordinary watercourse 1 and unmarked ordinary watercourse 2 were recently maintained (bare earth) and following the heavy rain conveyed flow at high velocity, causing large amounts of suspended debris and silts. This suspended silt likely overwhelmed the culverts (which were identified to be blocked after the event) and forced water out of channel onto the highway at Sharpley Hill and onto the Tyburn Footpath towards Main Street. While the well-



maintained ditches may have increased the velocity of flows inside the unmarked ordinary watercourses, it has been concluded that had the maintenance not taken place, the flooding could have been even more severe due to reduced capacity in the ditches.

 After the flood event, the Tyburn Footpath culvert was identified to have a partial collapse and thus have a reduced ability to convey flow. Given the volume of water and the intensity of the rainfall, it is unlikely that this 100mm culvert would have been sufficient in preventing the floodwaters entering Tyburn Footpath even if it were in perfect working order.

The condition of the highway drainage along Main Street at the time of flooding was identified to be relatively clear, having been inspected and cleansed in March 2020. Although the highway drainage system was overwhelmed by the volume of water, it should be noted that it is not the purpose of highway drainage to intercept additional flows from other sources other than what falls on the highway itself. Therefore, it should not be expected that the highway systems be able to prevent flood water entering properties as a result of this flood event.



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.

The LLFA also has a responsibility to maintain a register of drainage assets which are considered to provide a significant role in the mitigation of flood risk (as detailed within Section 21 of the FWMA).

The register must contain a record detailing each structure or feature including ownership and state of repair. As the LLFA, the Council look for support and information from other agencies that are designated as RMAs to ensure any assets, which could potentially have a significant effect on flood risk, are recorded on the asset register.

As the LLFA, the Council has permissive enforcement powers related to ordinary watercourses within private ownership. The duty to maintain the ordinary watercourses on private land, however, rests with the relevant riparian landowner.

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, Charnwood Borough Council has the powers (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)

As LCC has the role of local highway authority, they have the power to maintain the Highway under Section 41 of the Highways Act (1980). Section 100 states that LCC also has the power to prevent water running onto the highway from adjoining land.

5.4 WATER COMPANY (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.

Following the 'Private Sewer Transfer' on 1st July 2011, water companies are now responsible for all pipes systems on private land that serve more than one curtilage and are connected to a public sewer. Under Section 94 of the Water Industry Act (1991) statutory sewerage undertakers have a duty to provide sewers for drainage of buildings and associated paved areas within property boundaries.



Water companies are responsible for all public sewers and lateral drains. Public sewers are a conduit (typically a pipe) assigned to a water and sewerage company that drains two or more properties, conveying foul, surface water or combined sewerage to a positive outfall. Connection of other drainage sources to public sewers is discretionary following an application to connect.

5.5 RIPARIAN LANDOWNERS OF WATERCOURSES AND HOMEOWNERS

As detailed within the Environment Agency document 'Living on the Edge', 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.

All riparian owners have the same rights and responsibilities. These responsibilities include the requirement to "keep any structures, such as culverts, trash screens, weirs and mill gates clear of debris". However, "a landowner has no duty in common law to improve the drainage capacity of watercourse he/she owns."

• A full explanation of the rights and responsibilities of riparian ownership are given in the Environment Agency publication, "Living on the Edge".

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 (AS THE LEAD LOCAL FLOOD AUTHORITY)

The Council has agreed/completed the following actions:

ACTION	PROPOSED TIMESCALE
To continue to co-ordinate feedback to the community relating to the investigation.	Ongoing
To work with residents and RMAs to ensure that riparian landowners are fully aware of their maintenance responsibilities for ordinary watercourses including ongoing maintenance required by landowners.	Completed August 2020
Consider adding private assets on unmarked ordinary watercourse 1 and 2 onto the Council's flood risk asset register where appropriate.	6 months from publication date
Undertaken investigatory work to understand the drainage network of both unmarked ordinary watercourses 1 and 2 between the culverts and their ultimate outfalls.	Completed
To work with partner organisations to undertake an assessment of the River Lin catchment to identify any potentially viable flood mitigation options including property level resilience, minor highway works/reprofiling and Natural Flood Management (NFM) measures. This work will be programmed within the priority context of the Councils overall programme of Flood Risk Management projects.	Subject to resource availability



6.2 LEICESTERSHIRE COUNTY COUNCIL (AS THE LOCAL HIGHWAYS AUTHORITY)

The Council has agreed/completed the following actions:

ACTION	PROPOSED TIMESCALE
Conducted some minor maintenance to highway infrastructure immediately following the flood event to Sharpley Hill, Main Street and Grey's Crescent	Completed

6.3 LEICESTER, LEICESTERSHIRE, RUTLAND (LLR): PREPARED

LLR: Prepared has agreed/completed the following actions:

ACTION	PROPOSED TIMESCALE
Liaise with the residents of Newtown Linford and CBC to assist with setting up a flood action group and the creation of a Flood Warden Scheme in the neighbourhood should it be requested.	6 months from publication date

6.4 CHARNWOOD BOROUGH COUNCIL

CBC has agreed/ undertaken the following actions:

ACTION	PROPOSED TIMESCALE
Liaise with the residents of Newtown Linford and the Council to assist with setting up a flood action group, as appropriate.	6 months from publication date

6.5 **RIPARIAN LANDOWNER**

The riparian landowner has agreed/undertaken the following actions:

ACTION	PROPOSED TIMESCALE
To inspect key culverts/headwalls along unmarked ordinary watercourses 1 and 2 to ensure they are free of obstruction in the event of a severe weather warning.	



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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