



Flood Investigation Report

21st September 2024

Market Harborough Town Centre

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EXECUTIVE SUMMARY

On the 21st of September 2024, a short-duration but high-intensity rainfall event occurred in Market Harborough, causing flash surface water flooding to many properties and main roads across the town. This formal flood investigation focusses on the Town Centre where the flooding devastated many shops and businesses, thus triggering a formal investigation.

The flooding was attributed to the intense rainfall that fell over a short period of time flowing rapidly over predominantly impermeable surfaces and steep ground levels. This overwhelmed the local drainage network as the volume of surface water runoff exceeded the conveyance capacity of the highway gully inlets. In addition, discharges from the drainage network outfalls were restricted by raised water levels observed within the River Welland, resulting in the network capacity becoming exceeded and water surcharging out from gullies and manholes onto the roads.

The floodwater flowed into low lying areas around The Square and adjacent roads and flooded 37 commercial properties. Floodwater receded rapidly as they drained away into the River Welland once the rain ceased and river levels reduced into the evening.

The River Welland did not overtop its banks or the flood defences and was not the source of the flooding within the Town Centre.

SUMMARY OF FLOOD SOURCES

Ordinary Watercourse	☐	Public Sewer	☒
Main River	☐	Canal	☐
Surface Water	☒	Land Drainage	☐
Groundwater	☐	Highway Drainage	☒

NUMBER OF RECEPTORS IMPACTED

Residential	Business	Other Buildings	Roads	Critical Infrastructure
0	37	0	8	0

1 INTRODUCTION

1.1 SECTION 19 INVESTIGATIONS – DUTY TO INVESTIGATE

Section 19 of the Flood and Water Management Act (FWMA) (2010) ‘local authorities: investigations’ came into force on 6th April 2011. The legislation 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 (RMA) have relevant flood risk management functions; and

1.1 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 RMAs.

1.2 FORMAL FLOOD INVESTIGATIONS CRITERIA

As a Lead Local Flood Authority (LLFA), Leicestershire County Council (LCC), from herein referred to as “The Council”, identified local thresholds for formally investigating flood incidents within the Local Flood Risk Management Strategy (LFRMS). The Council’s Cabinet formally adopted an updated LFRMS in November 2023¹. This included revised local thresholds for investigation, shown below:

LCC would ordinarily expect to exercise its statutory discretion to investigate a flooding incident occurring in its local area, in the following circumstances:

1) If the causes of flooding are unknown prior to the investigation, and

2) one or more of the following criteria apply:

a) there is loss of human life as a direct result of the flood event

b) critical infrastructure is flooded in a way which impacts delivery of essential services

c) there is internal flooding confirmed to five or more residential properties

d) there is internal flooding confirmed to two or more commercial properties.

These thresholds are not absolute and the decision to conduct a formal flood investigation is at the discretion of the Director for Environment and Transport.

¹ Leicestershire County Council – Cabinet meeting minutes
<https://democracy.leics.gov.uk/leListDocuments.aspx?Cld=135&Mld=7080&Ver=4>

A formal investigation into the flood incident that occurred in Market Harborough Town Centre on the 21st September 2024 has been undertaken as the event triggered the locally agreed thresholds for a formal investigation. This area, defined in Section 2.5, is designated for the purposes of this report as the 'Flood Focus Area'.

A small number of additional isolated residential properties across the wider Market Harborough area also reported to have suffered internal and external surface water flooding during the same rainfall event. The flood mechanisms and causes of this are known and considered to be isolated from the Town Centre area, and thus did not trigger the threshold for formal investigation so have not been included as part of this report. All reported flooding was still investigated however, and relevant actions were taken and communicated to the affected community.

1.3 RISK MANAGEMENT AUTHORITIES (RMA)

The following RMAs were identified as having flood risk management functions relevant to the flooding that occurred in Market Harborough Town Centre and were consulted by The Council (LLFA) team as part of this investigation.

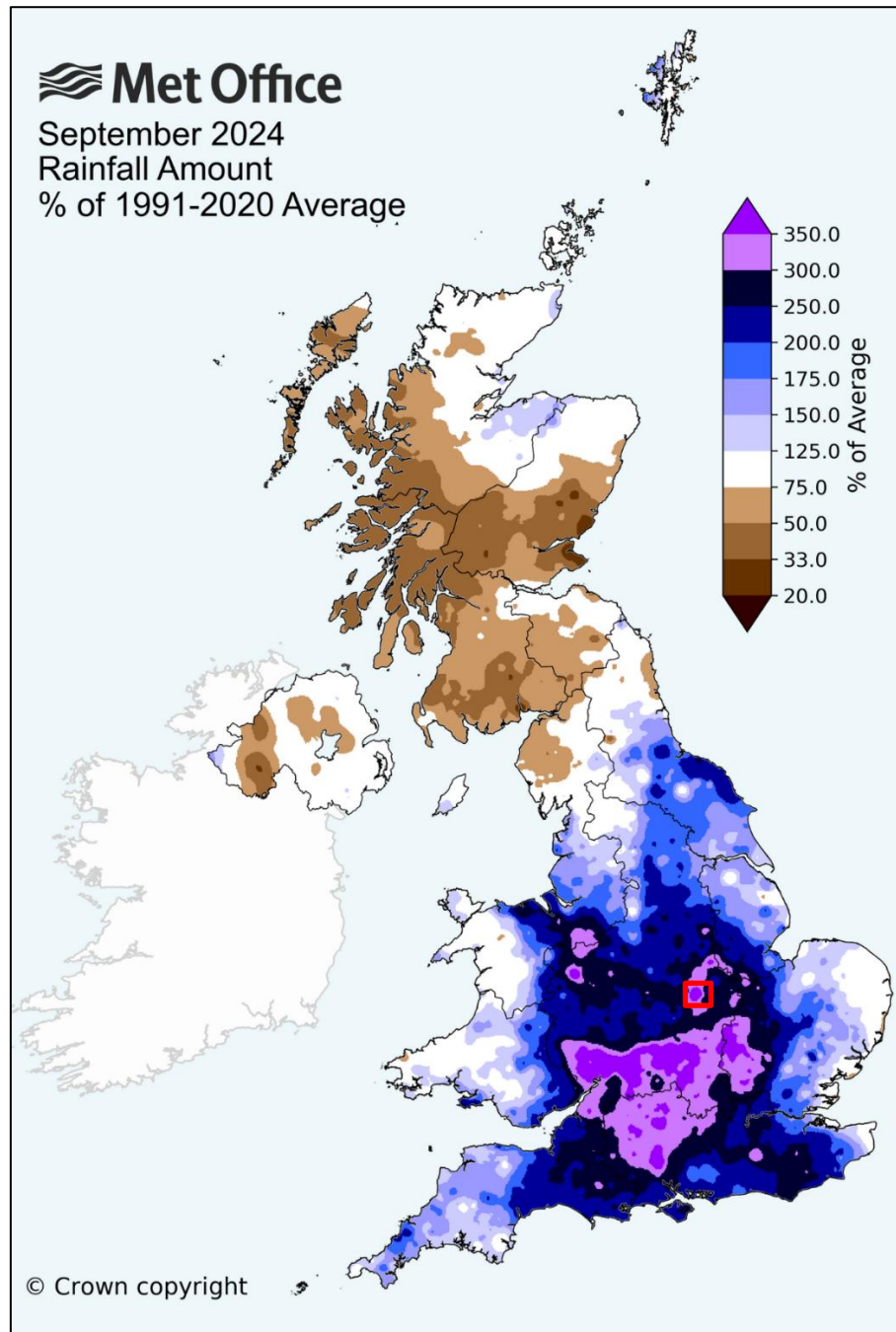
- **LLFA and Local Highways Authority (LHA)** - Leicestershire County Council (LCC);
- **Harborough District Council (HDC)** - Local Planning Authority (LPA) and Land Drainage Authority (LDA) who can carry out flood risk management works on minor watercourses.
- **Anglian Water (AW)** – Sewerage undertaker for public wastewater in Market Harborough Town Centre.
- **Environment Agency (EA)** - Holds strategic responsibility for managing flood and coastal erosion risk across England. It also has permissive powers to undertake the operational management of flood risk from main rivers and reservoirs. This includes activities such as flood forecasting, issuing flood warnings, maintaining and operating flood defences, regulatory oversight, and providing specialist planning advice.

Following early consultation with the Canal & River Trust (CRT), it was established that the Market Harborough arm of the Grand Union Canal does not have any overflow weirs into the Market Harborough Town Centre surface water catchment. CRT is therefore not considered a relevant RMA in relation to this flooding event.

2 FLOODING INCIDENT

2.1 SEPTEMBER WEATHER CONDITIONS

According to the Met Office, Market Harborough experienced in excess of 200% of the 1991-2020 average rainfall during September 2024 as a whole. This is illustrated in Figure 2-1² below.



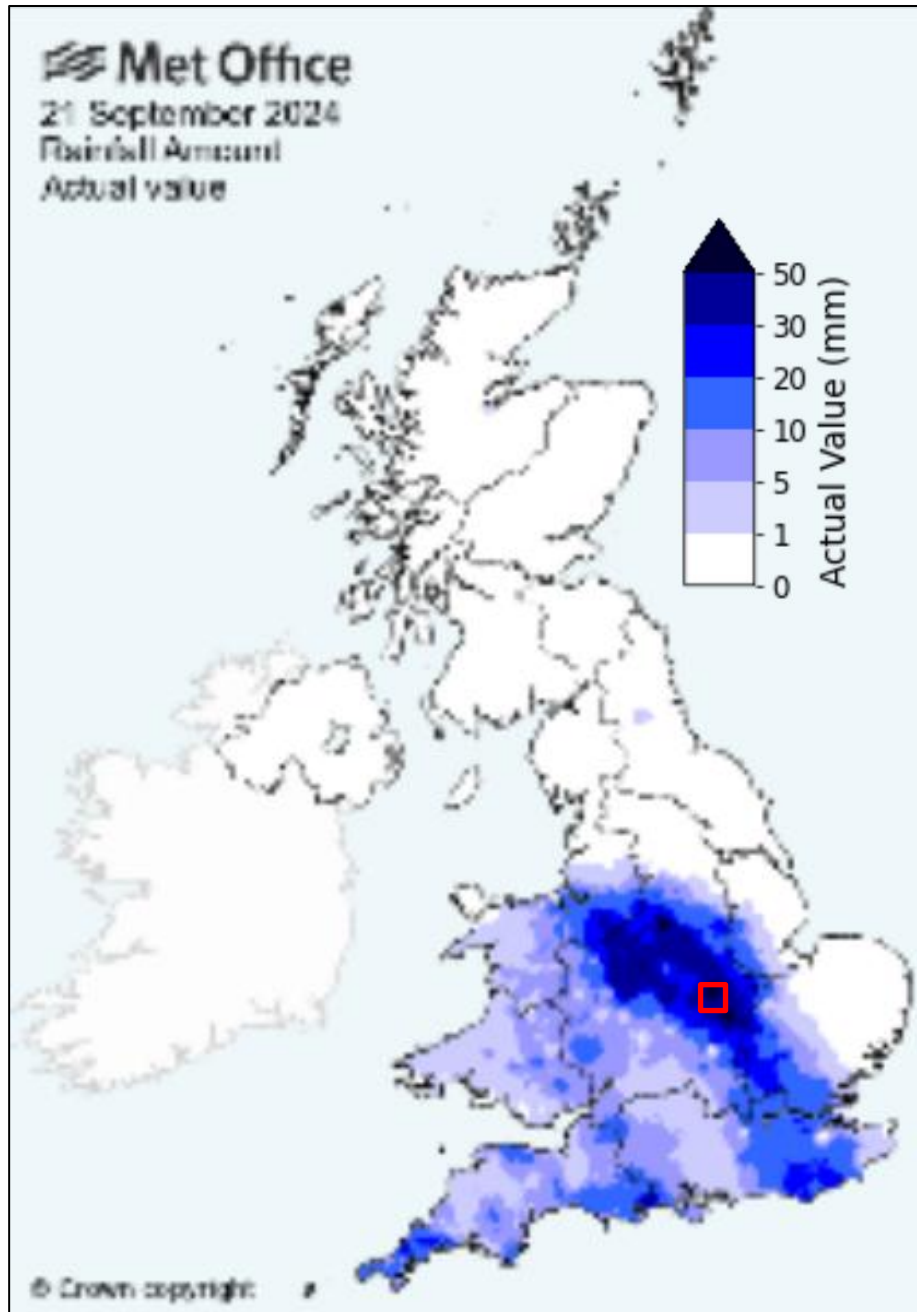
Market Harborough in Red

Figure 2-1: Rainfall Total (September 2024) as a percentage of the 1991 to 2020 average²

² Met Office (2024) Record-breaking rainfall for some this September. <https://www.metoffice.gov.uk/about-us/news-and-media/media-centre/weather-and-climate-news/2024/record-breaking-rainfall-for-some-this-september>

The Hydrological Summary produced by the Centre for Ecology and Hydrology for September 2024³ states that following a drier third week, frontal systems brought persistent and heavy rain from 20th to 23rd across Wales and central and southern England.

The Met Office September 2024 Weather Report⁴ details the rainfall depths on 21st September 2024 as greater than 30mm in the Market Harborough area. This is depicted within Figure 2-2. This was the first significant rainfall event of September for the County.



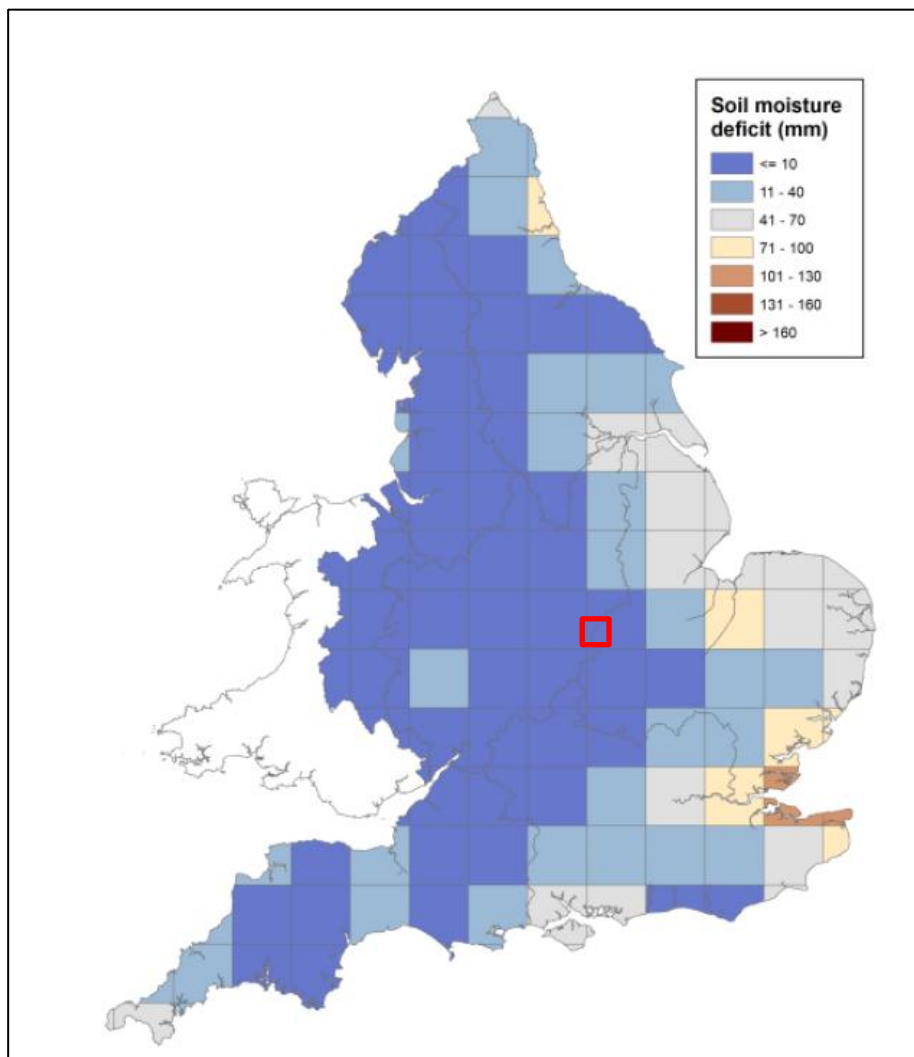
Market Harborough in Red

Figure 2-2: Met Office Daily Rainfall Total - calendar view for 21st September 2024⁴

³ UK Centre for Ecology & Hydrology (2024) Hydrological summary for the United Kingdom: September 2024. <https://nora.nerc.ac.uk/id/eprint/538247/1/N538247RE.pdf> Wallingford UK

⁴ Met Office (2024) September 2024 Monthly Weather Report. https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/weather/learn-about/uk-past-events/summaries/mwr_2024_09_for_print.pdf

Due to above average rainfall in September, soils across the majority of England were wetter than average for the time of year as illustrated in Figure 2-3 which shows the soil moisture deficit levels. However, it should be noted that this map includes the rainfall event of the 21st September and further rainfall events up until the end of September.



Market Harborough (bounded red) experienced high saturation (was relatively wet), so had a low soil moisture deficit

Figure 2-3: Great Britain Soil Moisture Deficit for End of September 2024⁵

This flooding event in Market Harborough Town Centre however was very localised and did not occur as a result of any of the six major storm events defined by the Met Office within the 2024/25 storm season which affected larger regional areas⁶.

⁵ Environment Agency (2024) Water Situation Report England September 2024.

https://assets.publishing.service.gov.uk/media/6707cd4c30536cb927482f9e/Water_situation_report_for_England_September_2024.pdf

⁶ Met Office (2025) UK Storm Season 2024/25. <https://weather.metoffice.gov.uk/warnings-and-advice/uk-storm-centre/uk-storm-season-2024-25>

2.2 WEATHER WARNINGS

At 11:33 hours British Summer Time (BST)⁷ on Friday 20th September prior to this flooding incident, the Met Office issued a Yellow National Severe Weather Warnings for thunderstorms for Saturday 21st September across parts of England, including the south-east and parts of the Midlands⁸, which included Market Harborough.

The Flood Forecasting Centre (FFC) also issue daily Flood Guidance Statements (FGS) for England and Wales. The FGS issued by the FFC at 10:30 hours BST on 21st September in summary stated there was a 'Low' likelihood of surface water flooding, but that significant travel and disruption impacts due to flooding are possible but not expected on the Saturday. An extract of this FGS is provided in Figure 2-4.

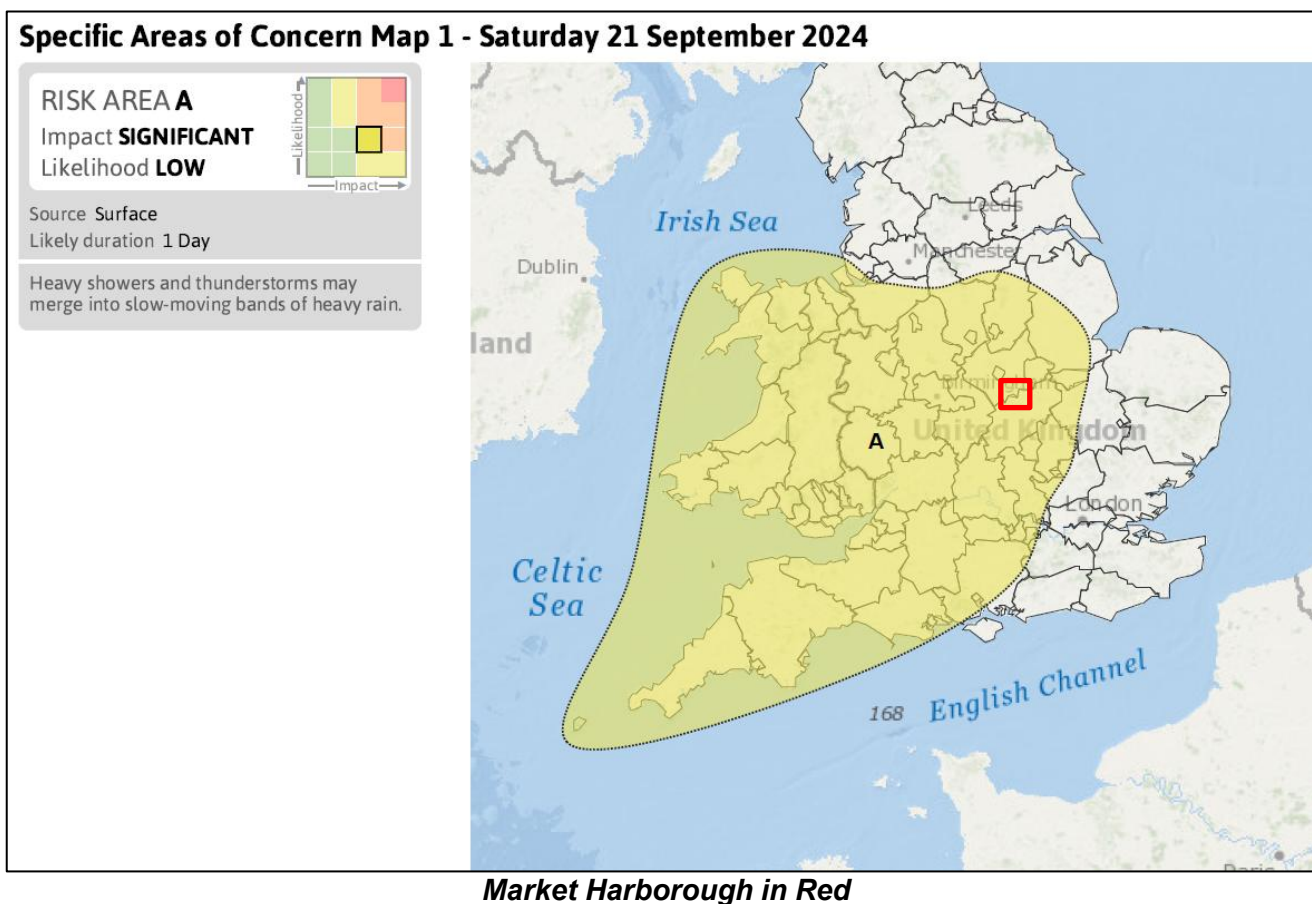


Figure 2-4: FFC Flood Guidance Statement issued for Saturday 21st September at 10:30 hours BST on Friday 20th September for rainfall⁹

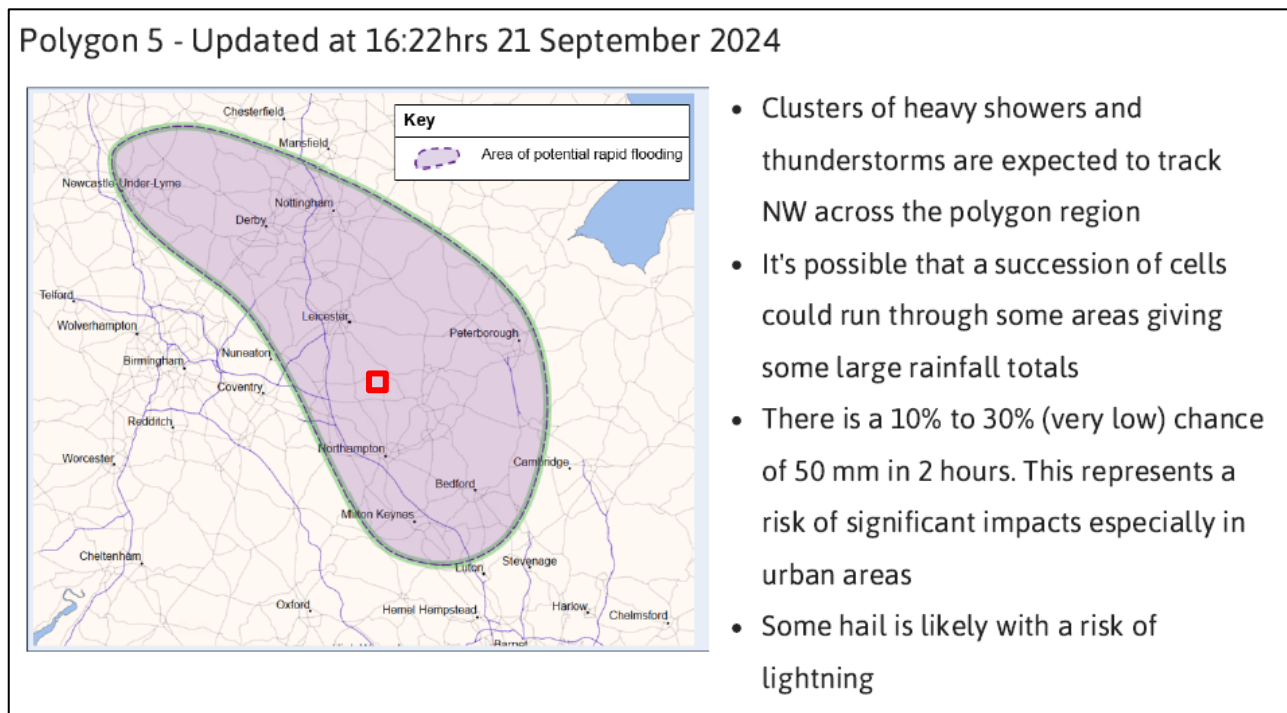
At the time of the flood event, the FFC were also trialling Rapid Flood Guidance Statements (RFGS) for emergency responders. The FFC define rapid flooding as “any flooding that starts within 6 hours of rain. It is caused by water getting trapped in urban low spots, overflowing drains, and flow from small streams and rivers. A RFGS was issued by the FFC

⁷ British Summer Time is the daylight-saving time zone at UTC+01:00 used in the UK from the last Sunday in March until the last Sunday in October). Greenwich Mean Time is the baseline time zone at UTC+00:00. The UK uses GMT during the autumn and winter months. BST is therefore 1 hour ahead of GMT.

⁸ Met Office (20th September 2024) Thunderstorm warnings issued. <https://www.metoffice.gov.uk/about-us/news-and-media/media-centre/weather-and-climate-news/2024/thunderstorm-warnings-issued>

⁹ Flood Forecasting Centre (September 2024) Flood Guidance Statement - 10:30 hours Saturday 21 September 2024. https://assets.flood-forecasting-centre.gov.uk/flood-guidance-statements/04067-2024-09-21_1030/fgs.pdf

on the afternoon of 21st September at 16:22 hours BST (Figure 2-5), approximately 75 minutes before the flooding occurred.



Market Harborough in Red

Figure 2-5: FCC Rapid Flood Guidance Statement issued on Saturday 21st September at 16:22 hours¹⁰ BST

2.3 FLOOD WARNINGS

Market Harborough is located within the Welland Valley Flood Alert Area (Code 055WAF134TWV¹¹) and the River Welland in Market Harborough Flood Warning Area (Code 055FWFUWEL01¹²); which include the lower extent of the Flood Focus Area (the extents covered by the alert / warning can be viewed via the links in the footnote). However, no flood alerts or warnings were issued for the River Welland in Market Harborough prior to the flood incident as water levels did not trigger the required threshold.

2.4 FLOOD EVENT HYDROMETRY

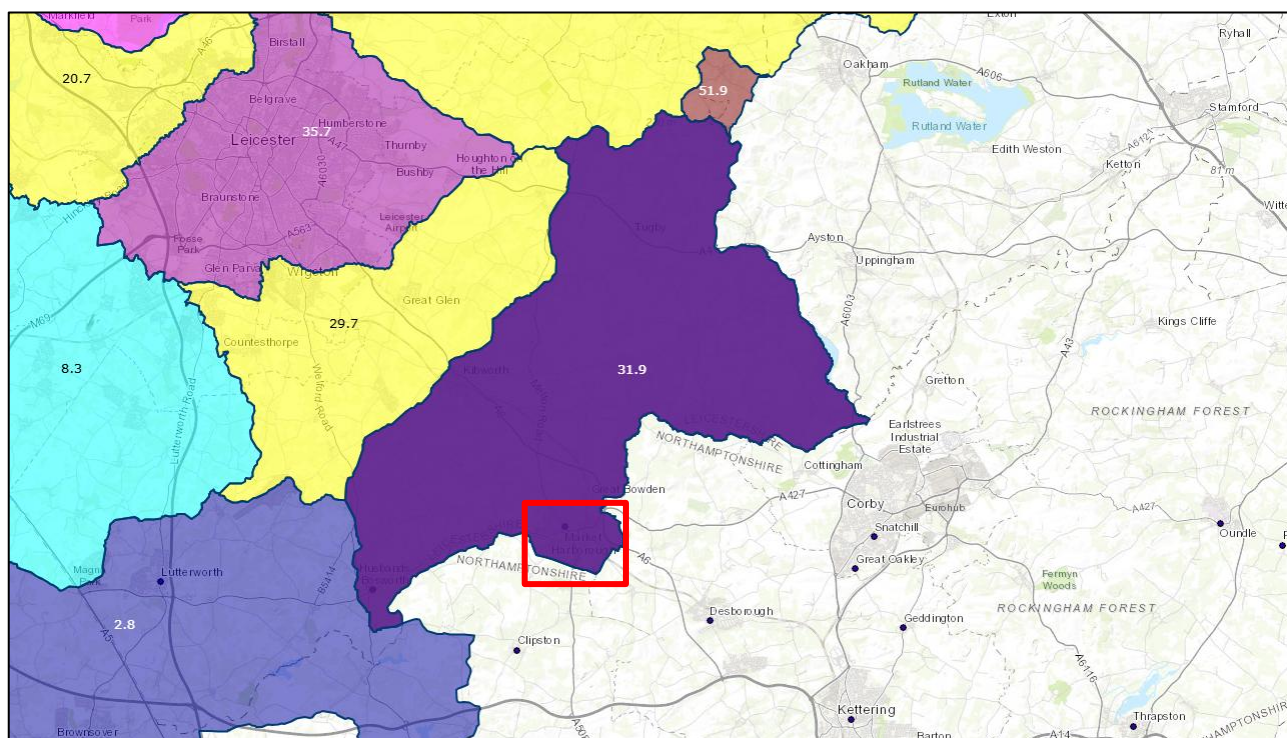
The Council currently has access to an information system known as 'HydroMaster' providing rainfall observations and forecasts derived from weather radar data. Weather radar does not measure rainfall directly at ground level; instead, it estimates rainfall intensity by transmitting electromagnetic pulses and measuring the energy reflected by raindrops within the atmosphere. These estimates can then be processed to produce spatial rainfall maps and catchment-wide rainfall totals, which in turn, help to understand predicted rainfall patterns and where rainfall has occurred across the county.

¹⁰ Flood Forecasting Centre (September 2024) Rapid Flood Guidance for England and Wales - 16:22 hours Saturday 21 September 2024.

¹¹ Environment Agency (2026) Welland Valley Flood Alert area. <https://check-for-flooding.service.gov.uk/target-area/055WAF134TWV>

¹² Environment Agency (2026) River Welland in Market Harborough Flood Warning area. <https://check-for-flooding.service.gov.uk/target-area/055FWFUWEL01>

A dynamic summary provided by HydroMaster¹³ estimated a total depth for the 21st September rainfall event of 31.9mm across the River Welland catchment, which covers an area of 255.6km² (see Figure 2-6), inclusive of Market Harborough.



Market Harborough in Red

Figure 2-6: HydroMaster Event Summary Map for 21st September 2024¹⁴

2.4.1 RAIN GAUGES

There are no formally monitored rainfall gauges in Market Harborough and therefore the following account is based on an interpretation of wider rainfall gauge observations.

The locations of the six nearest EA rainfall gauges in the locality of Market Harborough are illustrated in Figure 2-7. In relation to Market Harborough, Husbands Bosworth is the only upstream gauge within the same topographical catchment. Dingley is the closest gauge to Market Harborough Town Centre but is located further downstream. Based on the readings recorded on 21st September, Kibworth gauge, which is situated approximately 4.7 miles to the north-west of Market Harborough, experienced the highest peak in rainfall.

The peak rainfall intensities (depth in mm over a three-and-a-half-hour period between 14:00 and 17:30 hours Greenwich Mean Time (GMT) during 21st September measured at each of these relevant EA gauges are provided in Table 2.1. **It is noted that GMT is one hour behind BST⁷ (i.e. 15:00 to 18:30 BST).**

Radar data (provided by HydroMaster) highlighted a high level of uncertainty over the predicted rainfall depths in Market Harborough on 21st September, which was supported by the high variability shown in the observed rainfall depths recorded at the gauges across a relatively localised area (as illustrated in Figure 2-7 and detailed in Table 2.1).

¹³ HydroMaster (February 2024) Dynamic Summary. <https://app.hydromaster.com/applications/login/index.html>

¹⁴ <https://app.hydromaster.com/applications/index.html#hydrox-viewer/EventMap?toThisEvent=95c9c5c4-20fd-4961-b128-4769864dfc6c>

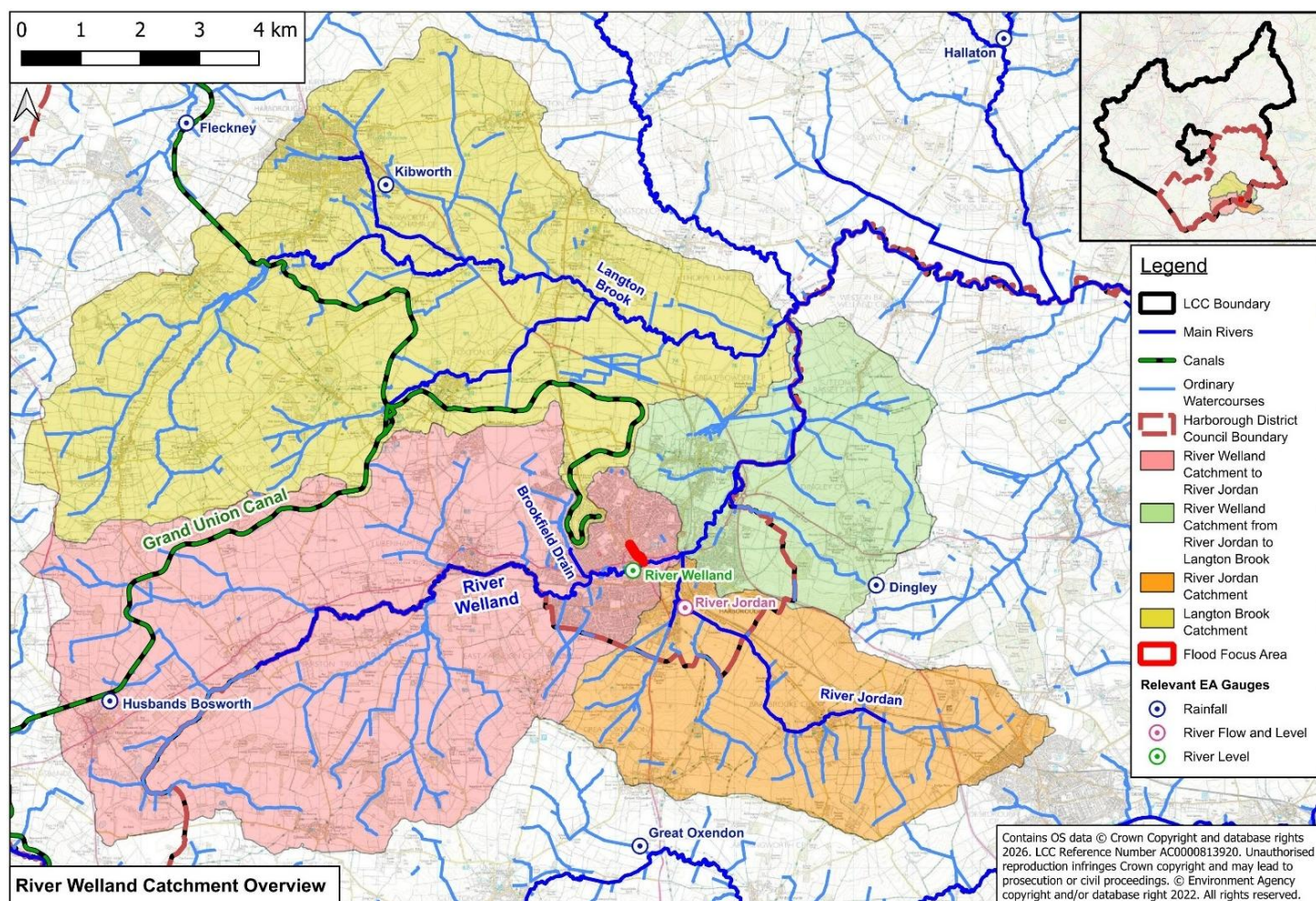


Figure 2-7: Environment Agency Rainfall and River Gauges, and Relevant Watercourse Catchments in vicinity of Market Harborough

Table 2.1: Total Rainfall recorded at various gauges near Market Harborough between 14:00 and 17:30 hours GMT on 21st September 2024 (DEFRA)

Location (Station ID)	Distance (miles) from Market Harborough Town Centre	Time of Peak Intensity (hours, GMT)	Rainfall Total (mm)
Dingley (151674) ¹⁵	2.5	16:30	22.3
Great Oxendon (160840) ¹⁶	3.0	14:45	12.8
Kibworth (151483) ¹⁷	4.7	15:00	32.9
Husbands Bosworth (V16) ¹⁸	5.7	16:15	4.0
Fleckney (111741) ¹⁹	6.5	17:00	27.8
Hallaton (151890) ²⁰	6.6	17:15	23.6

¹⁵ Defra (2026) Hydrology Data Explorer – Dingley. <https://environment.data.gov.uk/hydrology/station/b8cbc343-0718-47d4-be01-f581b850e9d9>

¹⁶ Defra (2026) Hydrology Data Explorer – Great Oxendon. <https://environment.data.gov.uk/hydrology/station/ffe3d0dd-a1dd-4728-8307-1522d5fde542>

¹⁷ Defra (2026) Hydrology Data Explorer – Kibworth <https://environment.data.gov.uk/hydrology/station/6dba623a-9628-4c37-9992-ed8dd18e3143>

¹⁸ Defra (2026) Hydrology Data Explorer – Husbands Bosworth. <https://environment.data.gov.uk/hydrology/station/473b5731-fe3d-41f3-9fa7-959d84766c79>

¹⁹ Defra (2026) Hydrology Data Explorer – Fleckney. <https://environment.data.gov.uk/hydrology/station/8141e81a-970f-43a2-bd59-7bad94fca2a>

²⁰ Defra (2026) Hydrology Data Explorer – Hallaton. <https://environment.data.gov.uk/hydrology/station/70f011bd-157a-42ce-a32a-74c7cb26816e>

The rainfall profile at Kibworth for the 21st September 2024 is presented in Figure 2-8. Light rainfall was first registered at 14:00 hours GMT at Kibworth rainfall gauge. By 14:30 hours GMT, the rainfall had intensified and over the next 45 minutes, 17.1mm of rain had been recorded. Lighter rainfall persisted between 15:15 hours and 16:45 hours, before another intense downpour resulted in a further 11.5mm of rain in just 30 minutes.

In a period of approximately 3 hours, these two intense rainfall events that occurred in short succession resulted in a total of 32.9mm of rain. The second of these was coincidental with the flooding experienced at Market Harborough, however, without a rainfall gauge in Market Harborough itself, we cannot definitively state what the exact localised rainfall intensity was here.

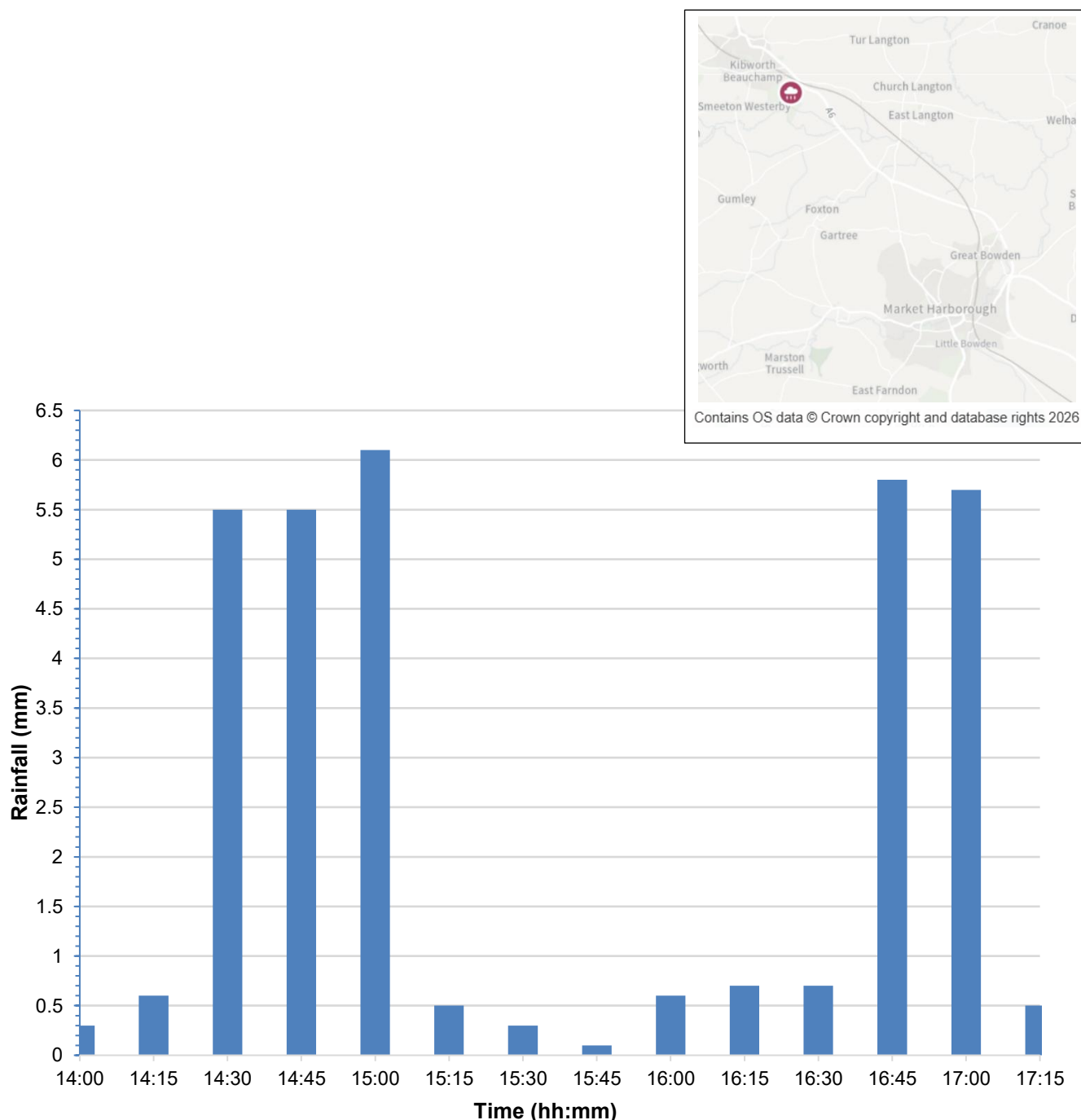


Figure 2-8: Rainfall depths in 15minute intervals recorded at Kibworth Gauge (Station ID 151483) on 21st September 2024 between 14:00 to 17:15 hours GMT (DEFRA)

2.4.2 FLOW GAUGE

Figure 2-9 illustrates the water level profile at the River Welland at Market Harborough gauge²¹ overlaid with the rainfall depths observed at the Kibworth gauge (from Figure 2-8). for the 21st September. The gauge is located to the south-west of the Flood Focus Area approximately 220m upstream of Northampton Road bridge at Ordnance Survey National Grid Reference (OSNGR) 473410, 287080, as illustrated in Figure 2-7.

This hydrograph initially illustrates a rise in water level after 14:30 hours GMT, before a decline in water level, proceeded by a second rise after 16:00 hours. The River Welland peaked at 76.28 metres Above Ordnance Datum (mAOD) at 17:15 hours. This was approximately 0.96m above the steady baseline level recorded prior to 14:30 hours when the onset of the river storm response began.

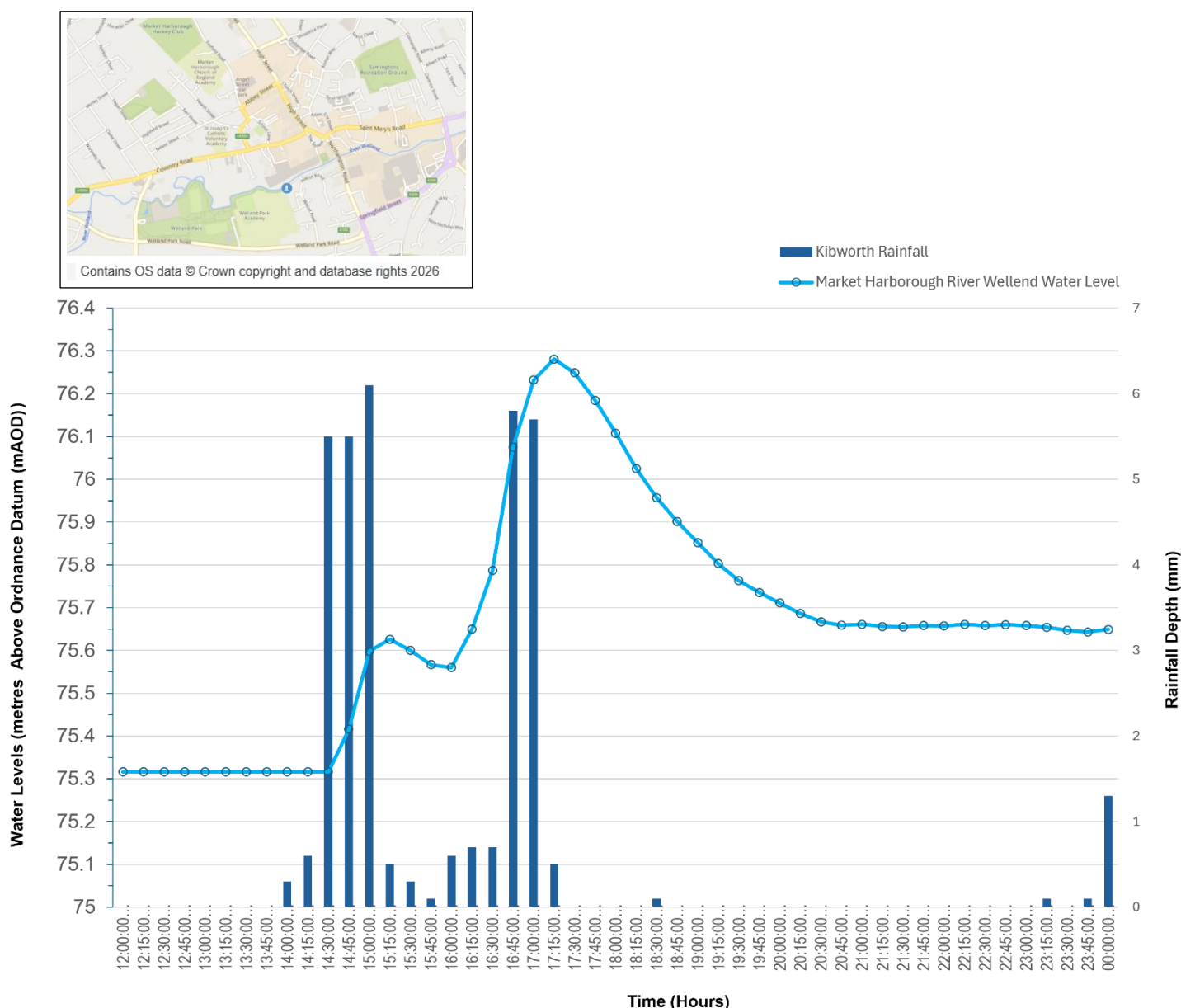


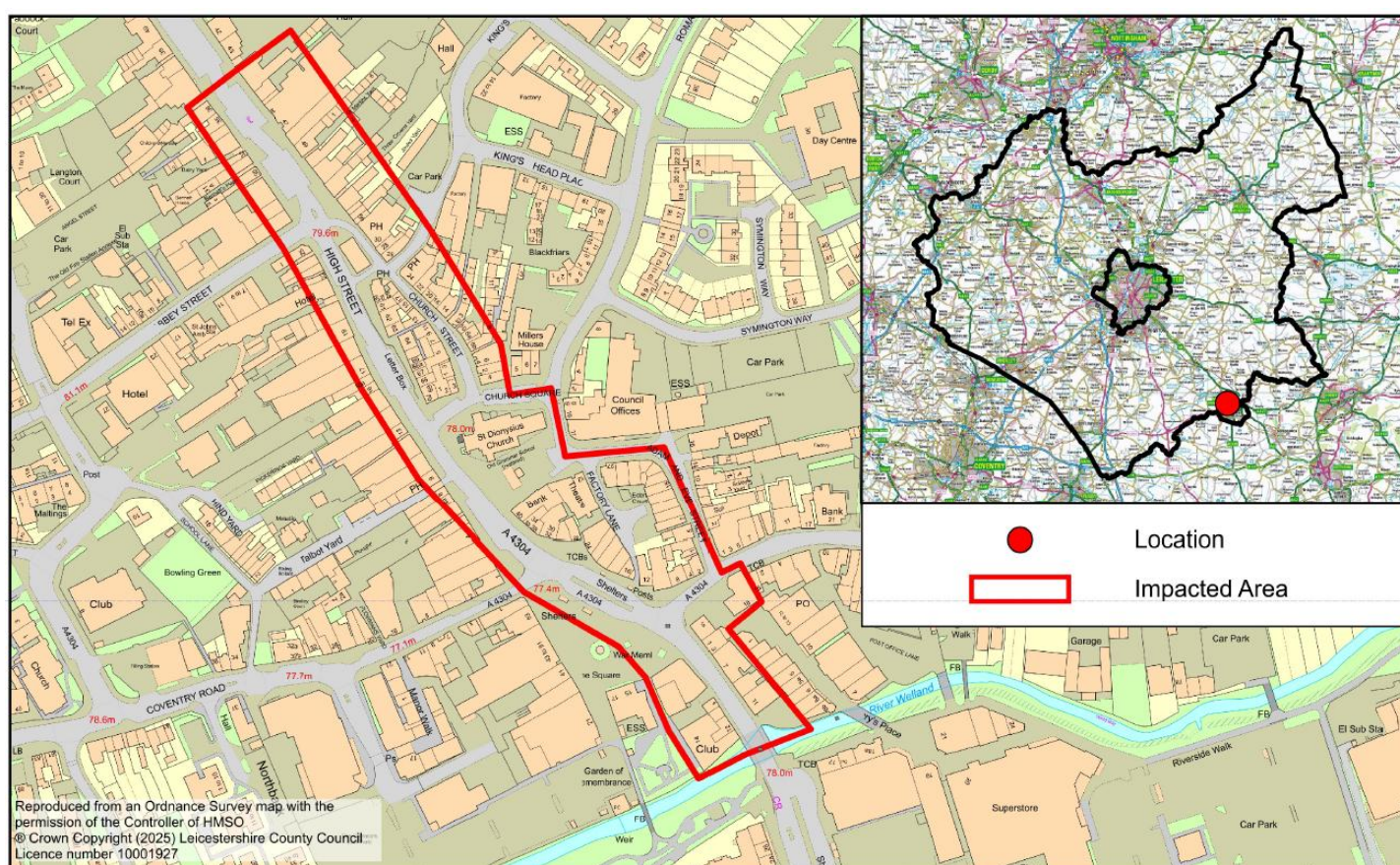
Figure 2-9: River Welland at Market Harborough Gauge (Station ID L31030) - Water Levels (mAOD) between 12:00 hours GMT on 21st September to 00:00 hours on 22nd September 2024 and Rainfall depths recorded at Kibworth Gauge

²¹ EA (2026) River Welland level at Market Harborough. <https://check-for-flooding.service.gov.uk/station/6023>

These two increases in close succession reflect the river's cumulative response shortly after the intense two periods of rainfall experienced elsewhere within its catchment, as occurred across the neighbouring catchments. The peak occurred approximately 15 minutes after the reported flooding in Market Harborough Town Centre. Water levels remained above 76mAOD until shortly after 18:00 hours after which they began to decrease more rapidly.

2.5 FLOOD FOCUS AREA – TOWN CENTRE

This formal flood investigation focusses on the flooding incident that occurred in the Town Centre of Market Harborough, specifically around the lower extent of Leicester Road, High Street, Church Street, Church Square, The Square, Adam and Eve Street, St Mary's Road and Northampton Road, defined as the 'Flood Focus Area' illustrated within Figure 2-10.



Location Plan

Market Harborough town centre flooding
21st September 2024

NOT TO SCALE

Figure 2-10: Market Harborough Town Centre Flood Focus Area Location Plan

3 FLOOD INVESTIGATION – TOWN CENTRE

Market Harborough is situated within the south-eastern part of Leicestershire within Harborough District, approximately 24km southeast of Leicester City Centre.

3.1 LOCAL DRAINAGE CONTEXT

The River Welland, a designated Main River, situated immediately to the south of the flood focus area, flows in a northeasterly direction through Market Harborough Town Centre, as illustrated in Figure 3-1. The River Jordan, a tributary of the River Welland, also a Main River, flows in a northerly direction through Market Harborough discharging into the River Welland at their confluence close to Market Harborough railway station at OSNGR SP 74137 87301. The responsible agency for managing the risk from Main Rivers is the EA. Details relating to RMA responsibilities can be found within Section 1.3 and Section 4 of this report.

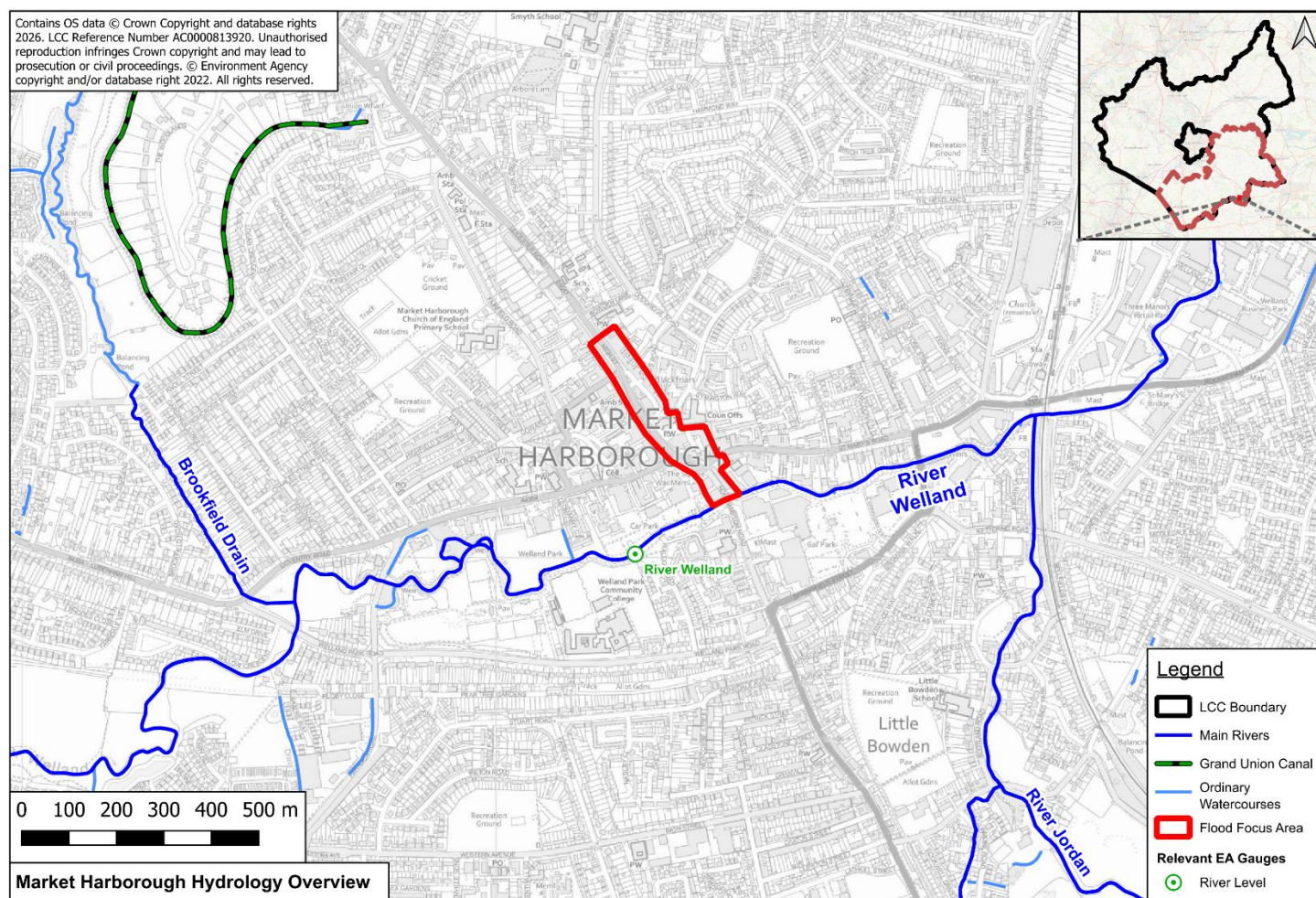


Figure 3-1: Hydrological Context - Location Plan of Key Watercourses in Market Harborough Town Centre

3.1.1 RIVER WELLAND

The River Welland originates approximately 100m north of Sibbertoft (a West Northamptonshire Parish) and meanders initially to the east of Market Harborough. It then continues to flow north-eastwards, through land to the north of Corby.

The UK Centre for Ecology & Hydrology's (UKCEH) Flood Estimate Handbook (FEH) Web Service²² provides strategic level catchment mapping for the River Welland and associated watercourses within its catchment area. The catchment area as far as its confluence with the River Jordan (at OSNGR SP 74000 87250) is 57.6km², as illustrated within Figure 3-2.

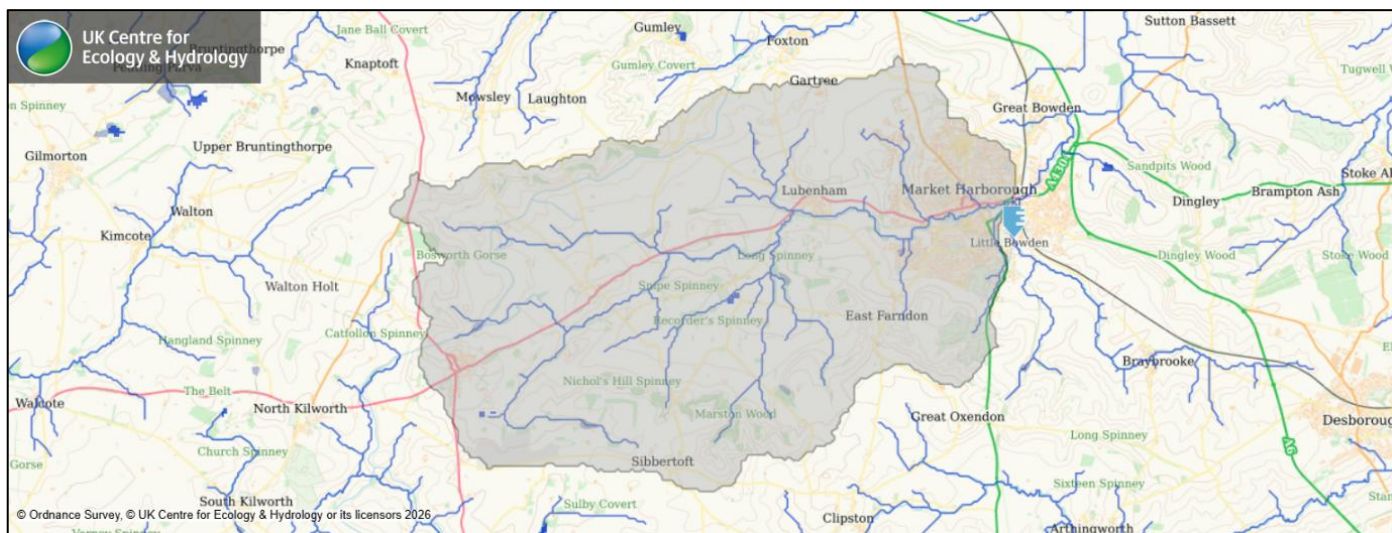


Figure 3-2: FEH Web Service Catchment Extents of the River Welland upstream of the River Jordan Confluence

This catchment area is made up of predominantly rural land with pockets of land used for agricultural purposes and small towns and villages. The Flood Focus Area in Market Harborough Town Centre is located within the intervening catchment area draining directly into the River Welland (as illustrated within Figure 2-7).

3.1.2 TOWN CENTRE SURFACE WATER CATCHMENT

The UKCEH FEH Web Service²² also defines a discreet urban surface water sub-catchment through the Flood Focus Area down to the River Welland at OSNGR SP 73450 87200) as 0.98 km² as illustrated within (Figure 3-3).

²² Centre for Ecology & Hydrology (2026) FEH Web Service <https://fehweb.ceh.ac.uk/Map>

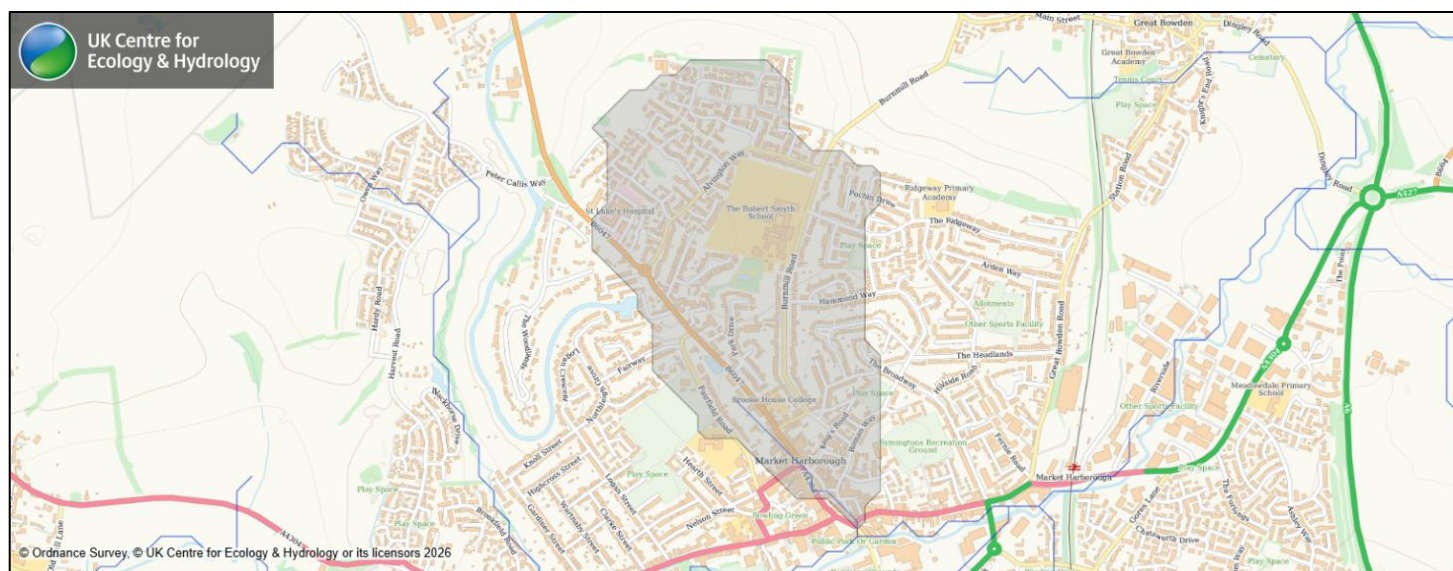


Figure 3-3: FEH Web Service Catchment Extents of the Town Centre Surface Water Catchment down to the River Welland at Northampton Road

The topography of the upper catchment is moderately sloped with levels falling sharply from 130mAOD at the catchment watershed north of the northerly extent of the Kingston Way development, down towards the Flood Focus Area which sits at the low point within the catchment. Ground elevations along Leicester Road, High Street, The Square and Northampton Road descend towards the River Welland's northern bank at approximately 77mAOD (see Figure 3-8).

At present, there are no defined ordinary watercourses within the Flood Focus Area that directly discharge into the River Welland. However, records indicate that an open channel stream historically flowed down the whole length of High Street and across the Square into the River Welland²³. Towards the end of the 17th century a small reservoir, known later as the Folly Pond, was built on the stream adjacent to the present-day Market Harborough Fire Station on Leicester Road (illustrated in Figure 3-4). This channel was subsequently culverted, becoming a surface water sewer and eventually transferring into the ownership of AW. It now forms a critical component of AW's surface water drainage infrastructure (described below) within the Flood Focus Area. The sewer ultimately discharges into the River Welland.

²³ J M Lee, R A McKinley, 'Market Harborough', in A History of the County of Leicestershire: Volume 5, Gartree Hundred (London, 1964), British History Online <https://www.british-history.ac.uk/vch/leics/vol5/pp133-153> [accessed 29 July 2026].



(Folly Pond circled in red)

Figure 3-4: Historic Mapping of Market Harborough (year 1900) illustrating the Folly Pond and River Welland²⁴

Surface Water Drainage Infrastructure

The Flood Focus Area is predominantly comprised of hard-standing surfaces and is served by a traditional underground piped surface water drainage network facilitating conveyance of runoff into the River Welland.

Having been incorporated into the drainage network, the historic culverted stream through the Town Centre now comprises an 800mm diameter (dia) brick sewer, which is owned and maintained by AW. This AW sewer continues down the High Street, reducing to a 600mm dia then splits into two runs; one 600mm dia proceeding across The Square and through the Memorial Gardens, and one 600mm dia running along The Square proceeding along Northampton Road where it increases to a 650mm dia.

Two unflapped surface water sewer outfalls from this AW drainage network serve the Flood Focus Area that discharge flows into the River Welland along its northern bank. One is located directly south of the Memorial Gardens, and the second is located on the eastern (downstream) side of the Northampton Road bridge.

Highway drainage gullies are generally assumed to connect to the main AW sewer network, although a full survey has not been undertaken by the LLFA.

²⁴ National Library of Scotland (2026) Ordnance Survey Map 1900, 25 inch to a mile. <https://maps.nls.uk/>

3.1.3 GEOLOGY

A review of geological and soil mapping information from BGS online mapping system²⁵ identified that the Flood Focus Area is dominated by the Mudstone Bedrock lithology, characterised by superficial deposits comprising alluvium consisting of clay, silt, sand and gravel associated with low to moderate permeability and restricted infiltration due to its clay-rich component.

The central region of the Flood Focus Area is characterised by loamy and clayey floodplain soils with naturally high groundwater levels. Similarly, the northern and southern extents of the Flood Focus Area are characterised by slowly permeable, seasonally wet, slightly acidic but base-rich loamy and clayey soils with impeded drainage. These soil types indicate generally low permeability and poor infiltration capability, yielding restricted drainage rates.

The large majority of the Town Centre Surface Water sub-catchment is predominantly paved (impermeable), resulting in limited interception by vegetation and very low infiltration of any rainfall to any underlying soil or geology, therefore producing a high rate of runoff.

3.1.4 HISTORIC FLOODING

Market Harborough Town Centre has an extensive history of flooding, with newspaper records of flooding dating back as far as 1852. Throughout the 19th and 20th centuries, there were so many instances of flooding within the Town Centre that in 1959, Councillor Reginald Crisp of the Market Harborough Urban Council stated in his annual report:

*“Wherever one travels about the country and Harborough is mentioned the response seems to be, ‘Ah, yes. How are the floods?’”*²⁶

In 1965, flooding in Market Harborough was discussed in Parliament, with the local Member of Parliament, Sir John Farr highlighting to Ministers the frequency of flooding in the town and requesting the delivery of much needed flood defence works:

*“...Market Harborough has been flooded more frequently in recent years than any other town in the country? Will he try to put a bit of urgency into these plans...?”*²⁷

By 1967, flood defence works had been delivered by the Welland and Nene River Authority (a predecessor to the EA) to better protect the town from flooding directly from the River Welland²⁸.

Whilst flooding to the Town Centre from the River Welland has been significantly mitigated by the works of 1967, surface water flooding from drains and sewers has persisted over the past 50 years reported in 1975, 1999, 2000, 2001, 2002, 2006, 2008, 2012 and 2013.

²⁵ BGS (2026) Geology Viewer. <https://geologyviewer.bgs.ac.uk/>

²⁶ ‘Harborough and the Floods... “Go Together Like Brazil and Nuts”’, Leicester Evening Mail (Leicester, 28 May 1959), p. 7, quoting R. L. D. Crisp’s annual report.

²⁷ UK Parliament (1965) Flood Defences, Market Harborough - Volume 706: debated on Wednesday 10 February 1965. <https://hansard.parliament.uk/commons/1965-02-10/debates/d2175e85-c158-4385-b4f0-6317ff40dc4d/FloodDefencesMarketHarborough>

²⁸ Welland Rivers Trust (2013) Welland for People and Wildlife: Final Report. Available at: https://pa2.harborough.gov.uk/online-applications/files/41EDB8DB01E245C29FC9F36A46CCC4CD/pdf/13_01386_FUL-WELLAND FOR PEOPLE AND WILDLIFE FINAL REPORT-442429.pdf



Figure 3-5: Market Harborough Town Centre flooding of July 1958 as featured within the Market Harborough Advertiser & Midland Mail

Following the significant flooding event of 27th July 2013, the LLFA deemed it necessary to complete a formal flood investigation. There was widespread flooding in the Town Centre where over 50 properties were affected. The report concluded:

"The flooding that occurred within Market Harborough town centre is a result of the intense rainfall that fell over a short period of time. Existing drainage systems were unable to cope with the deluge of water, causing the water to surcharge out of road drains and manholes. This resulted in sewer and surface water flowing into low lying areas around the square and adjacent roads, subsequently flooding properties.

In the event of drainage system being overwhelmed, there are only a small number of properties on Coventry Road that have been fitted with a property level protection system.

The River Welland was not the source of the flooding within the town centre, and it also considered not to have restricted any sewer outfall as it remained relatively low during the entire incident."

The report can be found on the LCC website²⁹.

²⁹ Leicestershire County Council (201) Market Harborough Town Centre Flood Report. Available at: <https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2019/2/11/market-harborough-town-centre-flood-report.pdf>

3.1.5 EXISTING FLOOD RISK MANAGEMENT

Flood Defences

In 1967, a series of raised flood defences were constructed by the Welland and Nene River Authority between Welland Park and the Garden of Remembrance to protect the Town Centre from the risk of fluvial flooding from the River Welland. Photograph 3-1 depicts the section of flood wall in The Commons car park extending along the northern bank of the river (EA Asset Information Management System (AIMS) ref: 132744, crest level 77.77 mAOOD). These are currently owned and maintained by HDC.



Photograph 3-1: Raised Flood Defence in The Commons car park, Market Harborough Town Centre (7th July 2026)

AW Attenuation Tank and Flood Mitigation Works

In 2005, AW installed a surface water attenuation tank with a capacity of 2,000m³ under The Commons Car Park, close to the River Welland. This serves the AW surface water sewer network sub-catchment west of The Square draining down to and along Coventry Road. When the capacity of the Coventry Road sewer is exceeded, flows overtop a weir within a manhole and are then directed into the attenuation tank via a 450mm diameter relief sewer. This is pumped and discharges southwards via a 1.2m dia outfall into the River Welland south of The Commons Car Park between the public conveniences building and the pedestrian bridge. At the time of construction, the tank was designed to provide a 1 in 30-year (33% chance in any given year) standard of protection (SoP).

Following the further significant flooding event in the Town Centre in July 2013²⁹, in 2014, further works were undertaken by AW to increase the capacity of the surface water sewer on Coventry Road to bring this up to a 1 in 30-year SoP. Water companies typically design surface water sewer networks to a 1 in 30-year SoP against flooding to establish a cost-effective, practical balance between flood prevention and infrastructure economics. This standard serves as the baseline requirement for adoptable pipe networks under water industry regulations.

3.2 NATIONAL SCALE PREDICTIVE FLOOD MAPPING

3.2.1 REVIEW OF FLOOD MAP FOR PLANNING FLOOD ZONE MAPPING (FLUVIAL)

A review was made of the EA NaFRA2 Flood Map for Planning Flood Zone map³⁰ as illustrated in Figure 3-6 (available online³¹). This defines modelled flood outlines ignoring the presence of formal flood defences and includes selected historical event outlines. For more details, please see the Defra website³². This identifies that the lower extent of the Flood Focus Area (south of Talbot Yard and Church Square down to the River Welland) is located within the Flood Zone 2 being at medium risk of flooding³³ associated with the River Welland.

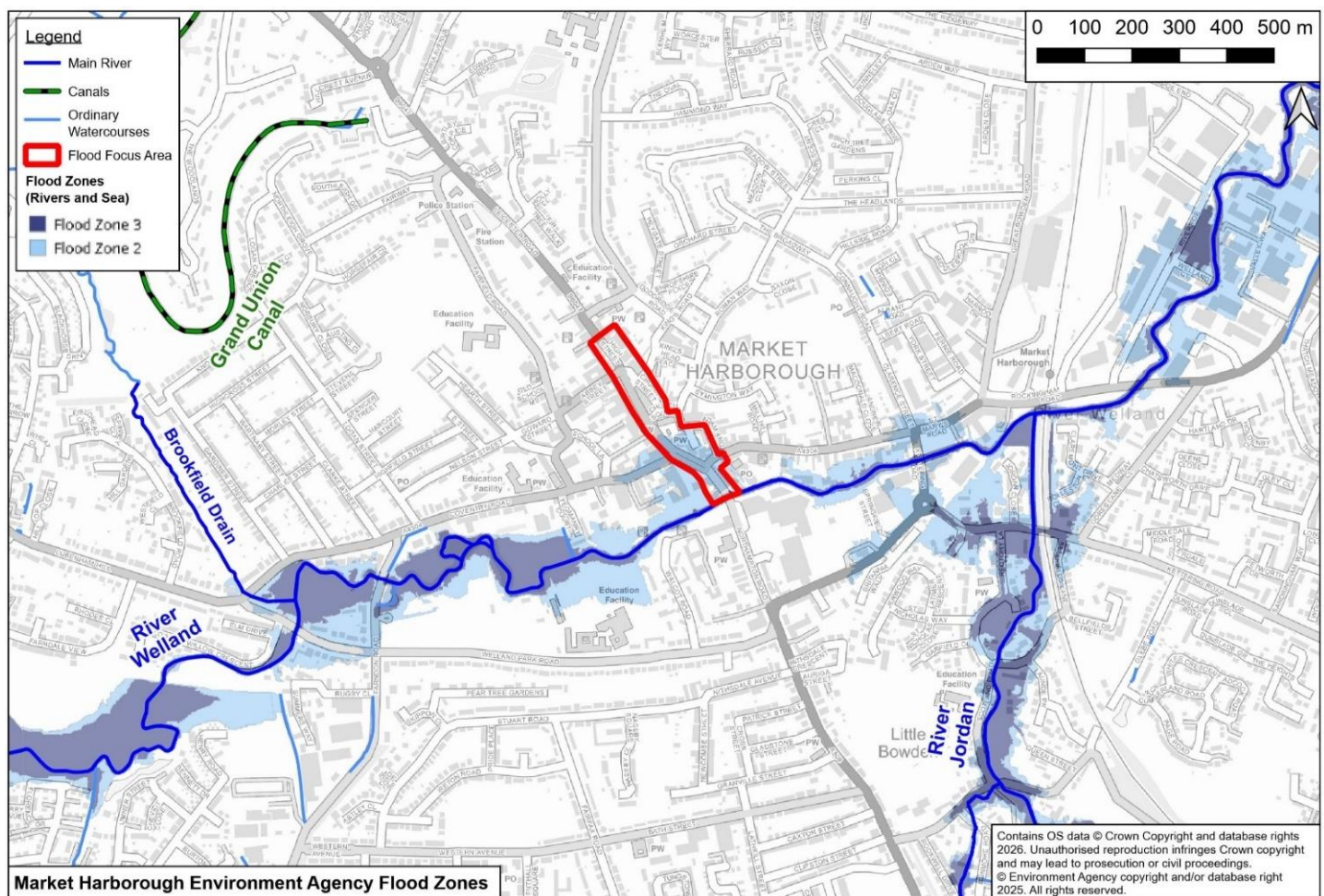


Figure 3-6: EA Flood Map for Planning Flood Extents in Flood Focus Area

³⁰ Flood Zones are a composite dataset produced by the EA including national and local modelled data, and information from past floods. The Flood Zones data shows the extent of land at present day risk of flooding from rivers and the sea, ignoring the benefits of flood defences.

³¹ Environment Agency (2026) Flood Map for Planning Flood Zones. <https://flood-map-for-planning.service.gov.uk/map>, Gov.UK

³² Defra (2025) Flood Map for Planning - Flood Zones. <https://environment.data.gov.uk/dataset/04532375-a198-476e-985e-0579a0a11b47>

³³ Flood Zone 2 is defined as land having between a 1 in 100 (1%) and 1 in 1000 (0.1%) annual probability of river flooding; or land having between a 1 in 200 (0.5%) and 1 in 1000 (0.1%) annual probability of sea flooding, and accepted recorded flood outlines.

3.2.2 REVIEW OF RISK OF FLOODING FROM SURFACE WATER MAPPING (PLUVIAL)

In the absence of smaller watercourse modelling, surface water flood models are often good indicators of flood extents for pluvial overland flows, as they take into account rapid runoff from non-river sources (such as roads, fields etc.) which are highly responsive.

A subsequent review was made of the EA NaFRA2 Risk of Flooding from Surface Water (RoFSW) maps illustrated in Figure 3-7 (available online³⁴). For more details, please see the Defra website³⁵. This identifies that large areas of the Flood Focus Area are at predominantly high risk of surface water flooding³⁶ originating within the Town Centre surface water catchment area. This depicts three key incoming flow routes to the Flood Focus Area; one along High Street (south of Bowden Lane), and two others from connecting streets to the east and west, Roman Way and Coventry Road respectively.

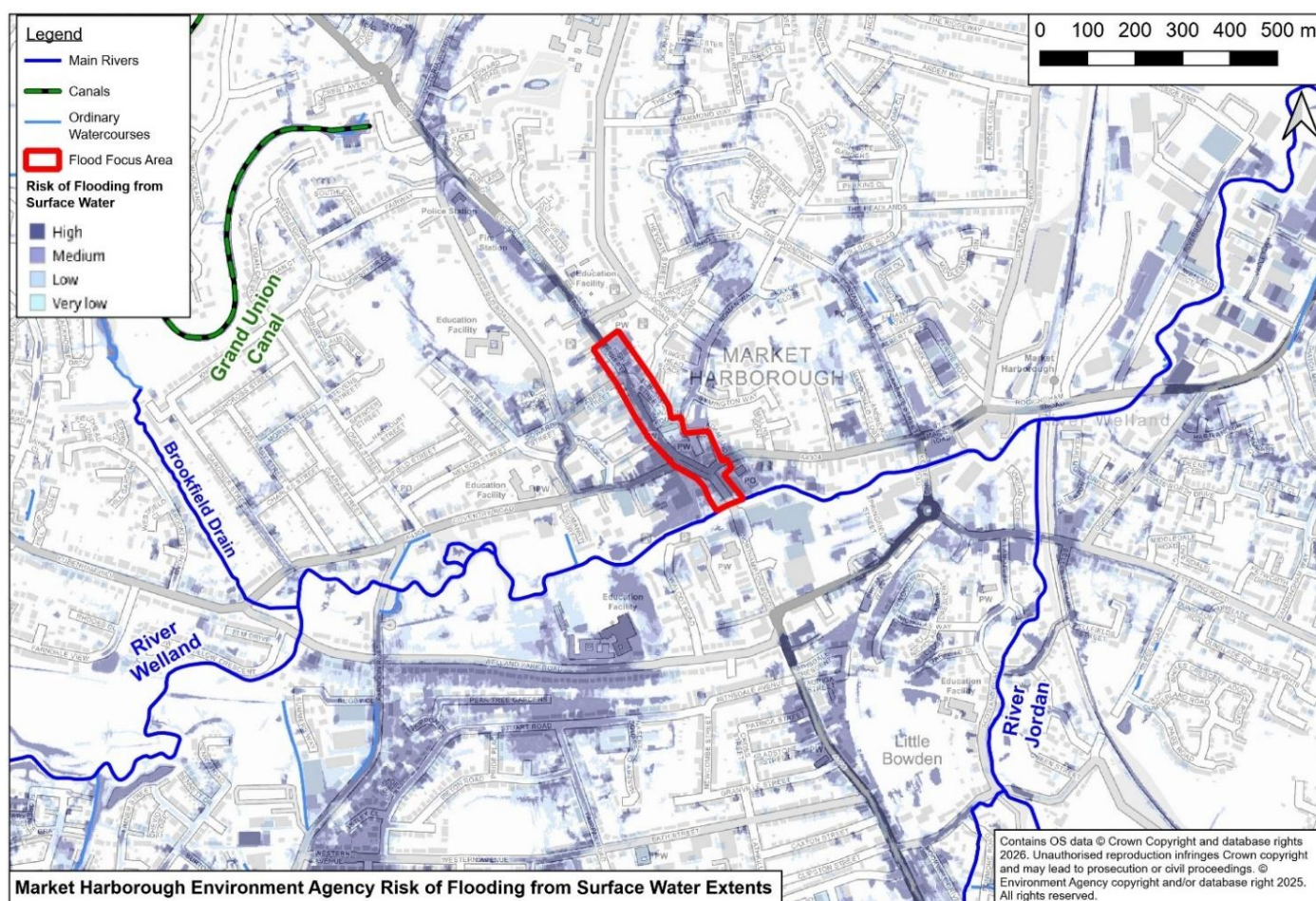


Figure 3-7: EA Risk of Flooding from Surface Water Extents in the Flood Focus Area

³⁴ Environment Agency (2026) Check your long-term flood risk – Risk of Flooding from Surface Water. <https://check-long-term-flood-risk.service.gov.uk/map>, Gov.UK

³⁵ Defra (2025) Risk of Flooding from Surface Water. <https://environment.data.gov.uk/dataset/b5aaa28d-6eb9-460e-8d6f-43caa71fbe0e>

³⁶ This data has been created using high level modelling which represents where water could flow and accumulate when rainwater does not drain away through the normal drainage systems or soak into the ground, but ponds or flows over the ground instead. Average losses due to drainage systems are represented. The modelling does not however consider property threshold levels and does not necessarily represent all the potential scenarios, conditions of defence infrastructure, detailed landscaping or limitations in drainage infrastructure. The map is a probabilistic product, meaning that it shows the overall risk, rather than the risk associated with a specific event or scenario, and illustrates the risks as one of three likelihood bandings.

- High risk - greater than or equal to 1 in 30 (3.3%) chance of flooding in each year;
- Medium risk – less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) chance of flooding in each year; and
- Low risk – less than 1 in 100 (1%) but greater than or equal to 1 in 1000 (0.1%) chance of flooding in each year.

3.3 WHAT HAPPENED AND WHY?

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 businesses collected after the event as described in Section 3.4.

3.3.1 FLOOD FOCUS AREA

On the 21st of September 2024, reports from businesses and the public indicated that the storm event was short and flashy and that between 17:40 and 18:00 hours BST (between 16:40 and 17:00 hours GMT), flooding occurred along Leicester Road, High Street, Church Street, Church Square, The Square, Adam and Eve Street, St. Mary's Road and Northampton Road.

Light Detection and Ranging (LiDAR) surveys use a laser to measure the distance between a survey aircraft and the ground surface. A review was made of LiDAR mapping which identified that the Focus Flood Area, as illustrated in Figure 3-8, lies at the lower ground levels of three converging valleys sloping southwards towards the River Welland. Due to the steep topography and predominantly impermeable land use, high rainfall intensity and volume of overland flow, surface water flow routes were observed to follow these lowest ground elevations, as indicated by the purple arrows within Figure 3-8.

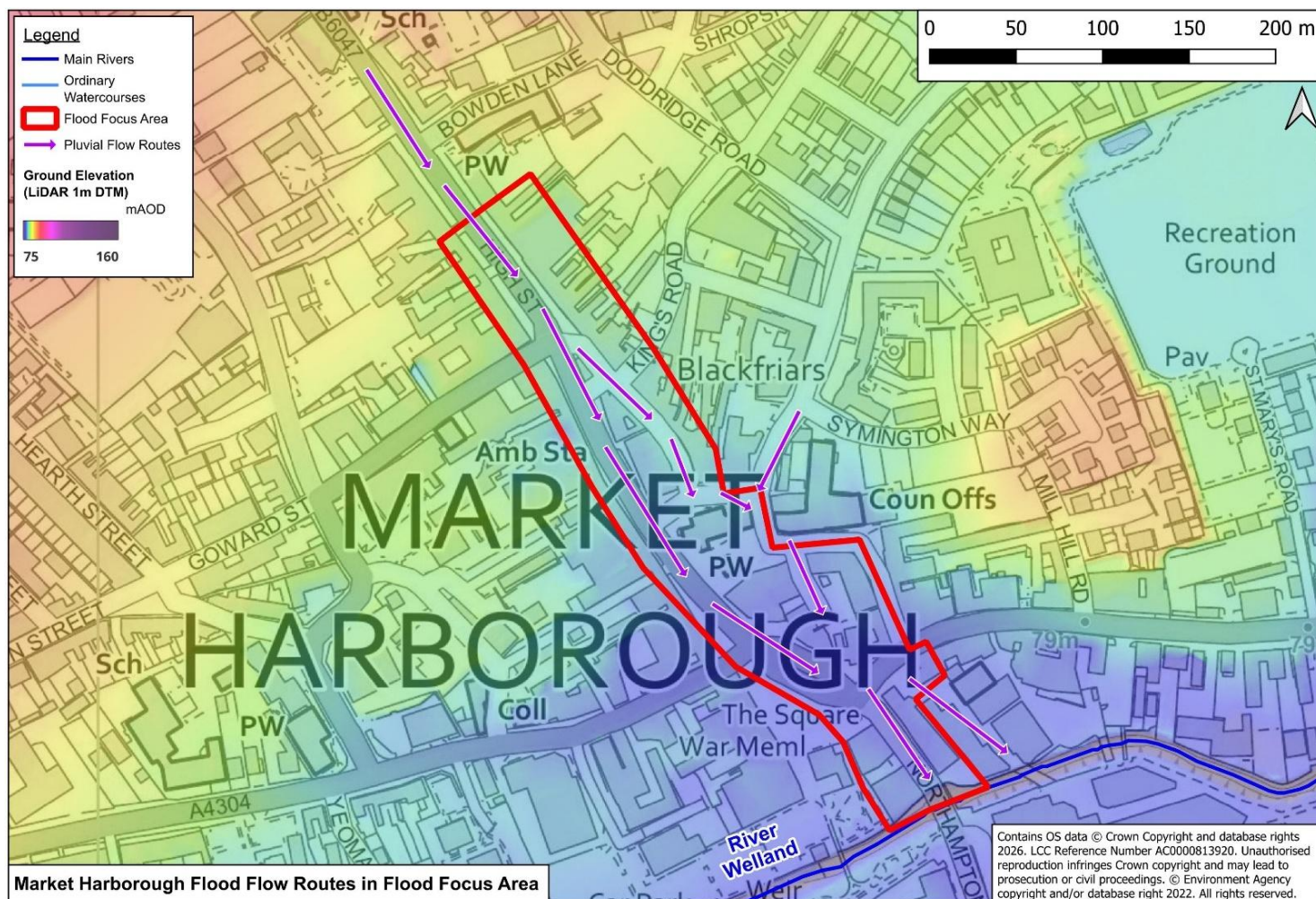


Figure 3-8: Flood Focus Area Ground Elevations and Observed Surface Water Flow Routes

These coincided with the areas identified as being at high risk of surface water flooding within the EA RoFSW map (Figure 3-7). Significant surface water flows were reported flowing along on Burnmill Road and Bowden Lane, which converged on the lower region of Leicester Road and proceeded along High Street, Church Street, Church Square, Adam and Eve Street, The Square (Photograph 3-2), St. Mary's Road and Northampton Road (Photograph 3-3). These flows were observed to have overwhelmed the surface water drainage network serving the area and the additional runoff, unable to get into the network, accumulated at the surface.



Photograph 3-2: Flooding across The Square viewed from High Street³⁷



Photograph 3-3: Flooding along Northampton Road³⁸

Due to the commercial nature of the Town Centre and the short and flashy nature of the event, the roads remained open and many vehicles continued to use them, as illustrated in video footage taken during the event³⁹ & ⁴⁰. This inadvertently resulted in the formation of bow waves as vehicles passed through flood water as depicted in Photograph 3-4. The internal flooding to some commercial properties with low thresholds compared to the external ground levels was described to have been exacerbated by these bow waves.

Floodwater reached such depths (reportedly up to 300mm) that it overtopped kerb thresholds and inundated multiple commercial properties adjacent to the footways within the Flood Focus Area as depicted in Photograph 3-5. Reports to LCC described internal flood depths to commercial properties ranging from just inside the entrance, to '*damp carpet*', '*ankle deep*' and '*reaching skirting boards*'.

³⁷ Harborough FM News (September 2024) Clean Up After Flash Flood in Market Harborough. <https://harboroughfm.co.uk/clean-up-after-flash-flood-in-market-harborough/>

³⁸ Harborough FM News (September 2024) Deluge Causes Flash Floods. <https://harboroughfm.co.uk/deluge-causes-flash-floods-sep2024/>

³⁹ Kerry Simon Back (2024) Flooding in Market Harborough this afternoon. <https://www.facebook.com/reel/1714601232647929>

⁴⁰ Daily Motion (2024) Floods in Harborough 2024. <https://www.dailymotion.com/video/x966eu2>



Photograph 3-4: Bow Waves in floodwater from cars moving through The Square⁴⁰



Photograph 3-5: Flooding along High Street at 17:54 hours BST

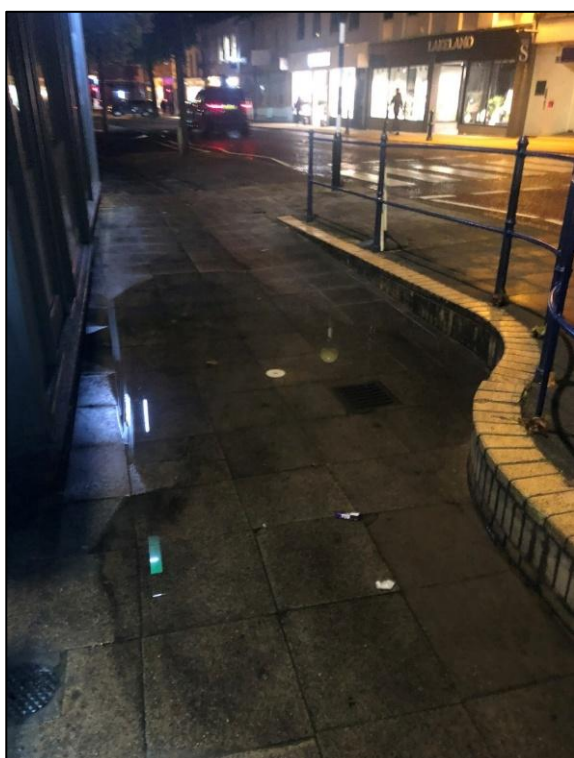
Several commercial properties were internally flooded more significantly as a result of limited capacity of private building drainage amenities, including overwhelmed property threshold linear channel drains and instances of rainwater seeping through the roofs of some premises.

Effectiveness of Drainage Infrastructure

It was reported anecdotally that the AW manhole at the junction of Leicester Road and Great Bowden Lane was surcharging during the flood event, as well as a manhole on Burnmill Road on approach to the Flood Focus Area. A surcharging manhole occurs when the system could not cope with the intensity of rainfall as either the design capacity of the sewer is exceeded, or a downstream blockage is restricting flows. Following post-flood event investigations by AW (see Sections 3.4 and 3.5), no blockages were identified in the main sewer along the High Street and therefore it can be concluded that the design capacity was likely exceeded.

AW also confirmed that both the surface water attenuation tank and surface water sewer network were working as they were intended. Following investigations undertaken by AW, debris accumulation on the trash screen at the outfall from the Folly Pond was removed and some minor tree roots were removed from a 150mm dia AW surface water sewer beneath Bowden Lane. However, these were not considered to have been the primary causes of or exacerbated any flooding as any reduction in the cross-sectional capacity of this relatively minor sewer was very limited.

Once the intense rainfall has ceased, the surface water drainage infrastructure was described to gradually drain the flood water away. Several reports however were received by LCC of blocked drains and gullies, which were preventing residual puddles of flood water from draining away from the surface as depicted in Photograph 3-6 and Photograph 3-7.



Photograph 3-6: Ponded floodwater along High Street looking southwards at junction with Church Square at 20:30 hours BST



Photograph 3-7: Ponded floodwater along High Street looking northwards at junction with Church Square at 20:30 hours BST

Typically, road drainage networks are designed to accommodate limited rainfall events on the contributing area of highway itself, but not for any additional volumes of overland flow originating from land adjacent to the highways. When gullies are reportedly blocked, it can appear that this was the initial cause of the flooding. However, this is generally not the case. As floodwater recedes into the drainage system it can naturally draw in flood debris and sludge into them, particularly around gully grates. LCC is not aware of any blockages before the flood event. Following reports and subsequent site investigations by LCC Highways, it is likely therefore that the gullies identified became partially obstructed with silt and debris during the flood event.

It is assumed pending further investigation that the highway drainage gullies within the Flood Focus Area are hydraulically connected to the AW surface water sewers. The ability of this drainage network to drain surface water away from the highway was likely significantly reduced due to the AW sewers having no spare capacity to receive additional flows, rather than a result of any maintenance or blockage issues.

Influence of Raised River Welland Water Levels

Water levels alongside the Flood Focus Area were not observed to have exceeded the River Welland channel capacity, nor therefore did river flows overtop northern bank defence levels into the Flood Focus Area. This is corroborated by the fact the peak water level observed at the River Welland gauge of 76.28mAOD is lower than the defence crest level of 77.77mAOD at The Commons Car Park. The cause of the flooding was subsequently concluded not to be river flooding (fluvial).

The localised intense rainfall and resultant surface water contribution from the Market Harborough Town Centre sub-catchment area was not the primary cause of the river levels rising in the Welland; that was a result of cumulative rainfall upstream within its larger catchment with a slower response.

The EA River Welland gauge is located approximately 200m upstream of the Northampton Road Bridge, as illustrated in Figure 3-1. There are no further gauges downstream alongside the two sewer outfalls within the Flood Focus Area (or near the pumped outfall from the AW attenuation tank alongside The Commons Car Park). However, the watercourse is relatively flat through this 200m reach, so a reasonable comparison can be made to determine if raised water levels impacted the ability of the sewer outfalls to discharge.

As illustrated in Figure 2-9, after 16:30 hours GMT, the river water levels exceeded 75.79mAOD rising sharply to the peak of 76.28mAOD at 17:15 hours GMT. These raised water levels coincided with the flooding observed between 16:40 hours and 17:00 hours GMT (17:40 to 18:00 BST) within the Flood Focus Area.

Although the invert levels (IL) of the two key AW surface water sewer outfalls into the River Welland are unknown, the ILs of several manholes (MH) along the sewers connecting to them upstream in the network are in fact below these raised water levels (e.g. MH4164 next to the War Memorial with IL 75.12mAOD and MH4163 on Northampton Road with IL 74.97mAOD). AW confirm these sewers do have a gradient down from these MH chambers towards these unflapped outfalls. As these two sewers are 600mm dia and 650mm dia respectively, the entire cross-sectional area of their outfalls shortly downstream would therefore have been fully submerged during the entire flood event. In light of the above, it is reasonable to assume that these raised river levels therefore restricted the drainage network's ability to discharge flows away from the area effectively.

Subsequently, it is concluded that the AW sewers became overwhelmed. The volume of surface water runoff not only exceeded the conveyance capacity of the highway gully inlets, but exceeded the available spare capacity inside the pipe network and surcharged back out from gully inlets and manholes onto the roads.

In contrast, the IL of the 1.2m dia pumped outfall into the River Welland from the AW Attenuation Tank south of The Commons Car Park (see Section 3.1.5) is 75.57m AOD. A peak water level of 76.28m AOD would not therefore have fully submerged this outfall soffit. No reports were received of this, nor of the connecting sewers upstream of the tank surcharging onto The Square. AW confirmed that the pumping station ran at this site for 24 hours per day from the 21st to 24th of September. It is therefore concluded that this asset did not contribute towards nor exacerbate the flooding situation.

Photograph 3-8 below depicts the condition of the River Welland viewed upstream towards Northampton Road bridge at 20:30 hours on the 21st of September, evidencing that its raised water level had subsided in the vicinity of the key sewer outfalls by this time.



Photograph 3-8: River Welland viewed upstream towards Northampton Road bridge at 20:30 hours BST

3.3.2 SUMMARY OF IMPACTS

WHO OR WHAT WAS AFFECTED?



37 properties reported as internally flooded



0 properties reported as externally flooded

The result of the combination of factors described above resulted in reports of internal flooding to 37 commercial properties situated along High Street, Church Square, Church Street, The Square, Adam & Eve Street, St Marys Place, and Northampton Road on 21st September. No additional properties were reported as having been flooded solely externally within the Flood Focus Area.

The flooding had a significant effect on the local economy. Several commercial premises experienced temporary closure or disruption to trading, including shops, restaurants and service businesses. Two restaurants reported cancelling bookings during the peak Saturday evening trading, while other businesses closed for all or part of the weekend to undertake clean-up activities.

Damages included loss of stock, electrical equipment, carpets, flooring, plasterwork and internal fixtures, with many premises requiring dehumidifiers and ongoing drying works. In some cases, flood water affected electrical systems, alarms and IT equipment, resulting in additional repair costs and operational disruption. However, many businesses were able to remain open or reopen quickly due to flood resilient features such as solid tiled floors and prompt clean-up measures.

3.4 WHAT HAS BEEN DONE?

A summary table of the actions undertaken by the relevant RMAs across Market Harborough any relevant next steps is provided in Section 3.5 of this report.

In the immediate hours and days after the flooding event, LCC Highways attended the locations of several reported blocked drainage and gullies, which were preventing residual puddles of flood water from draining away from the surface. A reactive cleanse of all LCC Highway gullies was also undertaken following the flood event.

On 25th and 26th September, the LLFA undertook a data gathering exercise in the Town Centre. This involved visiting the commercial premises along High Street and surrounding roads to understand the extent and impacts of the flooding and provide advice and support where possible.

Since the flood event, AW have supported with an extensive survey of their existing surface water network from the Folly Pond down to the two outfalls into the River Welland. AW confirmed that the main sewer run from the Folly Pond to the outfall is free of silt. As described in Section 3.3.1, some minor maintenance requirements were found including debris accumulation on the trash screen at the outfall from the Folly Pond and some root

ingress on a smaller 150mm dia sewer on Bowden Lane which has been fully removed. AW continue to undertake 'planned preventative maintenance' operations which they undertake throughout Market Harborough.

In addition, local community group Harborough Woodland independently collated data that they had received and offered advice and support to flood victims.

RMAs continue to meet regularly as part of the Market Harborough Surface Water Management Group.

Whilst the actions from this investigation will help to reduce flood risk, communities should also take steps to be prepared for future flooding, especially with climate change increasing the risk of occurrence. More information can be found in Section 4 of this report.

3.5 MARKET HARBOROUGH TOWN ACTIONS / RECOMENDATIONS

Summary tables of the actions and any relevant next steps specific to the Flood Focus Area in Market Harborough Town Centre are provided below in Sections 3.5.1, 3.5.2 and 3.5.3.

Whilst the actions from this investigation will help to reduce flood risk, communities should also take steps to be prepared for future flooding, especially with climate change increasing the risk of occurrence. More information can be found in Section 4.7 of this report

3.5.1 SHORT-TERM ACTIONS (0 - 6 MONTHS)

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Survey and Assets Cleanse	Survey and cleanse all assets (where required) from the Folly Pond down to the River Welland outfall, including Church Lane and Bowden Lane. • Determine whether any jetting of sewers is required. • Cross reference survey findings against existing mapping and update where necessary.	AW	Complete and Ongoing Survey work completed, where required. Mapping has been updated, Some root ingress and silt accumulation has been removed. AW to continue to carry out planned preventative maintenance throughout Market Harborough on 6 monthly, yearly or 18 monthly cycles, as appropriate, based on risk identified within their network.
Reactive Cleanse of all Highway Assets	Undertake reactive cleanse of highway drainage assets in the Town Centre. This included gullies and channel drainage.	LHA	Complete Immediate cleanse was undertaken where required.

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Investigate Flow Connection from the Grand Union Canal	Understand whether there is any interaction with flows from the Grand Union Canal.	LLFA / CRT	Complete Meeting held with CRT on 12th November 2024. Grand Union Canal has no connectivity with the Town Centre or any other surface water drainage system within Market Harborough. There are outfalls into the River Welland catchment, but these will not have any impact on the surface water flash flooding of the Town Centre.
Data Gathering	Door-to-door knocking in Market Harborough Town Centre to gain a complete understanding of the extent and depth of the flooding and the properties impacted.	LLFA	Complete Town Centre premises visited on 25th and 26th September 2024.

3.5.2 MEDIUM-TERM ACTIONS (6 - 12 MONTHS)

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Understand whether the Folly Pond has any flood risk management function	Understand whether the Folly Pond has any flood risk management function.	LLFA / AW	Complete and ongoing Confirmed that a flow control is installed and that this is an AW asset. An assessment into whether the Folly Pond is being fully utilised will be incorporated into a long-term action relating to additional storage.
Review Priority status of highway drainage assets	Review Priority status of cleansing frequencies of highway drainage assets.	LHA	Complete All drainage assets in flood affected area were classified as P1 (cleansed every 10 months) at the time of the flooding incident and this has continued.

3.5.3 LONG-TERM ACTIONS (12 MONTHS +)

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Check for additional flood storage and Review of Surface Water Management Plan (SWMP)	Explore whether there is scope for additional flood storage in Market Harborough Town Centre. Review Market Harborough Surface Water Management Plan (SWMP). LLFA, AW and local community groups to work in partnership.	LLFA / AW	Ongoing To continue on from SWMP.
Engagement with Shop owners about flood resilience	Engagement with shop owners about flood resilience. Encourage flood resilient design and resilience measures.	LLFA / LRF	May 2026 - The LLFA is exploring funding options for property level resilience on the High Street and residential properties in Market Harborough at risk of surface water flooding.
Support plans for a Market Harborough Flood Action Group	To support with greater resilience for the town centre and surrounding catchments, support local community groups with the establishing of the Market Harborough Flood Action Group working alongside Neighbourhood Forums and Harborough Woodland.	LLFA / LRF	Market Harborough FLAG was established in 2025.
Asset Investigation	Highway asset CCTV and investigation – Develop a plan for improving understanding of Highways asset connectivity.	LCC LHA	Some operational issues identified on several localised assets which have been repaired in 2026.

4 RESPONSIBILITIES

For more information on roles and responsibilities, please refer to the LFRMS.

4.1 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. As stated previously, the Council has a duty to investigate flood incidents under Section 19 of the FWMA. Publication of this report is the conclusion of that process.

The Council 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. 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.

The FWMA does not provide the Council with a mandate or funding to tackle all identified causes of flooding, however, it can make recommendations to mitigate flood risk as far as possible. 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.

General flooding related information and advice including how to report a flood is provided at: <https://www.leicestershire.gov.uk/environment-and-planning/flooding-and-drainage>

The LLFA can be contacted directly via email at flooding@leics.gov.uk.

4.2 LOCAL HIGHWAY AUTHORITY (LCC)

LCC LHA has a duty to maintain the Highway under Section 41 of the Highways Act (1980). Section 100 states that the Council also has the responsibility to maintain a safe and reliable local highway network, including provision for highway drainage, and has power to prevent water running onto the highway from adjoining land.

4.3 HARBOROUGH DISTRICT COUNCIL

Harborough District Council (HDC) have limited permissive powers under the Land Drainage Act (1991) in relation to ordinary watercourses (excluding Main Rivers). In particular, Section 14 of the Act provides a power - but not a duty - to undertake land drainage or flood risk management works where the chooses to do so. Section 20 of the Act further allows HDC, by agreement and at another party's expense, to carry out drainage works which that party is otherwise entitled to undertake. The existence of these permissive powers should not be interpreted as an obligation on the Council to act, nor as an acceptance of responsibility for private drainage systems or watercourses.

Businesses and residents can contact HDC's Climate Impact Officer via email at flooding@harborough.gov.uk to access additional advice, support and signposting on flood resilience, community preparedness and wider flood-related initiatives across the district.

4.4 WATER COMPANY (ANGLIAN 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.

4.5 ENVIRONMENT AGENCY (EA)

The EA, under the FWMA holds strategic oversight for managing flood risk from main rivers, the sea and reservoirs. Its duties include providing flood warnings, operating and maintaining flood defences, supporting planning, and coordinating national flood risk management activities.

In addition to these statutory responsibilities, the EA has permissive powers under the Water Resources Act (WRA) 1991 to undertake maintenance and improvement works on Main Rivers. Main Rivers comprise all watercourses identified on the statutory Main River maps⁴¹ maintained by the EA and Defra, including any structures or appliances used to control or regulate water flow into, within, or out of the channel.

These permissive powers enable the EA to carry out works that reduce flood risk in circumstances where riparian landowners have not fulfilled their obligations under the WRA. The EA may also undertake enforcement action where third-party asset owners fail to maintain their land or structures to an appropriate standard. Where it is necessary to safeguard the public interest and no suitable alternative options exist, the EA may elect to undertake maintenance or repairs to third-party assets.

⁴¹ Statutory Main River Map <https://environment.data.gov.uk/explore/25dde009-ba7d-40de-8380-c5c3bb32ccdc?download=true>

4.6 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.

All riparian landowners have the same rights and responsibilities. However, a landowner has no duty in common law to improve the drainage capacity of watercourse he/she owns.

These rights and responsibilities do not apply to canals. A full explanation of the rights, roles and responsibilities of riparian ownership are given on the 'Owning a Watercourse' government webpage found at:

<https://www.gov.uk/guidance/owning-a-watercourse>

The EA provides further guidance on the riparian landowner rights, roles and responsibilities specifically for Main Rivers at:

<https://engageenvironmentagency.uk.engagementhq.com/your-watercourse-rights-and-roles>

4.7 PROPERTY OWNERS & COMMUNITY ACTION

Local residents and tenants who are aware that they are at risk of flooding should take action to ensure that their properties are protected or to reduce the impact of future flooding. Actions taken now can reduce the negative impact of an event and the time taken to get back to normal.

Community resilience is important in providing information and support to each other if flooding is anticipated. Actions taken can include:

- signing up to flood alerts and warnings⁴² (where available);
- nominating a community flood warden;
- producing a community flood plan⁴³;
- reporting issues with flood risk assets;
- implementing property level protection/flood resilience and;
- moving valuable items to higher ground.

⁴² Gov.uk (2025) Sign up for flood warnings. <https://www.gov.uk/get-flood-warnings>

⁴³ Gov.uk (2023) Community flood plan guidance.

<https://www.gov.uk/government/publications/community-flood-plan-template/community-flood-plan>

More permanent measures are also possible such as;

- installing floodgates;
- raising electrical sockets; and
- fitting non-return valves on pipes.

More information on flood resilience can be found at the LRF website⁴⁴. Flood Mary can also provide useful hints and tips on how to prepare for and recover from a flood event⁴⁵. More information and advice on what to do to prepare for potential floods, and what to do during and after a flood can be found on the LCC website⁴⁶.

4.8 PARISH COUNCILS AND FLOOD ACTION GROUPS

Parish Councils and Flood Action Groups (FLAGs) can play an important non-statutory role. By working collaboratively with RMAs they can:

- create positive links which means that communities know the right people and organisations to talk to if there is an issue or idea;
- share local flood knowledge by collating and reporting flood information;
- disseminate updates;
- encourage flood preparedness and develop community response plans – help the community be prepared for flooding, act quickly during a flood and to recover quickly after a flood; and
- find funding opportunities – if a group is constituted it may be able to access funding.

At the time of publication of this report, a FLAG exists for Market Harborough supported by a team of Flood Wardens (see Section 4.9 below) The group is actively supporting local flood resilience and community engagement activities. More information can be found at their Facebook page:

<https://www.facebook.com/groups/610736684935784/about>.

⁴⁴ Local Resilience Forum (2026) <https://www.lrrresilienceforum.org.uk/prepare-yourself/flooding>

⁴⁵ Flood Mary (2026) <https://floodmary.com/>

⁴⁶ Leicestershire County Council (2026) Flooding and Drainage <https://www.leicestershire.gov.uk/environment-and-planning/flooding-and-drainage>

4.9 FLOOD WARDENS

Flood Wardens are trusted local volunteers who play a key role in helping communities prepare for, and respond to, flooding. The role is non-operational and focuses on awareness, communication and community resilience, rather than physical flood response. Flood Wardens should never enter flood water. Volunteer Flood Wardens may:

- act as a local point of contact for flood information in your community;
- help share official warnings and advice from organisations such as the EA and LCC;
- support residents to understand flood risk; and
- support community recovery following flooding, where appropriate.
- inspect and report operation issues with local flood risk management infrastructure such as highway gullies, trash screens and culverts.

Further information, including how to become a Flood Warden, is available on the LRF website⁴⁷.

⁴⁷ LRF (2026) Volunteering – Become a Flood Warden. <https://www.llrresilienceforum.org.uk/prepare-your-community/volunteering>

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.

The Council does not accept any liability for the use of this report or its contents by any third party.

GLOSSARY

Acronyms / Term	Definition
AIMS	Asset Information Management System (EA)
AW	Anglian Water
BGS	British Geology Society
BST	British Summer Time (GMT+1.00 hour)
CRT	Canal and River Trust
EA	Environment Agency
FEH	Flood Estimation Handbook
FLAG	Flood Action Group
FWMA	Flood and Water Management Act 2010
GMT	Greenwich Mean Time
HDC	Harborough District Council
IDB	Internal Drainage Board
LCC	Leicestershire County Council
LDA	Land Drainage Act 1991
LHA	Local Highways Authority
LLFA	Lead Local Flood Authority
LRF	Local Resilience Forum
Main River	Those watercourses for which the EA is the relevant RMA
Ordinary Watercourse	Any river, stream, ditch, drain, culvert, or pipe that transports water and is not designated as a "Main River" on the EA's map. Regulated by LLFAs or IDBs
OSNGR	Ordnance Survey National Grid Reference
RFCC	Regional Flood and Coastal Committee
RMA	Risk Management Authority
RoFRS	Risk of Flooding from Rivers and the Sea (EA)
RoFSW	Risk of Flooding from Surface Water mapping (EA)
S19	FWMA Section 19 report
The Council	Leicestershire County Council
UKCEH	UK Centre for Ecology & Hydrology