Flood Investigation Report

Storm Henk

2nd January 2024

Quorn

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9 QUORN

Quorn village is situated within the northern part of Leicestershire within Charnwood Borough, approximately 2km southeast of Loughborough.

9.1 LOCAL DRAINAGE CONTEXT

Quorn is served by a complex network of drainage systems that ultimately discharge to the River Soar to the east (an Environment Agency (EA) designated Main River). The responsible agency for managing the risk from Main Rivers is the EA. Details relating to RMA responsibilities can be found in Section 21 of the main Storm Henk report. During Storm Henk, four areas of the village experienced flooding (defined as Flood Areas A–D). The key drainage features associated with these Flood Areas are described below and are illustrated in Figure 9-1.

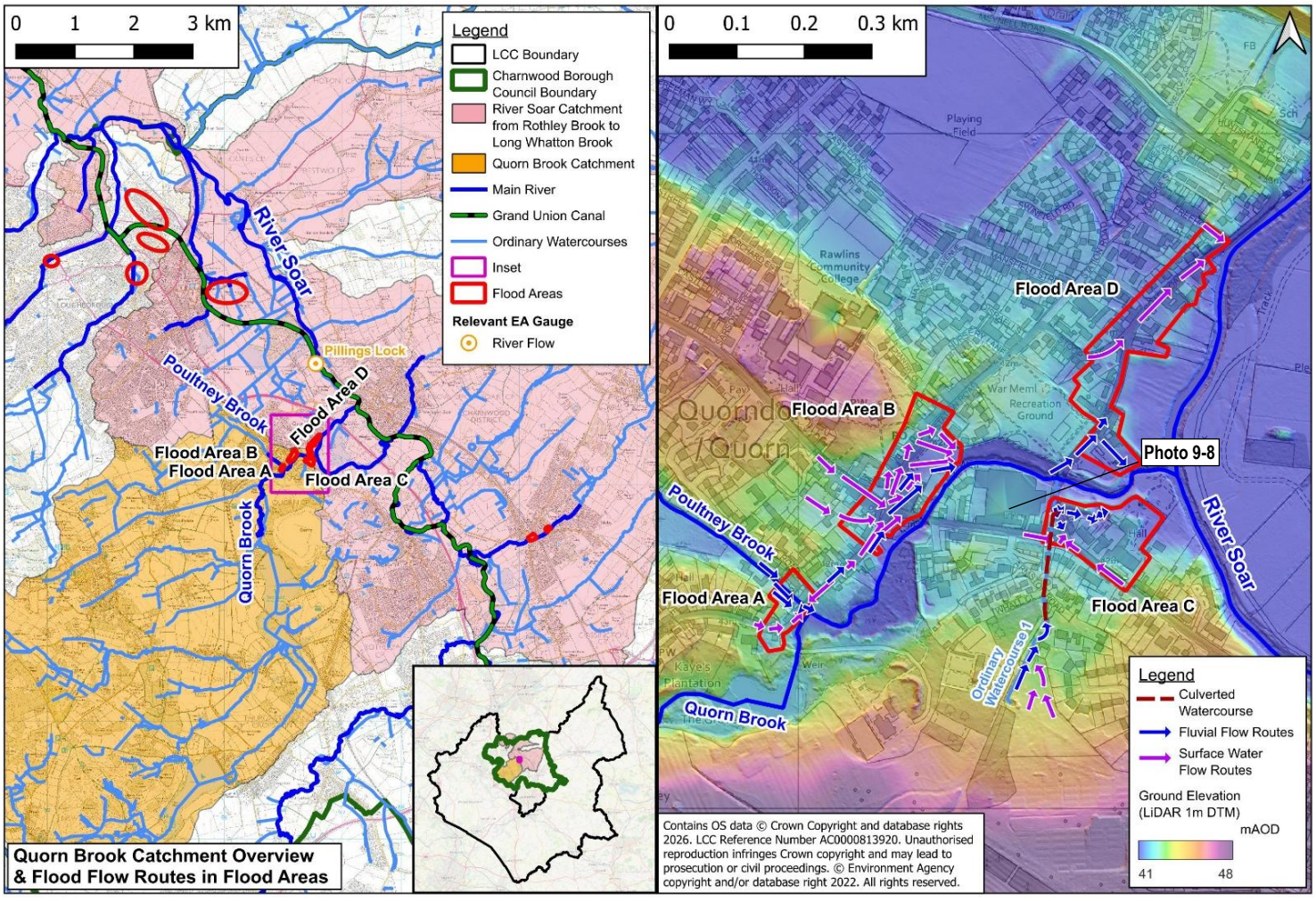


Figure 9-1: Quorn Location Plan, relevant Watercourse Catchments and Flow Routes through Flood Areas (INSET 2)

RIVER SOAR

The River Soar forms the eastern boundary of Quorn. It meanders northwards alongside the A6 towards Barrow upon Soar and Loughborough. All watercourses in Quorn ultimately drain to the River Soar.

QUORN BROOK

The Quorn Brook is an EA designated Main River flowing north-east through the southern part of the village, including Memorial Gardens and the southern section of the Stafford Orchard park, before discharging to the River Soar at OSNGR SK 56549 16500 east of School Lane. The channel is open and natural in the upper catchment but becomes constrained as it flows close to Meeting Street and through Memorial Gardens under Leicester Road through the park and then under School Lane.

Based on historic mapping and previous reports[1], the watercourse has multiple historical names. “River Lin” refers to the upper scenic section originating near Ulverscroft and flowing through Bradgate Park. Downstream of Swithland Reservoir and through Quorn, it is commonly called Quorn Brook or Buddon Brook. However, for consistency in this report, the entire reach from the headwaters to the River Soar confluence is referred to as Quorn Brook, in line with EA catchment mapping data[2] as illustrated in Figure 9-1. This identifies that Quorn Brook catchment encompasses the entire reaches of Poultney Brook, Ordinary Watercourse 1, and other unnamed reaches.

The UK Centre for Ecology & Hydrology’s Flood Estimate Handbook (FEH) Web Service[3] defines this catchment down to the River Soar as 45.6 km² as shown on Figure 9-2. The FEH Web Service estimates the catchment area at its confluence with Poultney Brook at OSNGR SK 56017 16294 to be 40 km².

Key upstream features of Quorn Brook are:

- Swithland Reservoir: A naturally filled water supply reservoir owned and maintained by Severn Trent Water (STW) located ~1 km upstream of Quorn, which was built to provide a secure water supply, especially during dry years. It is a naturally filled reservoir and unlike pumped-storage systems, there is no active input of water into the reservoir. Water from the reservoir supplies Cropston Water Treatment Works. Swithland Reservoir plays a critical role in maintaining the region’s water supply resilience and is integral to the management of the designated Buddon Wood and Swithland Reservoir Site of Special Scientific Interest (SSSI), meaning operational levels must balance public water supply, environmental protection, and regulatory obligations on and off site. The reservoir has a spillway and overflow system designed to safely release excess water once the reservoir is full, similar to a bath overflow, to prevent overtopping and provide protection to the structural integrity of the dam.

1 Miller, E. and Squires, A. (2009) The Leicestershire Lin: A River Through Time - Transactions of the Leicestershire Archaeological and Historical Society. https://www.quornmuseum.com/artefacts/pdf/2574.pdf
2 Defra (2026) Quorn Brook Catchment (trib of Soar) Water Body. https://environment.data.gov.uk/catchment-planning/WaterBody/GB104028047060
3 Centre for Ecology & Hydrology (2026) FEH Web Service. https://fehweb.ceh.ac.uk/Map

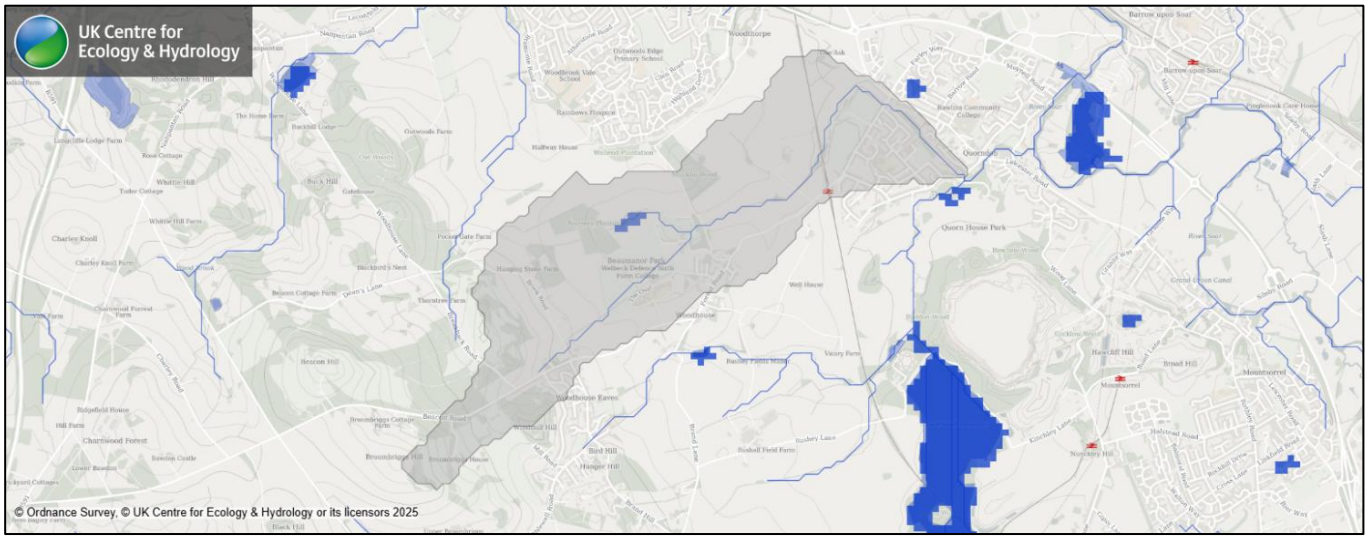
Therefore, when the reservoir is at capacity, additional rainfall flows over the spillway and into the environment, as it would naturally. The construct and operation of the dam and the safety mechanisms in place, such as the overflow, are regulated by the EA under the provision of the Reservoir Act 1975.

- Quorn House Pond is a private ornamental lake constructed in 1747, also controlled via a passive weir.

POULTNEY BROOK

Poultney Brook, an EA designated Main River, drains a predominantly agricultural catchment northwest of the village and flows south-east through northern Quorn. It joins Quorn Brook immediately downstream of Meeting Street. The FEH Web Service identifies this sub-catchment area as 4.82 km² (as illustrated in Figure 9-2). The brook is open for most of its length but becomes heavily constrained by garden boundaries and channelisation where it runs parallel to Sanders Road. The lower 350 m upstream of the confluence with Quorn Brook is classed as Main River; the remainder upstream is an ordinary watercourse.

1.



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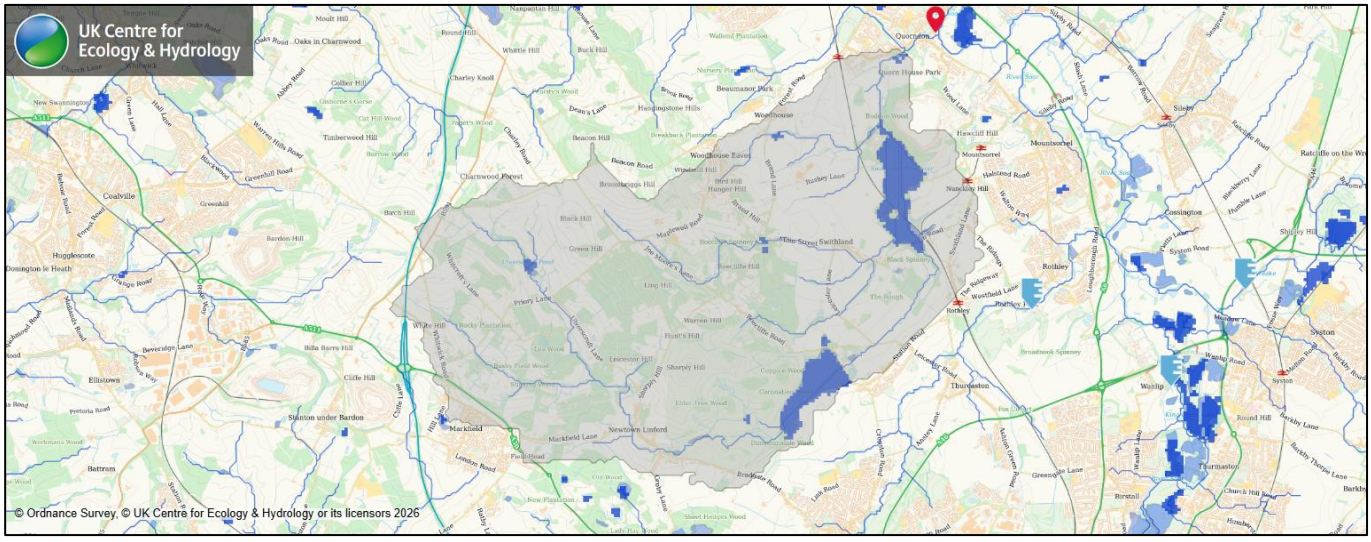

Figure 9-2: FEH Web Service Catchment Extents of Poultney Brook (1.) and Quorn Brook (2.) upstream of their Confluence

ORDINARY WATERCOURSE 1

This short tributary originates within open park land (Quorn House Park) south of Whall Close and flows northwards through eastern Quorn.

The watercourse was historically open channel, but it is now culverted through the Armston Road estate, under Loughborough Road and towards Wrights Mill and residential properties along School Lane. The exact alignment is not mapped however or fully understood. A trash screen exists at the culvert inlet within Quorn House Park upstream of Armston Road (illustrated within Photograph 9-1) situated next to an online attenuation pond.

It is believed that Ordinary Watercourse 1 may become open channel again adjacent to 9 School Lane shortly before it connects back into a redundant meander bend channel of the Quorn Brook, very close to the confluence with the Soar (refer to Figure 9-3). It may also discharge directly into the Quorn Brook upstream of the School Lane bridge. The alignment is not fully understood or confirmed. The FEH Web Service does not define a distinct sub-catchment for this watercourse; but its contributing area is included within the lateral intervening catchment area of Quorn Brook.

The location of the trash screen in red.
Credit: Simon Austin

Trash Screen on Culvert Inlet
Credit: Simon Austin

Photograph 9-1: Views of Ordinary Watercourse 1 with attenuation pond within the Quorn House estate, and culvert inlet with trash screen upstream of Armston Road

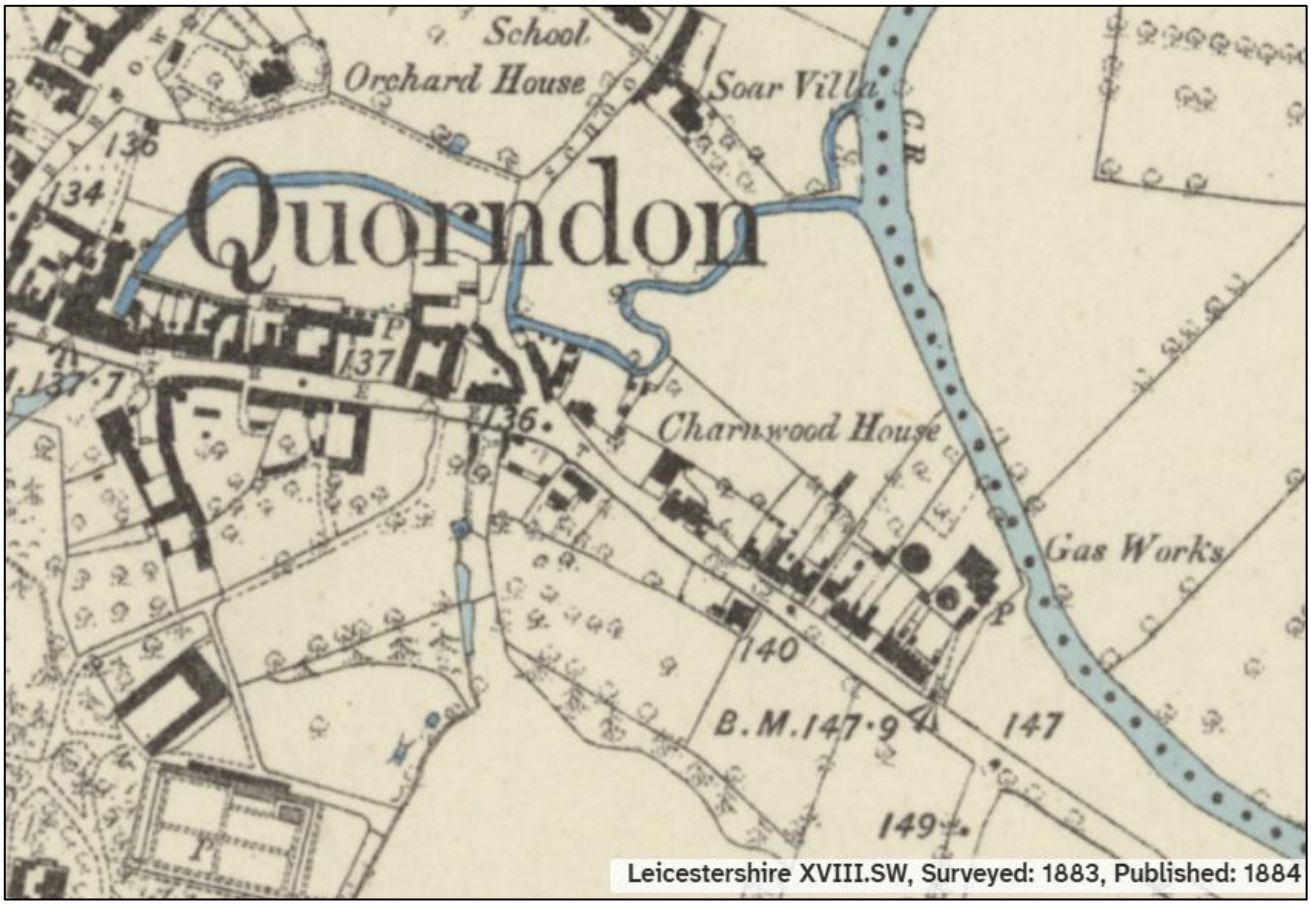

Figure 9-3: Historic map of Quorndon[4] illustrating the old alignment of Quorn Brook (including old meander downstream of School Lane) and the source and historic alignment of Ordinary Watercourse 1

9.1.1 GEOLOGY

A review of geological information from the BGS online mapping system[5] identified that this area of Leicestershire is dominated by the alluvium and Mudstone lithology, characterised by superficial deposits of predominantly clay, silt, sand and gravel, and a bedrock of Mudstone, red-brown, siltstone and fine-grained sandstone, and gypsum. The soil composition across Quorn comprises of predominantly freely-draining slightly acid loamy soils, clayey soils with impeded drainage, and loamy and clayey floodplain soils with naturally high groundwater[6].

[4] National Library of Scotland (2026) Ordnance Survey Six-inch 1st Edition Ireland, Scotland, England and Wales - Map of Quorndon 1884. https://maps.nls.uk/
[5] British Geological Survey (2026) BGS Geology Viewer. https://geologyviewer.bgs.ac.uk/
[6] LandIS (2006) Soilscapes. https://www.landis.org.uk/soilscapes

9.1.2 NATIONAL SCALE PREDICTIVE FLOOD MAPPING

The EA provides flood risk mapping nationally for both rivers and surface water as detailed within Section 2.7.6 of the main Storm Henk report. These maps show where flooding is predicted from these sources linked to Flood Areas A to D in this investigation, as detailed below.

EA Flood Map for Planning (NaFRA2) Flood Zones 2 and 3 associated with the key watercourses through the village (medium and high risk of river flooding respectively) are illustrated in Figure 9-4.

The EA Risk of Flooding from River and the Sea (RoFRS) map (NaFRA2) available online[7] takes into account the presence and condition of the flood risk mitigation assets present (see Section 9.1.4 of this report) and account of the chance of them overtopping or failing. These outlines and risk ratings however cannot be directly compared to the Flood Zones.

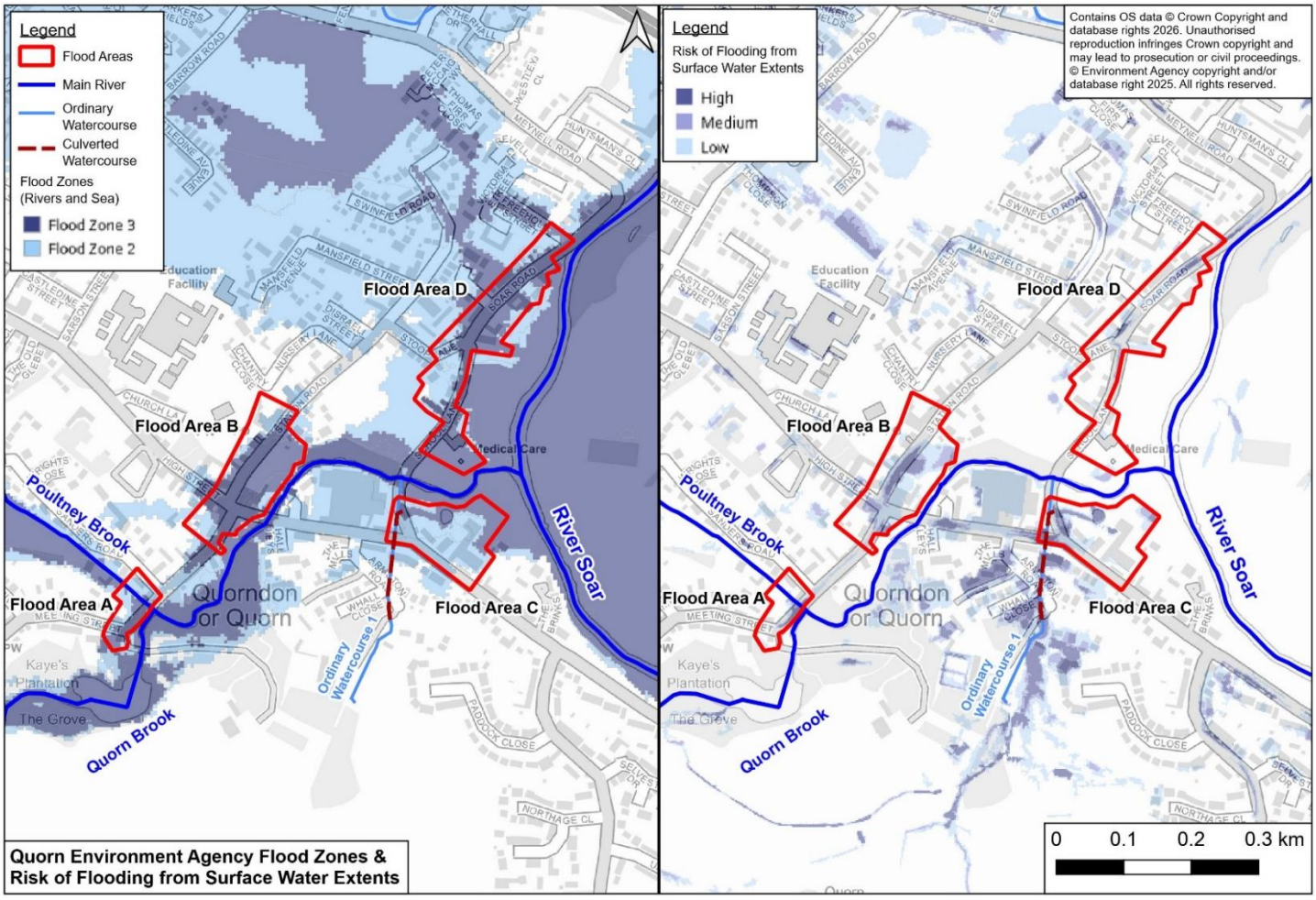

Figure 9-4: Quorn EA Flood Map for Planning Flood Zones[8] and Risk of Flooding from Surface Water Extents[9] in Flood Areas (INSET 2)

[7] Environment Agency (2026) Risk of Flooding from Rivers and the Sea. https://check-long-term-flood-risk.service.gov.uk/map
[8] Environment Agency (2026) Flood Map for Planning – Flood Zones https://flood-map-for-planning.service.gov.uk/map
[9] Environment Agency (2026) Risk of Flooding from Surface Water map. https://check-long-term-flood-risk.service.gov.uk/map

Parts of the Flood Areas defined in this investigation are also identified as being at a high, medium and low risks of flooding in the national EA Risk of Flooding from Surface Water (RoFSW) map (NaFRA2), as illustrated in Figure 9-4. These include high risk areas along Meeting Street, Station Road, School Lane and Soar Road.

9.1.3 HISTORIC FLOODING

Quorn has a long history of flooding. Before the established flood defences, the village would flood frequently with countless evidence in historical archives of businesses and residential properties flooding in the 1800s and 1900s. In recent times, Quorn is known to have suffered the most significant flooding event in Easter 1998 from the River Soar and Quorn Brook, where the River Soar reached record levels at Pillings Lock at 2.25mAOD (metres above the gauge datum).

9.1.4 EXISTING FLOOD RISK MANAGEMENT

Quorn benefits from flood protection provided by EA maintained raised defence assets on the left bank of the River Soar, and along both banks of Quorn Brook, as illustrated in **Error! R eference source not found.**. The defences comprise a series of Flood Walls, engineered high ground and Flood Embankments as detailed in Table 9-1, and illustrated in Photograph 9-2, Photograph 9-3, Photograph 9-4 and Photograph 9-5. These were constructed around 1992-1994 as part of the Lower Soar Flood Alleviation scheme (SVIS).

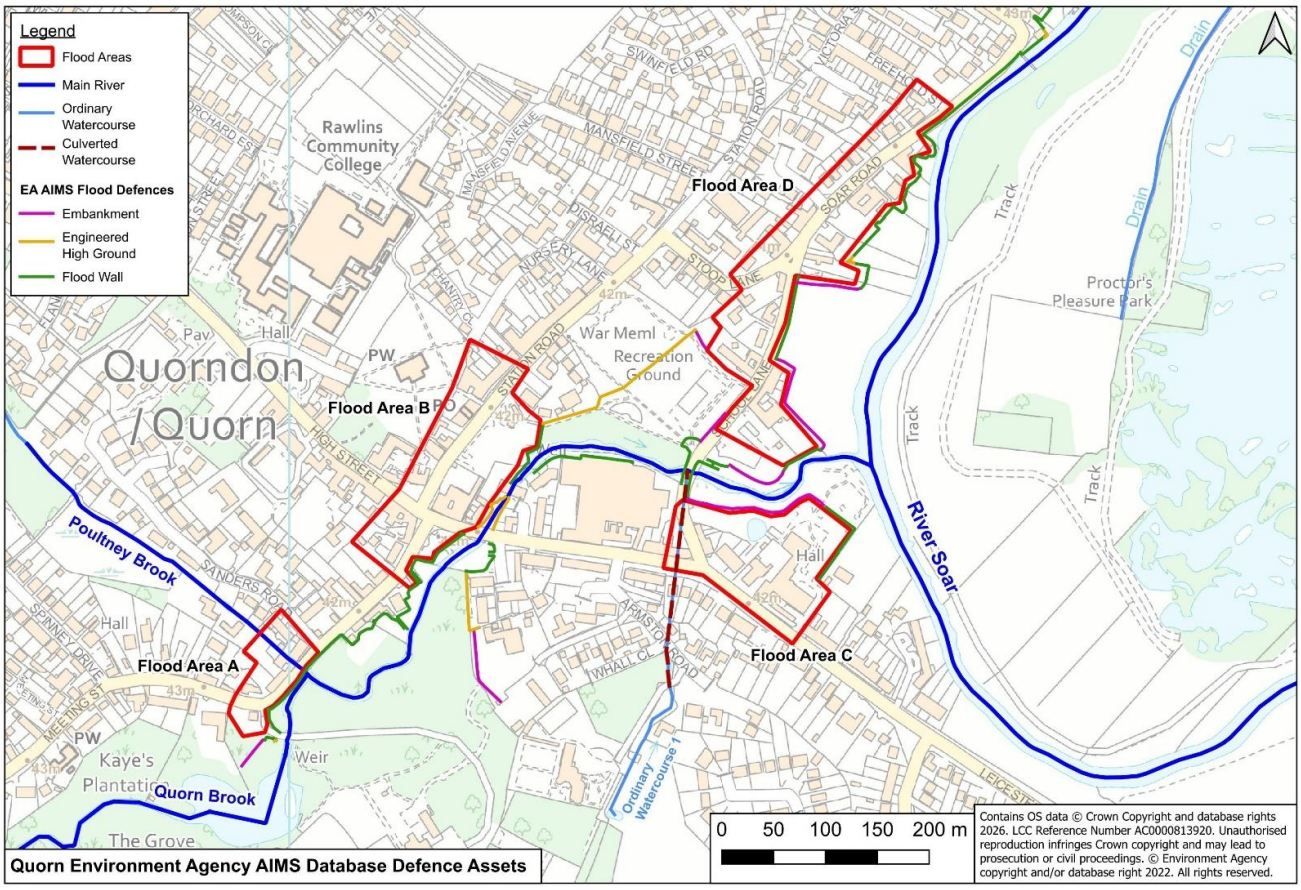

Figure 9-5: Flood Risk Management Assets in Quorn from the EA Asset Information Management (AIMS) Database

Credit: Environment Agency, 2026

Photograph 9-2: River Soar Flood Wall alongside Soar Lane looking north eastwards downstream

Credit: Environment Agency, 2026

Photograph 9-3: Engineered high ground along Quorn Brook at the Memorial Gardens looking south westwards upstream

Credit: Environment Agency, 2026

Photograph 9-4: Flood Wall and Embankments alongside Quorn Brook from School Lane looking north eastwards downstream

Credit: Google StreetView (2026)

Photograph 9-5: Quorn Brook Flood Wall and Embankments from School Lane looking eastwards downstream

The flood risk management assets in Quorn, as illustrated in **Error! Reference source not found.**, form part of the wider flood defence system along the River Soar, and their condition is recorded by the EA as ranging from 'Poor', 'Fair' and 'Good'. The current condition of the assets of interest for this investigation is detailed in Table 9-1 below. The EA confirm that those defences with classifications 'Poor' and 'Fair' have inspection records indicating ongoing maintenance and monitoring.

Table 9-1: Relevant EA Asset Information in Quorn

Location	Asset ID	Asset Type	Condition (Prior to Storm Henk)	Condition (April 2026)
Flood Area A	397395	Flood Defence Embankment	Fair (Oct 23)	Fair
	411192	Flood Defence Wall	Fair (May 23)	Good
	411194	Engineered High Ground	Fair (May 23)	Fair
	411193	Flood Defence Wall	Fair (May 23)	Fair
Flood Area B	413242	Culvert	Good (May 23)	Fair
	413239	Debris screen	Fair (May 23)	Good
	37014	Engineered High Ground	Fair (May 23)	Fair
	76979	Flood Defence Wall	Good (May 23)	Fair
	121439	Flood Defence Wall	Good (May 23)	Fair
	787735	Outfall Structure	No record	Good
	216157	Outfall Structure	Fair (May 23)	Fair
Flood Area C	37013	Flood Defence Wall	Good (May 23)	Fair
	37012	Flood Defence Embankment	Fair (May 23)	Fair
	318574	Outfall Structure	Good (May 23)	Fair
	550488	Control Gate	Fair (May 23)	Poor
Flood Area D	404194	Flood Defence Wall	Fair (Apr 23)	Fair
	38946	Flood Defence Wall	Fair (Apr 23)	Poor
	413926	Flood Defence Wall	Fair (Apr 23)	Fair
	76979	Flood Defence Wall	Good (May 23)	Fair
	413925	Engineered High Ground	Good (Apr 23)	Fair
	413927	Engineered High Ground	Fair (Apr 23)	Good

9.1.5 HYDROMETRY

The Pillings Lock flow and level gauge[10] located on the River Soar downstream of Quorn at Barrow Road (OSNGR SK 56550 18060) (as illustrated in Figure 9-1) has been in operation since August 1986.

The Pillings Lock gauge is one of approximately thirty gauging stations used to issue Flood Alerts and Flood Warnings within the River Soar catchment. The levels and flows measured at Pillings Lock during the Storm Henk flood event are provided in Figure 9-6 and Figure 9-7 respectively, with more detail provided in Section 2.4 of the main Storm Henk report.

The peak **river level** on the Soar at Pillings Lock during Storm Henk was recorded as 2.50 metres above the gauge station datum (mASD) at 08:15hrs on 3rd January 2024, as illustrated in Figure 9-6. The previous highest recorded river level was 2.25mASD on 11th April 1998, the same date as the record river flow.

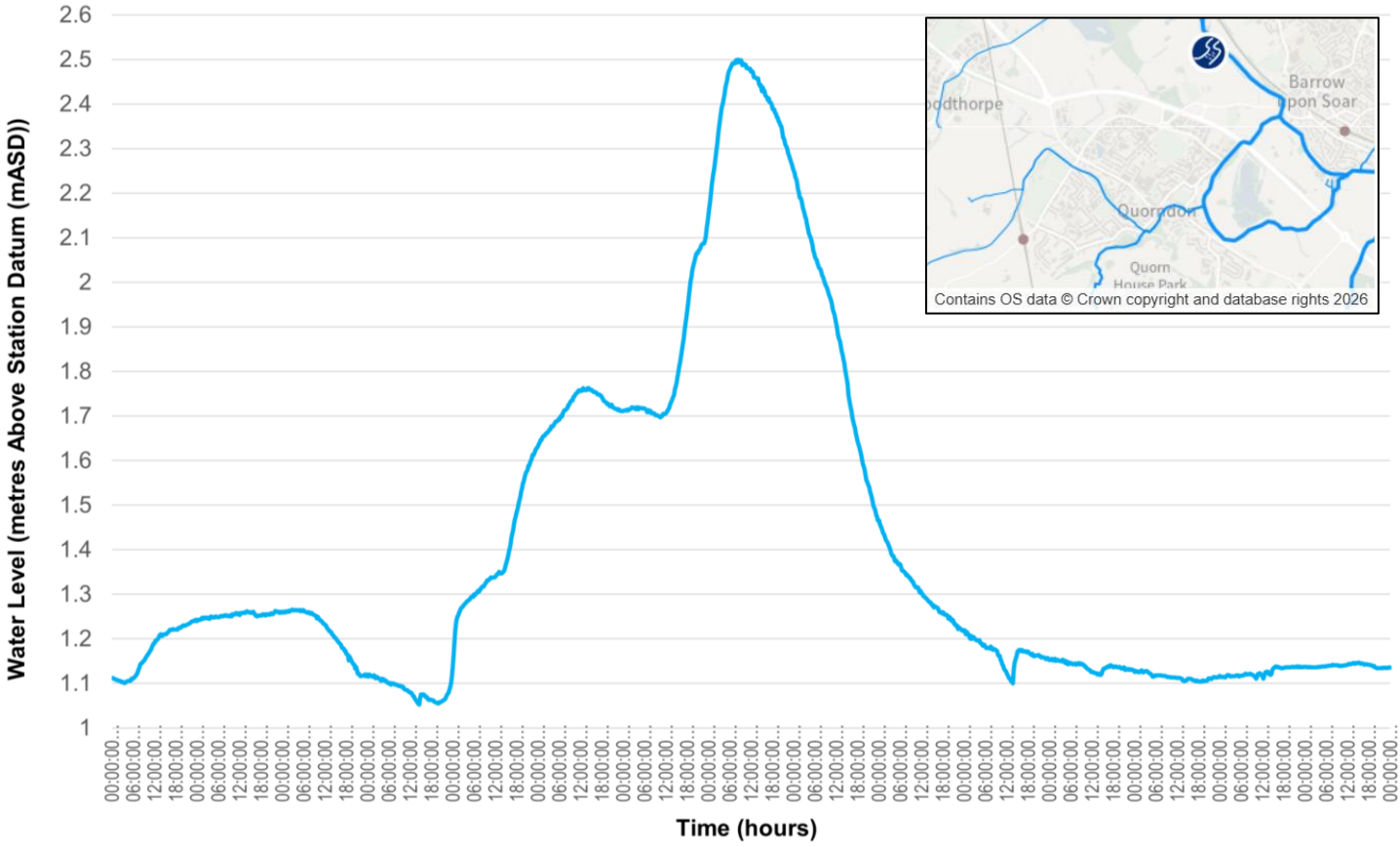

Figure 9-6: River Soar at Pillings Lock Gauge (Station ID 4093) - Water Levels from 00:00 hours on 27/12/2023 to 00:00 hours on 11/01/2024

The previous record **peak flow** was recorded during the Easter 1998 flood event (190.34m^3/s at 08:00hrs on 11th April). During Storm Henk, flows exceeded this at 06:30hrs on Wednesday morning, 3rd January 2024, peaking at an estimated 194.19 m^3/s at 09:15hrs as illustrated in Figure 9-7.

[10] Defra (2026) Hydrology Data Explorer – Pillings Lock – river and flow gauge. https://environment.data.gov.uk/hydrology/station/7e5119f6-fa25-41ec-bc7a-85dfab1ad3c4

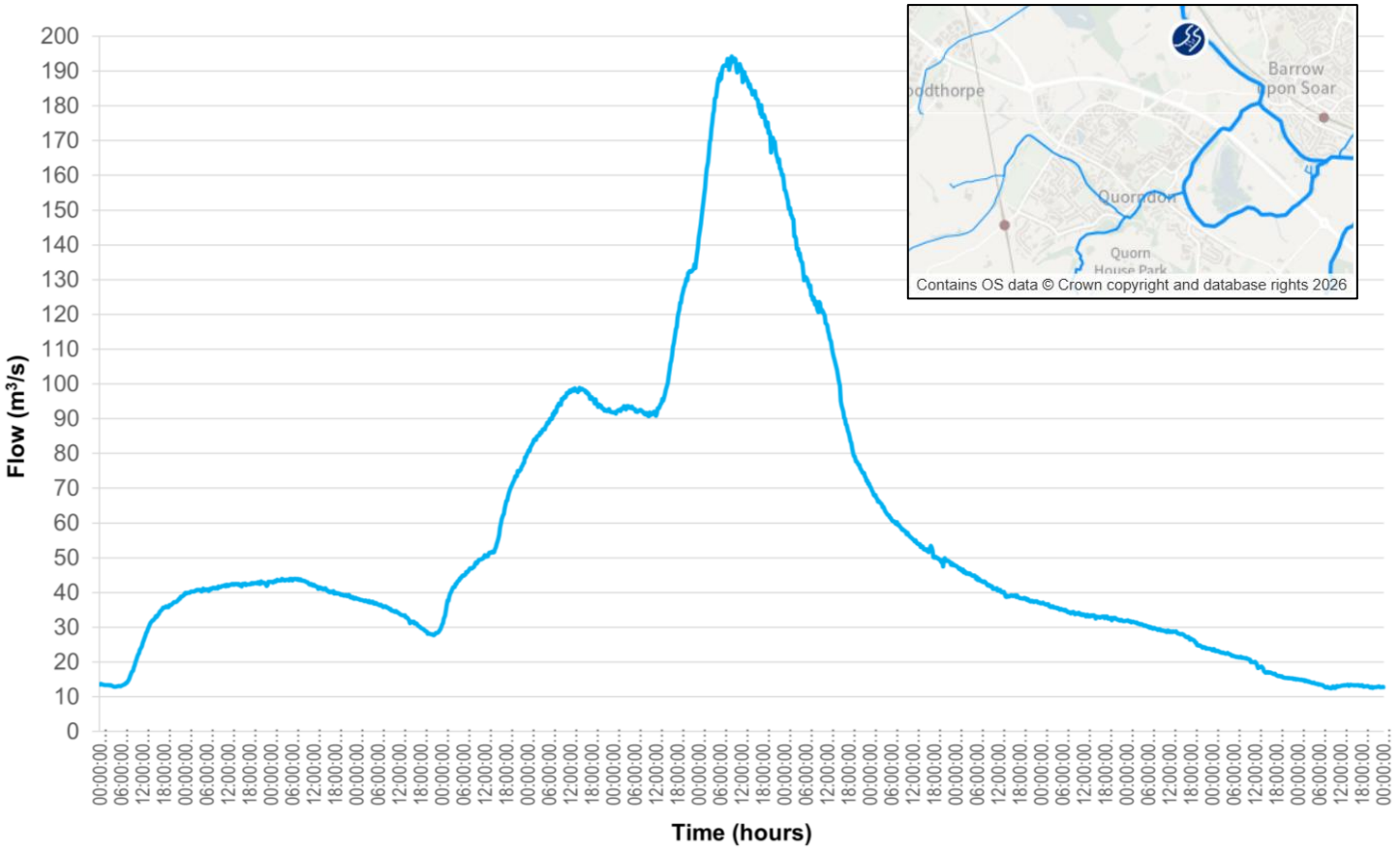

Figure 9-7: River Soar at Pillings Lock Gauge (Station ID 4093) - Flows from 00:00 hours on 27/12/2023 to 00:00 hours on 11/01/2024

No formal river gauges existed in Quorn at the time of the Storm Henk flooding incident.

9.1.6 FLOOD WARNINGS

There are two EA Flood Warnings in the vicinity of Quorn that cover the River Soar, namely:

1. *River Soar at caravan parks near Barrow Upon Soar (Code: 034FWFSOCARAVANBS)*[11]*;*
2. *River Soar at Cotes and Loughborough Moors (Code: 034FWFSOCOTES)*[12]*.*

During Storm Henk, a Flood Alert was issued based on telemetry from the Pillings Lock river level and flow gauge. Flood Warnings were issued for all surrounding River Soar Flood Warning Areas except the Quorn area, as the threshold for issuing a warning there was not reached (despite properties flooding). The EA has since determined that the current Flood Warning Service does not adequately reflect flood risk from Quorn Brook. Consequently, the EA plans to develop a dedicated Flood Warning service for Quorn Brook to improve future warning accuracy and coverage (see action list).

[11] Environment Agency (2026) River Soar at caravan parks near Barrow upon Soar flood warning area. https://check-for-flooding.service.gov.uk/target-area/034FWFSOCARAVANBS
[12] Environment Agency (2026) River Soar at Cotes and Loughborough Moors flood warning area. https://check-for-flooding.service.gov.uk/target-area/034FWFSOCOTES

9.2 WHAT HAPPENED AND WHY?

WHO OR WHAT WAS AFFECTED?

22 properties reported as internally flooded

At least 1 property reported as externally flooded

Catchments across Leicestershire were already suffering high ground water saturation levels and low soil moisture deficit levels prior to Storm Henk, as detailed in Section 2.1 of the main Storm Henk report. This, coupled with additional exceptionally heavy rainfall (as detailed in Section 2.3 of the main Storm Henk report), led to significant volumes of surface water runoff contributing to the drainage networks in and around Quorn, which became overwhelmed.

Record levels within the River Soar restricted outfall discharge rates from Quorn Brook, and anecdotal reports stated that water levels within Quorn Brook were exceptionally higher than normal. These high water levels in Quorn Brook also restricted outfall discharge rates from Poultney Brook. This caused water within Poultney Brook to back up and overtop its own banks upstream of Meeting Street due to the channel capacity being exceeded.

These high water levels restricted the drainage network outfalls from discharging water away effectively along Poultney Brook and Quorn Brook. This is understood to have caused surcharging from the drainage network onto highways and adjacent land. A significant number of assets discharging to the brooks in Quorn are known to have flap valves (non-return valves) at their discharge point, but not all. The location and ownership of many of these assets is not fully understood and remains under investigation at the time of publication of this report.

Reports received from the event described that flooding occurred as result of these multiple sources, internally impacting properties between 16:30 hrs on 2nd January 2024 up until the following morning at around 09:00 hrs.

Following the event, the EA has identified issues with some assets in Quorn which became apparent during Storm Henk. For instance, the flood wall alongside the eastern edge of School Lane (AIMS ID: 38946) is below required condition and there was some reported leakage in Flood Area D (see later in the report). The EA reported however that flood defence assets generally performed effectively, with only minor leakage observed as a result of the exceptional volume and force of water experienced during the event.

The EA were present in Quorn on 2nd and 3rd January at Soar Road and School Lane where they had mobilised temporary pumps to put water back into the River Soar that had become trapped behind the raised flood defences. This was temporary immediate support provided in an attempt to try to reduce the impacts of the event on the community.

Anecdotal reports detailed the depth of internal flooding to have reached the top of skirting boards highlighting damage to personal items and ground floor rooms, as well as impacts on property access, gardens and driveways, nearby roads, footways, pavements, and public rights of way. Disruption to electrical, gas, and internet utilities was also reported. One report received additionally noted structural damage to a property. Due to the extent of flooding, a number of road closures were also in place across Quorn and remained closed for several days as the flood water lingered.

Quorn Parish Council published a summary report of the Storm Henk event[13] and detailed their understanding of the event. Anecdotal reports state that some properties installed temporary property level flood defences such as sandbags and flood boards in an attempt to help reduce the impact of the event. This suggests that the community had some level of readiness for the event to help mitigate the impacts. The Parish Council did however report that they had limited impact during the event. The Parish Council reported that they shared information via community Facebook pages and the Next door app during the event but that there were some limitations associated with this. It is likely that this did help reduce the impacts of the local community. They also reported concerns about the lack of communication from responsible agencies during the event. More details about the role and actions taken during the event can be found in the main Storm Henk report.

Anecdotal reports suggested that the lake at Quorn House and/or Swithland Reservoir may have exacerbated or contributed to flooding during Storm Henk. As outlined earlier in the document, Swithland Reservoir was built for water supply purposes and is designed to release excess water when the reservoir reaches capacity to protect the reservoir structure and prevent it from breaching. Therefore, when the reservoir reaches capacity, additional water flows over the spillway of the reservoir and into the environment. The reservoir is not currently designed or permitted to act as a flood risk management asset. The reservoir operates as designed, and STW has actively engaged with the community to raise awareness of this process. Tarmac have similarly confirmed that they do not actively control water levels in the lake at Quorn House.

The following sub-sections of the report consider the local flood routing and impacts within each of the four Flood Areas A to D identified in Figure 9-1 within the town centre.

[13] Quorn Parish Council (January 2024) Quorn Floods during Storm Henk. https://www.quornparishcouncil.gov.uk/wp-content/uploads/sites/118/2024/01/Quorn-Floods-Jan-24_1_0.pdf

9.2.1 FLOOD AREA A – MEETING STREET

Quorn Parish Council reported that water within Poultney Brook appeared to have backed up during the flood event due to high water levels within Quorn Brook restricting the discharge of flows from Poultney Brook at their confluence. River water levels rose and overspilled the channel banks in a south-easterly direction towards Meeting Street (in Flood Area A).

The force of the flood water is described to have caused part of this southern bank wall (at the entrance to the culvert, which conveys Poultney Brook under Meeting Street into Quorn Brook, see Photograph 9-6) to collapse during the event, allowing a substantial amount of water into the rear of a property along Meeting Street.

Credit – Simon Austin

Photograph 9-6: View of Poultney Brook from the rear of adjacent property looking downstream south-east towards culvert inlet upstream of Meeting Street

Properties at this location are shown to be at risk from fluvial flooding associated with Poultney Brook but are only protected by the formal flood defences along Quorn Brook (see Table 9-1).

River water within Flood Area A was described to have converged with the surface water runoff and exceeded property thresholds of two properties along Meeting Street. The Parish Council described the flooding to be as deep as ‘at the shin’, as reflected in **Error! Reference s ource not found.**.

Photograph 9-7: Flood Extents on Meeting Street looking towards Leicester Road

In Flood Area A, the highway gullies connect linearly along Meeting Street (on the north western side adjacent the houses) before being transferred across the street and then discharge via an outfall into Quorn Brook through the existing defence. The outfall is known to be fitted with a non-return valve to prevent river water flowing back up onto the highway when river levels are high. A 150 mm diameter (dia) STW surface water sewer drains Sanders Street southwards and discharges via an outfall directly into Poultney Brook on the southern side of Meeting Street at OSNGR SK 56016 16295.

Water which fell on the local highway network was unable to discharge effectively into Quorn Brook due to the high river levels and therefore pooled on the highway at the Meeting Street and Sanders Street junction (closely matching the predicted surface water flooding as shown in Figure 9-4).

Road drainage networks are designed to accommodate rainfall events up to a certain magnitude on the contributing area of highway itself but are not designed to accommodate any additional volumes of overland flow originating from land adjacent, or outflowing from watercourses onto the highway, as was observed here. As floodwater recedes into the drainage systems, it can naturally draw in flood debris and sludge into them, particularly around gully grates. This can make it appear as though the gullies and systems are blocked and that this was an initial cause of the flooding. However, this is generally not the case, especially where the drainage outfalls are submerged and the capacity becomes exceeded, resulting in surcharging (as described above in Section 9.2).

9.2.2 FLOOD AREA B – MEETING STREET, HIGH STREET AND STATION ROAD

Quorn Parish Council describe the flooding along High Street to have been “shin deep” at the centre of Quorn and “knee deep” at the car park situated to the east of Station Road, with flooding extending as far as the Bradleys local shop. Disruptions to the local power supply and phone lines were described as a near miss by Openreach who inspected the wet communications cabinet adjacent to the White Horse pub, situated at the southern end of Station Road.

During the event, excessive rainfall generated surface water runoff, which was described to have flowed along High Street in a south-easterly direction towards the centre of the village. Surface water was also described to have runoff from parcels of land in the valley between the rear of properties on Meeting Street and Loughborough Road onto Meeting Street. It is also likely that some of this floodwater originated from the south-west as fluvial flows from Poultney Brook within Flood Area A. This surface water then flowed north-eastwards along Meeting Street and converged with the floodwater on High Street.

Floodwater in Flood Area B overwhelmed the capacity of the highway drainage infrastructure and sewer network. A 225mm dia STW public surface water sewer, which originates from the north-west and runs down High Street, discharges into Quorn Brook at OSNGR SK 56175 16421 upstream of Leicester Road bridge. Highways gullies on High Street are believed to connect onto this STW surface water sewer. This sewer outfall is known to be fitted with a non-return flap valve and would have closed when the level in Quorn Brook got high enough. Floodwater therefore likely surcharged from the highway gullies, became trapped on the roadside behind the flood defences and pooled as it was unable to discharge effectively.

Another 150mm dia STW surface water sewer also discharges into the Quorn Brook opposite on the east bank, draining Hall Leys, although this area comprises higher ground elevations and is not known to have suffered internal flooding.

Anecdotal reports suggest that three non-return valve outfall flaps into Quorn Brook may have failed to seal completely (one in the Station Road car park (as illustrated in Photograph 9-8), and two in the Quorn War Memorial Gardens). Therefore, high water levels within Quorn Brook would also have likely backed up within the drainage network and surcharged at the surface here, adding river water to the flooding extents.

River water (from defence asset leakage) and surface water were described to have pooled at the natural low points along Station Road and also flowed eastwards towards the car park around the Quorn Medical Centre, before returning back towards Quorn Brook. As a result, at least seven local businesses and four residential properties were confirmed to have been internally flooded as the depth of water exceeded property thresholds.

Whilst there were some asset performance issues, the number of properties impacted internally would likely have been much greater without the presence of the flood defences due to the high water levels reached in these Main Rivers.

Credit – Simon Austin

Credit – Simon Austin

Photograph 9-8: Example flapped outfalls adjacent to Quorn Brook (yellow)

9.2.3 FLOOD AREA C – LOWER SCHOOL LANE

Quorn Parish Council described flood levels along School Lane to have been wall to wall at points reaching as far back as the Orchards Care Home car park, and described the flood level to have been “shin deep” after the bridge. One residential property was reported to have internally flooded within Flood Area C; the source is believed to be either river or surface water. School Lane became impassible.

As discussed in Section 9.1, the exact alignment of Ordinary Watercourse 1 is not known (see Section 9.1). The EA has confirmed that at this location, an old meander bend of the Quorn Brook was historically replaced with a 100mm dia land drain installed to drain any surface water trapped by the flood embankment. This drain is believed to connect to a pond which then discharges through the flood embankment to the north into Quorn Brook via control structures (penstocks and non-return valves) just upstream of the confluence with the River Soar.

It is possible that Ordinary Watercourse 1 connects to this land drain. Regardless of this connection, during Storm Henk, the elevated water levels within the River Soar and Quorn Brook would have restricted the discharge of the land drain, thus likely causing surface water to accumulate and build up, and flow southwards towards the School Lane highway and affected property (see Photograph 9-9).

This exact alignment of Ordinary Watercourse 1 including its discharge location is however still under review at the time of writing this report.

Credit: Duncan Jack

Photograph 9-9: Flooding impact during the Storm Henk flood event along School Lane, Quorn in Flood Area C

A 300mm dia STW public surface water sewer is also believed to potentially discharge to the land drain adjacent to 9 School Lane or to Quorn Brook. It is likely, during Storm Henk, that this STW surface water sewer was also unable to discharge effectively due to either capacity issues with the land drain or high levels in Quorn Brook restricting its discharge, and may have contributed to the floodwater if any gullies connected to it became surcharged. No evidence has been provided as part of the investigation to substantiate this. Similarly, highway drainage in the vicinity would have also likely have been unable to discharge effectively contributing towards the pooling of water at this location.

Extents and depths of the flooding described in anecdotal reports and photographs appear to match closely with the predicted flood mapping (EA Flood Zone map and the EA RoFSW maps), illustrated in Figure 9-4. The property which flooded is identified to be at high risk of flooding from both sources. This area of Quorn remains under investigation at the time of writing this report.

9.2.4 FLOOD AREA D – UPPER SCHOOL LANE / SOAR ROAD

Analysis of anecdotal reports indicates that flooding within Flood Area D originated from river and surface water sources. Reports were received of one internal and one external flooding incident along Soar Road.

The EA reported flood wall seepage along the stretch of the flood wall alongside the eastern edge of School Lane (AIMS ID: 38946) adjacent to residential gardens (downstream of the confluence of Quorn Brook and the River Soar).

The EA has confirmed that there was some reported leakage during the event confirming the source of the flood water, and following an inspection after Storm Henk, the flood wall was found to be below required condition. As stated earlier in this report, the EA confirmed that the flood defence assets generally performed effectively, with only minor leakage observed as a result of the exceptional volume and force of water experienced during the event. The EA also confirmed that one non-return valve outfall flap into Quorn Brook may had failed to seal completely (behind Orchards Care Home on School Lane).

It is possible therefore that river water also contributed towards the flooding onto School Lane and Soar Road. According to the EA's Flood Zone map (illustrated in Figure 9-4), both School Lane and Soar Road are located within a high river flood risk area.

Although there were no reports of surface water runoff from adjacent land within Flood Area D, small areas along Soar Road experienced ponded surface water runoff behind the flood wall on its way downhill towards the River Soar. Based on an analysis of the EA RoFSW and ground elevation data, this is likely to have occurred. Reports were also received that floodwater surcharged out of the highway gullies and possibly STW public surface water sewer assets.

Whilst no evidence of this has been provided, this is possible, and likely and contributed to the flooding extent. The highway drainage network and STW public surface water sewers in Flood Area D ultimately discharge via outfalls into the River Soar located south of the junction of Freehold Street and Soar Road. These would likely also have been unable to discharge effectively during the event due to high river levels.

A high-volume pump was installed by the EA at midnight on Tuesday 2nd January 2024 along Soar Road. Reports state that the pump that was installed succeeded in reducing flood levels and likely reduced the impact on properties.

9.3 WHAT HAS BEEN DONE?

On 6th January 2025, another major countywide flood event occurred which resulted in further internal property flooding in Quorn. This 2025 flood event is being investigated separately. This report therefore will there focus on the actions agreed and undertaken in relation to this 2024 event only. Any actions, investigations or engagement undertaken following the 6th January 2025 event will be covered in that report.

A summary table of the actions undertaken by the relevant RMAs across Leicestershire is provided in Section 2.7 of the main Storm Henk report. A summary table of actions and any relevant next steps specific to Quorn is provided in Section 9.4.

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 21.8 of the main Storm Henk report.

9.4 QUORN ACTIONS

The following actions will be monitored by Leicestershire County Council (LCC), as Lead Local Flood Authority (LLFA) through their local coordination role. This action plan is live and will be subject to change as actions are progressed.

Actions taken during and in the immediate aftermaths of the event, such as the closure of roads and set-up of rest centres are not detailed. Further details on RMAs and their roles, and how they work in partnership, can be found in the Leicestershire Local Flood Risk Management Strategy[14].

9.4.1 SHORT TERM ACTIONS (~1-6 MONTHS):

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Site Walkovers to Inform Investigation	Following Storm Henk, a multi-agency site walkover was undertaken on 4th January 2024 to witness the devastation and collect information to help identify actions and towards the formal flood investigation.	EA, STW, LCC LLFA, Charnwood Borough Council (CBC)	Complete
Refuse Collection and Street Cleansing	Clear up of bulky waste and additional street cleansing was completed following Storm Henk	CBC	Complete
Flood Resilience Equipment	Aqua sacks were provided to the Parish Council to create a centralised stock for community.	CBC	Complete

[14] Leicestershire County Council (2024) Leicestershire Local Flood Risk Management Strategy - https://www.leicestershire.gov.uk/environment-and-planning/flooding-and-drainage/lead-local-flood-authority/flood-risk-management

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Henk Flood Recovery Framework Support	CBC administered the National Flood Recovery Grant tax relief, business rates relief and also one-off sums of funding to affected homeowners in the immediate aftermath of Storm Henk.	CBC	Complete
Routine Main River Asset Maintenance	As part of the EA's maintenance regime of flood assets (298 inspections) the routine inspections of assets in Quorn were performed in March 2024. EA routine maintenance in Loughborough and Quorn includes monthly operational checks of structures including outfalls / control gates, weekly operational checks and clearance of debris screens. Field teams and weed spraying / removal, tree / bush maintenance and blockage removals as required.	EA	Complete
Additional Main River Asset Survey	Routine maintenance inspections completed by the EA following Storm Henk identified a need for a more detailed defect survey of the flood walls and other walls adopted as part of the flood defences across Quorn. This survey began in February 2025 and was completed in March 2025. These in-depth surveys aimed to build a picture of outstanding defects which then formed the basis of a plan for future works to increase flood resilience in the catchment.	EA	Complete Delays in securing Recovery funding following Storm Henk meant that the detailed surveys were not able to be completed until Winter 24/25 (funding secured in late September 2024).

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Main River Asset Maintenance 'Quick Wins'	As part of the detailed defect survey undertaken in February/March 2025, a number of quick win activities were completed whilst the survey was underway, and these included: 1. Minor repairs consisting of repairing loose coping stones, repointing mortar joints and removal of vegetation growing on the flood walls. 2. CCTV survey of outfalls into the River Soar and its tributaries in the site area, which included condition checks on non-return Valve's, penstocks and other infrastructure. Replacement of non-return valves where required and clearing blockages within the pipes also took place. 3. Replaced lids on 2 non-return valves at the Memorial Gardens. 4. Topographical Survey – undertaken to obtain further information to help make more informed decisions about future management of the flood risk assets.	EA	Complete There are follow up actions from the CCTV survey including full review and liaison with riparian landowners where the blockages/obstructions were not easily removed it situ.

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Review of Flooding to Quorn	Following Storm Henk, an assessment was carried out to better understand the key flood mechanisms, and the performance of existing flood risk assets in the River Soar catchment. This involved a review of the existing River Soar models to clarify the flood risk from the Lower Soar. Recommendations from this assessment include that the model and hydrology should be updated as well as the introduction of a new Flood Warning Service for Quorn Brook.	EA	Complete Recommendations have been made to improve modelling in the future.

<table>
<tr><th>ACTION</th><th>ACTION DETAIL</th><th>LEAD RMA</th><th>CURRENT STATUS</th></tr>
<tr><td>Highways Asset Maintenance</td><td>Completed targeted gully cleansing (in addition to routine maintenance) after Storm Henk across Quorn (and many other affected parts of the County).

The data collected from this process was used to help reprioritise gully cleansing in flood affected areas. The specific roads pertaining to Quorn as detailed in the table below -were reviewed and the frequency of cleanse increased.
<table>
<tr><th>Street</th><th>Original Priority</th><th>Area</th><th>New Priority</th></tr>
<tr><td>Sanders Road</td><td>P2</td><td>Quorn</td><td>P1</td></tr>
<tr><td>Meeting Street</td><td>P1</td><td>Quorn</td><td>P1</td></tr>
<tr><td>Farley Way</td><td>P1</td><td>Quorn</td><td>P1</td></tr>
<tr><td>Flesh Hovel Lane</td><td>P2</td><td>Quorn</td><td>P1</td></tr>
</table>
Priority (P) 1 – Cleansed every 10 months, P2 – Cleansed every 20 months</td><td>LCC Local Highways Authority (LHA)</td><td>Complete

Gulley emptying frequency has increased for a number of streets in Quorn.</td></tr>
</table>

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Highway Asset Investigation	LCC LHA has jetted and traced the route of a previously unknown and unmapped culvert identified on Leicester Road (just outside of the Royal Oak pub). Gullies along Meeting Street appear to be 'blocked' during periods of rainfall. The highway gullies outfall into Quorn Brook. A review of the outfall effectiveness is required to see if improvements can be made at this location.	LCC LHA LCC LHA	Complete It was found that the unmapped culvert had many connections to it and therefore identified to be an unmapped STW asset. Underway
Community Drop-in Sessions	A number of public flood drop-in sessions were arranged and attended by key Risk Management Authorities. The aim of these sessions was to better understand what happened after the flood events but also to promote flood resilience for future events.	LCC LLFA	Complete Following Storm Henk five drop in events were arranged in Loughborough, Blaby, Melton and Syston.
Flood Warden Support	Liaison, guidance and support to the Flood Wardens (in addition to site walkovers) have been provided to better understand what happened and identify actions to help reduce future flood risk and develop community resilience.	EA, Local Resilience Forum (LRF), LCC LLFA, CBC, STW	Ongoing.

9.4.2 MEDIUM TERM ACTIONS (6 – 18 MONTHS)

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Further Actions from Asset Survey	Actions identified following detailed defect survey: 1. A thorough review of the CCTV survey and liaison with various landowners/asset owners to rectify identified blockages/obstructions. 2. Structural investigations and repair of the wall at the Northern end of Soar Road. Investigate the function and condition and need of the outfall. Dependent on findings will inform the need to repair or infill. 3. Structural investigation of the boundary wall at the Southern end of Soar Road. To include moving of privately owned outbuildings to allow rebuilding and repointing of the wall. 4. Localised repointing of the flood wall behind the nursing home on School Lane. Raising the cover and frame of the penstock. Complete testing and repairs of the non-return valve. 5. Further investigation of the flood wall located at the Northern end of Meeting Street. Vegetation removal and re-mortaring of any cracks as required.	EA	1. Review of footage completed. Targeted riparian engagement underway 2-5. In contract with completion expected by the end of March 2026.

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
New Telemetry Gauges	Installation of two new telemetry gauges at Swithland Reservoir and near the Memorial Gardens. This will enable the introduction of a new Flood Warning service to help inform the local community with live flooding information. This will also allow river levels to be available online for the community and provide information to assist with a community response plan and timing of deployment of property flood resilience	EA	Complete
Public Sewer Network Investigations	A CCTV investigation and tracing of the public surface water sewer network at Station Road (adjacent to the carpark and Medical Centre) is to be undertaken. Two outfalls into the Main River in Quorn from the public surface water sewer system have been identified. An investigation into the feasibility of installing NRV's onto these outfalls is being progressed to see if this would create betterment in a flood. The two locations are Memorial Gardens and Quorn Park. Route and condition survey from Manhole 3307 at Armston Road downstream to chamber and outfall.	STW	Underway
Unmapped Culverts and assets	Identify and trace assets that are unmapped, ensure that they are clean and operating and then add the unmapped identified information to the relevant organisation database. This includes information relating to a culvert under Leicester Road and others that are identified.	STW / EA / LCC LHA	Underway

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
CCTV Survey Cross Checking	A number of surveys have been conducted by different agencies to investigate the various sources of flood risk (CCTV surveys etc.). In order to be reassured that all potential issues have been addressed in the drainage network, it is proposed to cross check across all agencies survey information.	EA, STW, and LCC Highway Authority	Underway as of March 2026.
Henk Property Flood Resilience Repair Grants	LCC LLFA administered the National Flood Grant for Property Flood Resilience on behalf of DEFRA following Storm Henk. Two applications were received and processed.	LCC LLFA	Complete

9.4.3 LONG TERM ACTIONS (18 MONTHS +)

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Flood Locker Scheme	Introduction of a borough wide Flood Locker Scheme. This scheme could be accessed for the provision of a community store for resilience equipment in Quorn.	CBC	An application for a locker has been accepted to be located in Quorn.
Flood Warning Service	Introduction of a new Flood Warning service for Quorn Brook. Anticipated in the 2026/27 financial year.	EA	Underway Telemetry gauges have been installed. A reliable record of data is needed from the new gauges before a Flood Warning Service can be introduced
Flood Warden Support	Ongoing support to Flood Wardens in Quorn to help bolster community resilience including training, provision of community resilience equipment and enhancement of the resilience plan (Quorn Community Response Plan[15]) where required. Further work is planned to promote the new Flood Warning service when launched with the community. The village Flood Wardens also maintain a detailed standalone Quorn Flood Plan[16].	EA, LRF, LCC LLFA, CBC	Underway The Quorn Community Response plan was created and adopted in November 2021 and is continually updated (current issue dated 2026).
Road Closure Scheme	Exploration of a localised road closure scheme in support of flood specific annex of the Quorn Community Response Plan.	LRF	Underway

[15] Quorn Parish Council (2026) The Quorn Community Response Plan. https://www.quornparishcouncil.gov.uk/wp-content/uploads/sites/118/2026/01/2026-Community-Response-Plan.pdf
[16] Quorn Parish Council (2026) Quorn Flood Plan. https://www.quornparishcouncil.gov.uk/wp-content/uploads/sites/118/2026/03/Quorn_Flood_Plan.pdf

ACTION	ACTION DETAIL	LEAD RMA	CURRENT STATUS
Riparian Responsibilities Campaign	Work with residents, Risk Management Authorities (RMAs) and landowners to ensure they are fully aware of their riparian maintenance responsibilities for Ordinary Watercourse 1 and Main Rivers. Advice to support riparian owners to understand their rights and roles in maintaining a watercourse is available online at Your_watercourse_rights_and_roles[17].	EA, LCC LLFA	Ongoing
Updated River Soar Flood Model	Update the existing 2012 River Soar flood model with latest hydrology and survey data, to improve our understanding of flood risk and support informed decision making.	EA	Scheduled to begin in 2028/29 with the collection of new channel survey data, subject to funding allocation approval.
Additional Capital and Investment Review	Utilise the updated River Soar flood model, once available, and review all options to help reduce the risk of flooding to Quorn.	EA, STW, LCC LLFA	Not yet started. Requires the River Soar model to be updated first.
Ordinary Watercourse Investigations	CCTV survey of Ordinary Watercourse 1 downstream of Armston Road to outfall of Quorn Brook adjacent School Lane.	LCC LLFA	Not yet started.

[17] Environment Agency (2024) Your watercourse: rights and roles. https://engageenvironmentagency.uk.engagementhq.com/your-watercourse-rights-and-roles