

Section 19 Flood and Water Management Act 2010

Long Melford Flood Investigation – Storm Babet 2023



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Date Published		
Date Report Closed		

Contents

Executive Summary	3
Justification for Investigation	4
Understanding the flood context.....	5
1. What happened during Storm Babet	5
2. Location of flooding	6
3. Records of any historical flooding.....	8
4. Predicted Flood Risk	9
5. Catchment characteristics	10
Flooding Sources, Pathways & Receptors	13
Risk Management Authorities, Non-Risk Management Authorities and flood risk functions.....	23
Action(s) completed to date:.....	23
LLFA Recommended Action(s):	24
Approval	26
Disclaimer	27

Figures

Figure 1. Average monthly rainfall (July – October 2023) as a percentage of the historic average monthly rainfall	5
Figure 2. Investigation area map	6
Figure 3. Location of statutory main rivers.....	7
Figure 4. Locations where internal flooding of property was reported.....	8
Figure 5. Predicted flood risk from river water (fluvial).....	9
Figure 6. Predicted flood risk from surface water (pluvial)	10
Figure 7. Elevation map of Chad Brook and River Glem catchment areas (National River Flow Archive)	11
Figure 8. Soil map of upstream catchment areas for the River Glem and Chad Brook (LandIS Soilscales)	11
Figure 9. Superficial geology (BGS Viewer)	12
Figure 12 Approximate flood water flow paths in Bull Lane and north Hall Street indicating areas of affected property	14
Figure 13 Approximate flood water flow paths in central Hall Street and Cock and Bell Lane indicating areas of affected property	17
Figure 14 Approximate flood water flow paths in Clare Road indicating area of affected property.....	19
Figure 15 Approximate flood water flow paths in Westgate Street indicating area of affected property.....	20
Figure 16 Approximate flood water flow paths in Bridge Street indicating area of affected property.....	21

Executive Summary

Storm Babet caused significant disruption to communities across Suffolk between 18th - 21st October 2023. Long Melford was a community that was significantly impacted, with approximately 9 properties suffering internal flooding. Suffolk County Council, as Lead Local Flood Authority, have therefore undertaken a Section 19 Flood Investigation. The resulting report will:

- highlight the probable causes of flooding
- identify options to reduce future flood risk and increase property resilience
- make recommendations for actions by relevant responsible organisations, landowners or homeowners.

Long Melford is located in an area at significant risk of both fluvial and pluvial flooding and the nature of the surrounding topography and geology contributes to the susceptibility of the community to flooding. Areas of Long Melford parish are low-lying, where surface water collects and two rivers, Chad Brook and the River Glem, also contribute to fluvial flood risk.

Storm Babet delivered significant rainfall to the catchment, following an extended period of above average rainfall. For the purposes of this report, the affected areas have been categorised into three zones: Long Melford village, the A1092 and Bridge Street. The description of the flood events detailed in the report have been compiled using data submitted to Suffolk County Council, as well as information from Risk Management Authorities (e.g. Suffolk County Council Highways, the Environment Agency and Anglian Water).

A comprehensive summary for each zone is provided within the report, outlining the context of the event and the impact. Key findings are that Long Melford was severely impacted by flooding due to the intensity and duration of rainfall which overwhelmed the natural flow routes and the capacity of watercourses and drainage infrastructure. This situation was compounded when overland flow paths converged and saw the resultant internal flooding of property.

Short, medium and longer term recommendations have been published and each have a potential role to improve resilience and reduce the risk of flooding to Long Melford. For short term measures, key highlights include the implementation of a community flood plan and maximising Property Flood Resilience (PFR) grants. For medium to longer term recommendations, there is an emphasis on the management of water from rural land through new natural flood management features, and local improvements to watercourses and drainage to reduce flood risk within the catchments.

Justification for Investigation

Suffolk County Council, Lead Local Flood Authority (LLFA) has determined that in accordance with our criteria, it is considered necessary and appropriate to carry out an investigation into this flood event.

This is in accordance with Section 19 (1) of the Flood and Water Management Act 2010, and in accordance with Section 19 (2) of the Flood and Water Management Act 2010, to publish the results and notify the relevant risk management authorities (RMAs).

Section 19 Local authorities: investigations

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

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

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

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

(a) publish the results of its investigation, and

(b) notify any relevant risk management authorities

Criteria for an investigation (as per Appendix D of the Suffolk Flood Risk Management Strategy):	
There was a risk to life because of flooding?	
Internal flooding of one property (domestic or business) has been experienced on more than one occasion?	
Internal flooding of five properties has been experienced during one single flood incident	✓
Where a major transport route was closed for more than 10 hours because of flooding	
Critical infrastructure was affected by flooding	
There is ambiguity surrounding the source or responsibility of a flood incident	

Understanding the flood context

1. What happened during Storm Babet

A succession of weather fronts between the 11th and 13th of October 2023 brought significant rainfall to the region. Readings indicate that between 30mm and 50mm of rain fell across Suffolk compared with an average of just less than 65mm across the whole month of October according to Meteorological Office weather data (Met Office, 1991- 2020). This significant rainfall in a short space of time resulted in saturated land and rivers reaching their capacity. Shortly after this, Storm Babet followed on the 18th to 21st of October 2023. The storm brought between 50 mm and 80 mm of rain to much of central and northern East Anglia, with some Suffolk weather stations recording the wettest October day on record.

The Environment Agency River level gauging stations indicated many flows close to or exceeding their highest on record, and the weather remained wetter than average for the rest of the month. October 2023 was the joint wettest on record in the east of England since 1871. During Storm Babet, Suffolk saw the heaviest rainfall across East Anglia causing significant flooding of roads and properties. The river systems rose rapidly across whole catchments due to the existing conditions, which was unusual as storms will often impact a small area and result in a steady progression of floodwater downstream. A major incident was declared by Suffolk Resilience Forum (SRF) in the afternoon of the 20th of October due to significant impacts on communities and disruption to the road and rail networks.

The following maps illustrate the extent to which the rainfall in the months preceding Storm Babet exceeded the average monthly rainfall for July to October in recent years in Suffolk.

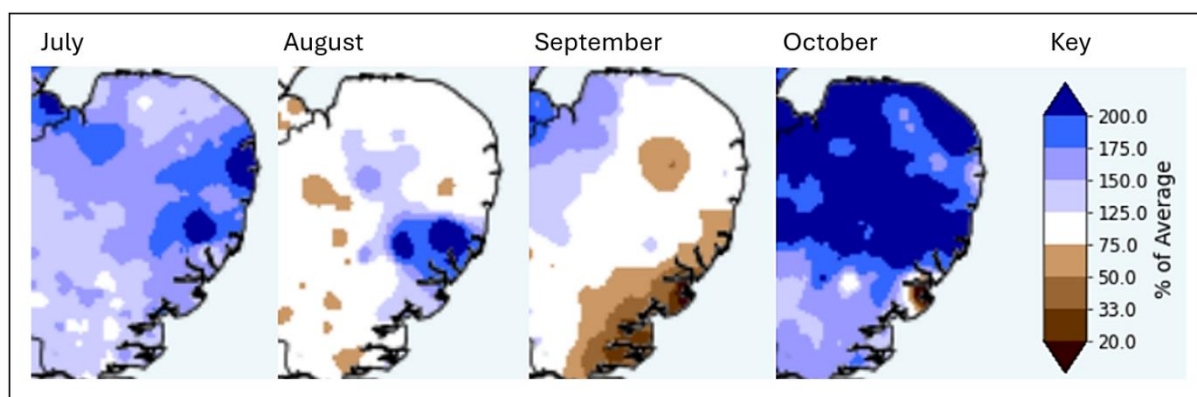


Figure 1. Average monthly rainfall (July – October 2023) as a percentage of the historic average monthly rainfall

The following report acknowledges that October 2023 and particularly Storm Babet, was an extreme event and will assess the probable causes and impacts. The report will recommend measures to reduce the risk of flooding within the location, in line with best practice, ranging from large to small scale interventions and be targeted at a range of stakeholders. It should be noted that Storm Babet was a significant event,

with a low probability of recurrence. The recommendations will provide advice about reducing flood risk. However, they should not be relied upon as a guaranteed failsafe to mitigate against all future flooding.

2. Location of flooding

The parish of Long Melford is located in the district of Babergh and Mid Suffolk, approximately 3 miles north of Sudbury and 5 miles southwest of Lavenham.

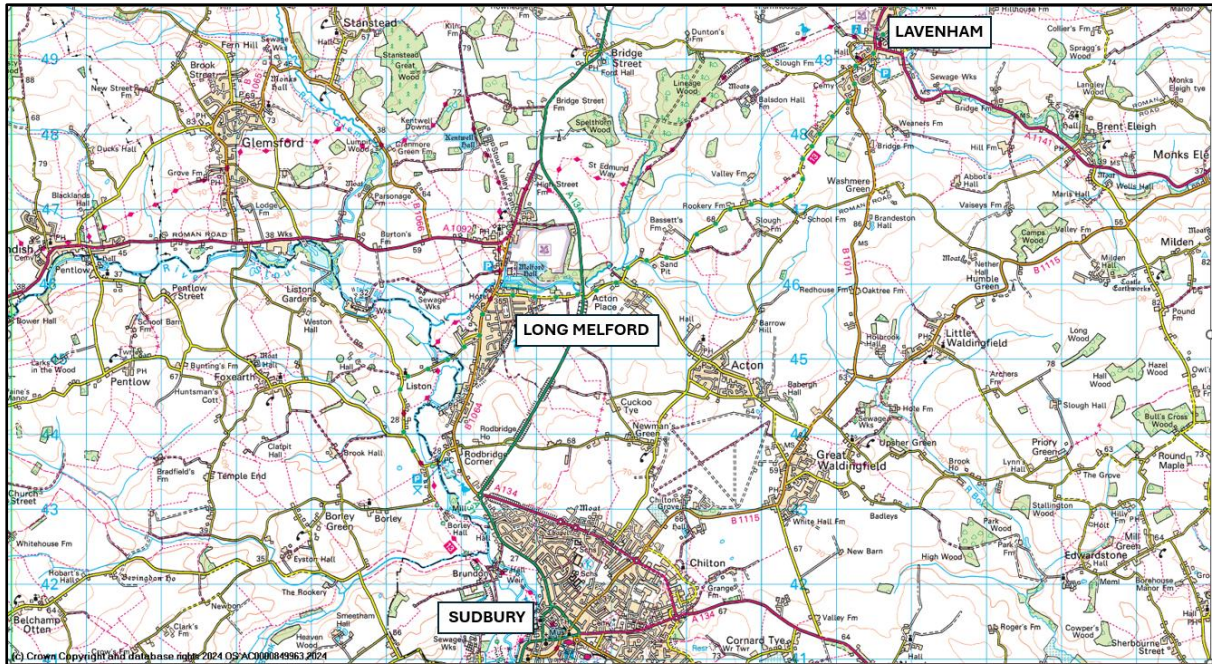


Figure 2. Investigation area map

Figure 3 shows the statutory main rivers in Long Melford parish. These include the River Glem (flowing from the northwest) which joins the River Stour (flowing from the west). Chad Brook flows from the north towards Long Melford, also joining the River Stour and flowing south towards Sudbury.

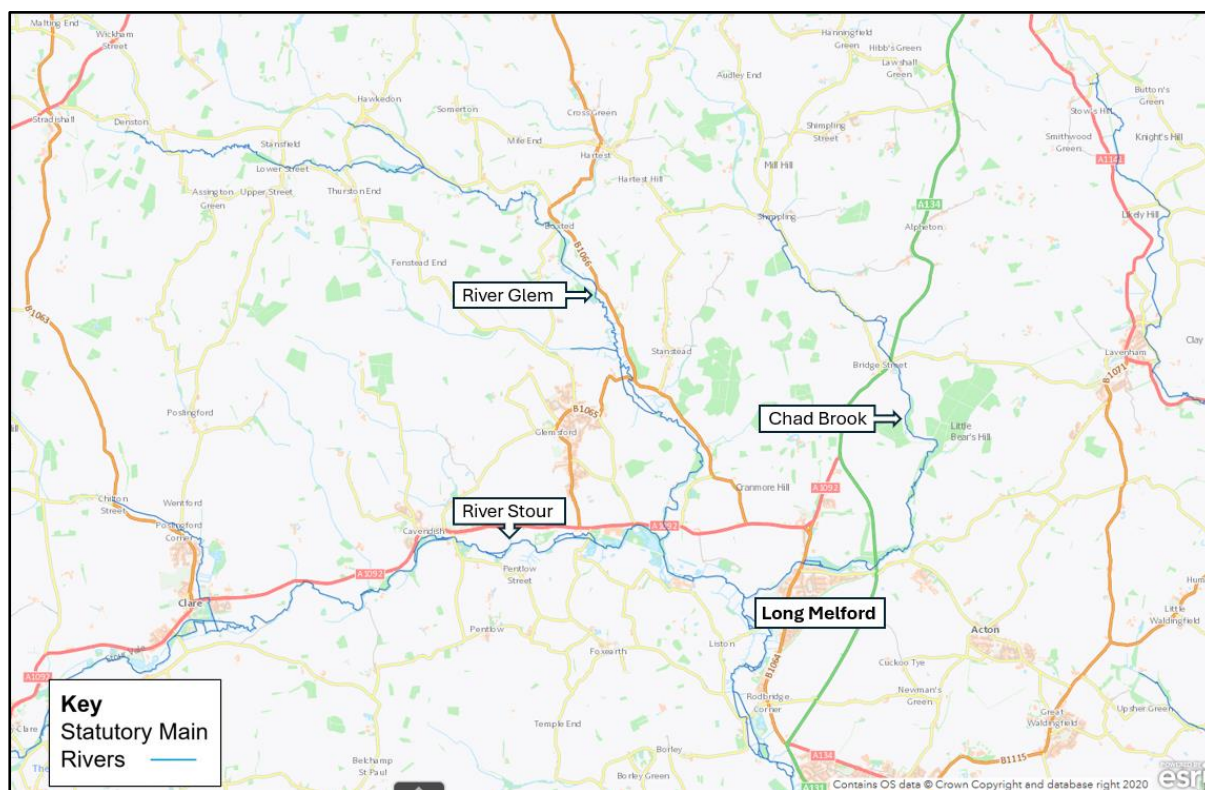


Figure 3. Location of statutory main rivers

The Environment Agency has permissive powers to carry out maintenance, improvement or construction work on statutory main rivers to manage flood risk. Lead Local Flood Authorities (LLFAs) and Internal Drainage Boards (IDBs) manage the flood risk from ordinary watercourses but responsibility for maintaining watercourses rests with the riparian landowner, defined as those who have a river, stream or ditch which runs next to or through their land or property.

On the 20th October 2023, Storm Babet resulted in significant rainfall across Suffolk on already saturated ground due to above average rainfall in the preceding weeks. The parish of Long Melford was significantly impacted with at least 9 properties flooding internally.

Floodwater was described as coming from several sources including the overtopping of local watercourses (fluvial) and overwhelmed drainage systems and surface water runoff from surrounding fields (pluvial). Within this report, the term 'floodwater' may be used to describe all types of flooding.

Property was reported as flooding internally in three areas of the parish in the roads listed below:

Long Melford village

Bull Lane
Cock and Bell Lane
Hall Street

A1092

Clare Road
Westgate Street

Bridge Street

Bridge Street Road

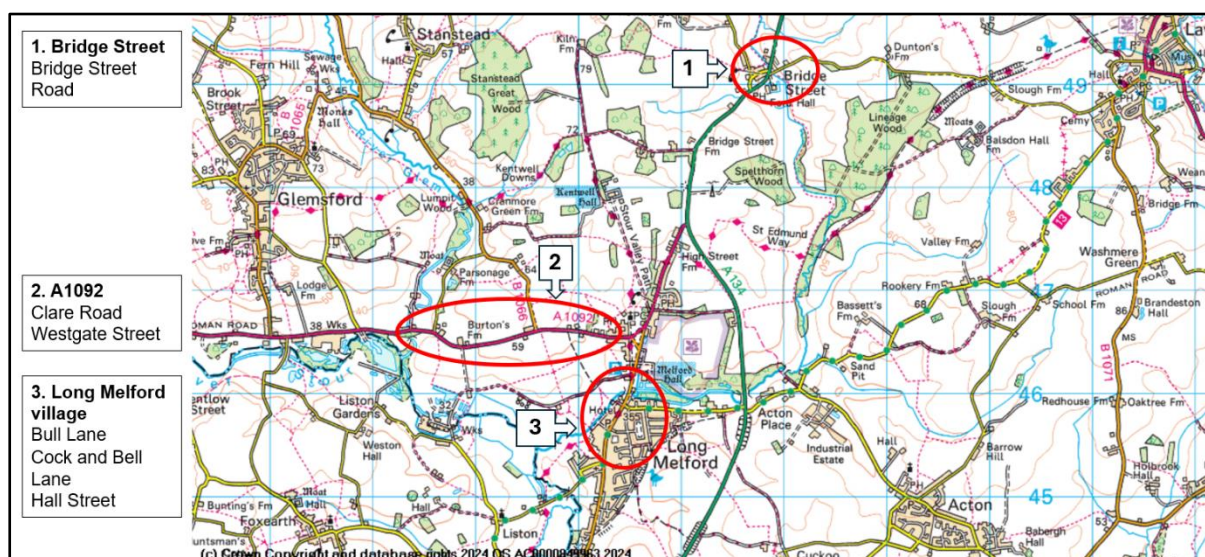


Figure 4. Locations where internal flooding of property was reported

3. Records of any historical flooding

Suffolk County Council's Highways reporting tool, local and social media reports were reviewed as part of this report. Previous reports have been received of internal flooding in Little St Mary due to high rainfall and blocked surface water drainage.

The Environment Agency hold the following historic flood records for the parish of Long Melford:

15th September 1968: 15 properties flooded across 3 streets, source of flooding heavy rainfall.

1st-4th February 1979: 4 properties reported flooding in Southgate Street. Source of flood noted as rainfall/snowmelt.

20th-26th August 1987: Flooding reported in Old Court and Bull Lane, number unknown. Source of flooding fluvial.

11th October 1987: 5 properties at Old Court, off Bull Lane. Source of flooding unknown.

10th February 2009: flooding of a pumping station, flooding source surface water. Hanover Court area, reports of residential gardens flooding.

4. Predicted Flood Risk

Fluvial flood risk in Long Melford village and Bridge Street is associated with Chad Brook, (Figure 5). Further west on the A1092, fluvial flood risk is associated with the River Glem. Projected fluvial flood risk corresponds with affected property in Bull Lane, Clare Road, Cock and Bell Lane, Hall Street and Bridge Street Road which reported being flooded from watercourses.



Figure 5. Predicted flood risk from river water (fluvial)

Most of the affected property was projected to be at surface water flood risk, or adjacent to areas of surface water flood risk (Figure 6). Surface water flood risk was projected to be the sole flood risk for affected property in Westgate Street.

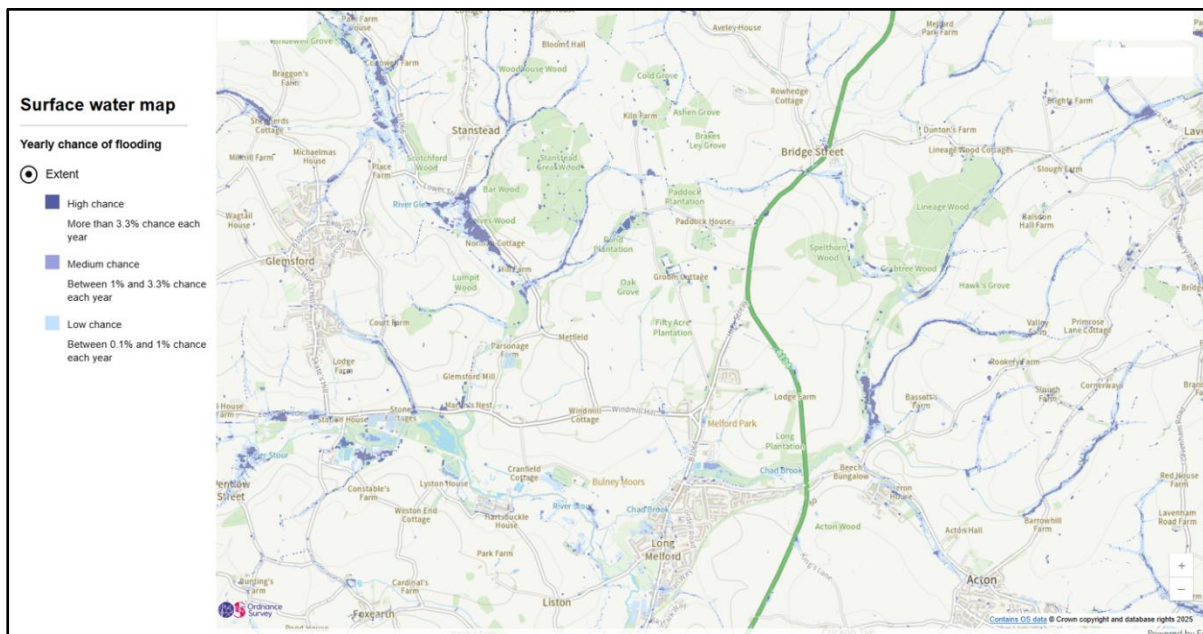


Figure 6. Predicted flood risk from surface water (pluvial)

5. Catchment characteristics

The primary catchment affected by internal flooding of property in the parish of Long Melford is the Chad Brook catchment, where 8 properties were flooded. One property was flooded in the River Glem catchment. The rivers in both these catchments contribute to the River Stour, but this is downstream of affected properties. Both the Chad Brook and River Glem catchment and the parish of Long Melford which partly overlies them are located in a rural and predominantly arable area. The affected parts of the A1092, the village of Long Melford and Bridge Street are all in relatively low-lying areas (Figure 7).

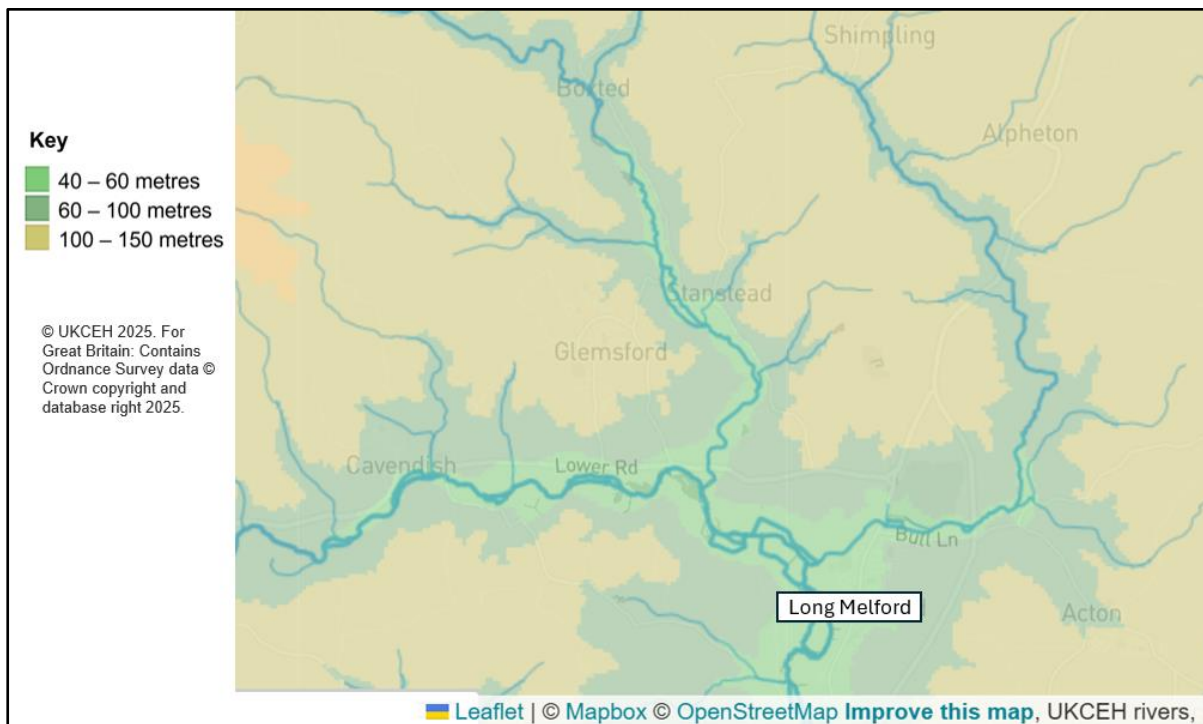


Figure 7. Elevation map of Chad Brook and River Glem catchment areas (National River Flow Archive)

The soils in Long Melford village and Bridge Street are described as freely draining (Fig. 8). However, the soil type that covers much of the upstream catchment for the River Glem and Chad Brook is described as being loamy, clayey and having impeded drainage. In these areas, water permeates more slowly and surface water runoff is greater, particularly during intense rainfall. The saturated nature of the soils leading up to Storm Babet would also have prevented some infiltration, increasing runoff.



Figure 8. Soil map of upstream catchment areas for the River Glem and Chad Brook (LandIS Soilscales)

Superficial geology layers within the parish are diverse (Figure 9). However, much of the superficial geology in the wider area and upstream catchment is made up of 'Lowestoft Formation – Diamiction' which is described by the British Geological Survey as a diverse mixture of clay, sand, gravel, and boulders varying widely in size and shape. This is sometimes known as boulder clay. This generally has a low permeability meaning water will also tend to flow off it before it can infiltrate, which reflects the reports collected during Storm Babet. This also further increases fluvial flows as the surface water joins rivers.

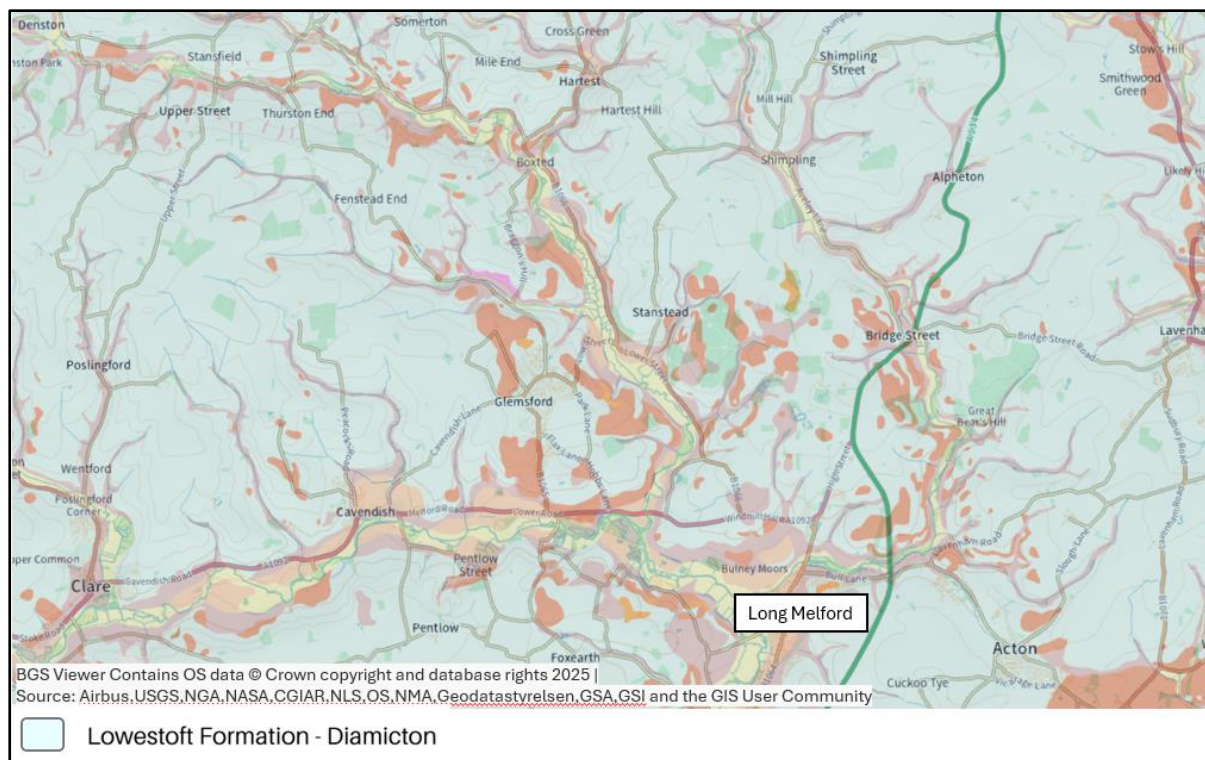


Figure 9. Superficial geology (BGS Viewer)

The bedrock in Long Melford parish and in the upstream catchments is predominantly Crag Group - Sand and various chalk formations. However, during short term intense rainfall events, generally soil composition and superficial geology become more influential in affecting the volume of surface water runoff, contributing to river flow in turn. Nevertheless, historic borehole records in Long Melford village also show that resting groundwater levels have previously been recorded at 9 and 13 feet indicating that groundwater levels have the potential to be close to the surface, suggesting that there may have been an additional groundwater element to the flooding due to the extreme rainfall following a prolonged wet period.

Flooding Sources, Pathways & Receptors

Storm Babet was an extreme event which came at a time when Suffolk had experienced a significant amount of rainfall in the preceding weeks.

The description of the flood events described below will discuss the probable sources of flooding, the observed flow paths through the community and the receptors which have been affected. The term 'floodwater' may be used to describe both fluvial (water from a watercourse) and pluvial (surface water run-off) flooding.

Data from surrounding Environment Agency rain gauges indicates that a significant volume of rain was experienced during Storm Babet. The nearest rainfall gauge to Long Melford is at Lavenham. It recorded 50.77mm of rainfall on 20th October 2023, with 15-minute peaks of 5.43mm at 00:30 GMT and 5.21mm at 07:00 GMT. The Environment Agency gauging station at Chad Brook in Long Melford village recorded the river level as 0.34m and flow as 0.32m³/s at 00.00GMT on 20th October. The river level was recorded as peaking at 0.55m and the flow as 2.07m³/s at 23.00 on 22nd October. The Long Melford Gauge is an information gauge and is not used to issue flood alerts or warnings.

In England, the Environment Agency provides 3 types of flood warning:

- Flood Alert – issued when flooding is possible
- Flood Warning – issued when flooding is expected
- Severe Flood Warning – flooding could be a risk to life and significant disruption to communities

Some properties within the areas of Bridge Street, the north of Hall Street and Bull Lane, and the west of Cock and Bell Lane are within the Flood Alert Area of 'The Upper Stour and surrounding tributaries'. This Flood Alert was issued on 20th October 2023 at 09:15am and remained in force until its removal on 25th October 2023. This Flood Alert area is triggered by rising water levels at any one of the upstream gauges of Steeple Bumpstead, Haverhill, Kedington, Sturmer and Broad Green.

The nearest Flood Warning Area is associated with flood risk from the main River Stour and does not extend to any of the areas flooded in Long Melford village, the A1902 or Bridge Street. There is no flood warning available for these areas.

The description of the flood events outlined below has been prepared using reports submitted to Suffolk County Council via the online Highways Reporting Tool and information gathered by Risk Management Authorities (RMAs), community information and site visits. Detailed descriptions of each investigation area can be found for the following locations.

- **Long Melford village**
 - Bull Lane
 - Hall Street
 - Cock and Bell Lane (Spring Gardens)

- **A1092**
 - Clare Road
 - Westgate Street

- **Bridge Street**
 - Bridge Street Road

Long Melford Village

Descriptions of each investigation area in Long Melford village are detailed below.

Bull Lane

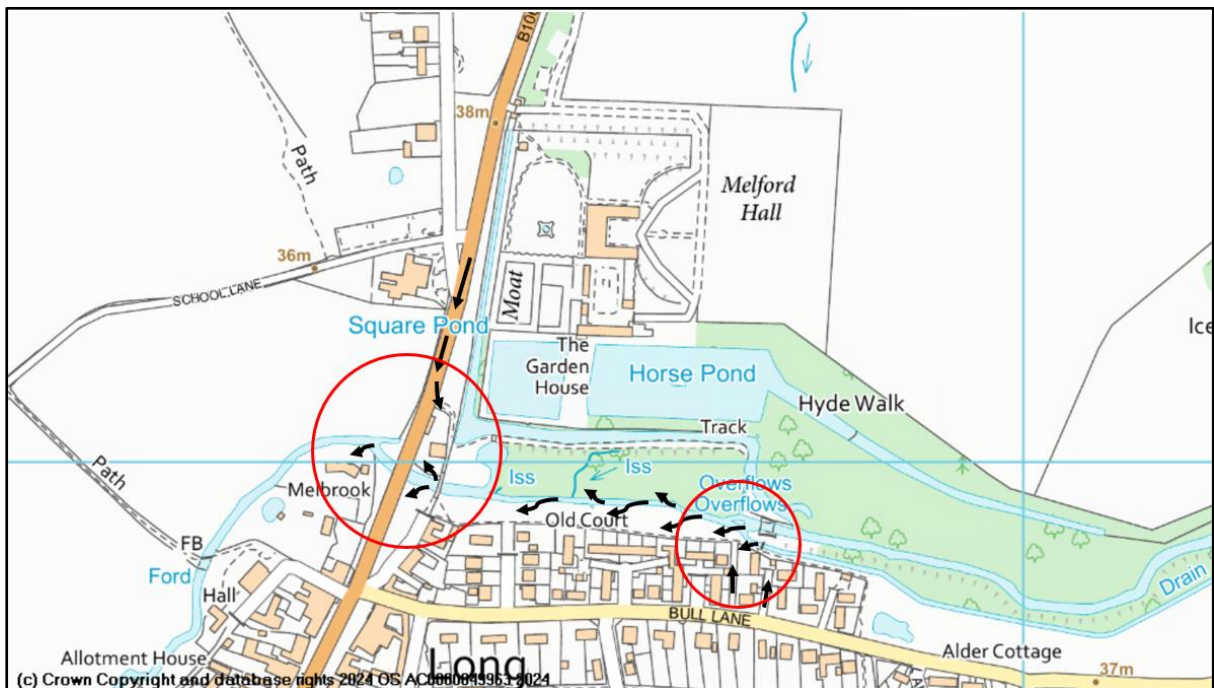


Figure 10 Approximate flood water flow paths in Bull Lane and north Hall Street indicating areas of affected property

Affected property on Bull Lane was located to the north of Bull Lane and adjacent to the drain parallel to Chad Brook. During Storm Babet, the drain and Chad Brook exceeded capacity and overtopped their banks to the rear of property on Bull Lane. Low-lying property began to experience internal flooding at approximately 7.30pm, reaching an internal flood level of about 13cm. Surface water also flowed from higher ground on the south of Bull Lane northwards towards the drain and Chad Brook.

Vegetation and fallen trees were reported to be obstructing flow due to a lack of maintenance in Chad Brook adjacent to Bull Lane. Affected property was projected to be at low risk of surface water flooding and high risk of flooding from river water.

In summary:

- Chad Brook overtopped its banks, flooding property in Bull Lane from the rear.
- Surface water flowed northwards from higher ground on the south of Bull Lane, contributing to floodwater on the north side of Bull Lane.
- Vegetation and fallen trees were reported to be obstructing flow due to a lack of maintenance in Chad Brook adjacent to Bull Lane.

Recommended actions:

- Residents to install Property Flood Resilience (PFR) via grant funded scheme.
- Landowners to carry out watercourse maintenance to reduce flood risk as necessary in accordance with their riparian responsibilities.
- Explore potential natural flood management measures (eg. leaky dams, attenuation ponds and flood plain reconnection) to “slow the flow” and attenuate water upstream in the Chad Brook catchment.

Hall Street (north) (see Fig 10)

Affected property was located in close proximity to the bridge over Chad Brook on the east and west sides of the bridge and on both sides of the river. Property was reported as being flooded to approximately 36cm internally from ground floor level from Chad Brook. Floodwater levels were reported to have peaked at approximately 10pm on the 20th October and subsided by 7am on the 21st October.

On the north side of the river, surface water flowed south down Hall Street, including down a lower level driveway. This flow of water was reported to be increased by blocked drains on Hall Street and the south of the High Street. Subsequent investigations have shown that highway drainage has been damaged and consequently blocked in the vicinity and repairs are currently being commissioned. It should be noted however, that the capacity of the drains would have been limited in such extreme rainfall. On the south side of the bridge a gully was reported as slow running during routine cyclical maintenance prior to Storm Babet. However, this presumably drains to Chad Brook so more efficient functioning would also have contributed further floodwater to Chad Brook.

Silt build up either side of the bridge on the north side of Chad Brook may have contributed to flooding of property in the vicinity of the bridge. However, the original design of the bridge may exceed the natural width of the river, causing the river to flow more slowly in the past and the corresponding slow flows would have allowed more silt to settle. Therefore, future removal of silt on the north bank may again cause the

river to flow more slowly, encouraging a faster rate of silt deposition in future. In the interim, flood risk may be increased for properties downstream in more extreme events. Further investigation would be required to ascertain potential benefits and harms of silt removal in this area.

Vegetation and trees were reported to be obstructing flow due to a lack of maintenance in Chad Brook adjacent to Bull Lane.

On the north side of the river, affected property was projected to be partially at high surface water flood risk and partially at no surface water flood risk. It was projected to be at low river water flood risk, i.e. it is at risk of river flooding in the more extreme events. On the south side of the river, impacted property was projected to be at no risk of surface water flooding and medium risk of river water flooding.

In summary:

- Chad Brook overtopped its banks, flooding property on the east and west sides of the bridge over Chad Brook and on the north and south sides of the river.
- Surface water flowed southwards from higher ground north of the bridge. The volume was increased by damaged and blocked highways drainage.
- Vegetation and trees were reported to be obstructing flow due to a lack of maintenance in Chad Brook adjacent to Bull Lane.
- The role of silt build up on the west and east side of the bridge in flood risk would need further investigation to be determined.

Recommended actions:

- Residents to install Property Flood Resilience (PFR) via grant funded scheme.
- Landowners to carry out watercourse maintenance to reduce flood risk as necessary in accordance with their riparian responsibilities.
- Suffolk Highways to conduct repairs to damaged highways drainage and clear blocked drains on the north and south sides of the bridge over Chad Brook.
- Explore potential natural flood management measures (e.g. leaky dams, attenuation ponds and flood plain reconnection) to “slow the flow” and attenuate water upstream in the Chad Brook catchment.
- Investigate the potential benefits and harms of removing silt deposits adjacent to the Hall Street bridge on the northern side of Chad Brook.

Hall Street (central)

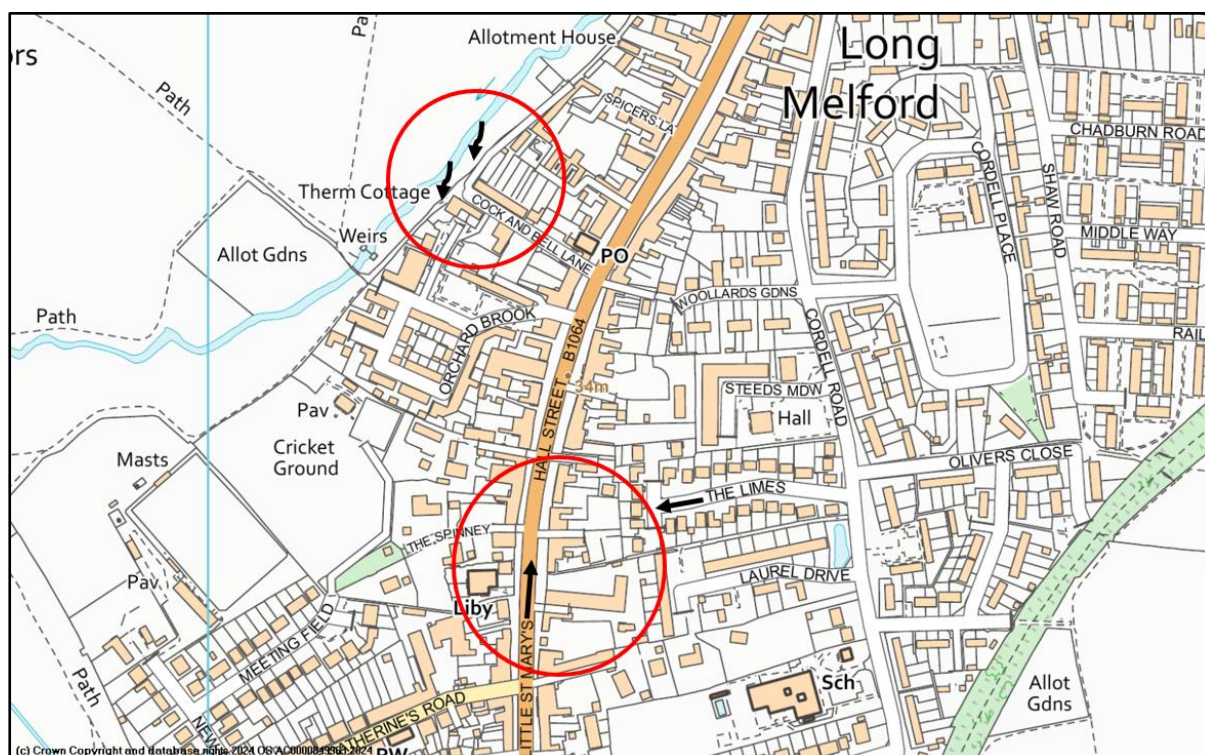


Figure 11 Approximate flood water flow paths in central Hall Street and Cock and Bell Lane indicating areas of affected property

Property in this area reported being internally flooded due to surface water flowing off roads into a low-lying area of Long Melford. Blocked drains in the vicinity were also reported to be a frequent issue. Many of the historic surface water drainage pipes and culverts in this area of Long Melford have relatively small capacities, contributing to water backing up and surcharging from drainage systems. Highways drainage at a low-lying location to the rear of affected property is reported to be free of blockages but to exceed capacity relatively frequently due to water collecting in this area. Two gullies in this area of Hall Street which could not be confirmed as running in May 2024 will be reviewed and jetted as appropriate. Affected property was projected to be at low risk of surface water flooding, i.e. it is at risk of flooding in the more extreme events.

In summary:

- Surface water flowed down roads towards affected property which was at a lower level.
- Highways drainage in the vicinity exceeded capacity.
- Gullies in this area of Hall Street which are not confirmed as running to be reviewed and jetted as appropriate.
- High groundwater levels may also have been a contributing factor to flooding.

Recommended actions:

- Residents to install Property Flood Resilience (PFR) via grant funded scheme.
- Highways to ensure completion of cyclic maintenance of highway gullies.
- Suffolk Highways to jet blocked gullies in the area of Hall Street and investigate the condition of the existing drainage assets.

Cock and Bell Lane (see Fig. 11)

In this location, affected property was in close proximity to and on the east side of Chad Brook. The river was reported to have overtopped its banks and flooded property to an internal depth of approximately 15cm. This was compounded by surface water flowing down Cock and Bell Lane towards the river. Concerns were reported about the lack of maintenance of the river and the functioning of highway drains in the vicinity. There are no gullies in Cock and Bell Lane. Two gullies in Hall Street close to the entrance of Cock and Bell Lane could not be confirmed as functioning and need further investigation.

Impacted property was projected to be at low risk of river water flooding (ie. at risk of flooding in extreme events) and on the border of a medium surface water flood risk area.

In summary:

- Chad Brook overtopped its banks, flooding property on the east side.
- Surface water flowed down Cock and Bell Lane towards affected property which was at a lower level.
- Highways drainage in the vicinity exceeded capacity.
- Gullies in Hall Street at the junction with Cock and Bell Lane which are not confirmed as running to be reviewed and jetted as appropriate.
- Vegetation growth resulting from a lack of maintenance, was reported to be obstructing flow in Chad Brook.

Recommended actions:

- Residents to install Property Flood Resilience (PFR) via grant funded scheme.
- Suffolk Highways to jet blocked gullies in the area of Hall Street and investigate the condition of the existing drainage asset.
- Landowners to carry out watercourse maintenance to reduce flood risk as necessary in accordance with their riparian responsibilities.
- Explore potential natural flood management measures (eg. leaky dams, attenuation ponds and flood plain reconnection) to “slow the flow” and attenuate water upstream in the Chad Brook catchment.

A1092

Clare Road

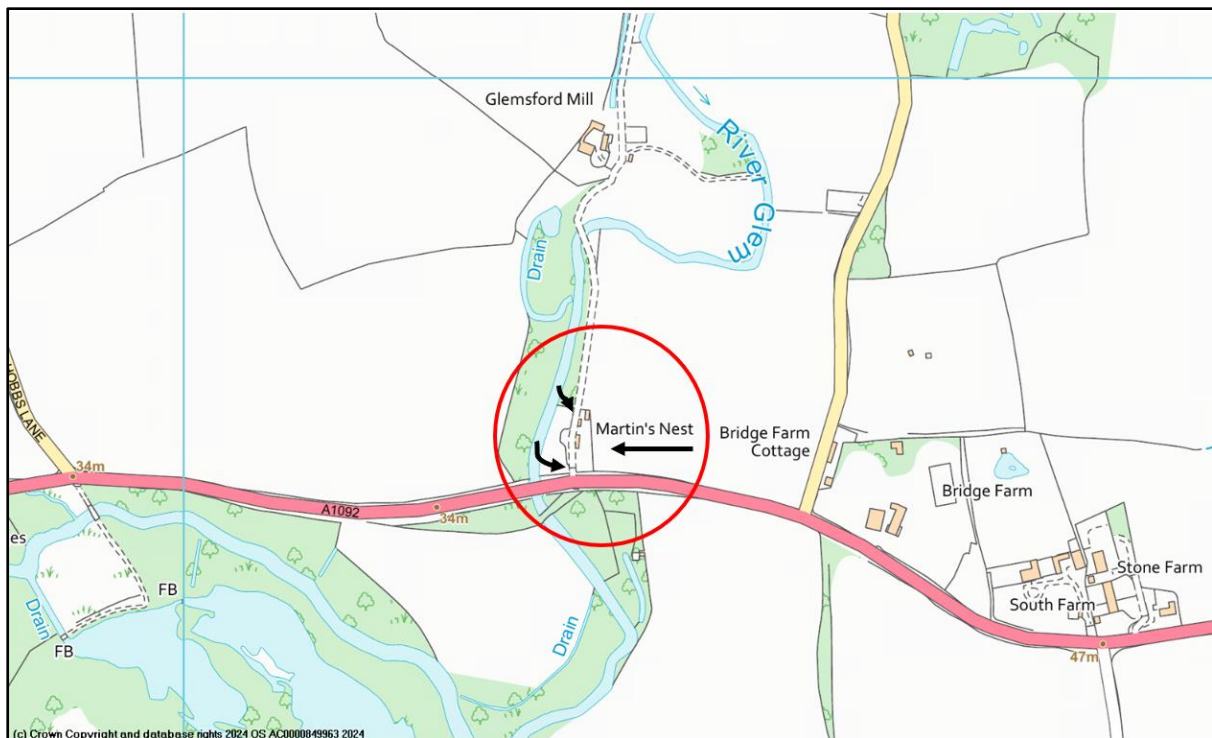


Figure 12 Approximate flood water flow paths in Clare Road indicating area of affected property

Impacted property in this area was on the north side of the A1092, in close proximity to and east of the River Glem. The river was reported to have overtopped its banks, causing internal property flooding. Surface water also flowed west down field slopes towards affected property, contributing to further flooding. Planting of cricket bat willow in the banks of the river was reported to have resulted in cut branches collecting in the river south of the A1092 bridge over the River Glem, hindering flow. Affected property is projected to be at medium river water flood risk and high surface water flood risk.

In summary:

- The River Glem overtopped its banks, flooding property on its east side.
- Surface water flowed west down fields from the east towards affected property, which was at a lower level.

Recommended actions:

- Residents to install Property Flood Resilience (PFR) via grant funded scheme.
- Landowners to carry out watercourse maintenance to reduce flood risk as necessary in accordance with their riparian responsibilities.

- Explore potential natural flood management measures (eg. leaky dams, attenuation ponds and flood plain reconnection) to “slow the flow” and attenuate water upstream in the River Glem catchment.

Westgate Street

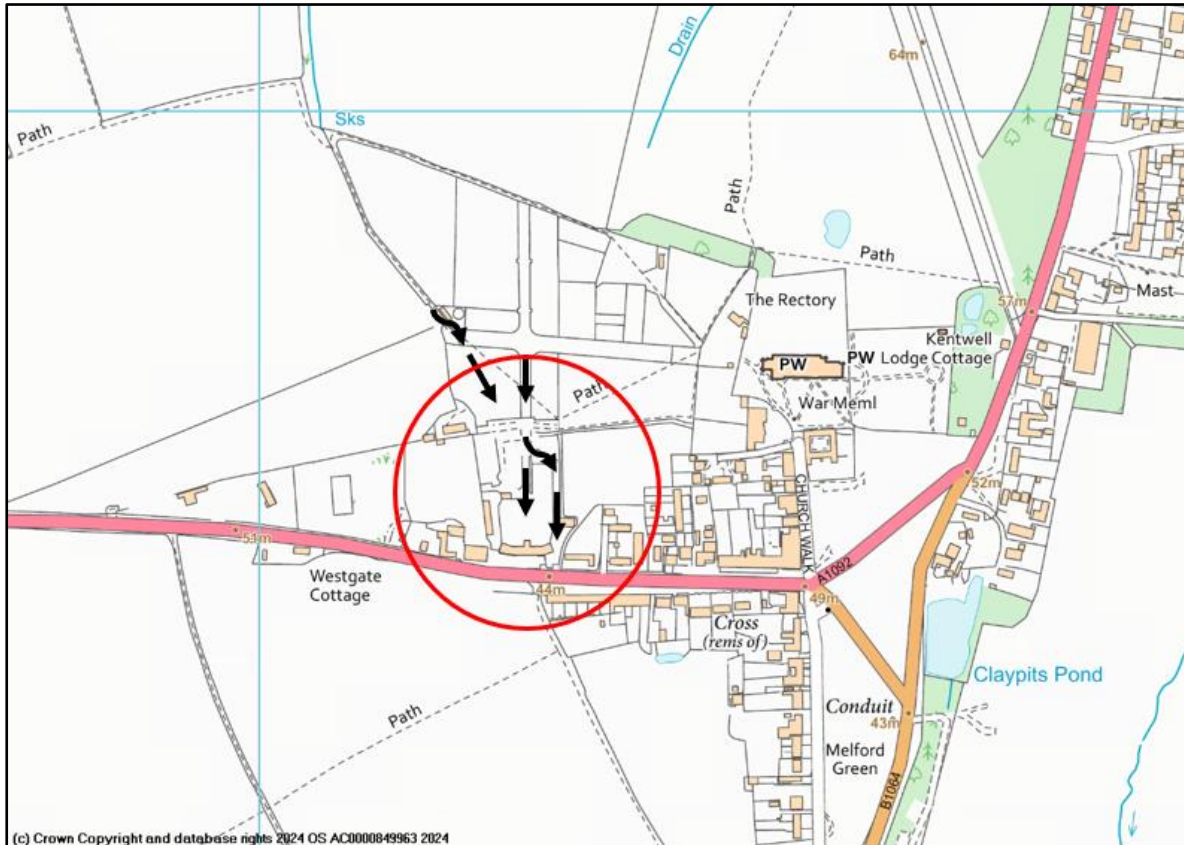


Figure 13 Approximate flood water flow paths in Westgate Street indicating area of affected property

On the north of Westgate Street, impacted property was reported to have been flooded from the rear by surface water flowing south from a ditch. The ditch becomes a piped watercourse as it flows south and the piped capacity was exceeded in the extreme rainfall conditions, causing the ditch to overtop above the piped section and floodwater to flow south down the slope towards the rear of impacted property. This was compounded by surface water also flowing from the fields to the rear. Subsequent investigations are reported to have identified blockages in the piped watercourse which connects with a brick culvert passing under the A1092 and emerges in a ditch on the south side of the highway.

In summary:

- A ditch flowing south towards the rear of impacted property overtopped upstream of a piped section.

- Blockages in the piped section of the watercourse contributed to the capacity of the watercourse being exceeded.
- Surface water flowed south directly off fields towards the rear of impacted property.

Recommended actions:

- Residents to install Property Flood Resilience (PFR) via grant funded scheme.
- Riparian owner to carry out piped and open watercourse maintenance to reduce flood risk as necessary in accordance with their riparian responsibilities.
- Explore potential natural flood management measures (eg. leaky dams and attenuation ponds) to “slow the flow” and attenuate water to the north of impacted property.

Bridge Street

Bridge Street Road

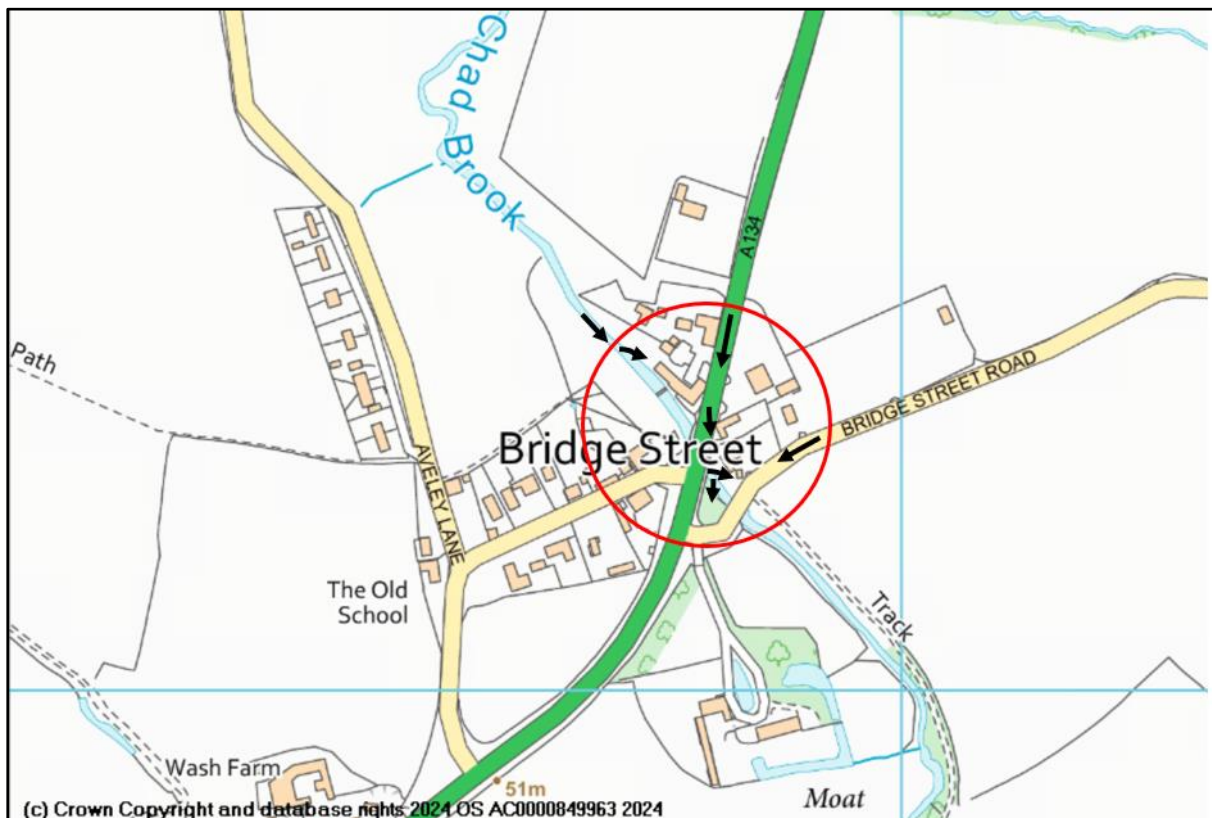


Figure 14 Approximate flood water flow paths in Bridge Street indicating area of affected property

Chad Brook was reported to have overtopped its banks, flooding property on the north side of the river and on both the east and west sides of the bridge adjacent to the

A134. Affected property was reported to have flooded to a maximum level of 90cm internally. Floodwater levels were reported as subsiding by 10pm. on 20th October.

A riparian landowner is somebody who has a watercourse that runs through, next to, or beneath their land and have certain responsibilities with regards to maintenance. The maintenance responsibility at this location is shared, with either sides of the river being the responsibility of the riparian owners who abut the watercourse. Suffolk Highways own the triangle of land in between the bridges to the south of the river. It is reported that historically, local residents have deposited soil and debris beneath the bridge and on both banks of the river between the two bridges which will have contributed to flood risk. Surface water flowed down the A134 and Bridge Street Road towards Chad Brook, contributing further floodwater. A co-ordinated approach to silt removal/redistribution for improving flow would be required on both banks and may require an Environmental Permit for Flood Risk Activities from the Environment Agency.

Affected property on the east side of the A134 bridge was projected to be at high surface water and high river water flood risk. Affected property on the west side of the A134 bridge was projected to be at no surface water flood risk and high river water flood risk.

In summary:

- Chad Brook overtopped its banks, flooding property internally on the north side.
- Surface water flowed down the A134 and Bridge Street Road, contributing further floodwater.

Recommendations:

- Residents to install Property Flood Resilience (PFR) via grant funded scheme.
- Riparian owner(s) to carry out piped and open watercourse maintenance to reduce flood risk as necessary in accordance with their riparian responsibilities.
- Explore potential natural flood management measures (eg. leaky dams and attenuation ponds) to “slow the flow” and attenuate water in the upstream Chad Brook catchment.

Risk Management Authorities, Non-Risk Management Authorities and flood risk functions

Risk Management Authority	Relevant Flood Risk Function(s)
Suffolk County Council	Lead Local Flood Authority, Highways Authority & Asset Owner
Environment Agency	Lead organisation for providing flood risk management under its permissive powers and warning of flooding from main rivers
Anglian Water	Asset Owner
Babergh & Mid Suffolk District Council	Local Planning Authority & Asset Owner
Non-Risk Management Authority	Relevant Flood Risk Function(s)
Private Landowners	Riparian responsibilities for watercourses
Private residential and commercial landowners	Riparian Responsibilities and improving flood resilience to property
Long Melford Parish Council	Manage flood risk at a community level, prepare and produce flood action plans and maintain watercourses where present on land they own.

Action(s) completed to date:

The following section acknowledges actions that RMA's and Non-RMAs have implemented or are currently in progress since Storm Babet and prior to publishing of this report.

Action	Responsible Party	Progress
Offer of £5k Property Flood Resilience (PFR) grant funded scheme to eligible properties that flooded during Storms Babet	Suffolk County Council Lead Local Flood Authority (LLFA)	Ongoing
Ensure riparian landowner responsibilities are understood with regard to watercourse management in Long Melford	The Environment Agency	EA issued riparian guidance in October 2024 to riparian landowners of main river sections where there are no known access issues.
Ensure riparian landowner responsibilities are understood with regard to watercourse management in Long Melford	SCC LLFA	SCC published " Flood Smart Living " online and hard copy guide to increasing flood resilience for residents, landowners and communities, December 2024

Suffolk Highways to conduct repairs to damaged highways drainage and clear blocked drains on the north and south sides of the bridge on Hall Street over Chad Brook.	Suffolk County Council Highways Authority	Gullies along Hall Street cleansed May 2024.
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LLFA Recommended Action(s):

The following section provides a range of flood mitigation measures that could be implemented to reduce the risk of flooding in Long Melford. They have been derived from data and evidence collated as part of the report and have been included having been considered realistic in their implementation. The implementation of actions falls to the responsible party. Progress on the action will be monitored by Suffolk County Council but it should be acknowledged that the council has limited powers to enforce the implementation of recommended actions.

Action	Responsible Party	Timescale for response	Latest Progress Update for Actions
Short Term Actions (e.g. standard maintenance activity and initial investigation of options that can be undertaken with limited need for forward planning)			
Establish a Community Emergency Plan that includes plans to manage future flood events –Liaison with Suffolk Joint Emergency Planning Unit	Long Melford Parish Council	6 months	
Maximise the uptake of the £5k PFR Grant – initial application must be made before the end of April 2025.	SCC LLFA / Residents	2 months	Ongoing
Report any observed blockages below the road bridges over the watercourses to the relevant authority to be investigated and removed if appropriate.	Residents, SCC Highways Authority	N/A	Ongoing
Report any obstructions in the River Glem and Chad Brook to the relevant authority	Residents, Environment Agency	N/A	Ongoing

Landowners to carry out piped and open watercourse maintenance to reduce flood risk as necessary in accordance with their riparian responsibilities.	Riparian landowners	N/A	Ongoing
Suffolk County Council Highways to ensure completion of cyclic maintenance of highway gullies on Hall Street.	SCC Highways Authority	6-12 months	Scheduled for May, 2025
Suffolk Highways to conduct repairs to damaged highways drainage and clear blocked drains on the north and south sides of the bridge on Hall Street over Chad Brook.	SCC Highways Authority	6-12 months	Some repairs are already in planning. Requirements for jetting and minor repairs will be investigated as part of the short term deliverables project.
Suffolk Highways to clear blockages in highways drainage in the vicinity of affected property in central Long Melford village on Hall Street	SCC Highways Authority	6-12 months	Requirements for jetting and minor repairs will be investigated as part of the short term deliverables project.
Suffolk Highways to clear blockages in highways drainage on Hall Street in the vicinity of affected property in Cock and Bell Lane	SCC Highways Authority	6-12 months	Requirements for jetting and minor repairs will be investigated as part of the short term deliverables project.
Investigate the potential benefits and harms of removing silt deposits adjacent to the Hall Street bridge on the northern bank of Chad Brook	Riparian landowners, EA	6-12 months	
Medium Term Actions (e.g. longer planning timescales and potential need to source funding but potential for greater impact)			

Explore potential natural flood management measures (eg. leaky dams, attenuation ponds and flood plain reconnection) to “slow the flow” and attenuate water upstream in the Chad Brook catchment.	Landowners, supported by relevant authority, resource dependant (SCC LLFA, EA)	12-24 months	
Explore potential natural flood management measures (eg. leaky dams, attenuation ponds and flood plain reconnection) to “slow the flow” and attenuate water upstream in the River Glem catchment	Landowners, supported by relevant authority, resource dependant (SCC LLFA, EA)	12-24 months	
Explore potential for natural flood management measures to the north of Westgate Street, (eg.installing leaky dams, attenuation ponds, bunds and buffer strips)	Landowners, supported by relevant authority, resource dependant (SCC LLFA, EA)	12-24 months	
Long Term actions (significantly longer timescale and budget required with potentially greater positive impact)			
Installation of NFM features within upper catchments to attenuate and slow floodwater if investigation works suggest it is viable.	Landowners, supported by relevant authority, resource dependant (SCC LLFA, EA)	TBC	
Environment Agency to investigate whether there are any technically feasible, economically viable, affordable and environmentally acceptable ways to improve flood risk management for the parish from main river sources.	Environment Agency	TBC	

Approval

This report will be reviewed and updated every 6 months until actions are marked as complete.

Reviewer	Date of Review

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Disclaimer

This report has been prepared and published as part of Suffolk County Council's responsibilities under Section 19 of the Flood and Water Management Act 2010. It is intended to provide context and information to support the delivery of the local flood risk management strategy and should not be used for any other purpose.

The findings of the report are based on a subjective assessment of the information available by those undertaking the investigation and therefore while all reasonable efforts have been made to gather and verify such information 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. Should there be additional information available to develop the report, please email to floodinvestigations@suffolk.gov.uk.

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

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The implications for producing Flood Investigation Reports and any consequences of blight have been considered. The process of gaining insurance for a property and/or purchasing/selling a property and any flooding issues identified are considered a separate and legally binding process placed upon property owners and this is independent of and does not relate to Suffolk County Council highlighting flooding to properties at a street level. Property owners and prospective purchasers or occupiers of property are advised to seek and rely on their own surveys and reports regarding any specific risk to any identified area of land.

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