

Kelsall Main Report Details

Project:	Storm Christoph Section 19 Main Report		
Area:	Kelsall		
Date:	10/08/22	Project No.:	5150735

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
1.0	Draft for RMA Comment	TS	SF	EJG	EJG	10/08/22
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Client signoff

Client	Cheshire West and Chester Council
Project	Storm Christoph Section 19 Main Report
Project No.	5150735
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Kelsall Main Report Details

This Kelsall specific Main Report should be read in conjunction with the Section 19 Flood Investigation – Interim Report (January 2021 Storm Christoph Flooding Event).

1. Background

Kelsall is a small town located 10 km east of Chester on the A54. A number of ordinary watercourses and riparian land drains exist, the area is also known for many ponds and meres.

Flooding was reported in the north east area of the village, around the junction of Morrey’s Lane and the A54, in close proximity to Delamere Forest. A small unnamed watercourse, which originates within the forested area to the north, flows in a southerly direction on the western side of the property, Homewood, before turning east and entering a culvert beneath the A54; part of this drain runs through the Homewood property boundary. The drain continues flowing in a south easterly direction beneath the road and outlets to an open ditch in the forested area to the south of the road.

Kelsall currently sits within Flood Zone 1 and is classified as an area that is not likely to flood from the rivers or the sea. There is a risk of flooding from surface water alongside the A54, for full details see Appendix I.

2. Flood Review

During the Storm Christoph event, flooding in Kelsall was reported at the Morrey’s Lane/ A54 junction, causing internal flooding to one property. There were no further reports of flooding in the village.

It is understood that flooding to the property was a result of overland flow from the wooded area of Nettleford Wood towards the property and surface water runoff from the road pooling at the low spot situated in the garden of Homewood.

There are reported issues of water backing up from the culvert beneath the A54 which local residents believe to be as a result of siltation, debris and vegetation at the outlet which is located on private land. However, this is yet to be confirmed by investigation. The culvert beneath the A54 is approximately 100m downstream and below the ground level of Homewood, therefore it is highly unlikely that flooding of the property was a result of water backing up from this culvert.

Reported issues during the flood event:

- Water began to back up and, coupled with overland flow from the wood, began to pool before entering the property
- Communication with Cheshire West and Chester Council (CWaC) during the early hours of the event raising concerns that the A54 culvert was blocked and this would cause subsequent flooding; there was no timely response to clear the culvert to alleviate flood water
- Ownership and responsibility of the drains is a great cause of concern for the resident, uncertain who to contact during high water events which may lead to property flooding

Figure 1 details the flooding, developed in consultation with CWaC, as Lead Local Flood Authority (LLFA), and affected property owners.

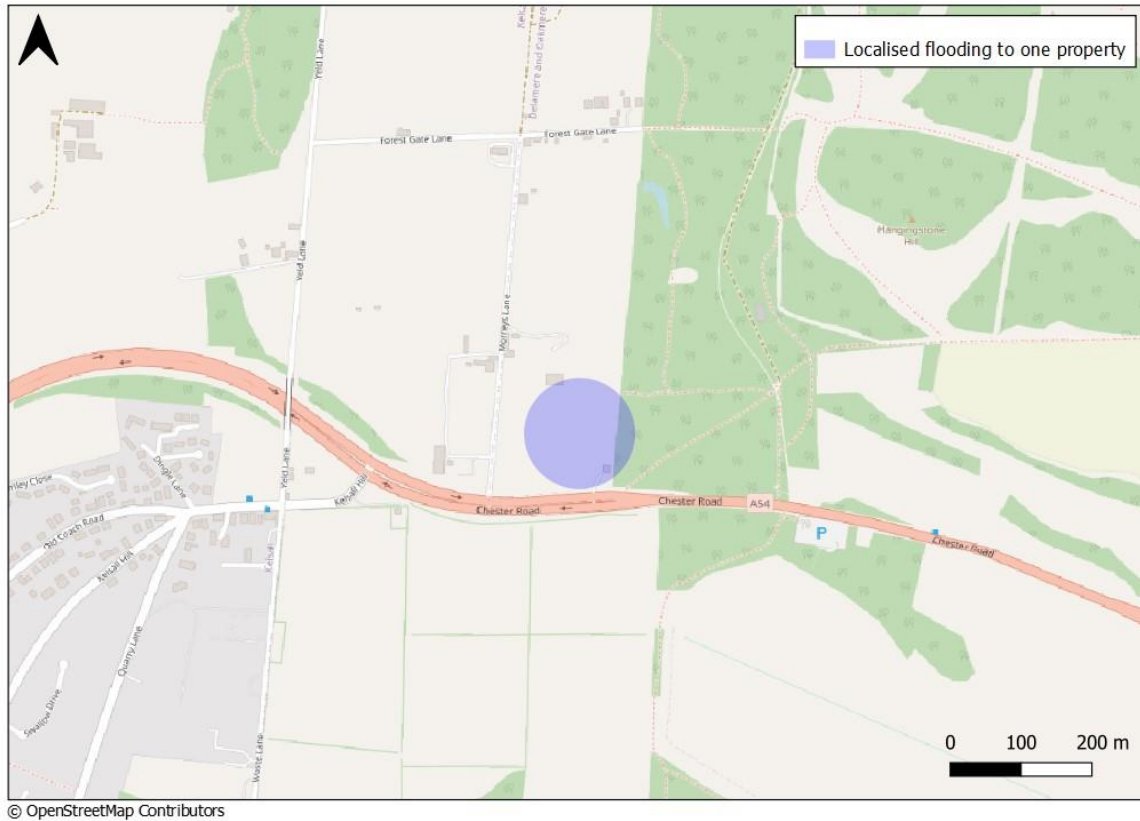


Figure 1 - Flood overview showing indicative location of flooding

Figure 2 below shows the extent of the blocked outfall and the build up of silts and gravels reportedly restricting flow. Whilst there is a build-up of material the image does suggest flow occurred around the left hand side of this material.



Figure 2 – Partially Blocked Outlet Drain

Figure 3 below shows the extent of the flooding at the property. The garden of Homewood drains into the adjacent highway drainage through a single 150mm pipe.



Figure 3 – Flooded Property on the A54

2.1. Area Summary

Key statistics of the Storm Christoph Flooding in Kelsall are summarised in Table 1.

Table 1 - Flood Impact Summary

Residential properties affected:	Commercial premises affected:	Number of properties evacuated:	Number of properties flooded:	Number of domestic properties flooded:	Number of commercial premises flooded:	Comment
1	0	0	1	1	0	As reported to CWaC prior to publishing

Table 2 below provides a brief summary of the flood event, impact and response in Kelsall.

Table 2 – Kelsall

Kelsall	
Date	<ul style="list-style-type: none"> January 20th – 21st 2021
Affected Roads	<ul style="list-style-type: none"> Chester Road (A54)
Flood Alert / warning issued?	<ul style="list-style-type: none"> Flood warnings are not available for the affected properties
Flooding Impacts and Observations	<ul style="list-style-type: none"> Property damage Continued challenge in finding out who is responsible for managing the culvert and securing maintenance of the culvert Additional stress and mental anguish on the community over such an event happening again
Summary of Flooding Incident Response During Event	<ul style="list-style-type: none"> Fire service contacted CWaC to unblock the A54 culvert CWaC completed multiple site visits with the affected property owner following the event

3. RMA Response

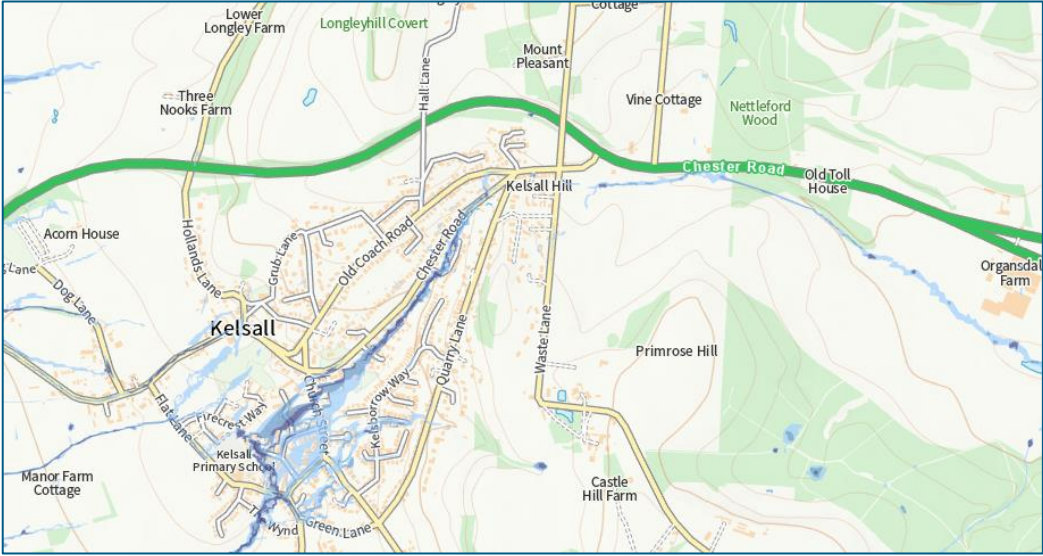
This section outlines the RMA response to the flood event and identifies area for improvement of flood risk management within the CWaC administrative boundary. Consultations have been undertaken with the participating RMAs, local residents and business owners to inform this assessment.

- CWaC, as LLFA, has undertaken site visits and to develop consultations with affected residents to develop deeper understanding of flooding.
- CWaC, as LLFA, are establishing ownership, and hence liability, of the outfall structure.
- CWaC and Forestry England have met on site to agree maintenance and management liabilities and required work associated with the culvert beneath the highway and its associated inlet and outlet structures.
- The FloodHub has been promoted at several engagement events and at site visits with affected residents. A link is also included from the Flood pages of the CWaC website.
- Individual property protection measures have been discussed with the affected property owners.

4. Recommended Actions

- The Forestry Commission has confirmed that they will be carrying out ditch clearance works. CWaC will undertake a cleanse of the catchpits upstream of the outfall structure to minimise debris in the highway system being deposited in the open channel.
- Investigations continue to determine if the ditch outfall on the west boundary of Homewood can be diverted into the highway system to avoid the private system.

Appendix I – Maps



Extent of flooding from surface water

- High
- Medium
- Low
- Very low

Source: EA

Appendix II – Timeline

Time	Kelsall
20/01/2021 17:00	Homeowner contacted CWaC with regards to blocked drains on A54
21/01/2021 05:00	Fire Service contacted CWaC to unblock the drain outfall as a matter of urgency
21/01/2021 07:00	Water stopped rising at the property
21/01/2021 08:00	CWaC were contacted again to report the blocked drains