

Hooton Main Report Details

Project:	Storm Christoph Section 19 Main Report		
Area:	Hooton		
Date:	10/08/2022	Project No.:	5150735

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
1.0	Draft for RMA Comment	SF	TS	EJG	EJG	10/08/22
2.0	Draft for Final Approval	SF	TS	EJG	EJG	01/09/22

Client signoff

Client	Cheshire West and Chester Council
Project	Storm Christoph Section 19 Main Report
Project No.	5150735
Client signature / date	

Hooton Main Report Details

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

1. Introduction

This chapter titled Hooton consists of details relating to two areas located in and around Hooton, Hooton Green and Blackboards Lane, which were affected by Storm Christoph. Hooton is a village on the Wirral Peninsula within Cheshire. The topography of the area is relatively flat.

2. Hooton Green

2.1. Background

A small watercourse, classified as an ordinary watercourse, flows into Hooton from the golf course to the south-east and is culverted under properties on Hooton Green (generally front gardens). The woodland to the north of Hooton Green discharges into this watercourse. There is a nursery to the east of the affected properties from which drains discharge into the watercourse. The watercourse flows as an open channel until it reaches New School Lane, it is then culverted in a 300mm pipe and runs through fields southeast of Hooton and under Hooton Green. It then passes under the A41 before passing through private land and discharging into a small watercourse to the west, which then runs northwards as Dibbinsdale Brook. A drainage plan of Hooton Green is included in Appendix I. There is also an open ditch which runs on the southern roadside of Hooton Green to the east of Derwent Drive, an earth bund of approximately 400 mm height separates the ditch from the highway. The ditch does not appear to have a formal outlet and often contains standing water.

The properties on Hooton Green flood regularly, with internal flooding reported in Sept 2012, Dec 2012 and Dec 2016. Properties in the area discharge to a United Utilities (UU) combined sewer system, which has had historical issues with capacity and flooding. A UU pumping station is located on New School Lane, however it is thought that this pumping station is not connected to the localised drainage system. Many properties lie within the high-risk surface water flood zone (Appendix II).

2.2. Flood Review

Several factors contributed to the flooding at Hooton Green. Surface water ran off from the fields to the north of Hooton Green, flooding properties from the rear including the car park of the Chimneys Pub.

Prior to Storm Christoph fields surrounding Hooton Green were already saturated due to the previous wet weather and the roadside ditch was almost at capacity. During the event, the roadside ditch running along Hooton Green overtopped and flooded the Hooton Green highway. Water within the culverted watercourse backed up to the point where the watercourse is culverted under New School Lane / Hooton Lane, causing water to spill onto New School Lane. The water from New School Lane then flowed onto fields southeast of Hooton Green and ultimately to the ditch along Hooton Green. The water proceeded down Derwent Drive and westwards around the back of properties on Hooton Green. Surface water ran off from fields south of Hooton Green, flooding properties at the southern end of Derwent Drive. As the crest of New Chester Road (A41) is higher than Hooton Green, flood water collected in the Hooton Green low spot. In addition, water flowed onto Hooton Green from the A41 to the north. Refer to Figure 1 for the Flood Overview at Hooton Green.

Reported issues during the flood event:

- The open roadside ditch is often blocked with binbags, tyres and similar rubbish which obstruct flow, there is no positive outlet into the pipe that runs below the ditch. The pipe is not perforated and there is no inlet into the chamber at the ditch end near the junction of Derwent Drive. Water in this ditch enters the pipe either through a leak/defect or soaks away over time.
- There are significant gaps in respect to knowledge of the whereabouts and condition of the culverted watercourse in the area. As the watercourse is classified as an ordinary watercourse it is under riparian ownership, this presents further issues with land ownership and unregistered parcels of land. Residents have also raised concern about the lack of access chambers to the culverted watercourse, within their gardens, to carry out maintenance.

- During the event, the combined sewer system surcharged as a result of overland flow entering the system; residents reported that they were unable to use their toilets for up to 6 days afterwards. UU have completed a CCTV survey and confirmed there were no defects in the combined system, highlighting that overland flow enters and overwhelms the system at this location.
- Residents reported that the gullies along Hooton Green were blocked.
- The flooding prevented care workers from access to one elderly resident and a pregnant lady in labour had to be rescued by the fire and rescue service to be taken to hospital.

Figure 1 shows details of the flooding at Hooton Green developed in consultation with Cheshire West and Chester Council (CWaC) and affected property owners.

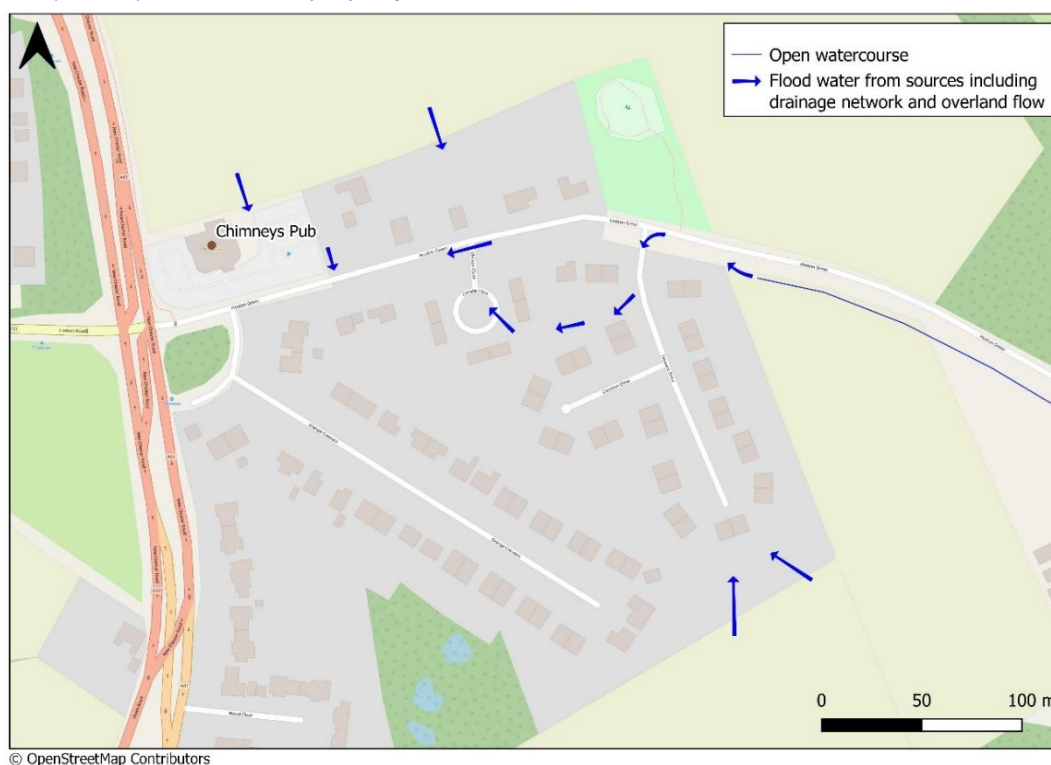


Figure 1 - Hooton Green Flood Overview

Photographs that illustrate the extents of the flood event in the various areas can be seen in Figure 2 and Figure 3.



Figure 2 – Derwent Drive and Hooton Green Junction. 20/01/2021

Source: Resident



Figure 3 - Hooton Green (point where watercourse is culverted). 20/01/2021

Source: Resident

3. Blackboards Lane

3.1. Background

Blackboards Lane is a private road off Welsh Road, located just south of Hooton village centre.

There is a land drain in the field north of Blackboards Lane running parallel to the lane, which is understood to be culverted under Welsh Road, before discharging to the privately owned pond just east of the Junction. The land containing the drain running parallel to Blackboards Lane is heavily vegetated and the course of the drain is unclear.

One property was externally flooded during Storm Christoph at the junction between Welsh Road and Blackboards Lane. The junction here floods regularly in heavy rain. The affected property is in the very low risk surface water flood risk zone.

3.2. Flood Review

During the event, water initially began to pond in property gardens. It was reported that water was backing up where the drain meets Welsh Road. Additionally, residents reported that the highway drains did not have sufficient capacity, causing Welsh Road to flood. Heavy traffic was still travelling down Welsh Road, causing large waves to travel over the property wall and flood the garden.

Figure 4 shows details of the flooding developed in consultation with CWaC and the affected property owner.

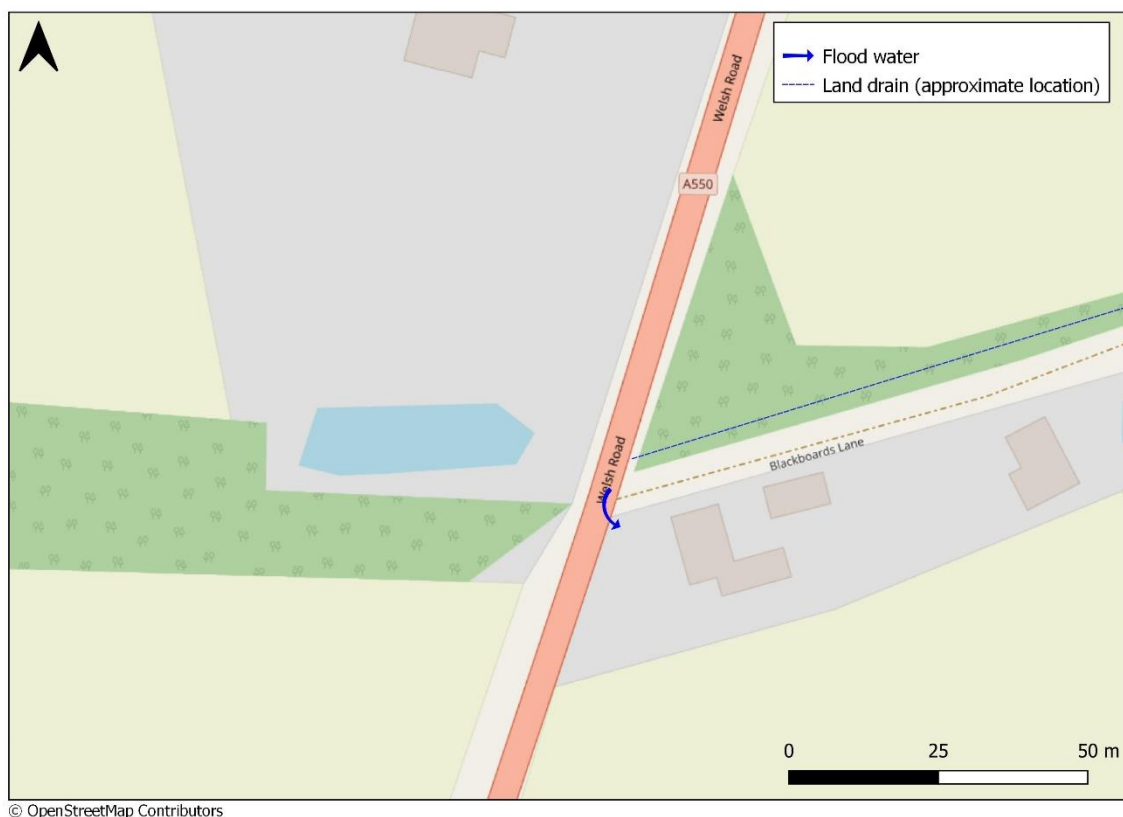


Figure 4 - Blackboards Lane Flood Overview

Photographs that illustrate the extents of the flood event in the various areas can be seen in Figures 5 and 6.



Figure 5 - Blackboards Lane. 20/01/2021

Source: Resident



Figure 6 - Welsh Road and Blackboards Lane Junction. 20/01/2021

Source: Resident

3.3. Area overview

Key statistics of the Storm Christoph Flooding in Upton are summarised in Table 1. A detailed timeline of the flood event can be found in Appendix III.

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
39	1	7	12	11	1	As reported to CWaC prior to publishing

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

Table 2 – Hooton Flooding

Hooton	
Date	<ul style="list-style-type: none"> 20th January 2021
Affected Roads	<ul style="list-style-type: none"> Hooton Green, Hooton Way, Hooton Road, Derwent Drive, School Lane, Grange Crescent, New Chester Road (A41), Welsh Road (A550), Blackboards Lane
Flood Alert / warning issued?	<ul style="list-style-type: none"> The area is not covered by a Flood Warning or Flood Alert
Flooding Impacts and Observations	<ul style="list-style-type: none"> Property damage 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"> At Blackboards Lane, CWaC provided sandbags for the road and residents used personal sandbags to protect the property. Reported that neighbours were using pumps in the cellar of their property. Cheshire Fire and Rescue Service evacuated an elderly resident and pregnant woman.

The following actions were undertaken prior to completion of the interim report:

- Residents committee established in March 2021, dialogue with local council begins.
- Meeting on site with affected residents 8th July 2021 with the Lead Local Flood Authority (LLFA).
- Three new manholes were constructed along Hooton Green in August 2021 and two gullies were reconnected.
- Open Microsoft teams meeting with the local MP and a significant number of residents and Council Officers.
- Drain clearance works were undertaken by CWaC between School Lane and outfall and significant blockages were removed (oil drum in pipe).
- Drain clearance works were undertaken by CWaC on Hooton Green with extensive root ingress found.
- CWaC cleaned and CCTV surveyed the drainage system from Hooton Green to outfall. Some sections were unable to be jetted due to access restrictions.
- The private ditch was cleared by local residents and CWaC.

4. RMA Response

This section outlines the RMA response to the flood event at Hooton and identifies areas for improvement of flood risk. Consultations have been undertaken with the participating RMAs and local residents to inform this section:

- CWaC, as LLFA, provided sandbags at Blackboards Lane.
- Traffic management was in place but was not sufficient to reduce traffic speeds to avoid wash towards properties.
- The FloodHub has been promoted to affected residents. A link is also included from the Flood pages of the CWaC website.
- CWaC, as LLFA, has informed riparian owners of their ownership responsibilities for open drainage assets within their property boundaries.
- Notices have been served on landowners whose land contains drains requiring further attention.
- Roadside gullies have been cleansed on an increased frequency with the differing ownerships (CWaC or National Highways) confirmed.

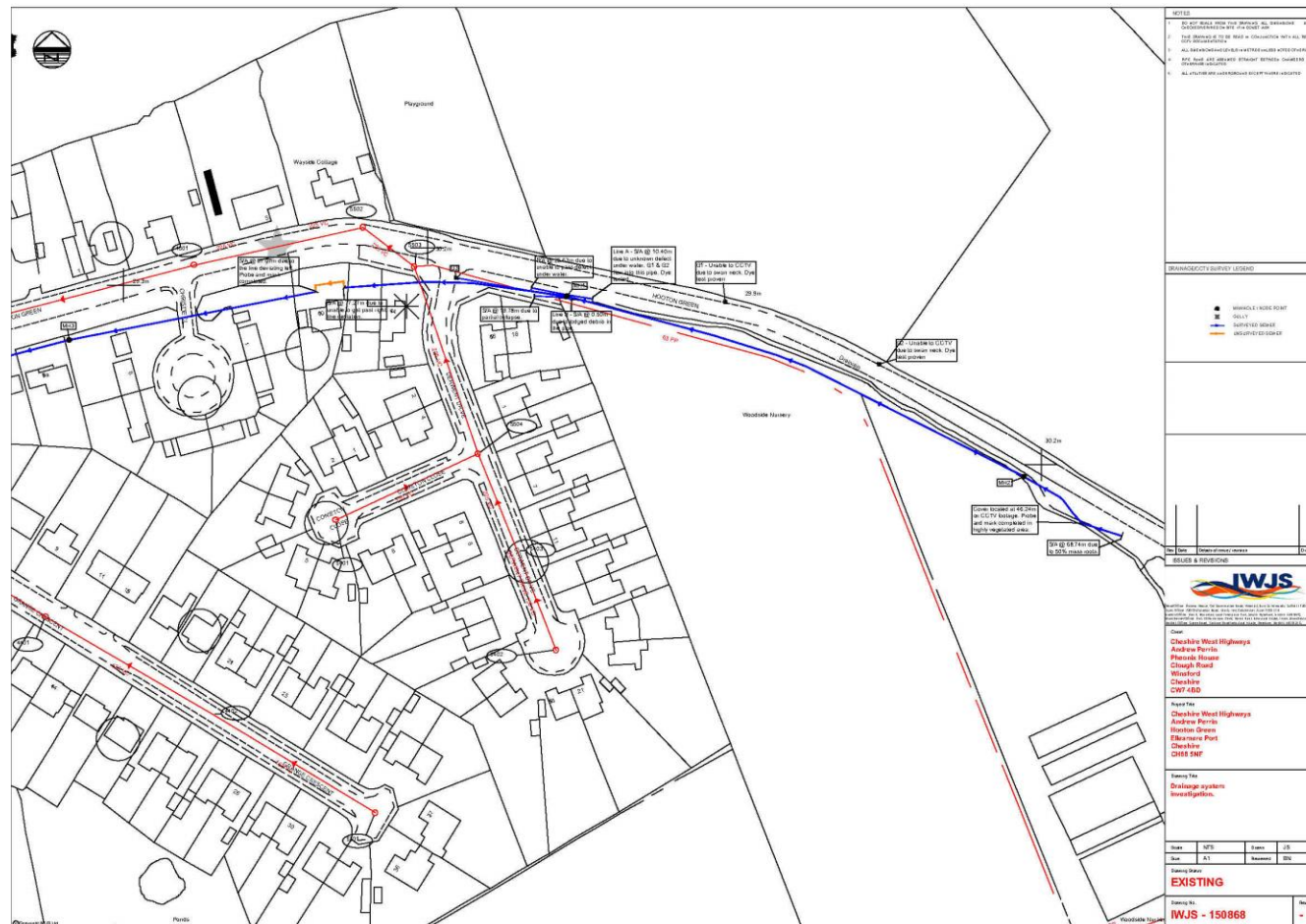
5. Recommended Actions

The following actions are recommended:

- Support affected residents explore property protection measures.
- Alongside other RMAs, consider whether there are economically viable opportunities for attenuating surface water upstream of the affected properties.
- Apply more proactive traffic management measures during flood events to reduce water being washed towards affected property. Either close the roads prone to flooding or actively enforce slower speeds.
- CWaC is moving towards a risk-based approach to gully maintenance; increasing the frequency of cleansing to those gullies identified in areas at risk of flooding.
- CWaC, as LLFA, to consider whether a flood alert system is feasible given that the issues are associated with surface water and land drainage.

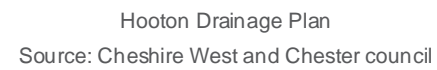
Appendix I – Drainage Plans

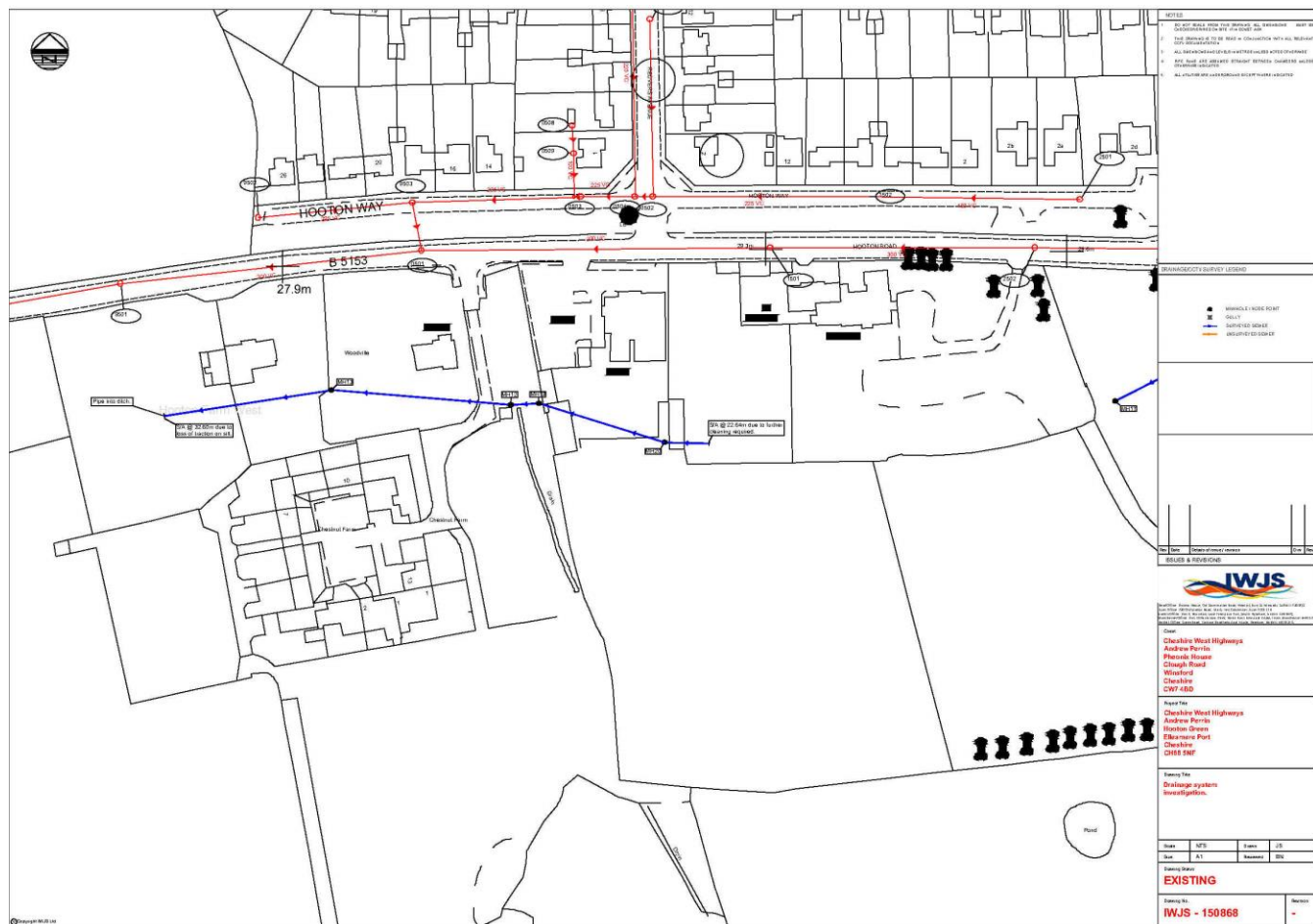
(Note. Plans are Cheshire West Highways and are not corroborated with UU drainage plans)



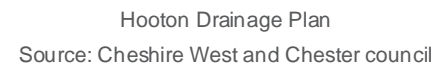
Hooton Drainage Plan

Source: Cheshire West and Chester council





Hooton Drainage Plan
 Source: Cheshire West and Chester council



Appendix II – Map



Extent of flooding from surface water

● High ● Medium ● Low ○ Very low

Source: EA

Appendix III – Timeline

Time	Hooton Green	Blackboards Lane
20 th Jan 13:00	Water overtopped the open watercourse at the point where it is culverted and flowed onto Hooton Green.	No information available at this time
20 th Jan 16:00	Water gathered at the low point of Hooton Green, near New Chester Road.	No information available at this time