

Settlement: Cross Keys

Location of Investigation

Figure 1: Large Scale Map showing the location of Cross Keys

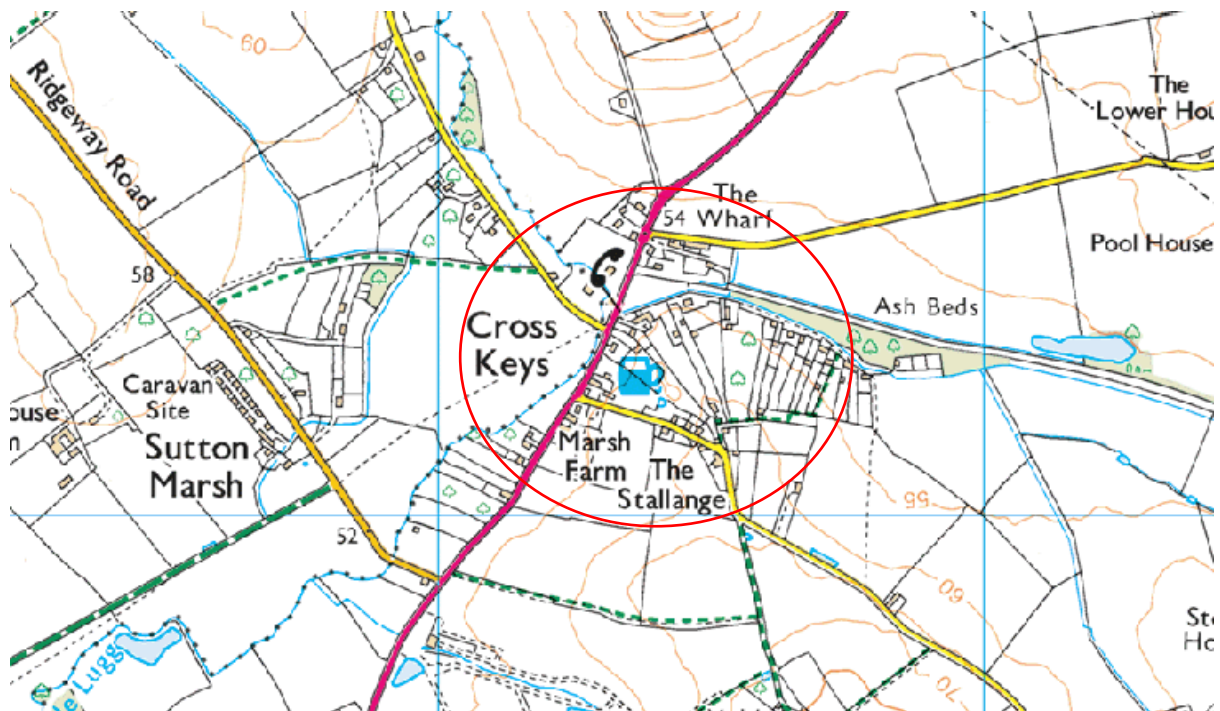
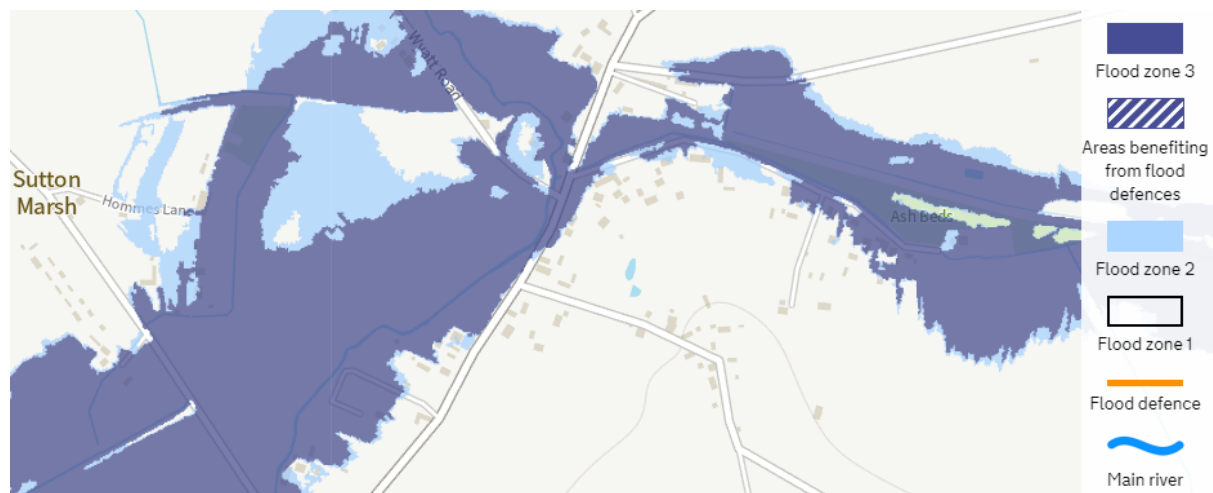


Figure 2: Environment Agency's Flood Map for Planning (Rivers and Sea), June 2021



Date of key flood event	February 16 th 2020
Authorities with Flood Risk Management duties or functions relating to the event	Herefordshire Council (Land Drainage Authority) River Lugg Internal Drainage Board

The Little Lugg and Kymin Brook are designated as Ordinary Watercourses which therefore fall under the regulatory supervision of Herefordshire Council Land Drainage Authority and the Lugg Internal Drainage Board.

Key Flood Event

Flood Type: Fluvial & Surface Water

Watercourse Catchment: The Little Lugg Brook and Kymin Brook are tributaries of the River Lugg.

Eight properties suffered internal flooding in Cross Keys in February 2020. Depths ranged between less than 6 inches and 2ft. Outbuildings and gardens also flooded with depths up to 3ft. Flood durations were recorded as up to 3 days. Previous flooding was reported for five of the properties with three recording flooding in 2007.

HC records for this location identify extensive flooding occurring during the 2007 flood event. Historic flooding is further identified by the respondents, with five of them reporting flooding on previous occasions in 1997, 2007, 2009 and 2012. One of these five reported 'almost annual' flooding since 1996.

Flooding of the A465 is also recorded at Cross Keys on HC historic records where it was identified as fluvial in origin.

Number of Internally Flooded Properties related to key flood event	8
Number of Internally Flooded Properties during most acute flood	8
Impact on Strategic Highway Network	Flooding of the A465
Impact on Critical Services	None reported
Health Risks	No injuries or loss of life were reported

Description of Flooding

The Herefordshire Flood Alleviation Strategy (2010) investigated flooding at Cross Keys and determined the Little Lugg and its tributary the Kymin Brook as the source of flooding. High water levels in the Little Lugg are likely to have significant effect on flood risk at this location.

All the flooded properties in Cross Keys are within or close to Flood Zone 3. Additionally, one of the respondents directly names the Lugg as the source of the flooding, with another naming its tributary and two more describing flooding from 'the brook'. One of these four properties also includes a blocked bridge in their description of the flood mechanism. One other respondent mentions an overflowing ditch (and there were also mentions of blocked gullies). However, these reports are not inconsistent with fluvial flows being the primary source of flooding.

Residents have suggested that there may be a constriction at a highway culvert that conveys the Kymin Brook below the A465. Fluvial water bypasses the culvert, spilling onto the carriageway.

A Road Closure was implemented on the A465 during the flooding, on 16th February 2020.

Damage to Cultural Heritage Sites: There is 1 listed property within the Flood Zone.

Previous reports of floods

Prior to the 16th February 2020 flood, previous flood events have been reported as having occurred in 1953, 1966, 1969, 1996, 1997, 2000, 2007, 2009 and 2012.

Previous Flood Risk Studies

Remnants of an old Canal run parallel with the Kymin Brook. In the 1980s, the River Lugg IDB installed a weir to help facilitate the attenuation of floodwater as a flood alleviation measure.

The Herefordshire Flood Alleviation Strategy (2010) identified 28 properties that may be at risk of flooding. A Property Flood Resilience scheme was delivered to homeowners in 2012.

Conclusions

It appears likely that the fluvial flows from the Little Lugg and its tributary were the primary source of flooding in Cross Keys. The A465 culvert may form a constriction to flow.

Herefordshire Council Land Drainage Authority proposes to exercise their flood risk management function in response to the recent flooding. Herefordshire Council LLFA have identified a requirement to promote delivery of a feasibility study on the Little Lugg Brook and Kymin Brook.

DEFRA grant funding is being sought for a flood risk study, based on the existing fluvial flood risk in this district. Further governance reports will be required prior to any formal application for funding.