

**Lead Local Flood Authority**  
**Section 19 (Flood and Water Management Act**  
**2010)**  
**Flood Investigation Report**

**Report Title:**

The Street,  
Icklingham

**Report Reference(s):**

FW2020-0927	FW2016-1766
FW2016-1578	

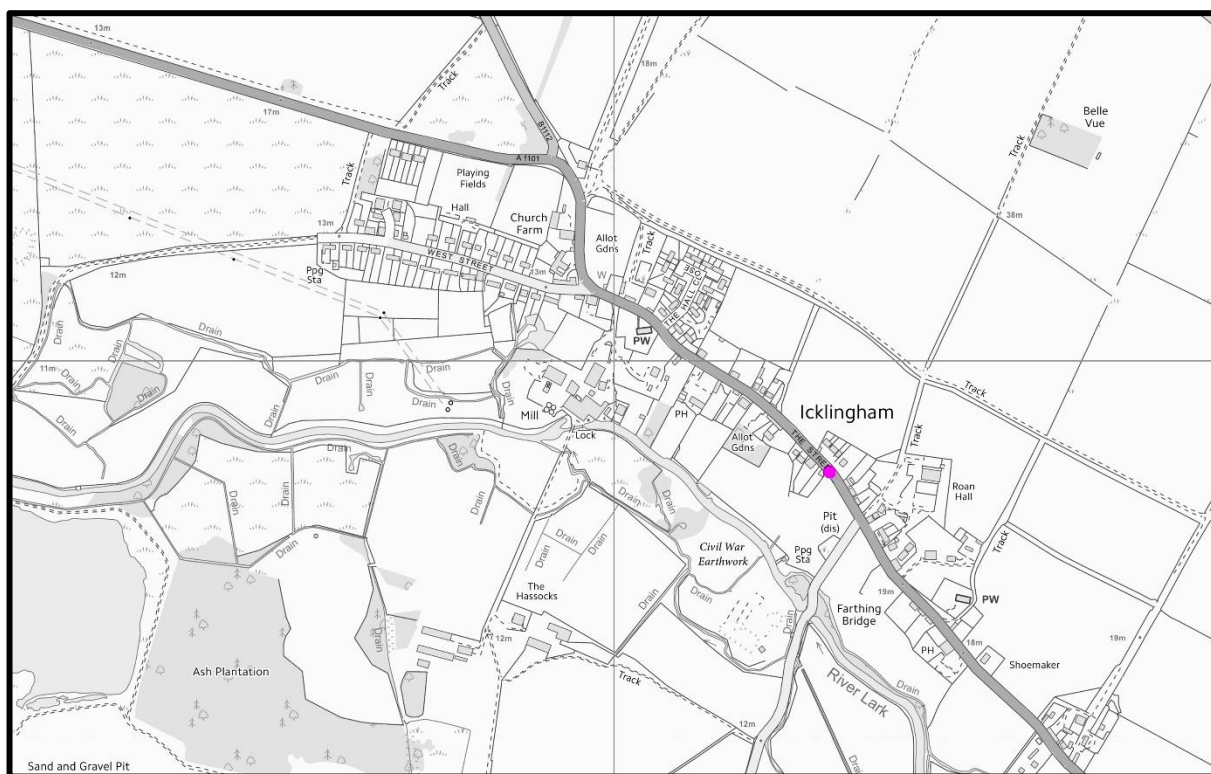
	<b>Name</b>	<b>Date</b>
<b>Lead Officer:</b>	Steven Halls	
<b>Created by:</b>	Steven Halls	01/07/2020
<b>Checked by:</b>	Simon Curl	29/07/2020
<b>RMA Review:</b>	Suffolk County Council	28/08/2020
<b>Approved by:</b>	Simon Curl	25/09/2020
<b>Date Published</b>		25/09/2020

# Flood Investigation Report

- 1.0** Suffolk County Council as a Lead Local Flood Authority (LLFA) has determined that in accordance with criteria, it considered it necessary or appropriate to carry out an investigation into this flood event 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).
- 2.0** **Reference/s:** FW2020-0927, FW2016-1766, FW2016-1578
- 2.1** **Location:** The Street, Icklingham, Suffolk
- 2.2** **Flood Event Date:** 12<sup>th</sup> April 2020, 17<sup>th</sup> June 2020 and 16 August 2020
- 2.3** **Reported to SCC Date:** 18th June 2020
- 2.4** **Investigation Commencement Date:** 26<sup>th</sup> June 2020
- 2.5** **Criteria for investigation:**

<b>Criteria for an investigation (as per Appendix D of the Suffolk Flood Risk Management Strategy):</b>	<b>✓/X</b>
There was a risk to life as a result of flooding?	x
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	x
Where a major transport route was closed for more than 10 hours as a result of flooding	x
Critical infrastructure was affected by flooding	x
There is ambiguity surrounding the source or responsibility of a flood incident	x

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**2.6 OS Grid Reference:** TL 77357 72816

**2.7 Extent of flooding:** Surface water (<0.3m) within 1 property along the southern edge of The Street. Carriageway (A1101) opposite to these properties, also affected by deep surface water flooding.

**2.8 Effect of flooding:** Internal and external flooding to properties.

**2.9 History:** Previous flooding event occurred in April 2020 and July/Sept 2016 but several occasions the road has flooded to varying degrees of depth.

**2.10 Flooding Source:** An intense, localised storm event on the 17th June and 16<sup>th</sup> August 2020 caused rapid runoff along The Street (A1101). The A1101 is steeply inclined and converges towards a central low point. This low point is then part of a natural overland flow path that runs in a south westerly direction towards the River Lark. Ultimately the property obstructs the natural flow path resulting in pooling of deep surface water in front of the property.

Several drainage measures in the highway and private ditches have been installed to intercept runoff in the low point and convey this to the Lark. However, these measures can be overwhelmed during high intensity summer storms.

## 2.11 Causes:

- A1101 alone has a catchment area of approx. 3,000m<sup>2</sup> from crest to crest (500m in length) and is steeply inclined promoting fast runoff towards the natural low point. The only major highway drainage is at the natural low point, so 300m going west to the crest point is largely undrained and likewise 200m to east.
- Multiple new developments have not constructed measures to prevent runoff onto the highways. Some cul-de-sacs have gullies at their entrances within the catchment area.
- The above likely resulted in the overloading of the existing road drainage in A1011 due to the high intensity of runoff over the road catchment.
- SCC Flood and Water Team carried out inspections of local drainage on the 26th June. Coupled with video footage during event, there was no evidence of blockages within the road drainage; this demonstrates there was either
  - a) Insufficient capacity in the existing road drainage to dispose of surface water in these types of events and/or
  - b) The receiving water body was blocked or overwhelmed causing all connecting systems to back up including the road drainage.

Further inspection of private ditches did indicate that b) is a contributing factor as the downstream watercourse has firstly been piped, reducing its capacity for bankfull flow and secondly where open it needs regrading.

- Obstruction of the main overland flow path due to development and poor positioning of housing in the valley.
- No road closures – cars force water out of highway when in flood.

**2.12 Additional Information:** A rain gauge at Mildenhall (6km from the incident) captured 16 mm in a 2hr storm. At this time there are no known gauges in close proximity to the affected area.

The above rainfall depths are not likely to be representative of the observed event. Due to the low proximity of the gauge to the affected area, the gauge may have been on the periphery of the storm and therefore not representative of the peak rainfall intensity.

## 3.0 Risk Management Authority with Relevant Flood Risk Function

- Suffolk County Council (Highways)

## 3.1 Functions:

- Suffolk County Council (Public highway maintenance & asset owner)

## 4.0 Recommendations:

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- Homeowner(s) to add additional flood resilience measures to their properties i.e. property level resilience (PLR).
- SCC Flood and Water Team to investigate watercourse improvements on private land.
- SCC Highways to investigate existing highway drainage in the area and improve position and size of gullies lids within The Street (A1101).
- SCC Highways / SCC Flood and Water Team to investigate additional options for dispersing surface water more evenly across the catchment. Potential options include: -
  - Install soakaways where roadside verges exist and adequately sized gullies grates (pending ground conditions).
  - Use open ditches along The Street with grips or offlets cut into verge – function as a soakaway where ground conditions allow or connect into the existing ditch line heading to River Lark.
- SCC Highways/Local Planning Authority - to check permissions on new developments re prevention of runoff onto highway.

## 4.1 Recommended Actions:

Action	Responsible Authority	Timescale for response	Latest Progress Update for Actions
Investigate and potentially improve existing road drainage in effected area	SCC Highways	3 months	
Investigate use of available roadside green space for disposal of surface water.	SCC Highways/Floods	6 months	
Investigate and improve local watercourses	SCC Floods/Private Landowners	6 months	
Advise affected residents of their rights to protect their property. Advise residents of Property Level Resilience measures and funding opportunities.	SCC Floods	Completed	Property owner to clear ditch and landscape garden to allow safe escape route for water