Lead Local Flood Authority

Section 19 (Flood and Water Management Act 2010)

Flood Investigation Report

Report Title:

Birch Street, Stoke Road & Mill Street

Nayland with Wissington

Report Reference(s):

FW2020-1063, FW2020-1311, FW2020-1315

	Name	Date
Lead Officer:	Matt Williams	
Created by:	Matt Williams	14/10/2020
Checked by:	Simon Curl	14/10/2020
RMA Review:	Suffolk Highways	22/10/2020
Approved by:	Matt Hullis	20/10/2020
Date Published		26/10/2020

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 References: FW2020-1063, FW2020-1311, FW2020-1315

2.1 **Location:** Birch Street, Stoke Road & Mill Street, Nayland with Wissington, Suffolk

2.2 **Flood Event Date:** 14th AM & 15th PM August 2020

2.3 **Reported to SCC Date:** Various from 14th August 2020

2.4 **Investigation Commencement Date:** 18/08/2020

2.5 **Criteria for investigation:**

Criteria for an investigation (as per Appendix D of the Suffolk Flood Risk Management Strategy):	**✓/X**
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?	**X**
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 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**

(Investigation area map)

2.6 OS Grid Reference: 597471 234392

2.7 Extent of flooding: Surface water flowed from Gravel Hill, on to Birch Street/Stoke Road before flowing on to Bear Street/Mill Street.

2.8 Effect of flooding: Anecdotal evidence suggests eleven properties flooded internally. Two properties on Stoke Road, two properties on Mill Street and seven properties on Birch Street. Multiple other properties are reported to have experienced external flooding to their property.

2.9 History: There are multiple historic reports of surface water flooding along Gravel Hill, Birch Street & Mill Street.

2.10 Flooding Source: Surface water runoff from the surrounding catchment draining to the low point at the junction of Birch Street & Bear Street & a second low point on Mill Street.

2.11 Likely causes:

- Significant rainfall event. Whilst it has not been possible to determine the exact time of the rainfall events due to a lack of evidence, the nearest rain gauge at Langham, Essex (6km away) recorded;
    - 14/08/2020 AM - 24.2mm in 2.75 hours, including 18.6mm in 0.5hrs and 12.2mm in 0.25hrs
    - No rainfall recorded 15/08/2020 PM
    - It should be noted that Summer storms can be short, intense and localised in nature. Thus, the rainfall recorded at this gauge may not be representative of the rainfall experienced in Nayland with Wissington.
- The highway drainage system on Birch Street was unable to deal with the volume of surface water runoff. As a result, surface water followed the natural overland exceedance route from Gravel Hill, through Birch Street and onto Bear Street. On Birch Street, surface water was mainly contained within the highway. However, local reports suggest vehicles passing through this standing water at speed caused water to splash up and into properties adjacent the road.
- Evidence suggests properties on Stoke Road & Mill Street were not affected by vehicle splashing, but instead from direct runoff as a result of exceedance.

2.12 Additional Information:

- The highway drainage system along Birch Street is known not to function well, if at all, due to heavy siltation in soft red brick pipework which cannot be removed due to the risk of pipework collapsing.
- The highway drainage system at the junction of Birch Street and Bear Street/Mill Street is known to be functioning.
- Water slowly drained away in the hours after each reported storm event suggesting that the drainage system was functioning, but at a reduced capacity.
- The exact extent of the existing surface water drainage system has not been possible to determine, despite years of extensive surveys by Suffolk Highways, prior to these storm events. This is due to heavy siltation and issues accessing parts of what is believed to be an old Victorian surface water system located in private land.
- Suffolk Highways are progressing multiple potential solutions to the surface water flooding problems associated with this report. This involves liaison with SCC LLFA, Environment Agency & Local Stakeholders.
- Suffolk Highways have undertaken cleansing of gullies post flooding.

3.0 Risk Management Authority with Relevant Flood Risk Function

- Suffolk County Council

3.1 Functions:

- Suffolk County Council (Lead Local Flood Authority - LLFA)
- Suffolk County Council (Highway Authority)

4.0 Recommendations:

- Suffolk Highways to progress investigations of potential solutions to bypass/replace the existing surface water drainage system. Once a solution has been identified, this should be implemented ASAP.
- SCC LLFA to provide residents affected by flooding with written information on potential property level resilience options.

4.1 Recommended Actions:

Action	Responsible Authority	Timescale for response	Latest Progress Update for Actions (February 2026)
Progress and implement solutions to the existing highway drainage problems	SCC Highway Authority	Ongoing	Provisionally programmed for delivery within the 2026/27 financial year
Interim action: Investigate options and finalise scheme design	SCC Highway Authority	Spring/Summer 2021 - Completed	To mitigate flood risk at the Gravel Hill and Stoke Road intersection, a scheme has been finalised to realign the carriageway; to detain and divert surface water runoff into the existing highway ditch, preventing it from reaching adjacent properties.
Advise residents of property level resilience measures	SCC LLFA	November 2020	N/A