Lead Local Flood Authority

Section 19 (Flood and Water Management Act 2010)

Flood Investigation Report

(Reformatted Version)

Report Title:

Sheerwater Close and Mount Road

Bury St. Edmunds

Report Reference(s):

FW2016-1215

FW2014-0520

FW2014-0522

	Name	Date
Lead Officer:	Steven Halls	
Created by:	Steven Halls	04/08/2016
Checked by:	Simon Curl	04/08/2016
RMA Review:	Anglian Water & Suffolk County Council	25/08/2016
Approved by:	Simon Curl	25/08/2016
Date Published		12/09/2016

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:** FW2016-1215, FW2014-0520 and FW2014-0522

2.1 **Location:** Sheerwater Close and Mount Road, Bury St Edmunds, Suffolk

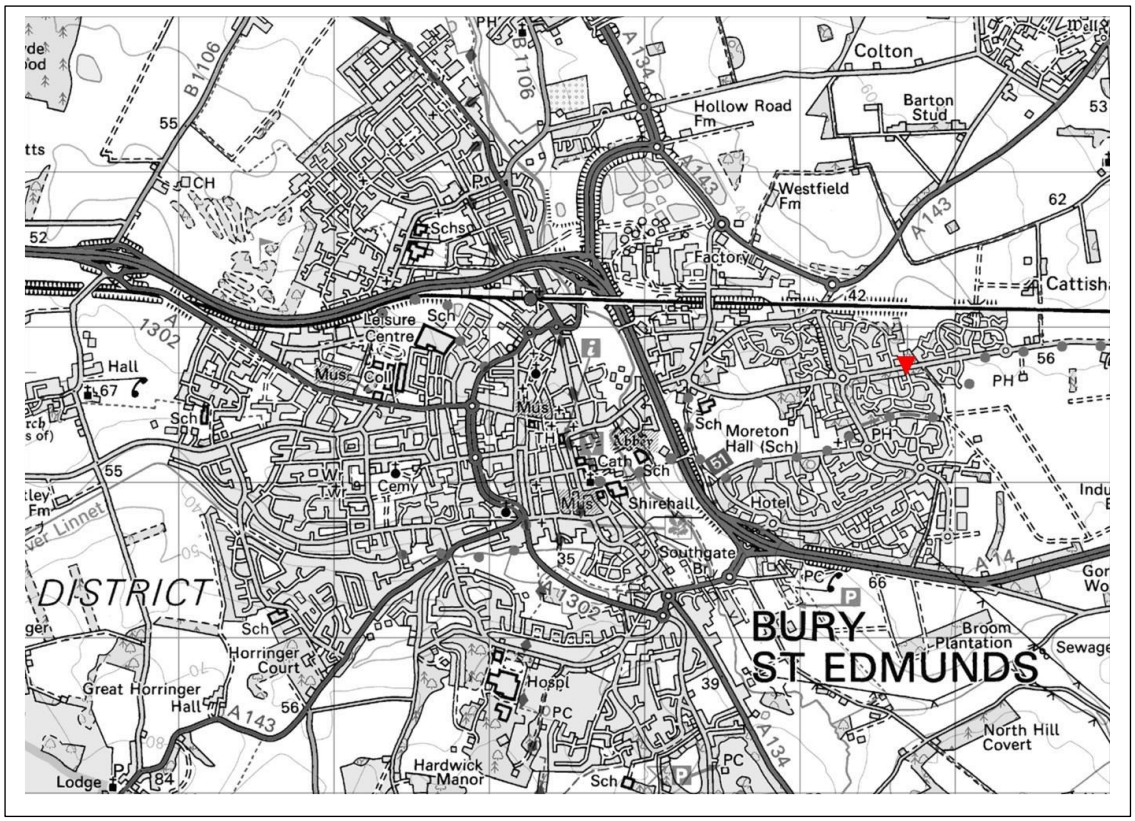
2.2 **Flood Event Date:** 20th June 2016 and 28th June 2014

2.3 **Reported to SCC Date:** 21st June 2016

2.4 **Investigation Commencement Date:** 22nd June 2016

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?	
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	
Where a major transport route was closed for more than 10 hours as a result of flooding	✓
Critical infrastructure was affected by flooding	
There is ambiguity surrounding the source or responsibility of a flood incident	



2.6 **OS Grid Reference:** TL 8768 6473

2.7 **Extent of flooding:** Deep surface water (>0.3m) within 1 property along the southern edge of Sheerwater Close. Mount Road carriageway, adjacent to these properties, also affected by deep surface water flooding.

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

2.9 **History:** Previous flooding events occurred in June 2014 where 3 properties were internally affected in the same location.

2.10 **Flooding Source:** An intense, localised storm event on the 20th June 2016 caused rapid runoff along Mount Road and Tassel Road. Both these roads are steeply inclined and converge towards a low point opposite Sheerwater Close. This low point is part of a natural flow path that runs in a north westerly direction through Sheerwater Close. Ultimately the development has been built in a valley where the properties have dammed the natural flow path resulting in pooling of deep surface water behind the properties. A number of measures in the highway have been installed to intercept runoff in the low point however these measures can be overwhelmed during high intensity summer storms.

2.11 Causes:

- Mount Road and Tassel Rd have a combined catchment area of approx. 8,000m^2 from crest to crest and are extremely steep promoting high runoff rates towards the natural valley.
- Overloading of existing road drainage in Mount Road due to the high intensity of runoff over the road catchment.
- SCC Floods carried out inspections of local drainage on the 21st July. As there was no evidence of blockages within the road drainage; this outlines there was either
  a) Insufficient capacity in the existing road drainage to dispose of surface water in these types of events and/or
  b) Anglian Water's surface water sewer can become overwhelmed causing all connecting systems to back up including the road drainage.
- Poor positioning of existing footway drainage – currently there is no gully in the lowest point
- Obstruction of the main overland flow path due to development and poor positioning of housing in the valley.
- Houses are attached with no available escape routes for stormwater.
- No road closures – cars force water out of highway when in flood.

2.12 Additional Information: A local rain gauge at Rushbrooke (2.5km from the incident) captured two storms on the 20th of June; with 11mm in the morning (2hr storm) and 6mm in the afternoon (15mins storm). At this time there are no known gauges in close proximity to the affected area.

The above rainfall depths are average for this time of year and 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. SCC will use local observations at the affected area as the main source of information.

3.0 Risk Management Authority with Relevant Flood Risk Function

- Anglian Water
- Suffolk County Council (Highways)

3.1 Functions:

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

4.0 Recommendations:

- Homeowner(s) to add additional flood resilience measures to their properties i.e. property level resilience (PLR).
- SCC Highways to investigate highway drainage in the area and improve position and size of gullies within Mount Road.
- Anglian Water to investigate their surface water sewer in Appledown Drive/Mount Rd.
- SCC Highways / SCC Floods to investigate additional options for dispersing surface water during extreme events. Initial thoughts include a wall or bund at the rear of the properties tied into the high ground to keep floodwater at bay. Also a temporary holding area or multiple infiltration trenches in the green space between the rear of the properties and Mount Road could be installed to disperse excess stormwater.

4.1 Recommended Actions:

Action	Responsible Authority	Timescale for response	Latest Progress Update for Actions
Investigate and potentially improve road drainage in effected area	SCC Highways	Completed	Drainage improvements implemented in Mount Rd - May 2017
Investigate use of green space for disposal of surface water.	SCC Highways/Floods	Completed	Not achievable due to space restrictions and poor soakage rates.
Maintain sewerage system and identify if improvements are required.	Anglian Water	Incomplete	AW did not to comment
Advise affected residents of their rights to protect their property. Advise residents of Property Level Resilience measures and funding opportunities.	SCC Floods	Completed	N/A