

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

**Report Title:**

Bury Road

Lawshall

**Report Reference(s):**

FW2014-0460/0462

FW2014-0466/0467

	<b>Name</b>	<b>Date</b>
<b>Lead Officer:</b>	Steven Halls	
<b>Created by:</b>	Steven Halls	19/04/2015
<b>Checked by:</b>	Jeff Horner	21/05/2015
<b>RMA Review:</b>	AW/SCC Highway	13/05/2015
<b>Approved by:</b>	Alan Thorndyke	21/05/2015
<b>Date Published</b>		June 2015

# 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:** FW2014-0460/0462 and FW2014-0466/0476
- 2.1 Location:** Bury Road, Lawshall, Bury St Edmunds, Suffolk
- 2.2 Flood Event Date:** 19th September 2014
- 2.3 Reported to SCC Date:** 24th September 2014
- 2.4 Investigation Commencement Date:** 29th September 2014
- 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?	
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	

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**2.6 OS Grid Reference:** TL 85545508 and TL 85715587

**2.7 Extent of flooding:** Deep surface water (>0.3m) in two specific locations: -

- The junction of Bury Road/Lawshall Row up to Windsor Close where severely 5 properties were affected – referred to as *Bury Rd South*
- Northern section of Bury Road for 20m where 2 properties were severely affected – referred to as *Bury Rd North*

Both these areas are the lowest points in their respective sub-catchments. Bury Rd South also suffered from sewer flooding.

**2.8 Effect of flooding:** Internal and external flooding to properties from mixture of surface water and sewer discharge. Temporary road closure in both locations (unknown period).

**2.9 History:** No previous events on record post 2010

**2.10 Flooding Source:** Intense rainfall event over impermeable roads and buildings produced rapid runoff towards local depressions resulting in areas of deep surface water. Rainfall also caused excessive pressure on the local sewer network causing manhole covers to be lifted near to the pumping station.

**2.11 Causes:** Four main parameters led to the flooding. Overloading of the pumping station, a lack of proper road drainage, poorly maintained watercourses and historical culverting of open watercourses.

## Bury Road South

- Sewer system and pumping station overloaded, attributable to increased catchment area due to development.
- Sewer network near to the pumping station is susceptible to throttling, hence two manhole covers were lifted in Bury Road by the surcharge pressure in the sewer.
- Poor siting of road drainage
- Reduced capacity of main drainage channel due to a 25m length of 225mm culvert.
- Unmaintained watercourses on private land.

## Bury Road North

- The road has a longitudinal catchment area of approx. 2750m<sup>2</sup> from crest to crest and is drained by 3 gullies located in close proximity. Gullies are particularly susceptible to overloading during intense storms.
- Approximately 500m of Bury Rd with no road drainage i.e. any gullies or verge grips

**2.12 Additional Information:** Approximately 75mm (3 inches) of rain fell over an hour according to local rain gauges (unverified data). Equates to a recurrence interval of 1 in 240yrs or 0.4% occurrence in any year.

## **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:**

### Bury Rd South: -

- Flood resilience measures for those houses internally flooded. Reinstatement of kerb heights where drop kerbs are currently situated in front of front doors.
- SCC Highways to investigate and improve positions of grips and gullies.
- Local landowner to reinstate watercourse adjacent immediately opposite the pumping station.
- Anglian Water to investigate pumping station upgrade.

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## Bury Rd North:-

- Watercourses to be cleared by riparian owners
- SCC Highways to investigate additional drainage along Bury Road which feeds into ditches that run alongside the road. Will help dissipate water over larger area and reduce load on gullies at the low point.
- A new ditch connection will be needed to take flow around the back of properties on the eastern side of Bury Rd to avoid using a small 225mm diameter culvert.

### 4.1 Recommended Actions:

Action	Responsible Authority	Timescale for response	Latest Progress Update for Actions
Maintain and improve road drainage	SCC Highways	Delivered	Grips re-cut in 2018 along Bury Rd. Cyclic maintenance ongoing
Enforce maintenance	SCC Floods	Delivered	N/A
Maintain sewerage system and identify if improvements can be made	Anglian Water	Delivered	N/A
Ditch clearance	Local landowners	Delivered	Completed 2018