

APPENDIX A

SECTION 19 REPORT – SUTTON ON TRENT – 2 JUNE 2018

Introduction

Section 19 of the Flood and Water Management Act 2010 states:

1. On becoming aware of a flood in its area, a lead local flood authority must, to the extent that it considers it necessary or appropriate, investigate:
 - (a) Which Risk Management Authorities (RMAs) have relevant flood risk management functions.
 - (b) Whether each of those RMAs has exercised, or is proposing to exercise, those functions in response to the flood.
2. Where an authority carries out an investigation under subsection (1) of Section 19 it must:-
 - (a) Publish the results of its investigation.
 - (b) Notify any relevant RMAs.
3. The objective of this report is to investigate which RMAs had relevant flood risk management functions during the flooding in June 2018 and whether the relevant RMAs have exercised, or propose to exercise, their risk management functions (as per section 19(1) of the Flood and Water Management Act 2010).
4. The Risk Management Authorities for this area of Nottinghamshire are the Environment Agency (EA) (Derbyshire, Nottinghamshire and Leicestershire), Newark and Sherwood District Council (NSDC), The Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA) and Highways Authority (HA), Severn Trent Water Ltd. (STW), Trent Valley Internal Drainage Board (TVIDB) and Nottinghamshire Fire and Rescue.
5. It should be noted that this duty to investigate does not guarantee that flooding problems will be resolved and cannot force others into action.

Background

6. Sutton-on-Trent is a rural village located 8 miles north of Newark-on-Trent that sits between the Great North Road (A1) and the west bank of the River Trent. It is surrounded primarily by agricultural land and is served by a number of watercourses, some of which are maintained by the Trent Valley Internal Drainage Board (TVIDB).

On 2nd June 2018 the village of Sutton-on-Trent was subjected to two pulses of torrential rain; the first at 10am and the second at around 5pm centred to the west of the catchment resulting in significant flooding to 32 properties and businesses. Figure 1 shows the catchment, areas affected by the flooding and the TVIDB watercourses.

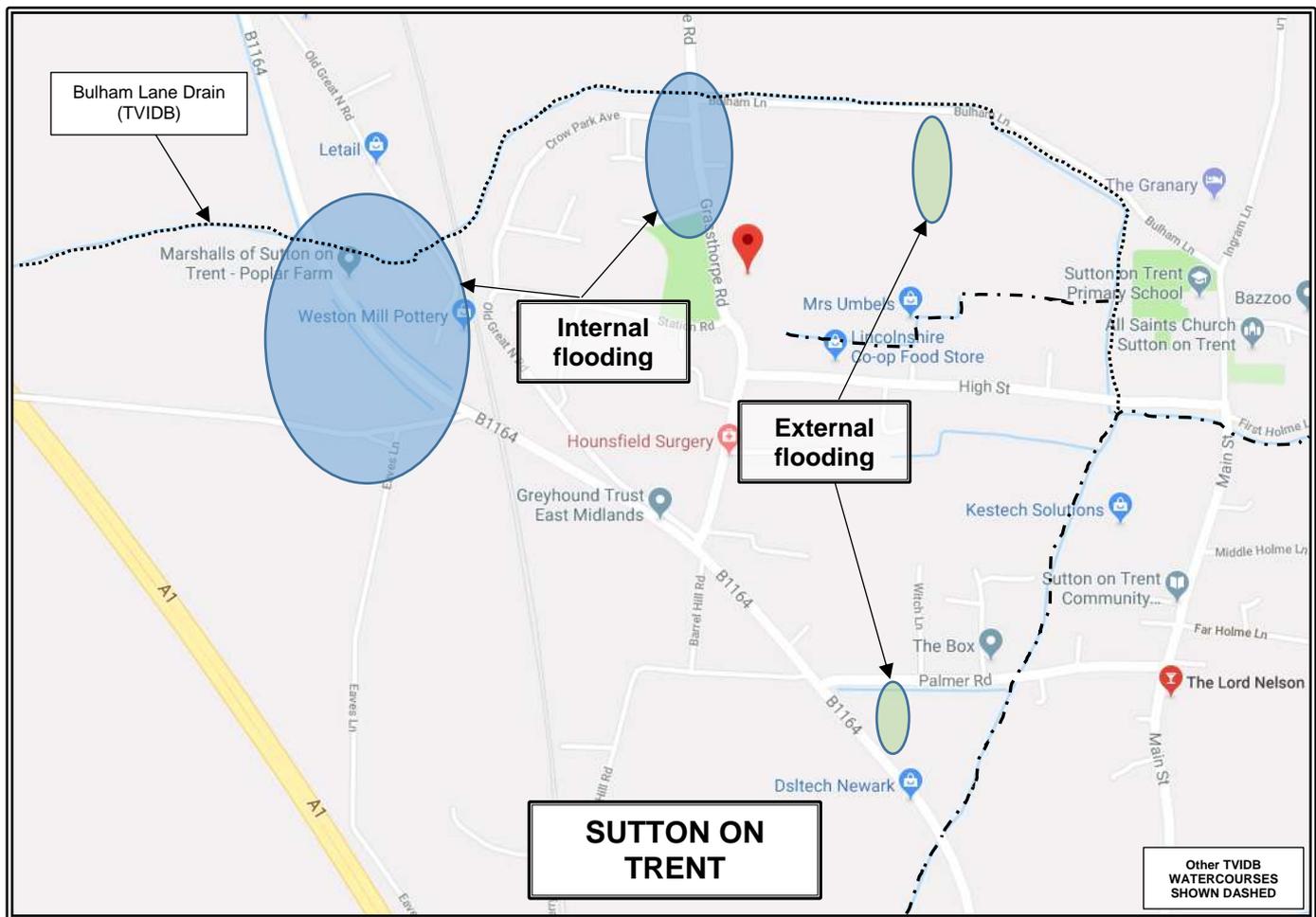


Figure 1. Sutton on Trent Catchment, flooding locations and TVIDB watercourses

Summary of flooding and its causes

7. The rainfall event resulted in 32 properties and businesses experiencing significant internal flooding. Figures 2 and 3 highlight in more detail the areas affected by internal flooding.

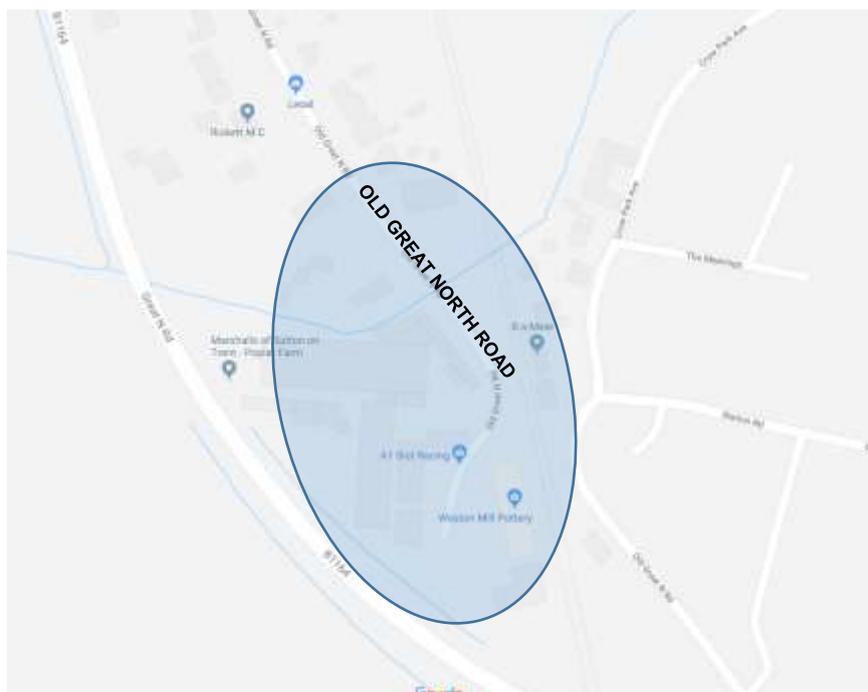


Figure 2. Area affected by internal flooding on Old Great North Road

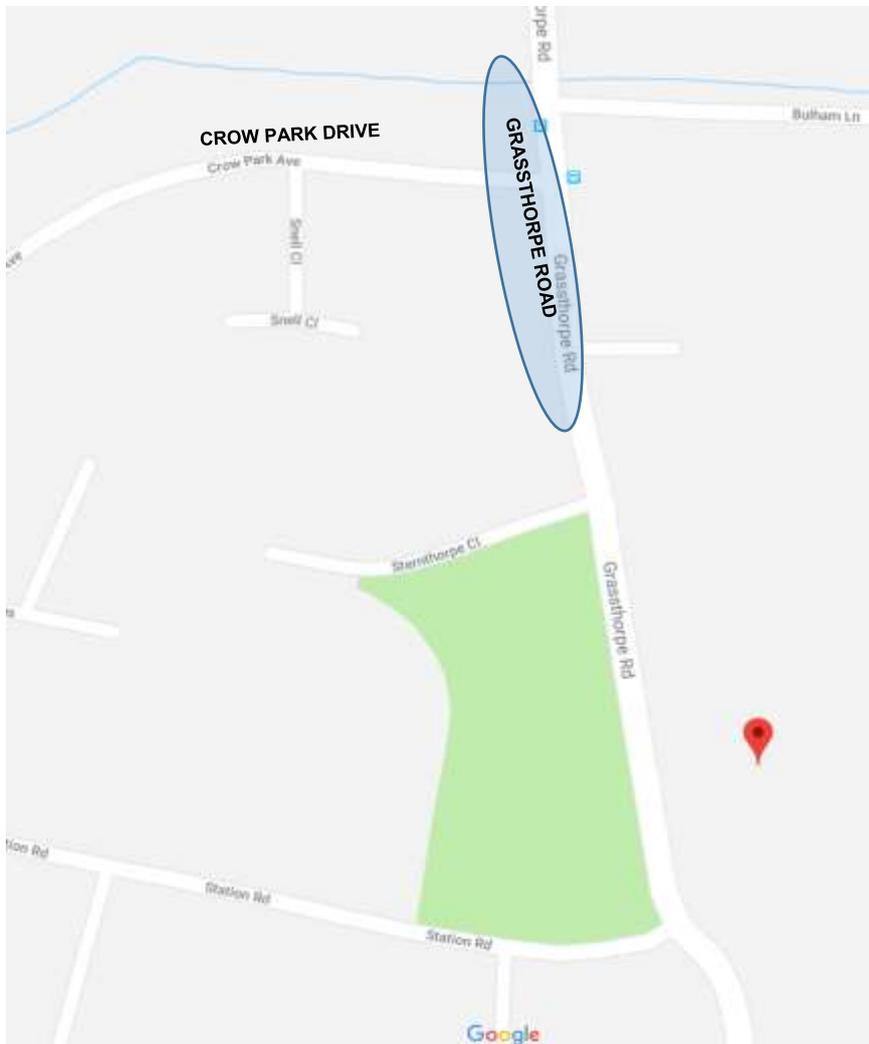


Figure 3. Area affected by internal flooding on Grassthorpe Rd / Crow Park Drive

Investigations have shown that the flooding in the Old Great North Road area was a result of the Bulham Lane Drain (BLD) overtopping in a number of locations. The initial understanding is that these locations relate to sections of the BLD that have been culverted and have highlighted the need to carry out further detailed hydraulic assessments of the watercourse in order to fully understand how it performed during the event. This work has already been commissioned by TVIDB and is programmed to be completed by the end of 2018. Photos 1,2 and 3 overleaf show examples of the culverted section of the BLD.



Photo1. Bulham Lane Drain culvert under Old Great North Road



Photo2. Bulham Lane Drain culvert downstream of railway line



Photo3. Bulham Lane Drain culvert under Grassthorne Road

The water then flowed out onto the Old Great North Road and surrounding areas where the natural topography resulted in the water being directed towards properties and businesses resulting in significant internal flooding. Photos 4-7 give examples of the devastation experienced.



Photo 4 – Internal Flooding on Old Great North Road



Photo 5 – External Flooding on Old Great North Road

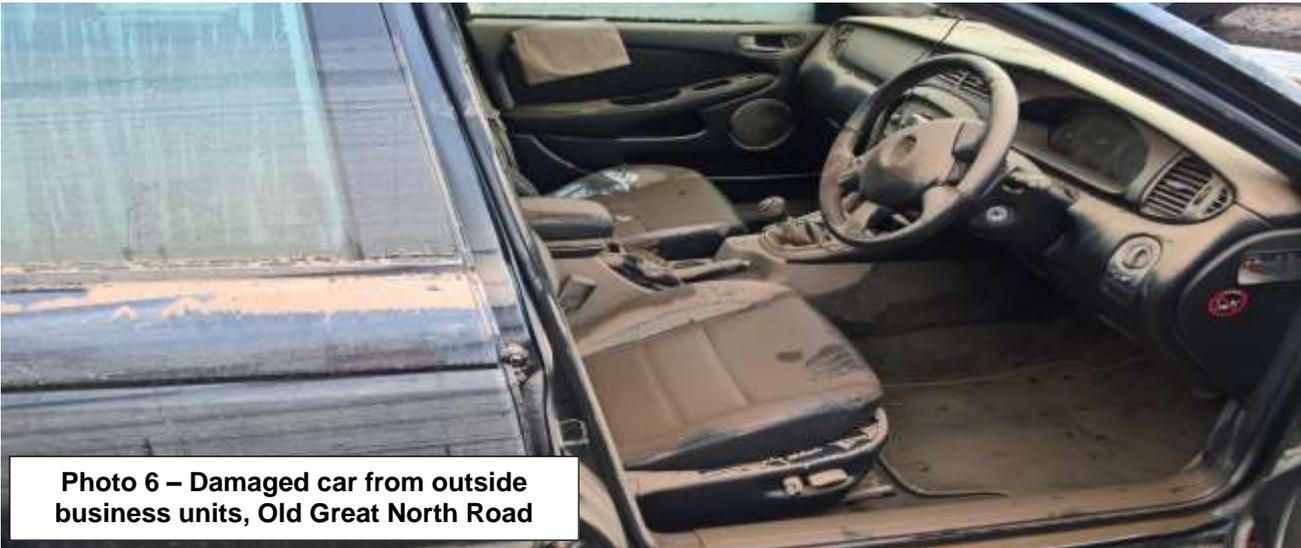


Photo 6 – Damaged car from outside business units, Old Great North Road



Photo 7 – Internal and external flooding of Marshall's Bus Depot

Flooding in the Grassthorpe Road / Crow Park Avenue area is believed to be due to the outfall from the highway drainage system to the Bulham Lane drain being submerged and therefore ineffective. Photo 8 below shows the highway drainage outfall. This situation is being further investigated to both confirm the operation and identify if any alterations can be made to reduce the future risk of flooding.



Early investigations also identified a small number of highway drainage issues that are being looked into by VIA on behalf of The Nottinghamshire County Council as Highways Authority.

Risk Management Authorities and their responsibilities

1. The Nottinghamshire County Council
 - a) Lead Local Flood Authority
 - i. Investigate significant local flooding incidents and publish the results of such investigations.
 - ii. Play a lead role in emergency planning and recovery after a flood event.
 - iii. LLFAs also have a new duty to determine which risk management authorities have relevant powers to investigate flood incidents to help understand how they happened, and whether those authorities have or intend to exercise their powers.

- iv. By working in partnership with communities, LLFAs can raise awareness of flood risks.
 - v. LLFAs should encourage local communities to participate in local flood risk management.
- b) Emergency Planning
- i. If a flood happens, all local authorities are 'category one responders' under the Civil Contingencies Act. This means they must have plans in place to respond to emergencies and control or reduce the impact of an emergency.
- c) Highway Authority
- i. Maintenance of the public highways including highway drainage assets.
2. Severn Trent Water Ltd.
- a) Maintenance of the public sewerage system.
3. Newark and Sherwood District Council
- a) Category one responder under the Civil Contingencies Act. This means they must have plans in place to respond to emergencies and control or reduce the impact of an emergency.
4. Trent Valley Internal Drainage Board.
- a) Management of Bolham Lane Drain and Cuckstool Dyke.
5. Nottinghamshire Fire and Rescue Service (Adapted from page 91 of LRF Flood Response Plan)
- a) Save life (in conjunction with East Midlands Ambulance Service and Nottinghamshire Police)
 - b) Implement water rescue operations
 - c) Conduct search and rescue operations
 - d) Carry out essential damage control operations, such as pumping floodwater (using high-volume pumps) and salvage works
 - e) Assist Nottinghamshire Police in the recovery of casualties

Risk Management Authority Responses to Flood

13. The following lists the actions taken by each RMA in response to the flooding both in the immediate aftermath as well as in the longer term:
- a) The Nottinghamshire County Council:
 - i. Initiated and led the S.19 Flood Investigation.
 - ii. Initiated and co-ordinated Emergency Planning procedures.
 - iii. Coordinated community based meetings and communications (Parish and Drop in Session)
 - iv. Provided Highways response team to investigate highway drainage issues.
 - b) Severn Trent Water Ltd: (note as the flooding was primarily surface water and from a watercourse STW had no significant involvement in the immediate response)
 - i. Actively engaged in S.19 Flood Investigation.
 - ii. Followed up on issues raised during Drop in Session

c) Newark and Sherwood District Council

- i. Provided emergency response support in management of flooding event.
- ii. Actively engaged in the S.19 Flood Investigation.

d) Trent Valley Internal Drainage Board

- i. Provided site based presence and investigations during event and ensured their various assets including weed grids and pumps were operating efficiently.
- ii. Actively pursued further information on the event through Drop in Session.
- iii. Carried out weed and debris clearance from the BLD immediately after the event.
- iv. Actively engaged in S.19 investigation.

e) Nottinghamshire Fire and Rescue (Adapted from page 91 of LRF Flood Response Plan)

- i. Were first responder on site
- ii. Implemented water rescue operations
- iii. Conducted search and rescue operations
- iv. Carried out essential damage control operations, including pumping floodwater



Drop in session at Sutton-on-Trent Methodist Hall – July 9th 2018

14. The investigation concludes that all risk management authorities have and continue to, exercise their respective functions in response to the flood.

Additional information.

15. The catchment was also subjected to flooding in 2007 after which the TVIDB commissioned a study into the hydraulic operation of their assets. This study led to flood mitigation measures being implemented on the section of the BLD downstream of Grassthorpe Road. These improvement have been effective in reducing flooding in some areas of the village as the areas affected in June were not as widespread as in 2007.

During early site investigations officers' attention was brought to the fact that a large highway underpass at the bottom of the Old Great North Road hammerhead had been blocked off to be used as a storage facility and this prevented the flood water getting away. The location of this underpass is shown on Figure 4 below.



Figure 4. Approximate location of highway underpass under the Great North Road

This issue was followed up and evidence shows the underpass is formally leased to the current user by NCC and has been for some 20 years. The underpass was initially installed as a cattle creep and not as a drainage structure and as such utilising it as a storage facility is legitimate. It is acknowledged that had the underpass been left open the flood depths in this event would likely have been shallower however it must also be acknowledged that if the culvert had been left open it may allow flood water to enter the hammerhead from the other side of the Great North Road.

Future Actions

16. Further to the initial investigations TVIDB are have recommissioned their consultants to review their hydraulic study of their watercourses in the area. This will help understand the severity of the rainfall event from 2nd June and identify potential ways of reducing the future risk of flooding. TVIDB are also investigating the legalities of a culverted section of the BLD downstream or the railway line (shown in Photo 2)

Businesses that occupy the properties leased from NSDC on the Old Great North Road have formed a Business Forum to actively engage with NSDC and other RMAs.

NCC Highways are carrying out further investigations into the effectiveness of their highway drainage systems and carrying out remedial works where necessary.

NCC as LLFA will be offering to work with the community and support the creation of a Flood Action Group.