

## APPENDIX B

### SECTION 19 REPORT – THURGATON 23 JULY 2013

#### 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 risk management authorities 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) it must:-
  - (a) Publish the results of its investigation.
  - (b) Notify any relevant risk management authorities.
3. The objective of this report is to investigate which RMAs had relevant flood risk management functions during the flooding in July 2013 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 (Derbyshire, Nottinghamshire and Leicestershire), Newark and Sherwood District Council, Nottinghamshire County Council as Lead Local Flood Authority and Highways Authority, Severn Trent Water Ltd and the Trent Valley Internal Drainage Board.
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

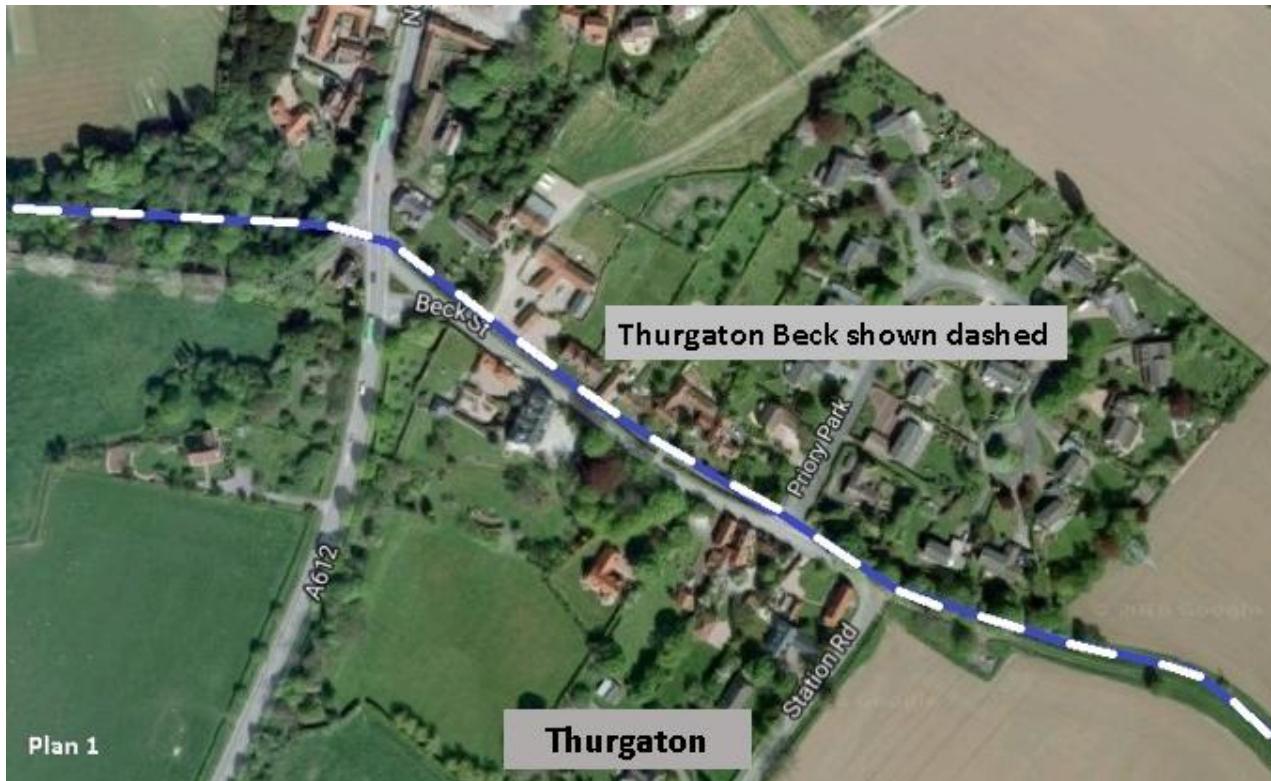
6. On the afternoon of the 23rd July 2013 parts of Nottinghamshire were subjected to intense rainfall. The Met Office at Watnall recorded 35.6mm of rain in a 25 minute period. As a result of this, parts of the County including Thurgaton experienced major flooding with some 600 properties as well as roads and car parks affected across the county.
7. The Met Office issued an Amber Warning at 15:03hrs on the 23rd July highlighting that there was a possibility of up to 60mm of rain fall within a 3 hour period. Whilst the warning was issued the short period between its release and the rainfall did not allow any of the RMAs to fully instigate any pre-planned responses. As a result much of the activity by the Agencies was reactive rather than pro-active but given the short time span between warning and event this is understandable. It should be noted that no criticism is

made of the Met Office. The weather conditions on the day were both very unusual in nature and developed quickly making forecasting difficult.

8. Thurgaton has been subjected to flooding on a number of other occasions including July 2007 although the previous events are not subject to this report.

### **Summary of flooding and its causes**

9. The main source of the flood has been identified as the Thurgaton Beck which runs through the centre of the village, along Beck Street, and is shown below.



10. The rainfall event generated significant overland flows that all followed the natural topography of the catchment and headed downhill towards the Thurgaton Beck. The flows were such that the Beck's capacity was beaten and surcharged flows escaped onto Beck Street itself, essentially using Beck Street as a widened Beck. Ultimately the volume of water was such that it entered properties on Beck Street and the surrounding area.
11. Ground water flooding was not identified as a source of flooding as the underlying geology and soil composition of the area is generally free flowing. It should be noted though that in common with most of the Country the weather prior to the flooding had been dry and hot meaning that the general ground conditions were such that surface water could not percolate through the ground therefore increasing the level of overall run-off from surface water.

### **Sewer pipe surcharge**

12. Severn Trent Water has a network of surface water, foul and combined sewers in the area. These are designed to meet current standards in respect of capacity requirements. There has been no evidence that the sewers were blocked or reduced in capacity at the time of the flood.

## **Generic factors**

13. The impermeable nature of the ground following a dry and hot period has already been highlighted as a contributory factor.

## **Summary of causes of the flood**

14. Under normal weather and rainfall conditions, i.e. those that do not exceed the various drainage design standards, the majority of the overall surface water drainage system in Thurgaton has the capacity to cope, ensuring water is drained without causing flooding. However the extreme events of the 23rd July 2013 led to surface water runoff that was far in excess of what the systems have been designed to cope with.

## **Risk Management Authorities and their responsibilities**

15. 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. 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. 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) Highway Authority

- i Maintenance of the public highways.

### c) Severn Trent Water Ltd.

- i Maintenance of the public sewerage system.

### d) Trent Valley Internal Drainage Board (IDB)

- i Maintenance of lengths of the Thurgaton Beck.

## **Risk Management Authority Responses to Flood**

16. 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:

- 17.

### a) Nottinghamshire County Council:

- i. Initiated and co-ordinated Emergency Planning procedures.
- ii. Provided emergency response crews to assist in management of flooding event.

- iii. Initiated and led the S19 Flood Investigation.
  - iv. Part funded and key partner in a detailed feasibility study into the hydraulic performance of the Thurgaton Beck and possible flood alleviation schemes.
  - v. Participated in local community response and developed resilience measures.
  - vi. As HA assisted in feasibility of solutions.
- b) Severn Trent Water Ltd.
- i Actively engaged in S19 Flood Investigation.
- c) Trent Valley IDB
- i. Commissioned and lead detailed feasibility study into the hydraulic performance of the Thurgaton Beck and possible flood alleviation schemes.
  - ii. Participated in local community response.
  - iii. Lead community engagement and communications.
18. The investigation concludes that all risk management authorities have, and continue to, exercise their respective functions in response to the flood.

#### **Additional information.**

19. The IDB are continuing to lead a feasibility study into potential flood mitigation proposals for the catchment. A bid to secure FDGiA (Flood Defence Grant in Aid) funding via the Flood and Costal Erosion Risk Management Investment programme has been made and currently sits in year 7 of the programme.

#### **Future Actions**

20. The following have been identified as ways of promoting clarity of responsibilities and identifying actions that will ultimately reduce the overall risk and consequence of future flooding in Thurgaton.
- a) The IDB, working with NCC continue to pursue feasibility of flood alleviation measures and secure funding for implementation where necessary.
  - b) The IDB and County Council will jointly consult with the community on any future Flood Risk Management proposals.
21. Working with the communities at risk and educating them on resilience measures and emergency plans will help prepare them for future events. Thurgaton Parish Council have installed flow monitors at key points on Thurgaton Beck and monitor the levels remotely to help assist in flooding response and a number of properties at risk of flooding have installed their own Property Level Protection. Further partnership working between the RMAs will also help in being prepared for any future issues, with clarity of roles and responsibilities shared amongst all parties to ensure an effective response and preparedness for future events.