



## **SECTION 19 REPORT – LOWDHAM JULY 23<sup>RD</sup> 2013**

### **Introduction**

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

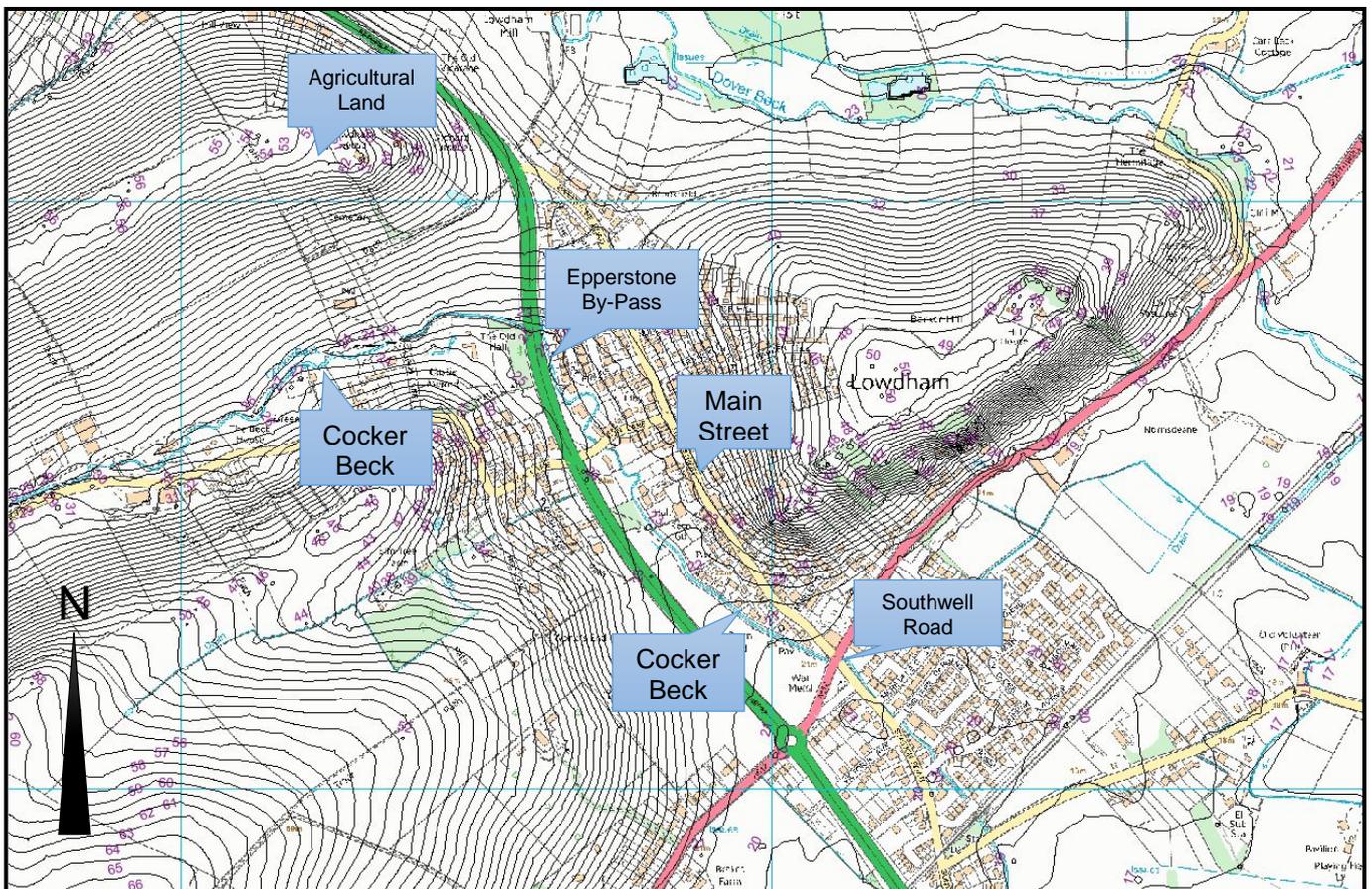
1. On becoming aware of a flood in its area, a lead local flood authority must, to the extent that it considers it necessary or appropriate, investigate:
  - (a) Which Risk Management Authorities (RMAs) have relevant flood risk management functions.
  - (b) Whether each of those risk management authorities 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 RMA's for this area of Nottinghamshire are The Environment Agency (EA), Newark and Sherwood District Council (N&S), Nottinghamshire County Council (NCC) as Lead Local Flood Authority and Highways Authority, Highways England (HA), Severn Trent Water Ltd (STW) and Trent Valley Internal Drainage Board (TVIDB).
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 late afternoon of the 23rd July 2013 parts of Nottinghamshire were subjected to intense rainfall. As a result of this many parts of the County, including Lowdham, experienced major flooding with several hundred properties across the county affected. Approximately 70 properties within Lowdham suffered flooding internally with various contributing sources including overland flow, surcharged public sewers and highway drains and flooded watercourses.

## Summary of flooding and its causes

7. Lowdham is a busy rural village with some agricultural land to the North of its catchment and the A6097 Epperstone By-Pass running past it on the Western Boundary. The village is served by the Cocker Beck which is classed as Main River, the Beck collects land drainage and surface water run-off from the agricultural land, and surface and highway water from the whole catchment. The Cocker Beck travels from the upper catchment to the North and through Lowdham on its way to the River Trent.
8. The flooding experienced by the residents of Lowdham came from three identified sources Fluvial; from the Cocker Beck, Pluvial; surface water from the surrounding fields and roads and sewer flooding; from public sewers at or exceeding operational capacity.
9. There are known historical flooding issues in Lowdham with recently recorded events in the years 2000, 2007, and 2012. This report will concentrate on the flood event which occurred on the 23 of July 2013, when up to 70 properties were recorded as being internally flooded and so triggering this Section 19 report.



**Map 1 – Catchment Details**

10. Whilst historically the main flooding cause and source for Lowdham is the Cocker Beck over topping its bank after prolonged periods of rainfall, the event in 2013 was different. Investigations have shown that the main source of flooding for this event was from rapid surface water run-off caused by an unprecedented amount of rainfall. 36mm of rain fell in under 1 hour in areas across Nottinghamshire and this intensity of cloud burst was way beyond the capacity of any existing drainage provision in Lowdham.
11. Significant amounts of surface water ran from the fields in the upper catchment, flooding the Epperstone By-Pass, properties in the Northern section of the village and, using Main

Street as a channel, the water flooded properties along its path on the Southwell Road and properties in the area within the southern section of the village.

12. The high levels of surface water overwhelmed the existing drainage infrastructure. The standard design capacity of the highway drainage was not sufficient to cope with the water on the roads, the public sewers were also unable to cope with the amount of water flowing into them. The flooding also highlighted some maintenance issues with the riparian owned ditches and culverts in some areas.
13. There were some isolated flooding issues caused by the Cocker Beck breaking its bank, however as mentioned previously the main source of flooding on the 23<sup>rd</sup> July 2013 was from surface water due to extreme rainfall.

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

1. 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) The Environment Agency
    - i. Maintenance and Management of the Cocker Beck
  - e) Trent Valley Internal Drainage Board
    - i. Maintenance of sections of the Cocker Beck

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

2. 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) 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. Funded and facilitated survey and cleanse of highway drainage assets.
    - v. Funded and facilitated survey and cleanse of identified culverted watercourses
  - b) Severn Trent Water Ltd:
    - i. Provided emergency response crews to assist in management of flooding event.
    - ii. Surveyed and cleansed public sewer system.
    - iii. Assisted in the investigation of connectivity between sewer and culverted watercourses.
  - c) The Environment Agency:
    - i. Provided emergency response crews to assist in management of flooding event.
    - ii. Actively engage with the community following the event.
    - iii. Funded and facilitated a feasibility study into potential schemes.
  - d) Trent Valley Internal Drainage Board
    - i. Provided emergency response crews to assist in management of flooding event.
    - ii. Assisted with the feasibility study into potential schemes.
3. The investigation concludes that all risk management authorities have and continue to, exercise their respective functions in response to the flood.

#### **Additional information.**

- 4. During the investigations NCC officers liaised closely with The Environment Agency and Lowdham Parish Council in an effort to clarify responsibilities and ensure the community had as much support and understanding as possible to aid future flood resilience.

#### **Future Actions**

- 5. The EA continue to investigate the possibility of a Flood Alleviation Scheme for Lowdham. NCC have committed to a contribution from their Capital Funds to work in partnership with the EA should a possible scheme be identified. All RMA's continue to work with the community to try and understand the flood mechanism and to educate them on flood resilience for potential future events.