

## **SECTION 19 REPORT – CALVERTON 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 (EA) (Derbyshire, Nottinghamshire and Leicestershire), Gedling Borough Council (GBC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA) and Highways Authority (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**

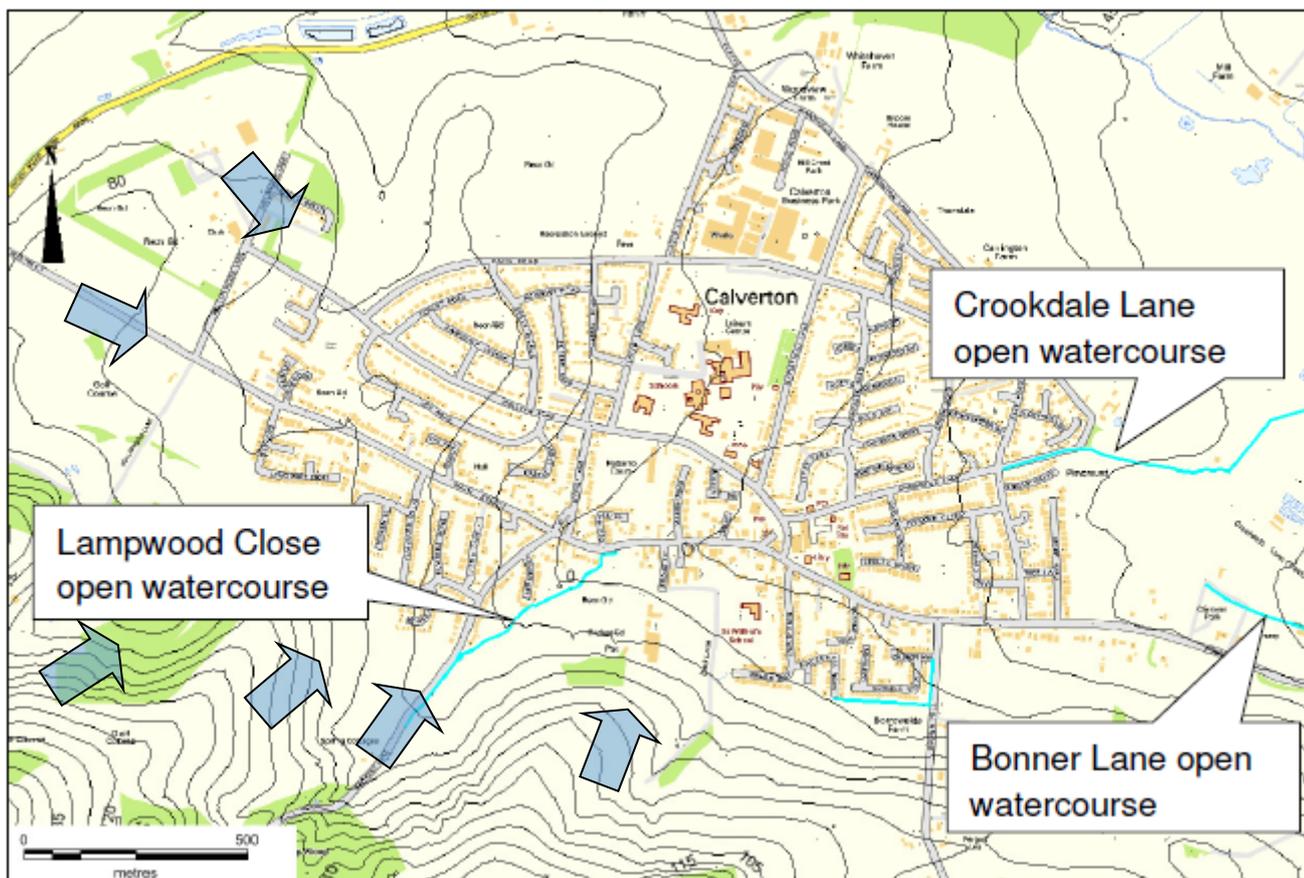
6. On the afternoon of the 23<sup>rd</sup> July 2013 parts of Nottinghamshire were subjected to intense rainfall. As a result of this many parts of the County, including Calverton, experienced major flooding with several hundred properties across the county suffering flooding. A number of areas within Calverton suffered flooding with various contributing sources including overland flow, surcharged public sewers and highway drains and flooded watercourses.

There have been a number of other more isolated flooding incidents within the catchment and, whilst these do not trigger the requirement for a Section 19 report, the data has been used to support our investigation where applicable.

As part of the investigations, and due to the significance and widespread nature of the flooding, NCC commissioned a summary study of the flooding with Mouchel Consulting Engineers. Some of the supporting information contained within this report is taken directly from the Mouchel report.

## Summary of flooding and its causes

7. Calverton is a rural village surrounded by agricultural land that sits at the bottom of a natural valley. The catchment is served by a combination of surface water sewers, highway drains and ordinary watercourses with the primary outfall being to the Dover Beck on the eastern boundary of the catchment. Plan 1 shows the village, its natural gradients and the ordinary watercourses.



Plan 1 – Catchment Details (arrows show natural gradients of the catchment)

8. During the storms the various surface water drainage systems were inundated and capacities exceeded. The catchment gradients can generate significant overland flows which can cause issues for the receiving surface water systems. Investigations showed that some of the watercourses were operating at a reduced hydraulic capacity due to a lack of maintenance and some of the highway drainage systems had become blocked with debris.
9. Main Street is where the catchment flattens out and also where the flooding was at its worst affecting approximately 10 - 15 businesses and properties. The pictures below show some of the flooding on Main Street. This flooding was attributable primarily to overland flows converging where the catchment flattens out.



Flooding on Main Street, Calverton

10. Spindle View and Church View were subjected to flooding from overland flows emanating from the steep catchment to the south of the location. A combination of flows running down Bonner Lane, off fields to the south of Spindle View and an overwhelmed roadside ditch resulted in flooding of gardens and a number of properties.
11. Areas around Crookdole Lane / Cloverfields at the east of the catchment experienced flooding from the ordinary watercourse that acts as one of the main outlets for surface water from the village. Investigations identified the need for maintenance of the watercourse by its riparian owners and this was communicated to the responsible parties.
12. A number of others areas suffered more isolated flooding incidents which, when combined with the areas mentioned above, showed a wider catchment that is prone to flooding from a number of causes. This understanding was pivotal in supporting the actions taken by the Risk Management Authorities that are detailed later in the report.

### **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.
- vi.

##### b) Highway Authority

- i. Maintenance of the public highways.
- 2. Severn Trent Water Ltd.
  - a) Maintenance of the public sewerage system.
- 3. Gedling Borough Council
  - a) Emergency Planning duties.
- 4. Trent Valley Internal Drainage Board.
  - a) Management of (sections of) Dover Beck.

### **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) 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. Commissioned and funded a summary report into the flooding in the catchment and possible future actions.
    - v. Liaised with Parish Council and local MP during investigations.
  - b) Severn Trent Water Ltd:
    - i. Provided emergency response crews to assist in management of flooding event.
    - ii. Actively engaged in S19 Flood Investigation.
    - iii. Actively pursued sewer flooding data that led to the inclusion of a flood mitigation project in their Capital Investment programme.
  - c) Gedling Borough Council
    - i. Provided emergency response support in management of flooding event.
    - ii. Actively engaged in the S19 Flood Investigation
    - iii. Administered DEFRA Repair and Renew Grant
  - d) Trent Valley Internal Drainage Board
    - i. Investigated and carried out remedial works on Dover Beck
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. During the investigations NCC officers liaised closely with the local MP, Calverton Parish Council and community representatives in an endeavour to clarify responsibilities and ensure the community had as much support and understanding as possible to aid future flood resilience. This work was supported by STW and GBC.

### **Future Actions**

16. Following the investigations STW identified a number of areas that were potentially at risk of flooding from the public sewerage system. This has resulted in them including a partnership based flood alleviation project for the area in their Capital Investment Programme. This project will be supported by NCC and will look at the detailed hydraulic performance of drainage assets across the catchment in an attempt to identify financially viable options to reduce flood risk within the catchment. As a partnership project the feasibility will include understanding the complex interaction of all drainage assets within the catchment. The feasibility stage for the project is targeted for completion autumn 2018 with further progress being dependant on the outcome of the feasibility study.