

APPENDIX F

SECTION 19 REPORT – GOTHAM – NOVEMBER 2019

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 November 2019 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 with a duty to respond to this flooding incident are, Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Nottinghamshire County Council as Highways Authority (Via East Midlands Ltd.), Rushcliffe Borough Council (RBC) and Severn Trent Water (STW).
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 14th of November 2019, Gotham experienced a significant amount of rainfall with 25.2mm of rain recorded as falling at the nearby Sutton Bonnington rain Gauge. This followed the extreme amount of rainfall falling across Nottinghamshire between the 7th and 14th of November. During that, period Via East Midlands Ltd. on behalf of Nottinghamshire County Council facilitated 66 road closures across the county, placed over 750 flood signs on the network to warn motorists of issues and delivered over 5000 sandbags. It was reported by the Environment Agency that Nottinghamshire experienced 225% of its average monthly rainfall between the 7th and 14th November. A major incident was declared at 09:50 on Thursday 7th November by the Tactical Co-Ordinating Group.

With the ground already saturated following one of the wettest autumn's on record, further rain that fell on the 14th resulted in extensive flooding across the Nottinghamshire area

including Gotham, a small village in Nottinghamshire with a population of approximately 1600 recorded in the 2011 Census.

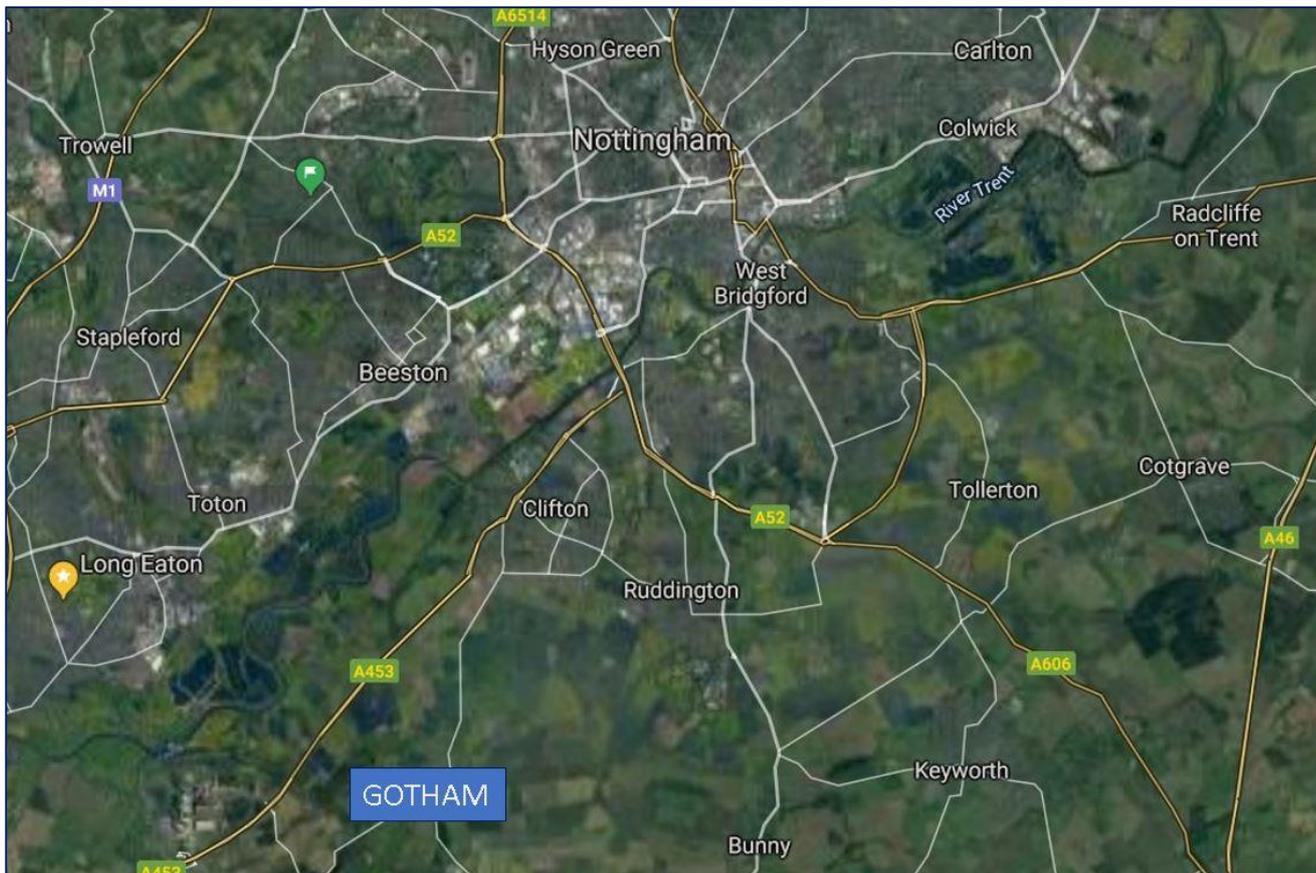


Figure 1. Location Plan

The severe weather led to Nottinghamshire Local Resilience Forum declaring a major incident. In the following days, further intense rainfall caused additional surface water, fluvial (river) and flooding from sewers.

During this period the Environment Agency monitored water levels constantly and issued 38 flood warnings and 16 flood alerts across Nottinghamshire in November as shown in Figure 2 below.

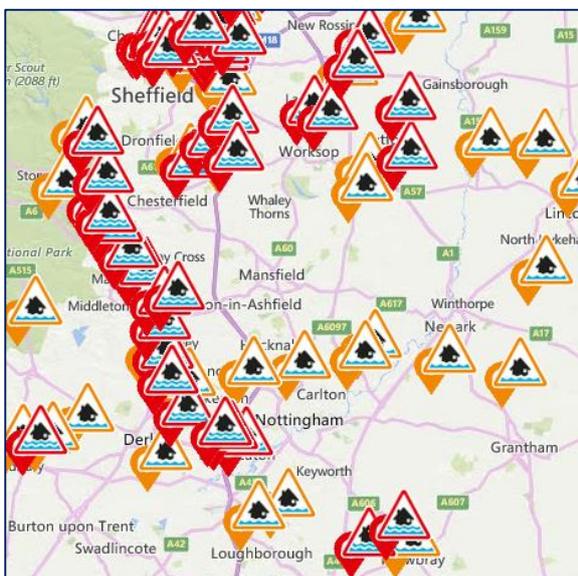


Figure 2. Flood Warnings and Alerts Issued during November 2019

During the afternoon of the 14th of November 2019 and following a prolonged period of heavy rainfall, parts of Gotham suffered a significant flood event with 13 reported incidents of internal property flooding, the flooding of many gardens and curtilages and the public highway.

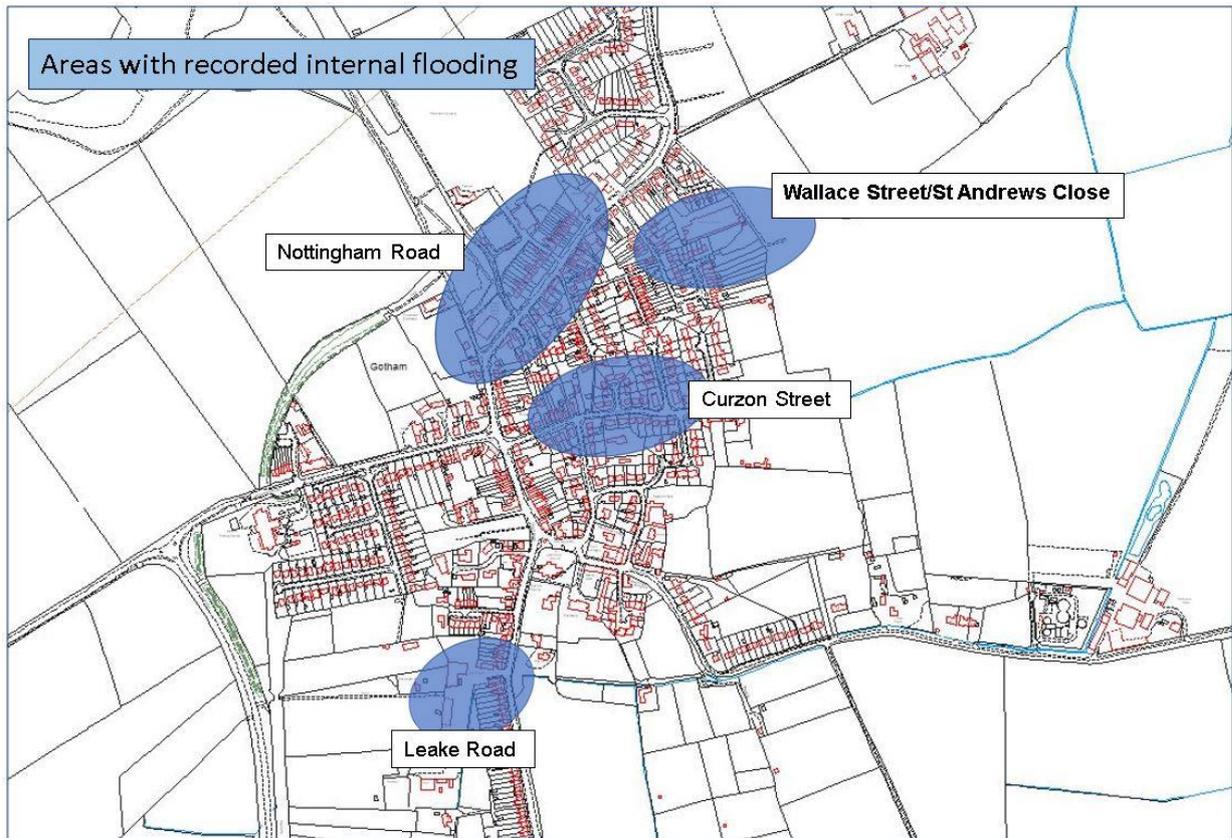


Figure 3. Plan of Gotham highlighting area affected by internal flooding

Summary of flooding and its causes

7. The flooding that occurred in Gotham on the 14th of November came from two sources each impacting separate areas; surface water which affected properties on Leake Road and Nottingham Road and foul sewage affecting properties on Curzon Street, Wallace Street and St Andrew's Close

Surface Water

There are steep hills to the West of Gotham forming a crescent from the South of the village to the North with the gradient falling to the centre of the village.

The hills are mainly farm land sectioned into several fields. The surface water that runs from that land ordinarily feeds the numerous ditches and ordinary watercourses which network around and through the village.

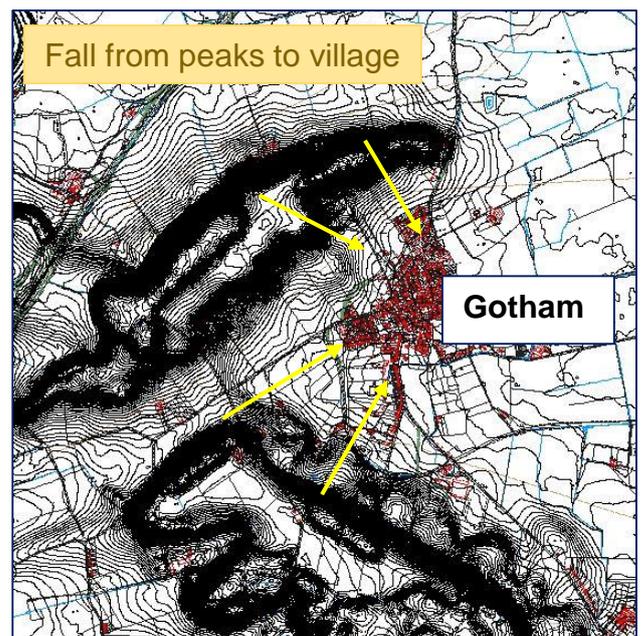


Figure 4. Contour plan showing fall from peaks to village.

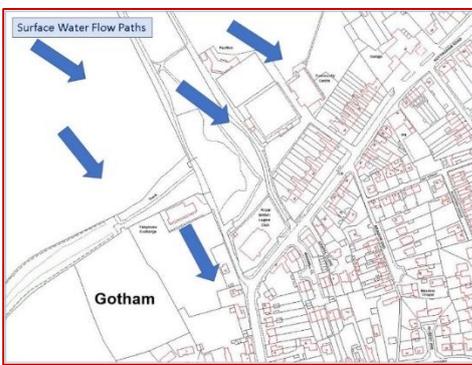


Figure 5. Flow Paths for Nottingham Road area

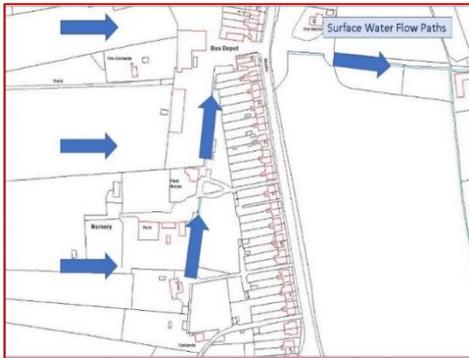


Figure 6. Flow paths for Leake Road area

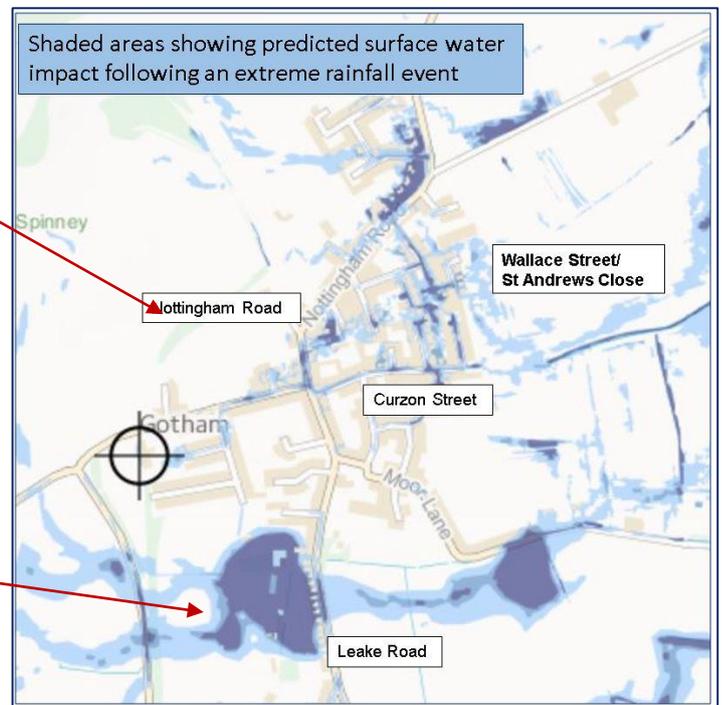


Figure 7. Environment Agency Flood Risk Map for surface water highlighting similarity with figures 5 and 6.

The event that happened on the 14th of November followed a period of very wet weather which had saturated the surrounding land. The rain water from the heavy downpour that began on the afternoon of the 14th fell on that ground but then ran straight off because the ground was waterlogged. The network of ditches and watercourses, some of which required maintenance, could not cope with the speed of run-off and overtopped. There were also areas where surface water run-off by-passed those watercourses running straight from the land into properties and onto the highway.

Foul Sewer Water

The foul sewer system for Gotham has grown with the village. It is a complicated network that ultimately discharges to a treatment facility off Moor Lane to the South of the village.

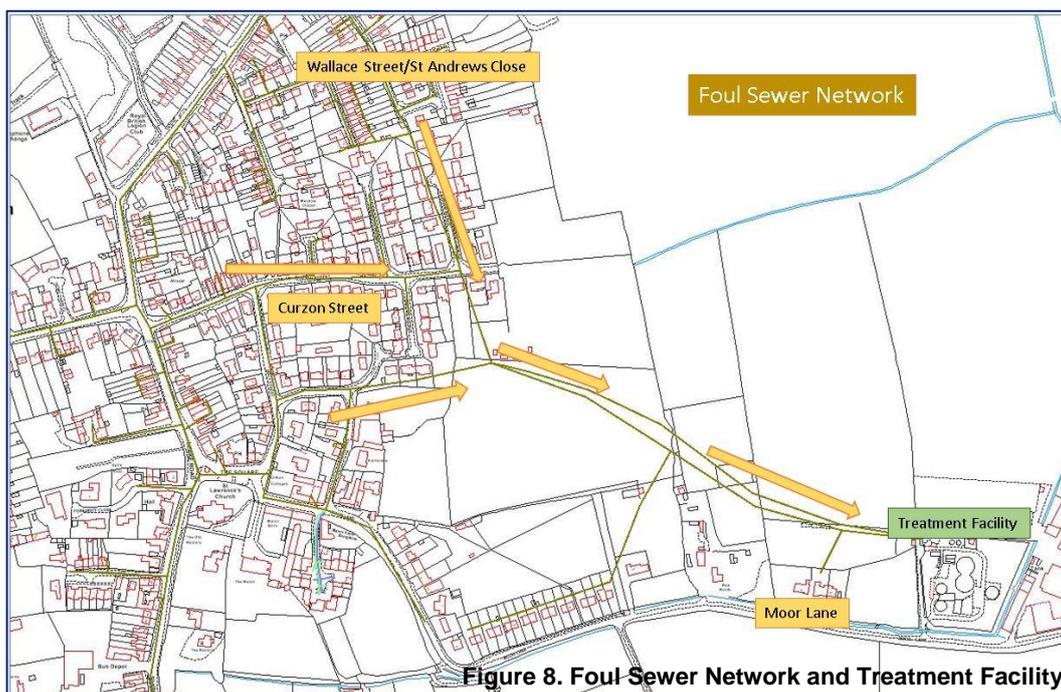


Figure 8. Foul Sewer Network and Treatment Facility

During the event on the 14th of November 5 properties were internally flooded by foul sewage water backing up and coming out of private drains. Early indications following investigations by Severn Trent Water suggest that there may be surface water ingress into the foul sewer system which is causing capacity issues.

Risk Management Authorities and their responsibilities

8. Nottinghamshire County Council

a) Lead Local Flood Authority

- i. Play a lead role in emergency planning and recovery after a flood event.
- ii. Lead Local Flood Authorities also have a 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.
- iii. By working in partnership with communities, Lead Local Flood Authorities can raise awareness of flood risks.
- iv. Lead Local Flood Authorities should encourage local communities to participate in local flood risk management.
- v. Investigate significant local flooding incidents and publish the results of such investigations.

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 (Nottinghamshire County Council/Via East Midlands Ltd)

- i. Maintenance of the public highways including highway drainage assets.
- ii. Provided site-based presence and investigations immediately following the event.

9. Rushcliffe Borough Council

- i. 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.

10. Severn Trent Water

- i. Maintenance of the public sewage system.

Risk Management Authority Responses to Flood

11. The following lists the actions taken by each Risk Management Authority 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. Administered Nottinghamshire County Councils Flood Hardship Fund to affected residents.
- iii. Delivered sandbags where a need was identified, over 5000 were delivered across the County.
- iv. Attended Parish Council Community Flood meeting on the 27th of November to offer advice and assistance to those personally effected by the flooding.
- v. Following this event, carried out survey and cleanse work on culverted system in vicinity of flooded properties on Nottingham Road.
- vi. Following this event, liaised with private landowners and secured modifications to a culvert and maintenance of watercourse in private land.
- vii. Initiated and led the Section19 Flood Investigation.

b) Rushcliffe Borough Council

- i. Provided emergency response support to residents in management of flooding event.
- ii. Administered Flood Hardship Fund and Central Government Flood Emergency Grants to residents.
- iii. Delivered sandbags to affected communities
- iv. Worked with the Parish Council to ensure the flood resilience store was stocked with sandbags.
- v. Managed and continue to manage the recovery in affected communities.
- vi. Actively engaged in the Section19 Flood Investigation.

c) Severn Trent Water

- i. Provided emergency response support to residents in management of flooding event.
- ii. Continue to investigate the reasons for the foul sewer issues
- iii. Actively engaged in the S.19 Flood Investigation.

Additional information and Future Actions

12. Gotham has historical flood issues with recent incidents in 2012 and 2016. The 2016 event was severe enough to warrant a Section 19 report which has been published. Following that 2016 event Nottinghamshire County Council carried out significant amounts of work to clear culverts and work with land owners to clear watercourses.

Following this 2019 event further work has been done in the village to try and survey the condition of the drainage network to ensure it can cope with the volume of water that it collects during extreme conditions. However, it has also been identified that a survey of the watercourses and ditches in the upper catchment may also be required.

The community of Gotham has access to a flood resilience store which contains a stock of sandbags. Those sandbags were made available and distributed by local volunteers during this event, vital work to check and keep clear culverts and watercourses was also done by members of the community. If it was not for this community spirit the number of properties internally flooded could well have been higher.

All the Risk Management Authorities involved in this event are committed to continuing the investigations into the causes of this incident. Funding is being sought to enable a full catchment study into the flood risk in Shireoaks. We will be informed of the outcome of this bid in spring 2020. The Environment Agency will continue to support the Lead Local Flood Authority to undertake future work within this community.

Where appropriate Nottinghamshire County Council and the Environment Agency administer a Flood Warden scheme, including supporting the provision of local sandbag stores, and a Community Flood Signage Scheme in communities at risk of potential flooding. All equipment and training is provided for free should there be sufficient volunteer interest in the community. Further information on these services are available on Nottinghamshire County Council's website.

As the Lead Local Flood Authority we have witnessed and have experience of how flooding devastates communities. The most vulnerable in the community will be our priority. NCC will continue to work closely with partners and in particular the community of Gotham to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.