

APPENDIX A

SECTION 19 REPORT – BURTON JOYCE – STORM HENK, JANUARY 2024

FOR COMPLETENESS THIS APPENDIX SHOULD BE READ IN CONJUNCTION WITH THE REPORT OF THE CORPORATE DIRECTOR (PLACE) TO PLACE SELECT COMMITTEE ON 22 JULY 2024: “SECTION 19 REPORTS: STORM HENK FLOODING JANUARY 2024”.

<https://www.nottinghamshire.gov.uk/planning-and-environment/flooding-help-and-advice/the-councils-role>

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 January 2024 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 Gedling Borough Council (GBC), Nottinghamshire County Council (NCC) as Lead Local Flood Authority (LLFA), Via East Midlands Ltd on behalf of NCC as Highways Authority 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. Burton Joyce is a village within the Borough of Gedling, Nottinghamshire. It has a population of approximately 3,500 people according to the 2021 census.
7. Burton Joyce has several small watercourses which flow from the north of the village towards the River Trent, which is south of the village. One named watercourse, the Crock Dumble, flows through the centre of the village passing under Main Street and the A612. Several smaller watercourses also exist such as one flowing along Whitworth Drive,

another originating north of Woodside Road and a third originating from north of Crow Park Drive. These three watercourses become culverted as they enter the village and flow through the STW Surface Water Sewers within the village.

8. On the 2nd of January, during Storm Henk, Burton Joyce suffered a flood event caused by sustained rainfall over a saturated catchment. On this day, 23.6mm of rainfall was recorded at the Lambley rain gauge (Figure 1), with a maximum 60-minute intensity of 6.4mm/hr. Consequently, 10 residential properties were subject to internal flooding, with more suffering flooding to gardens and outbuildings.
9. This storm came after a prolonged period of persistent rain and above average rainfall which had saturated the ground, resulting in flooding of roads and properties quicker than they would following a dry period.

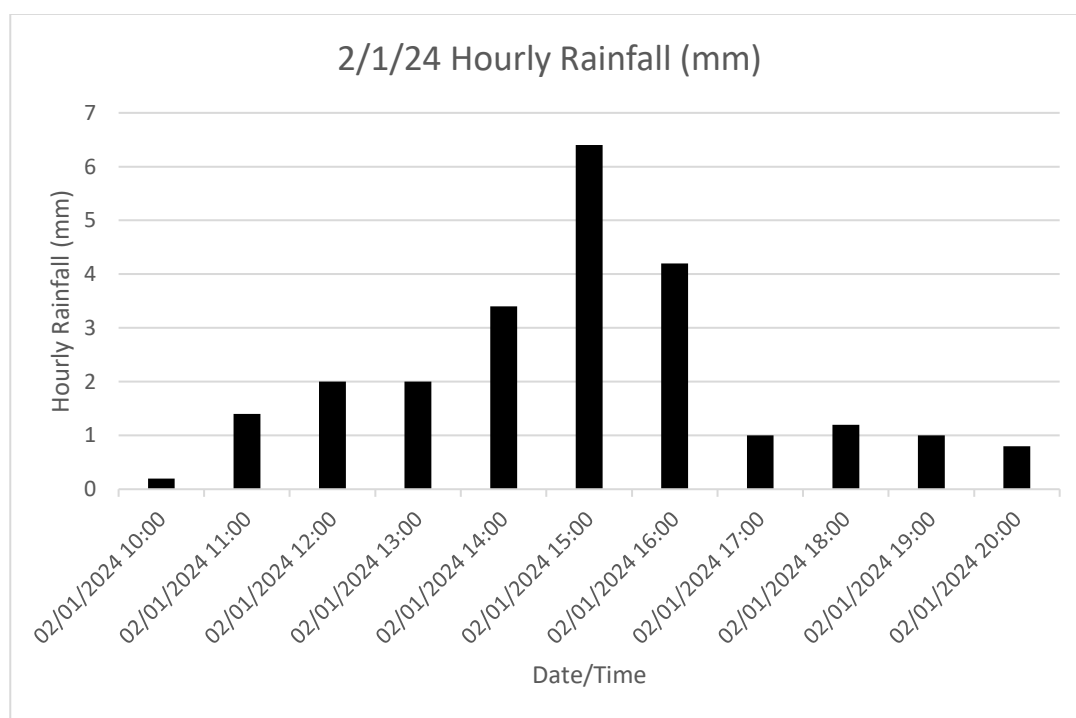


Figure 1. Lambley Hourly Rainfall 2nd January 2024. Data supplied by the Environment Agency.

10. A location map of Burton Joyce is shown in Figure 2. The areas affected were:
 - Nottingham Road (4 properties)
 - Cragmoor Road (1 property)
 - Main Street (1 property)
 - Chestnut Grove (4 properties)



Figure 2. Reference Map for flood affected areas across Burton Joyce. Nottingham Road (1), Cragmoor Road (2), Main Street (3), chestnut Grove (4).

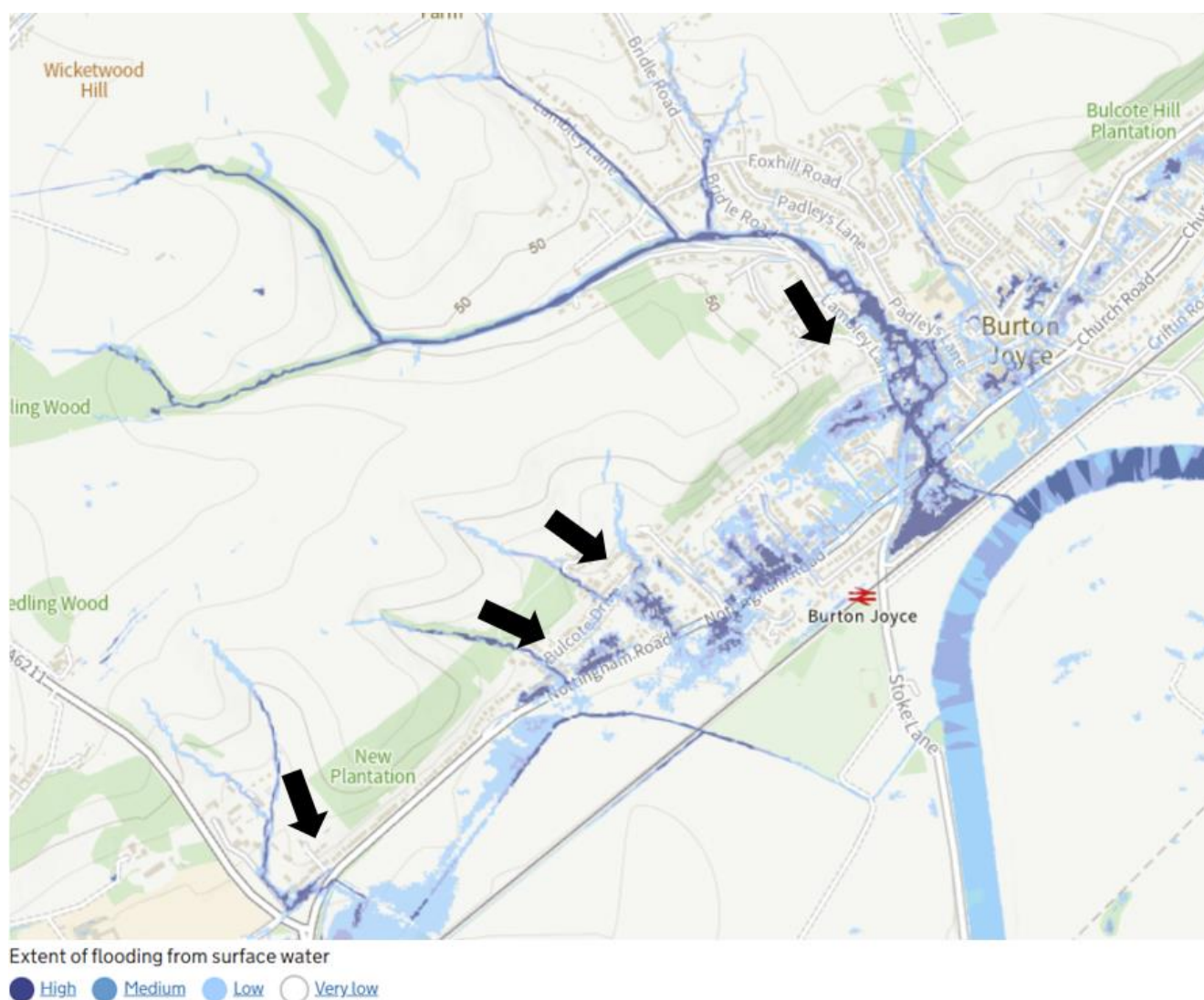


Figure 3. Surface Water Flood Risk Mapping for Burton Joyce. Data Supplied by Environment Agency.

Summary of flooding and its causes

Nottingham Road and Cragmoor Road

11. Areas impacted by flooding on Nottingham Road and Cragmoor Road are shown in Figure 4. In total, 4 residential properties were impacted by internal flooding on Nottingham Road with 1 impacted on Cragmoor Road. Many other properties suffered external flooding in this area during Storm Henk.
12. Three watercourses exist in this area; one flowing from the north along Whitworth Drive, another originating north of Woodside Road and a third originating from north of Crow Park Drive. These three watercourses become culverted as they enter the village, with the Woodside Road and Crow Park Drive watercourses ultimately flowing through the STW surface water sewers within the village. During Storm Henk, upper catchment runoff influenced by rainfall onto an already saturated catchment caused all three watercourses to exceed the capacity of the downstream culverts, with water then flowing along the adjacent roads/gardens. At Whitworth Drive, water flowed eastwards along Nottingham Road which caused highway flooding and consequent issues for vehicles, but was not found to directly cause internal property flooding. The watercourse originating from the north of Crow Park drive caused some external flooding locally.
13. Following the flooding, investigations by NCC and STW have found that the watercourse originating from the north of Woodside Road had been misconnected into the STW combined sewer system which caused the system to surcharge onto Woodside Road and Nottingham Road. This may have contributed to the flooding on Nottingham Road and further along the combined sewer system at Cragmoor Road. It should be noted that the misconnection has now been resolved, with NCC and STW monitoring for any flooding occurrences in the area.



Figure 4. View of Nottingham Road and Cragmoor Road.

Main Street

14. On Main Street, 1 residential property was internally flooded by water from the Crock Dumble which has its upper catchment in the north of the village (Figure 5). The Dumble it culverted under the village itself with the Main Street culvert identified as a pinch point for conveyance. Due to persistent rainfall over a saturated catchment, the Crock Dumble exceeded its channel capacity with water flooding Main Street and a property. Although the road was closed by the Burton Joyce Flood signage scheme wardens, residents local to this area stated that vehicles traveling through the floodwater created bow waves which exacerbated the flooding.

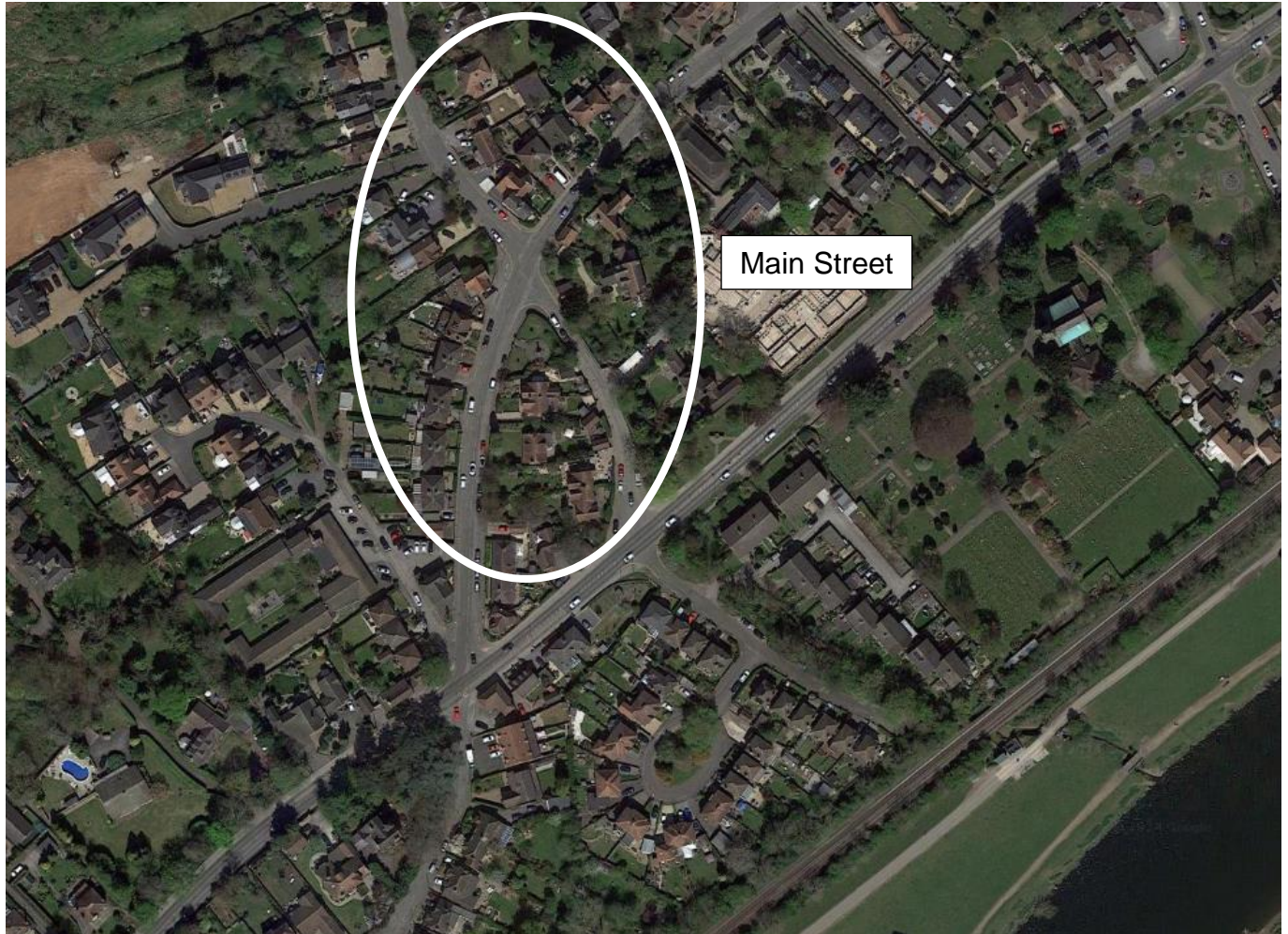


Figure 5. *View of Main Street.*

Chestnut Grove

15. Four residential properties suffered internal flooding on Chestnut Grove (Figure 6) due to surcharging of the sewer system. Investigations by STW into the causes of sewer flooding in this area are still ongoing at the time of writing (May 2024).



Figure 6. *View of Chestnut Grove.*

Risk Management Authorities and their responsibilities

16. 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. As the Lead Local Flood Authority, we 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.
- iv. By working in partnership with communities, Lead Local Flood Authorities can raise awareness of flood risks.
- v. Lead Local Flood Authorities 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 (Via East Midlands Ltd. on behalf of Nottinghamshire County Council).

- i. Maintenance of the public highways including highway drainage assets.

17. Severn Trent Water.

- a) Maintenance of the public sewerage system.
- b) As a water and sewerage company, STW manage the risk of flooding from their water supply and sewerage facilities. This includes:
 - i. Surface water sewers – these carry rainfall and surface water away from properties to watercourses.
 - ii. Foul water sewers – these carry wastewater away from properties to be treated.
 - iii. Combined water sewers – these drain both wastewater and surface water from properties along with run off from highways.
 - iv. Managing the impact of flooding to their networks by ensuring their systems have the appropriate level of resilience to flooding.
 - v. Engage with RMAs on how water and sewerage company assets impact on local flood risk.
 - vi. STW are Category 2 responders under the Civil Contingencies act, providing emergency response and supporting the management of flooding events.

18. Gedling Borough 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.

Risk Management Authority Responses to Flood

19. 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:

20. Nottinghamshire County Council.

Officers from across the County Council played a key role in the response to the Major Incident that had significant impacts across the county. The following lists the key actions taken by Nottinghamshire County Council:

- a) Initiated its Community Flood Recovery Grant to support individuals affected by internal flooding as a short-term recovery aid.
- b) Attended site after flooding occurred to verify scale of internal flooding, offer support, guidance and advice to affected residents and businesses.
- c) Information gathered on site was fed back to relevant RMA's and partners.
- d) Collated flood impact data from other RMA's and partners and published verified data on Resilience Direct.
- e) Visited flood-affected residents and businesses to establish sources and mechanisms of flooding and severity of flood impacts.
- f) Chaired and attended Strategic / Tactical / Recovery Coordination Group meetings initiated by the Local Resilience Forum.
- g) Provided 24-hour support through the Emergency Planning team.
- h) Carried out relevant actions requested by Strategic / Tactical / Recovery Coordination Groups.

- i) Initiated and led the Section 19 Flood Investigation, including liaison with relevant RMA's, Elected Members, Parish Councils, community groups, affected residents and businesses.
- j) Leading on procurement and delivery of DEFRA Property Flood Resilience Repair Grant Scheme.
- k) Liaised with and supported existing community flood signage schemes during the flooding.
- l) Delivered sandbags to affected areas and communities.
- m) Closed 69 roads across Nottinghamshire to promote road safety and avoid additional flood damage to at risk areas.
- n) Supported District and Borough partners by sharing resources during the emergency response.
- o) Utilised existing communication channels to update the public, partners and Elected Members with key messages during the event.
- p) Attended a public meeting concerning flood risk in Burton Joyce.
- q) Worked closely with VIA East Midlands Ltd., Severn Trent Water and a local landowner to resolve connectivity issues.

21. Gedling Borough Council.

- a) Took an active role in the Section 19 Investigation.
- b) Deployed sandbags to at risk properties.
- c) Cleared trash screens and drainage grids during the flood event to improve conveyance.
- d) Cleansed roads following the storm event.

22. Severn Trent Water.

- a) Received reports of sewer related flooding at various locations in Burton Joyce in Storm Henk and have been undertaking extensive investigations into the causes of the flooding.
- b) Have contacted and followed up directly with many of the affected residents about any sewer related issues.
- c) Sent emergency response crews to assist in management of the flood event.
- d) Investigations suggest that ingress of land drainage into the sewer network exacerbated the flooding issues.
- e) Worked closely with Nottinghamshire County Council to investigate the flooding.
- f) Attended and supported the community drop-in session in Burton Joyce with other Risk Management Authorities following the flooding from Storm Henk.

Additional Information and Future Actions

- 23. All the Risk Management Authorities involved in this event are committed to continuing the investigations into the causes of this incident. Those investigations may identify further actions not listed below.
- 24. The Burton Joyce Community Flood Signage Scheme became activated during Storm Henk with volunteers closing several roads within the village to limit the impact of bow wave flooding on properties.
- 25. NCC has led on the delivery of a natural flood management (NFM) project within the upper catchment of Burton Joyce. The works were completed in Spring 2024 with the NFM measures creating upper catchment storage which temporarily attenuates water during flood events to help reduce downstream flood risk.

26. Investigations by NCC and STW on the flooding issues originating from the watercourse north of Woodside Road have been undertaken with the misconnection now resolved. NCC and STW are monitoring the flooding situation.
27. 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. Nottinghamshire County Council will continue to work closely with partners and communities to identify ways of proactively reducing the risk, likelihood and consequences of future flooding events.
28. NCC and GBC Elected Members organised a community drop-in session on the 3rd of April 2024 which was attended by NCC, GBC, STW and the EA.
29. NCC will continue to support its Flood Signage / Road Closure training programme and community volunteer groups to help ensure they operate as effectively and safely as possible.
30. NCC will continue to monitor drainage assets in flood affected areas where intervention has been undertaken.
31. The Flood Risk Management team will look at the suitability of its Property Flood Resilience Programme for communities affected by Storm Henk and will take recommendations through the Cabinet Member later this year for consideration.
32. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.