

APPENDIX B

SECTION 19 REPORT – ARNOLD – STORM BABET, OCTOBER 2023

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 October 2023 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 as Highways Authority on behalf of NCC 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. Arnold is a town within the Borough of Gedling, Nottinghamshire. It has a population of approximately 39,995 people according to the 2021 census.
7. On the 20th October, during Storm Babet, areas of Arnold suffered a flood event caused by sustained heavy rainfall. Between the 18th and 20th of October, 80mm of rainfall was recorded at the Calverton rain gauge (Figure 1). Consequently, 5 residential properties and 1 business were subject to internal flooding with more suffering flooding to gardens and outbuildings.
8. This storm came after a prolonged period of persistent rain which had saturated the ground resulting in flooding of roads and properties quicker than they would following a dry period.

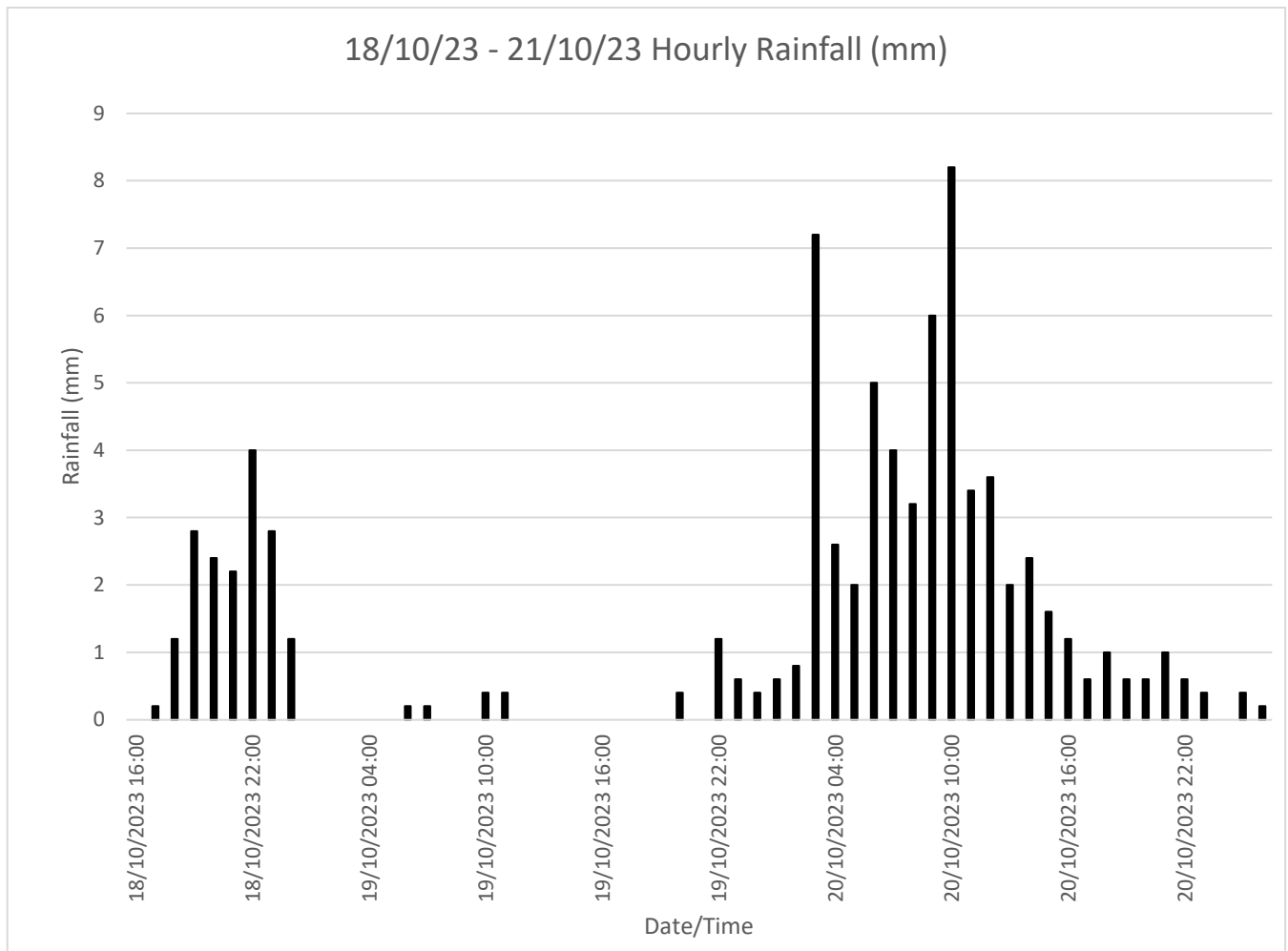


Figure 1. Calverton Hourly Rainfall 18th October 2023. Data supplied by the Environment Agency.

9. A view of Arnold is shown in Figure 2. The areas affected were:

- Mansfield Road (3 properties)
- Bonington Drive (2 properties)
- Georgia Drive (1 property)



Figure 2. Reference map for flood affected areas across Arnold. Mansfield Road (1), Bonington Drive (2), Georgia Drive (3).

Summary of flooding and its causes

10. Mansfield Road

Areas impacted by flooding on Mansfield Road are shown in Figure 3. In total, 2 residential properties and 1 business were impacted by flooding. As shown in Figure 4, a surface water flow path is present which flows from the east of Mansfield Road before flowing northward along Mansfield Road itself. Due to the significant volume of rainfall falling within the catchment during Storm Babet, watercourses adjacent to the road were overwhelmed which caused water to flood onto the highway. Water then entered properties as a result. In many areas, Mansfield Road was submerged to a significant depth which caused significant disruption to traffic.



Figure 3. Location Plan – Mansfield Road.



Figure 4. Surface water flood mapping for Mansfield Road. Data supplied by Environment Agency.

11. Bonington Drive

On Bonington Drive, 2 residential properties were affected by internal flooding (Figure 5). During Storm Babet, water flowed from the Coppice Road flood storage basin and through back gardens of properties of Bentwell Avenue before flooding properties on Bonington Drive. Gedling Borough Council Staff observed that the attenuation basin overtopped during this event. In addition to the residential properties that flooded a significant amount of damage was done to gardens and outbuildings.



Figure 5. Location Plan – Bonington Drive.

12. Georgia Drive

One residential property was affected by flooding on Georgia Drive. Due to intense and prolonged rainfall, overland flows occurred within the agricultural field to the north of Georgia Drive. Water flowing from the north then entered a property.



Figure 6. Location Plan – Georgia Drive.

Risk Management Authorities and their responsibilities

13. 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.

14. 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.

15. Severn Trent Water Ltd. (STW).

a) Maintenance of the public sewerage system.

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.

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. 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, 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 77 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.
18. Gedling Borough Council
 - a) After reports of overtopping of the storage area on the 20th of October, GBC staff attended site to check on vulnerable residents and assess the developing situation.
 - b) Attended areas downstream of the Coppice Road Attenuation Basin to monitor the water levels.
 - c) It was concluded that evacuation was not required due to the limited impact on properties, although garden flooding was observed.
 - d) Delivered 1200 sandbags across Gedling Borough to residents who requested them.
 - e) Coordinated clean-up activities including cleansing and road sweeping in flood impacted areas.

- f) Coordinated a multi-agency meeting to discuss the impacts of Storm Babet on Arnold and partner progression towards future flood risk management options.
- g) Took an active role in the Section 19 Investigation.

19. Severn Trent Water

- a) Severn Trent are aware of flooding at Coppice Road flood storage area and are working with Gedling Borough Council and Nottinghamshire County Council to investigate and develop an action plan.
- b) Severn Trent actively engaged with the Section 19 Flood investigation.

Additional Information and Future Actions

- 20. 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.
- 21. Gedling Borough Council have established and coordinated a multi-agency group which will investigate the flooding impacts from the Coppice Road Flood Storage Area.
- 22. NCC are leading on a feasibility study to assess potential options for flood risk management in Arnold. The project is being undertaken in partnership with GBC and STW.
- 23. 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.
- 24. The Flood Risk Management team will look at the suitability of its Property Flood Resilience Programme for communities affected by Storm Babet and will take recommendations through the Cabinet Member later this year for consideration.
- 25. NCC will work with its partners to look at ways of strengthening the enforcement of riparian responsibilities alongside developing our asset inspection process.